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PREREQUISITES FOR ENSURING THE PRODUCTION OF COMPETITIVE AND DEMANDED PRODUCTS

Abstract: in the article, the authors motivate the manufacturer to recommend to the market due to their motivation, managing quality, to produce import-substituting products for the consumer, to revise their concept of forming a market with demanded and competitive goods, taking into account their priority. Such a mutual understanding will fully correspond to the desire of the consumer to satisfy his desire to make a purchase, taking into account his social status, to ensure that manufacturers sell their products in full and guarantee themselves sustainable TEP from their activities and financial stability. And here it is important not to make a serious methodological mistake - to reduce economic policy to economic analysis, but to maintain the spirit of solidarity in the team - one for all and all for one - and success will surely find the seeker.

Key words: quality, import substitution, demand, competitiveness, market, profit, buyer, manufacturer, financial stability, sustainable TEP, attractiveness, assortment, assortment policy, demand, paradigm, economic policy, economic analysis.

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Introduction

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For a shoe company seeking a strong market position, setting the selling price of shoes is key to the success of the chosen strategy. The price is a tool to stimulate demand and at the same time is the main factor in long-term profitability. Getting the maximum profit is possible with the optimal combination of sales volume and prices for products. However, it is not possible to sell an unlimited number of units of shoes at the same price. An increase in sales leads to market saturation and a drop in effective demand for products. At some point in time, in order to sell a large number of shoes, it will be necessary to reduce the price. In addition, the enterprise can go for an initiative price reduction in case of underutilization of production capacities, reduction of market share under the pressure of aggressive competition from competing enterprises, etc. The choice of pricing strategy depends not only on the type of product, but also on the market in which the company operates. Two types of strategy can be applied: "high prices sale - high prices" or "even prices" strategy.



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The first strategy is used by companies selling expensive fashionable shoes, the mark-up for which in a season can exceed 100%, which makes a profit. But usually these are types of shoes with a short life cycle. If the sandals are not sold in the summer, then most likely they will lie in the warehouse until next spring. Therefore, it is very important in this case to get rid of the leftovers as soon as possible and free up the warehouse for new models, reducing storage costs, effectively using the area. Such businesses can afford to run a sale once or twice a year, selling shoes at a discount of 30 to 70%, operating without profit, but making money during the period when the new collection is sold at normal prices. If the types of shoes have a long life cycle and are little subject to obsolescence, it makes no sense to arrange sales. These types include classic men's shoes, comfortable models made using proven technologies and designed for people who prefer a strict style. Collections of classic men's shoes are produced, because. She is not very influenced by fashion trends. In this case, discounts are 15-20%. In addition, any sale is a kind of information campaign, during which new customers are attracted, who often purchase shoes at a discount and at regular prices, which also allows you to more effectively sell the entire range of shoes. Price reduction occurs when a company uses a discount system to increase sales. Their need is best tracked by the break-even point. The break-even point shows the behavior of total costs and the role of the influence of variable costs on them, which, in comparison.

The growth in production and sales is accompanied by a constant price reduction. The minimum allowable price per unit of production, providing coverage of total costs, will correspond to the second break-even point; the maximum allowable - the first breakeven point. This means that there are two levels of output and sales of products at which total costs are equal to sales revenue, that is, two break-even points. The behavior of total costs is most strongly influenced by variable costs, which change in accordance with changes in the volume of production and sales of products. On the field between the two break-even points, there is an area within which the optimal ratios of volume, selling price and, accordingly, profit are achieved. As noted above, the maximum profit will be obtained when selling products with a margin of more than 100%. For the break-even operation of the enterprise, the selling price should not be less than the cost of a pair of shoes, but if the price is less than the cost, losses will immediately arise.

When evaluating the impact of a price reduction on a change in the break-even point, it is necessary to additionally assess the effect of a price reduction on an increase in sales volumes. In other words, an increase in price may have such an effect on the decline in sales that the additional profit per unit resulting from the impact of the price factor will be offset by the amount of loss from the decrease in sales. Conversely, the decrease in the amount of difference between revenue and variable costs per unit of output caused by a decrease in price can be fully offset by the profit from selling additional volume of production at lower prices.

Thus, the calculated threshold values of production set the area of production volume and sales of products, within which the break-even activity of the enterprise is ensured.

For this purpose, in order to respond to lower prices of competitors, to reduce too high costs, to get rid of damaged, defective shoes, to eliminate leftovers, to attract more footwear consumers, discounts are used. In world practice, there are about twenty types of discounts, of which the following are most often used: progressive, seasonal, for accelerating payment for trial lots of goods, special, functional, barter offset, hidden, complex.

For shoes, the most common are the following types of discounts used at various levels: enterprises, own organizations, trade.

When determining the size of discounts, it is very important to find the line when it remains possible to earn money, but at the same time get rid of the remnants of shoes. In addition, footwear is a seasonal product, and adjusting prices according to the season is a difficult task for business leaders. One of the constants of this task is to determine the period for establishing a discount on a product. In general, a discount is necessary in the event of a fall in demand for shoes, and, as a result, a decrease in sales. The entire period of the shoe's stay on the market can be represented as a hyperbole, similar to the hyperbole of the product life cycle. There is a period of implementation, for shoes it is very short, because. the change of season in Central Russia sometimes occurs in a couple of weeks. Then a period of growth and maturity, ie. the season itself, in which shoes are most in demand (1-2 months). Then comes a period of recession. It is also very short (2-3 weeks).

Therefore, updating or frequently changing the assortment of shoes for domestic enterprises is one of the most important areas of their marketing activities in order to secure a stable position for themselves and prevent themselves from bankruptcy.

In enterprises, the marketing service must closely monitor the dynamics of sales and profits in order to take appropriate measures in time. For example, with a decrease in the pace of sales, you need to think about new markets, adjusting the price of the manufactured assortment of shoes, and improving after-sales service.

Among these elements of marketing activities, when developing a new range of footwear, special attention should be paid to:

- shape, color and materials for the range of shoes offered for sale;



- fashion, style and market occupancy with domestic footwear;

- assessment of the market demand for new types of footwear in the sales markets;

- forecasting the sales of a new range of footwear;

- the development of the company's commodity policy, which, of course, is an elementary truth, but without which the success of the whole business is impossible.

When developing a new range, it is necessary to create a style for shoes, including its shape, color and range of materials, the development of appropriate packaging that ensures the demand for new types of shoes and the creation of a modern brand and image.

Main part

The quality of products is formed by the functional features of these types of shoes, the development of which is the prerogative of both designers and technologists, as well as artistdesigners, in the formation of which the marketer must also take an obligatory part. The most important means used in the development of new types of shoes, embodying the appearance of shoes: the shape, color, last style, more varied and high-quality materials that correspond to fashion trends, from which this range will be realized. The South of Russia has all the possibilities for applying various solutions. Climatic features, geographical location allow you to focus on bright life-affirming shades. Saturation, brightness, multicolor will emphasize the traditions, taste, mood of consumers. Materials for new types of shoes have an invaluable influence on the perception of finished shoes. But at the same time, it must be taken into account that some materials cause sympathy, while others, on the contrary, cause antipathy. The development of a color scheme for the appearance of shoes should be the main task of the marketing service. Very significant importance should be given to ensuring the quality of footwear and assessing its competitiveness, the attractiveness of demand. The final stage before launching a new range of shoes into production should be given to testing small series of the developed range, aimed at markets in order to identify a price niche acceptable for the financial activities of the enterprise. Every company, including a shoe company, needs a policy, the basis of which should be an assessment of its real capabilities, so that any newly introduced to the market, shoe models served as its position and competitive advantage. As part of a product strategy, specialists determine market needs and ways to meet them, based on a study of consumer demand and its characteristics. To create a specific marketing advantage, an enterprise must analyze the current needs of potential customers and determine what matters most to them. This also requires the use of a set of marketing techniques: branding, participation in industry exhibitions, the

creation of various advertising options, assortment policy. No less important for maintaining the sustainable development of shoe production, including for consumers in the regions of the Southern Federal District and the North Caucasus Federal District, is to determine the period of economic life of the model and optimize the period of existence of the goods by means of rational pricing and the correct application of marketing techniques. In addition, in order to avoid problems with the sale of shoes, the creation of new models in the design departments of the enterprise should be carried out after a preliminary study of the real market needs for these products. However, the experience of Russian shoe enterprises shows that the main reason for the sales crisis is the inconsistency between the assortment of manufactured shoes and the structure of consumer demand. Domestic shoe manufacturers tend to sell what they produce rather than produce what can be sold. This is due to the fact that for most of them the problem of sales orientation is more relevant than marketing.

- commodity producers are forced to concentrate their efforts on the product, and not on the needs of consumers, as they have very limited investment opportunities;

- a wide product range is possible in the presence of flexible industries, the introduction of which is constrained by technological backwardness;

- the transformation of shoe packaging into a means of generating demand is possible with the creation of an industry in the Southern Federal District and the North Caucasian Federal District of full-time production;

- in order for the production program to be determined by marketers, it is necessary not only to have flexible production, but also to have significant production reserves, including reserves of production capacities, financial resources, etc.;

- the possibility of using market equilibrium prices and the advantage of non-price methods of competition for domestic producers are limited by the lack of professional marketers;

- The relatively narrow planning horizons for our businessmen are determined by the still remaining economic and political instability of Russian society.

This also explains the price orientation of the business to maximize current profits, its concealment for taxation, and not to obtain a long-term effect from the market orientation of production.

With the transition from a seller's market to a buyer's market, the competitiveness of a shoe company increasingly depends on how perfect and viable its marketing and sales of products are. If an enterprise is to be successful in the buyer's market, it must conduct business in such a way that it does not depend on selling what it can make, but on producing what it can sell at a profit. Under these conditions, it is necessary to manage the enterprise, focusing on the



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market, and not on the product. At the center of this way of thinking is the customer with his desires and expectations, which should be satisfied as fully as possible. This has become especially relevant in recent years, when seasonal production of various types of footwear and its sale are carried out. Production is essentially the link between supply and demand. Only the knowledge of the true demand for specific types of shoes allowed shoe companies to provide an appropriate offer. Pricing takes into account the laws of price elasticity of demand, when, taking into account costs, a possible change in the level of demand is determined, justifying a decrease in the price of shoes or discounts from them.

At the same time, it is important to remember that an excessively low price for shoes may not increase, but decrease demand, since in relation to these models a stable image of a typically cheap and low-quality offer may form in the consumer. The enterprise first of all tries to determine at what price it can sell its shoes on the market, based on the nature of demand, and then determines its production, selling and administrative costs corresponding to that price and changing depending on market conditions. In a dynamically changing market environment, the performance of an enterprise, including a shoe one, largely depends on the effective results of the production, sales, financial and marketing policies of the enterprise itself, which creates the basis for protection against bankruptcy and a stable position in the domestic market. When developing a competitive range of footwear, manufacturers need to take into account many factors that affect consumer demand: compliance with the main fashion trends, economic, social and climatic features of the regions of the Southern Federal District and the North Caucasus Federal District. Demand, supply and prices are elements of the market mechanism. The supply is the result of production activities and is a lot of shoes intended for sale, while, as a rule, consumption does not coincide with the volume of production of shoes. This is a paying need. supply and prices are elements of the market mechanism. The supply is the result of production activities and is a lot of shoes intended for sale, while, as a rule, consumption does not coincide with the volume of production of shoes. This is a paying need. supply and prices are elements of the market mechanism. The supply is the result of production activities and is a lot of shoes intended for sale, while, as a rule, consumption does not coincide with the volume of production of shoes. This is a paying need.

The nature and possibilities of mutual adjustment of supply and demand are determined by the ability of these factors of the market mechanism to influence changes in the price level of retail goods and commodity groups. The quantitative side of this dependence is expressed by the concept of price elasticity of supply and demand at prices, which is understood as the degreethe corresponding response of supply and demand to a relative change in the level of the market price. The shoe industry is a materialintensive industry, so the constant value of costs in the total cost of shoes is small, therefore, the price elasticity of demand is high. This means that a decrease in the price of footwear must be accompanied by a significant increase in output.

The price of shoes must be sufficient to recover all the costs of production, management, its sale (fixed and variable), and also provide an acceptable return on investment.

In the conditions of shoe production, one of the main factors in the need to create flexible production is a large assortment of products. It is necessary to ensure the minimization of time and money spent in the development of a competitive range of footwear and the technology of its production. The effectiveness of the use of flexible technological processes for the production of a frequently changing range of products in small volumes (including single items) is possible if universal equipment and a higher level of skills of performers are used, which may roughly resemble the use of new forms of handicraft production. So that shoe enterprises do not find themselves in a situation of unprofitable production, a serious approach is needed to justify their products in terms of the costs of their manufacture.

Consumer demand acts as the main factor influencing the formation of the assortment, which, in turn, is aimed at maximizing the expansion and satisfaction of the population's demand.

Consumer demand combines a whole group of indicators that will form their niche, namely:

- shoes, taking into account age characteristics and work activity:

children's; shoes for the elderly; leisure shoes; footwear for special purposes; office shoes. shoes for a socially unprotected group of people: shoes for the unemployed on welfare; footwear for pensioners; shoes for people with chronic diseases. shoes, taking into account the peculiarities of the regions: national footwear;

footwear exclusive;

elite shoes.

The range of shoes for different customer groups is shown in Figure 1.

Thus, the implementation of the requirements of the main parameters that form consumer demand makes it possible to form the distinctive features that a new range of footwear must satisfy.

Demand factors include:

<u>- comparative competitive advantages;</u> the product must have distinct features or distinct



advantages over existing analogues, products or services of competitors on the market;

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

<u>- ability to satisfy the consumer</u>; the product must perform all the functions to meet the key needs and requests of the buyer.

Quality is the most ancient value of mankind. And it is precisely in terms of the quality of Russian goods, services, and the quality of management that we lose in global competition.

Long hoped for a worldwide ISO system. Alas, in Russian conditions it has slipped into a crisis.

- One entrepreneur once said: "We have been certified byISO. And then he added: "Don't think, we were certified by such and such a Norwegian company." Guess what it's about? Yes, sale of certificates. Not everyone, of course, sells, but reputation does not happen by chance.

So what now, you say, and not to deal with quality? Let's agree on terms. Quality is what? Compliance with standards, most will answer. Of course, where standards are possible, this is the case. Although the standards have tolerances. And the difference between the upper and lower divisions in these tolerances is significant. And there are limits to standardization. Let's say a customer contact. Everyone knows that the quality of such contact is critical for business success when prices, assortment, terms are aligned under the pressure of competition. A certain set of friendly words, a dress code, etc. can be considered the standard. Although we know well what is covered by them

The current craze for describing business processes is also gradually approaching absurdity. And somewhere it has already reached it: in different companies we already meet a rigid description of the interview, not only when applying for a job, but even the standard for a meeting and for negotiating.

Now a different approach appears: quality is compliance with the needs of the client, the user. Who buys, he evaluates. You just need to understand exactly what he appreciates. If you hit - here it is, the required quality, that is, the degree of consumer satisfaction with the properties of the product.

But even this approach is limited and stretches from the last century. Then the formula was considered indisputable: the buyer is always right. In our time, another imperative is much more accurate: the buyer does not know our capabilities.

What are we leading to? The understanding of quality as conformity (to a standard, a need) is becoming obsolete. Today, it becomes much more capacious to understand it as a comparison - with another product or with the same, but the same. Comparison gives the superiority of product over product, service over service, specialist over specialist, organization over organization. Comparison with a standard or need does not imply superiority. There is only equality. The standard and the need indicate the minimum. Who needs the minimum? Few. But superiority is interesting to everyone, because the law of increasing needs is inexorable. In practice, this means switching the quality assessment system to levels, for example:

<u>Sufficient quality</u>, below which the defect goes, i.e. the minimum allowable, the use of which does not incur damage.

A. <u>Reference quality</u>- according to the principle of compliance with the standard, i.e. the best available. The standard can appear from the standard, but any sample can serve as it: from what we have live in our company, from competitors, or at least somewhere in the form known to us.

B. Avant-garde quality - what is achieved for the first time, surpasses the standards, but can count on solvent demand and profitability immediately or in the future.

Here is such a quality vertical. It may allow even more degrees. And one more thing: it's time to abandon the idea that any quality can be measured. Everything can be evaluated, but few things that are important to us can be measured.

The model is a closed control (regulation) system that implements the principle of regulation "by deviation". The quality of products in the consumer market can be characterized by a multidimensional quality indicator Q. In the process of confirming conformity, testing and certification of products, a documented indicator of product quality Q d is formed. The required high quality indicator Q 0 is set in the technical documentation for the best world samples, in technical regulations, national GOST and international ISO standards. by the tender commission, the deviation of the actual quality

indicator from the specified one is determined ΔQ

\u003d Q 0 - Q d. This is deviation Δ Q (mismatch in control systems) in our case should always be positive

 $(\Delta Q \ge 0)$, since a correctly chosen predetermined high level O0 is always higher than or equal to the actual Q d, which is extremely rare in practice. In this case, we have a system with a non-zero static error, which is most typical for static systems with their inherent stability and speed, the accuracy of which is determined mainly by the gain and power of the "proportional" controller. In our case, the function of the regulator is performed by the link "Measures to ensure a given level of quality of products and services", which models the quality management system of the enterprise, the quality service in production, whose actions take into account the assessment of product quality and the recommendations of the tender commission.

As can be seen from Figure 2, the quality Q of the products manufactured and supplied to the market



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is formed in the process of its production as a result of measures to improve production, improve the quality of products and services carried out by the quality service and quality management units, targeted actions, which in turn are determined by the results of the assessment products in the process of being sold.

Today, the problem of high-quality specialpurpose footwear exists alone, where, just, assessment and measurements go side by side, hand in hand. The potential need of the domestic market for such shoes is growing from year to year, and increasing the capacity for its production would be justified. Today, its production in Russia is within 14 million pairs per year, with a total need of 50-60 million. steam.

The technical level of domestic footwear for special purposes basically corresponds to similar foreign products. In terms of price parameters, our shoes are close to foreign ones, with the exception of special shoes from China, which have a lower price level. The analysis shows that in a number of cases, both domestic and foreign special shoes do not meet the requirements of operation, for example, in terms of the strength of the fastening of the bottom of the shoe, the components used, and the necessary protective properties.

The current regulatory- technical documentation for special footwear includes 50 GOSTs, OSTs and a huge number of technical conditions. Most of the regulatory and technical documentation requires revision due to the expiration of the validity period, the emergence of new materials and modern fastening methods, which should be included in the technical documentation.

To increase the specific advantages of domestic products in the Russian Federation, scientific developments should be carried out to create new and improve existing types of footwear for special purposes based on moderninterchangeable materials, designs, technologies: for example, such as antistatic shoes: vibration-proof; for protection against aggressive environments and exposure to low temperatures in extreme conditions, etc.

In this regard, it would be advisable to include in the developed program for the strategic development of light industry until 2025:

- development of the Technical Regulations "On the safety of footwear for special purposes";

- development, revision, amendments and additions to the regulatory documentation for special footwear with their simultaneous harmonization with international standards;

- development of amendments and additions to the regulatory documentation for testing methods, measurements and evaluation of the domestic range of footwear for special purposes;

- development of national standards for the entire range of footwear for special purposes;

- adjustment of the legal framework in the field of standardization and certification of special

footwear in order to bring it into line with the Federal Law "On Technical Regulation" and the adopted amendments to it, as well as international norms and rules;

 creation of an internationally accredited national center for certification and testing of footwear for special purposes;

- conducting R&D to create new and improve existing technologies for the production of specialpurpose footwear in order to ensure their competitiveness, both in the domestic and foreign markets;

- to develop a system of control over the compliance of imported special-purpose footwear entering the domestic market with domestic regulatory documents, the properties and quality indicators declared in them.

The need to develop technical regulations for footwear for special purposes is due to the fact that in the domestic market of fundspersonal protection, in particular special footwear, Russia is one of the largest consumers of products. The climatic and operational conditions of footwear in Russia differ significantly from the corresponding conditions in most foreign countries: low temperatures, a high level of potential injury risk in a number of industries with insufficient funding for labor protection and safety measures.

An analysis of operational and protective properties, as well as the results of laboratory, including certification tests, shows that there is practically no state control over the fulfillment of technical requirements, materials used, and technologies for manufacturing special footwear. In addition, an analysis of the "Norms for the free issuance of personal protective equipment" by a number of major enterprises showed that there are no well-formulated requirements for the protective properties of special footwear, which leads to the use of this type of footwear that does not correspond to its intended purpose and does not provide the necessary level of protection. The same can be said about the comfort of special shoes.

Simultaneously with the creation of technical regulations, the development of national standards for all types of footwear for special purposes should be carried out.

An integral part of the implementation of the technical regulation system is the certification tests of both domestic and imported special-purpose footwear, which will make it possible to exclude the supply of lowquality products to consumers, and to increase the overall technical level of manufactured products. For this purpose, it is advisable to create a national "Certification Center for Special Purpose Shoes" accredited according to Russian and international requirements, equipped with modern instruments and equipment. The implementation of the proposed activities will create:

- a new regulatory framework for special footwear;



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- increase the competitiveness of products;

- increase the volume of production of footwear for special purposes in the Russian Federation;

- to provide workers with high protective footwear;

- to improve the health and working conditions of workers of various professions and industries;

- to clarify the norms for the free issue of special footwear, adjusting requirements for it in accordance with modern conditions.

In the new economic conditions, only such production is progressive, which actively and dynamically responds to emerging tasks. The principle of "producing only what is needed, when needed, and as much as needed" requires shoe companies to adapt to the conditions of production in small batches with frequent changes in the assortment of shoes, i.e. to the conditions of many assortment small-scale production. The efficiency of the shoe enterprise, and in many respects the ability to survive in the competitive struggle, depends on the ability to quickly and cost-effectively adjust to the production of footwear in accordance with fluctuations in demand. Great opportunities for this are opened by the development and implementation of flexible production systems.

The technological and organizational flexibility of production systems determines the variable potential of enterprises, their ability to quickly and adequately respond to changes in market conditions and acts as a mechanism for optimizing the structure of the technological system in order to reduce the cost of footwear. Thus, the development of flexible technological processes for the production of leather goods will ensure high efficiency with a large assortment of footwear and provoke a sharp increase in demand for the products of shoe enterprises in the Southern Federal District and the North Caucasus Federal District. It is necessary to start the study classically with the formulation and general characteristics of the problem. It is surprising, but nevertheless, the fact that, despite the numerous literature on the proposed topic, and no less clear applications for its comprehensive analysis.

The reason is simple, except for the work of B.S. Alyoshin and co-authors, 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 attached 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 overturn our conclusions on us, finding 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 extent to which the philosophical component is represented in the theory of quality management depends on the solution of the task put forward. 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 study, 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. Philosophersconservatives 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. "idealism". "Materialism", "metaphysics", "dialectics" should not be abandoned, but they should be cleared of pseudo-ideological "husk", thereby revealing the inherent rational meaning in these phenomena.

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 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 -



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dialectical materialism. The idealist G. Hegel is equally not to blame for the fact that E. Mach brought the idealistic idea to solipsism, and with his philosophical exercises damaged the rationality inherent in the highest achievements of idealistic 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 is broken in it, closes the movement to the truth. Ouality management begins with а 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 "magic wands", "self-made tablecloths", "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 wrong. 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. 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.

Political ideology also imposes prohibitions on thinking, dividing thoughts into friendly 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 actions are those who stun views that are different from their ideology, not wanting or being 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, in every possible way protected his dialectical understanding of thinking, developed the positions put forward by him, 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 of essential properties of phenomena related in a certain way;

- secondly, they understood quality as an objective state, even in the case when it is created by human consciousness, since consciousness creates quality according to the objective order of the world. Quality is 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 H. 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. Locke's duality theory of quality 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 a smart person cannot be stupid if they are not a joke,



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and Locke was not joking. The philosopher tried to find a solution to the contradictions in the development of the doctrine of quality. He was not satisfied with the view of the quality of either simplified materialism or subjective idealists, whose judgments led to a dead end.

Locke was far from connecting the ideas of opponents, and with such a primitive method to overcome the existing conflict. 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 have returned, but not to Locke's philosophy, to his idea of the activity of the subject and the role of his activity in shaping the quality of things. Not to mention the fact that the problem of the originality of the quality of the activity itself, which creates the quality of things, has also become relevant. Suffice it to recall the modern, international quality control system ISO-9001. 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, work, 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 comprehension, otherwise the quality will turn into something independent, like the "Nose" from the story of N.V. Gogol, and quality management will lose its objective 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.

The manufacturer and seller must be modern. Their modernity is due to the ability to find the optimal product range and match a specific product with the expected quality level in order to get 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 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 unambiguously 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 do not make 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 a created person.

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 be unleashed only 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 taking into account careful marketing monitoring, respectively pulling up production reserves. We



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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 precious stones, metols, 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 that people are interested in 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 the main thing is different: 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, must thereby 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 marketable product itself require quality control. Audit of the quality of the 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 (Figure 1).



Figure 1. Stages of inclusion of creative professional activity in the process of forming the quality of goods - component organizations and production quality management

The logic of creating the quality of things created by man pushes the quality of activity to the fore, closeup, 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



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the objectivity of quality prove the inconsistency of the views of their opponents, instead of looking at quality not only in the context of the objective reality of the world, but also in the context of human, professional activity that transforms the material world. In the spirit of pre-Marxist materialism, it is impossible to develop a scientific and philosophical doctrine of quality, because the old materialism was, in essence, a philosophy of contemplation, and not of transformation of the world. 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 presented 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,

Quality management, building on its philosophical interpretation, takes the next step along the path of the systemic organization of the activity program, dealing with 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 learning and organizing the management of any complex activity. There are probably no more doubts about the greatest effectiveness of a systematic approach. There are those who inadequately perceive and evaluate the indisputable advantages of the systematic approach, absolutizing its importance to the detriment of other methods, in particular, the integrated approach. An integrated approach in theory and practice has not squandered its value in competition with the system approach. They don't go well together, they complement 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 situation that has been put together in special - not philosophical - knowledge (in practice too) forces us to return to the difference that exists between complex and systemic methods, because the substitutions of these methods have become too frequent. 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 of components. It is expedient to systematically 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.

An integrated approach is based on a certain qualitative basis and requires a comprehensive analysis of the quality of the phenomenon, and aspects of the research can be equivalent, and act in some rating dependence. A good example of using an integrated approach is the construction of quality management. Schematically, it looks approximately as shown in Figure 2.





Figure 2. Schematic diagram of integrated production 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 in the latter the use of patent and licensed elements: philosophical and economic analysis, giving the first a specific subject orientation in market conditions, and the second a methodological perspective, the dependence of 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 that describe 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 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 work. 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. The quality control system is shown in Figure 3.

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. Karsavin, in order to emphasize the active nature of quality associated with the subjective creativity of a professional, coined the term "quality".

The subjective side of product quality is revealed on the 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, in Russia the traditional side of the attitude to the quality of goods was contemplation, quality goods and today for



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most Russians more than something intended exclusively for use.



Figure 3. Quality control system

Creators and producers of quality goods need to educate the consciousness of potential consumers of their products, based on the fact that in market conditions the quality of 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. The unwillingness to spend worthy funds for educating the consumer, the desire to "shod" him with false, superficial advertising will inevitably turn into a boomerang. Unfortunately, many Russian manufacturers are not afraid of the boomerang. They know, that they will not stay in this sector of production for 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 towards product quality, objectively the situation on the market has not changed significantly. Those small percentages on which encouraging conclusions are based are far from being qualitative characteristics.

The solvent demand of the vast majority of Russian citizens does not allow them to focus on the quality of the goods. The shift towards interest in the quality of goods must go through a mandatory 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 formula (1), which 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

This formula also describes the quality of an intellectual product. Why is it necessary to expand the interpretation of the concept of "natural properties" by including in its content the intellectual and psychophysiological prerequisites for creative activity. The economic understanding of quality, on the basis of which all known concepts of production quality management were directly developed. It evolved according to dialectical laws, despite the fact



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that economists themselves were far from always aware of the dialectic of the process.

The development of economic awareness of quality was carried out "under the influence of contradictions between the internal and external goals of the manufacturer - ensuring the quality of products and, accordingly, strengthening the position of the manufacturer in the market (external goal), as well as increasing production efficiency, that is, increasing 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. Aleshin 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. Of course, there were no agreed quality standards at that time due to the difficulty of comparing strictly individual products of masters, and even more so of 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. Kolt, standardization of the quality of products appeared. 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 gauges, 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 automobiles 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 the 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 of qualityoriented production: a systematic approach; personnel management; mandatory division of responsibility between performers and organizers in achieving highquality and efficient work; the need for science-based labor rationing. FW Taylor, the undisputed founder of scientific management. It was he who first discovered the "exhaustion" of the effectiveness of the main position in management practice: "initiative encouragement" for the quality of work. "In contrast to this," Taylor argued, the development of the scientific organization of labor suggests the development of numerous rules, laws, formulas, which will replace the personal judgment of the individual worker and which can only be usefully applied after systematic accounting, measurements, etc., have been made. their actions."

One cannot but agree with the summary of D.M. Gvisani: what in the strict sense of this term is Taylorism comes down to the following: the creation of a scientific foundation that replaces the old, traditional, practically established methods of work, the scientific research of each of its individual elements. Selection of workers on the basis of scientific criteria, their training and education. 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.

Taylor himself imagined the quality assurance 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 argue F.Taylor with reason. 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 the present 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



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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 production preparation - in fact, towards the special status of control functions, signaled an increase in the corresponding costs of 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,

Production, in the transition from an industrial to a post-industrial society, 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. 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 "rejection phase", so it was replaced in the 20s of the last century by the "quality management phase". Its developers have made an attempt to overcome the critical value of the 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", W. Shewhart, an employee of the technical control department of the American company Western Electric, stood out, who proposed a method for constructing diagrams, better

known as "W. Shewhart's chart control". The goals of increasing production efficiency and improving the quality of manufactured products were not combined in the concept of "rejection phase", so it was replaced in the 20s of the last century by the "quality management phase". Its developers have made an attempt to overcome the critical value of the 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", W. Shewhart, an employee of the technical control department of the American company Western Electric, stood out, who proposed a method for constructing diagrams, better known as "W. Shewhart's chart control". The goals of increasing production efficiency and improving the quality of manufactured products were not combined in the concept of "rejection phase", so it was replaced in the 20s of the last century by the "quality management phase". Its developers have made an attempt to overcome the critical value of the 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", W. Shewhart, an employee of the technical control department of the American company Western Electric, stood out, who proposed a method for constructing diagrams, better known as "W. Shewhart's chart control". Its developers have made an attempt to overcome the critical value of the 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", W. Shewhart, an employee of the technical control department of the American company Western Electric, stood out, who proposed a method for constructing diagrams, better known as "W. Shewhart's chart control". Its developers have made an attempt to overcome the critical value of the 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", W. Shewhart, an employee of the technical control department of the American company Western Electric, stood out, who proposed a method for constructing diagrams, better known as "W. Shewhart's chart control".

In the first approximation, the initiative of the American specialist looks quite radical. W. Shewhart refuses 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.

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



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patrons, caressing their self-consciousness. reinforcing self-confidence in their chosenness. Everything is so well laid out in its place: the workerexecutor, 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." W. Shewhart had many supporters who left their own noticeable and appreciated mark: M. Follet, E. Mayo, C. Barnard, F. Roethlisberger, G. Simon. The thirties of the last century were marked by the "humanistic challenge" of "preaching administrative responsibility". In theory, events unfolded according to a logical scenario. Practice, on the other hand, was not so susceptible to changes in views, so the effectiveness of the new approach to economic quality management left room for reflection on the complexity of the relationship between theory and practice.

The construction of the economy itself 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 understandable than the far from always understandable displeasure of the manager, so we give their example (Figure 10).

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 characteristics of production quality, 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 then for this process it is necessary to use various systems of regulation with feedback. 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 managerial 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 midnineties. Such a duration of the practical relevance of the concept of E. Deming is explained, as it seems to us, by the fact that it was skillfully "planted" on the basis prepared by W. Shewhart, and representing in form already a software product.

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 follows the conclusion about the possibility of its improvement;



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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 at the first of them is to collect information and identify 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.

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-Shurkhat cycle is undeniably relevant even now for improving the organization of production, since it reflects the universal law of building management.

It is impossible not to pay tribute to E. Deming for his development of a "chain reaction" in quality management, shown in Figure 4.



Figure 4. "Chain reaction" according to E. Deming

In it, he linked economic and social actions, emphasizing the nature of historical time. The heyday of E. Deming's creativity is associated with the revival of the Japanese economy. The government and industrialists of the country believed Deming's arguments 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 identified in the studies of B.S. Aleshina 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 needs - (prevention of the main "deadly disease of the economy" according to E. Deming's classification - ed.), the formation of a respectful attitude towards the consumer and his



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requirements up to the cult of the consumer - (the consumer is always right - ed.) the consumer (at the same time) is understood in a broad sense, as the next link in the technological chain.

3. The desire for universal participation in the achievement of quality, from top managers to performers of specific work.

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

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 - 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 noncertified 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 either determined by natural origin or is "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 match 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. It is not quantity that turns into a new quality - quality and only it. 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. It is not quantity that turns into a new quality - quality and only it. 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. It is not quantity that turns into a new quality - quality and only 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



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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 nacidia. 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 selfrespect. 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: "cards decide everything!", "Quality is the main attention!", "Everything is at the service of quality!" These are slogans from Soviet history. And behind them was strict party and state control. The Japanese submitted to the struggle for quality all national and state (municipal) reserves, forcing even television to work for quality. 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 education and training in quality work and its organization. What do we have? Quality is at the mercy of all those who make 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 emphasis in the development of a quality management system from statistical methods towards the absolute value of the customer, dividing the problems that arise are not random and chronic. Randomly (suddenly) emerging quality problems of a one-time (single) origin. They are not inherent in production. Incidental problems should be dealt with on a routine basis within ongoing 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. Y. 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. J. Juran "accused" chronic problems 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 reasons, 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 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 economicmathematical model should have four components:

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

2. It should include certain quantitative relationships and dependencies between the 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 must define the area of permissible changes in the model parameters in time, space and volume - "limitations imposed on quantitative dependencies."



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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 economic modeling of relatively large-scale phenomena is not high. Without denying the importance of such modeling, the prominent economist T. Haavello 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 actually live in a world of big, but largely superficial, or spurious correlations. You can, of course, refer, as always, to bad statistics. However, I think we can find an explanation for ourselves 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 application of mathematics to quality management turned out to be quite an acceptable action. Both Deming and Juran actively used its opportunities. 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, Y. 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 results in 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 USA. 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 nonproduction 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.

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 which they expected to detect and eliminate the reasons for the increase in marriage in a timely manner. 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".



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

A new round in the development of quality management has overcome 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. Aleshin with 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 Centrol (general quality management).

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 a certain way built connections and dependencies.

E. Deming, K. Ishikawa, F. Crosby and A. Feyegenbaum 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 (QCD, OUK, etc.) is able to cope with the task;

3. conformity of the quality of activity 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 perspective 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



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most widely used quality system standard, ISO 9000, is built on a really special system of organization. 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 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 was easier and cheaper to order service centers to replace low-quality 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 and its ISO 9000-2000 modifications 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. use of the process approach in the management of 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, no doubt, have always had an effect on economic knowledge. K. Marx started with G. Gogol, passed the "course" of economic analysis and founded the historical-materialistic 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,

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. The smart, educated Oblomov lying on the couch, as well as the active Stolz, are examples of contrasts along with the title "The 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 person in action" - no matter in which one: turning over with a newspaper in the hands of Oblomov.



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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 objectification outside of human substance (objective idea, World Mind, World Will, God, etc.), or a product of the activity of people themselves: their mind, feelings, will and practical activity. The problem can be simplified, because in both 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 components, its quality, 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". Politics emphasizing the historical nature of human activity, 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, counting 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, modern production, that 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 shows that total quality management, to which, in general, everything went, is possible with the total mobilization of the subjective forces of a person: knowledge, beliefs, desires, will, 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 prompted them: do not absolutize the moral factor, no matter how significant it is. 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 onlv 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 purpose of production is not the quality of production (this is the same 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 the 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 fight.

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 the peasants will be taken by dissatisfied consumers - 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



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groups should be in the zone of special attention of any state and always, of course, if 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 troubled times - the people. Quality is politics, first and foremost, secondly, it is a product of the intricacies of relations in the market. Advocates of absolute market liberalization are "scholarly" provocateurs of tension in public relations and "subversives" 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, it was 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;

increasing 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 important results:

ensuring a quality standard of living for 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 loan, writing off part of it 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 in 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 defectfree manufacturing of products, the NORM, KANARSPI, KS UKP systems were a fairly successful experience in the socialist embodiment of the need to control production quality. In the mid-1960s, the Lviv initiative became widespread in the domestic industry, and was recognized as a "system of defect-free labor" - STB.

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 lowquality product, the state actively prevents unscrupulous manufacturers from entering the market.

The Constitution of the Russian Federation forms the basis of legal support for the quality of production in our state. 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 corresponding articles are formulated to match the time of her birth, however, in this form, some certainty is present. Article 41 of the Constitution of the Russian Federation states: "Everyone has the right to health care." Of course, it would be better to add - "and a healthy lifestyle." And even better: "the right to health 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.

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 care, all possible



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tolerances (MACs), sanitary and hygienic requirements, state standards for products, services, industry standards in the company, and their own "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 proclaimed by the Constitution to quality goods,

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 situations that require such action.

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

The diagram of the right assurance of quality management is shown in Figure 5.



Figure 5. Scheme of the right assurance of quality management

violations of economic Manv relations lead to the intervention of law necessarily 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: "quality production"; "the quality of the 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 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 the legislators was also the revitalization of the activities of a number of federal bodies: on standardization, metrology and certification, sanitary and



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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".

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 of state administration, but of 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 H. 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 producers 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 a turn, 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 the ministers will not be able by their power to postpone the deadlines for the implementation of the president's instructions for years.

The modern economy is increasingly called "smart", "prudent", innovative. This is a more understandable definition in comparison with the "post-industrial", but how adequately it characterizes its state is not an idle question. Character is manifested in development, determines the planning of economic policy. The latest crisis unequivocally testifies:

firstly, that planning is not only compatible with the market way of managing, it is necessary to prevent and mitigate negative phenomena born of undivided economic freedom bordering on arbitrariness;

secondly, the ongoing crisis revealed the limitations of the desire to present the constructed economy as "smart". There should be a smart economy, but it is impossible to build it with just one mind.

The central figure of commodity production is not finance, as many politicians, including domestic ones, believe. Money is just the equivalent of the goods and will remain forever. The commodity creates labor, which in turn is also a commodity. Consequently, the movement of production is rooted in the cumulative expression of human activity, first of all, the work of consciousness, its potential. Mind is not equivalent to consciousness. The mind is a tool for building consciousness. "Smart consciousness knowing, cunning, mobile - but no more. The mind, like any force, needs a vector that directs the application of the mind, the construction of consciousness. The role of the vector is played by values: professional, national, universal. Consciousness fuses them into a unique personal expression. There is no "smart" economy, if you do not put it on a value foundation. The main thing in the personality - the decisive factor of social reproduction - is its morality. Not everyone is given the opportunity to be top managers, general designers, VIPs in politics. Someone has to work with their brains, someone with their hands. The trouble comes when "brains" and "hands" become sticky and the something that is not supposed to stick to them. Immorality undermines the foundations of professional culture, and professional activity is



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transformed from a creative force into its opposite - it destroys what has been created. A "smart" economy may turn out to be a terrible reality if it continues to be immoral. We are neither utopians nor idealists; we understand well the concrete historical position of morality. Now we are not talking about equality and brotherhood - only about conscience and responsibility. The economy can and should be, first of all.

While free competition is subject to calculations of how to more effectively deceive a partner, consumer, competitors and ... the state; is built on corruption and lobbying, manipulation of the work of mass media sources, natural for the development of the market. Cyclical, economic crises will grow unnatural - systemic. The system-forming factor of the latter is the dishonesty and irresponsibility of the largest manufacturers. The classic of the genre: "the greed of the fraer ruined" - looks like a childish prank against the background of what American and multinational companies have done.

And what should the state, called to be a social guarantor in a democratic society and a defender of the rights of citizens, have to do? It was forced to "add fuel to the fire" - to subsidize the business that went bankrupt on scams in order to avoid economic and social collapse. True, the European leaders at the same time sent "firefighters" to the "sources of fire" - they made the further work of the offending firms dependent on moral principles - they introduced moral and financial regulations designed to sober up businessmen who had lost all measure. It is symptomatic: it was France and Germany, the initiators of strict moral and financial monitoring, who were the first to feel the signs of economic recovery. England and the United States, more affected by corruption and less prone to moral diktat, Russia, as expected, missed a real opportunity to use the crisis to revitalize the national industry. First they poured money into the banks, then they took very indistinct actions in order to awaken the conscience and responsibility of the bankers. As if forgetting that a banker without liquidity and with liquidity are "two big differences." There was a chance, at the expense of national funds, to force the banks to be the financial lever for the rise of industrial production, science, and technical creativity in the country. It was necessary not to pray for the banks - to educate the banks with the ruble (currency). He naively hopes that having had enough, the "wolves", instead of continuing to rob, will serve their savior. As a result, the currency earned on the world market flowed back and it is necessary to "start everything from the beginning".

How many more opportunities do we have to step on the same rake standing in the same corner? There is, of course, a margin of safety. The situation can be changed by uniting the mind, which we do not care about, and conscience, the deficit of which has grown remarkably rapidly over the years of democratic reforms. The reason for this alignment should be sought in the economic lawlessness and disproportionate growth of the administrative apparatus. It turns out strange: the more officials there are, the less effective management is - the dynamics are obvious, but the course remains the same. Our lagging behind someone is a natural thing. Subjects have their own place in the historical "pelton", they change places – this is how it should be. It is a tragedy for the national development to be behind the times, to lose a place in the "peleton". In the "eight" we were eighth, but in the "eight".

Time will show what we will be in the G20 in 5-10 years. Economically, we are no longer eighth there, while maintaining a place in the top ten. But even in the memory of most Russians it is time when the USSR was the second line of the world economic rating. History does not return, but this is no reason to forget history. Whatever the continuation of history is, it is its continuation. Abandoning national traditions, you can be at the "broken trough". Not only the Second World War is falsified, the country's scientific, technical and industrial achievements are distorted and hushed up. Faith in national forces is undermined, the people's ability to regain lost ground. The current situation is daunting, yet it is no more critical than those turning points in Russian history that seemed to have no source: the devastation after the civil war.

Then there was no finance available as seed capital today. Therefore, the solution to the problem of creating a modern economy rests technically on the need to develop an effective system of management and control over the implementation of adopted programs.

The program has taken over from the plan. And what came to replace the responsibility for disrupting the plan? The absence of an effective system of control is the most serious defect in the current economic policy, which allows amateurs to lead, feeling themselves in business. The revival of the economy in the current conditions of professional irresponsibility is impossible. Only professionalism and the responsibility associated with it for the cause you serve are capable of making the necessary transition to a new economic quality, building an economical and mobile economy on the basis of the comprehensive development of science, stimulating technical progress and improving the professional training of personnel.

The economy of the 21st century can be called differently. The essence of the definition is not in the name - in the content of the concept. The diversification of names shows the versatility of the modern economy. It is methodologically significant to single out the leading link or links in this set. Undoubtedly, among the obvious contenders is the quality of the economy.



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

G. Ford for the first time put the production of a complex product on stream, dividing operations and responsibilities, and thereby determined a turn in the fate of quality. From now on, the fate of quality was determined by "introduced" factors - the organization of production, management and control. It was not the skill of the direct manufacturer that came to the fore, but the ability to skillfully organize production, including its expanded reproduction, that is, supply, marketing, and personnel management. The diversification of activities revealed its special position in achieving a qualitative result. The Second World War confirmed: cadres and management decide everything! Since the 1950s, the search for quality management programs through the quality of activities has been sharply intensified. If at the beginning of the 20th century the technical regulation of the product and components became relevant, then half a century later there was a qualitative clarification of the meaning of technical regulation. At the epicenter of interests is already the technical regulation of the organization and management of production, which is confirmed by the modern international system of quality regulation.

The shift in the center of gravity in the understanding of economic policy aimed at ensuring the qualitative sustainability of production in the direction of the technical regulation of activities did not pass without costs and dead ends, which, in principle, was expected. The activity united by production is not homogeneous and not autonomous, therefore, the solution of problems "stumbled" into the methodological and theoretical "imperfections" of professional thinking. The concept of "key activities" was first substantiated by A. Feigenbaum. In 1951, his book "Total Quality Control" was published. ISO 9000 and ISO 14000 were already developed on the basis of A. Feigenbaum's proposals. It was assumed that both series of international standards will help to move from "enterprise-conglomerates" to "enterprisesystems".

In the process of development of industrial production, under the influence of scientific and technological progress, a contradiction in the pace of change in the material side and the evolution of managerial thought regarding the organization and harmonization of the production process was rapidly formed and aggravated. The latter clearly did not keep up with the former, hindering progress, increasing risks and costs. The rigidity of central planning only worsened the situation, which explains the stagnation of the 1970s and the decline in the 1980s. The organizational scheme of the "enterprise conglomerate" did not fit well into the transition to a systemic organization of the work of the enterprise, primarily because it did not activate the initiative, creativity. It is no coincidence that "drummers", "innovators", "innovators" in the USSR were mainly engaged in party, Komsomol, trade union organizations, standing essentially outside the scope of direct production and forming a superstructure on top of it. A simplified organizational chart of such an enterprise is as follows (Figure 14).

The scheme of building management, in which the main production links are functionally autonomous and connected indirectly through a common manager, is anti-systemic. When someone designs something, others have to produce it, others have to control the quality, the fourth have to sell products on the market, it divides the participants in production, blocking the creative alliance. All are nominal accomplices in the process and have little idea who is doing what and why. There is no team spirit, everyone acts on his own, at his own peril and risk, often at the expense of colleagues, substituting the latter.



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Figure 14. Organizational chart of the enterprise

The fundamental misconception of the managers of "enterprises - conglomerates" lies in the belief that their "brains" should be enough for the timely recognition and correction of force majeure in the production process. The "enterprise-conglomerate" management scheme essentially coincides, despite the presence of a specialized department, with the quality management scheme, because the functions of the quality management department are reduced mainly to control activities. In 1924, W. Shewhart proposed to optimize this method of management using the principles of the theory of statistical variation, providing managers with a statistical control chart. Improvement of work was not slow to affect the results, but the matter was limited to partial changes for the better. The "philosophy of the theory of variation," instead of being used as a basis for management, was relegated to the level of statistical tools used by technicians with limited and very specialized areas of responsibility ... Ignorance of the theory of the behavior of industrial processes made management unable to correctly recognize situations that require or do not require action. For this reason, management became extremely vulnerable to three kinds of costly management errors:

attitude to all variations of the output parameters of the process as a surprise in behavior and suppression, in fact, of their imaginary causes, which leads to destabilization of the process;

attitude to all variations of the output parameters of the process as natural manifestations and inaction regarding the detection and suppression of their causes, which leads to unstable behavior; the assumption that process optimization and stabilization are technical solutions for which a particular department is solely responsible, rather than an organizational problem that requires the full support of management and the efforts of several departments.

The restructuring of enterprise management on the principles of system organization provides:

1. interconnection of key activities so that various departments of enterprises are coordinated in coordinating actions, for example, to review product quality taking into account specific comments from consumers, improve staff training, promotions, etc.;

2. embedding other processes in key activities;

3. integration of new key activities into existing ones.

A dangerous misconception in the construction of management "enterprise - system" - is the interpretation of optimality as the sum of optimal rearrangements of individual units. In this case, the enterprise is still considered as a conglomerate, the sum of departments that play their own special role. There is no view of activity as an integration of all its components. In European literature, the new term "quality revolution" is increasingly encountered. We will not discuss how adequately it captures the dynamics of a policy aimed at improving the quality of production, we note only that the involvement of the concept of "revolution" in the study looks quite natural. Comparison of modern quality management practices with the not so distant past clearly indicates a radical restructuring of the understanding of quality technology.



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1960s - the stage of self-determination of the quality of goods as the main factor in market competition;

1970s - shift from the dominant quality of goods to the quality of technology and production;

1980s - transition from the quality of technology and production to the quality of a "quality system" or "quality management system";

1990s - ascent to the quality of education, the quality of intellectual resources.

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

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

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

• insufficient mobility of the organization of retraining of specialists, its growing lag behind the acceleration of changes in engineering, technology, and science;

• inertia in the development of new educational paradigms, programs, methods, backlog in the development of new educational literature.

Nevertheless, there is also serious progress three levels of education quality assurance have been identified and balanced: university, national and European.

The intellectualization of the economy, enhanced by the transformation of science into a direct force of production, which experts of the 21st century are so fond of talking about, has exposed the fundamental contradiction of human consciousness between intelligence and decency. Philosophers sought its resolution in the rationality of homo sapiens, emphasizing the basic function of morality. Hypertrophying the activity of consciousness due to the actualization of intellectual abilities, focusing attention on the creative forces of the mind, reducing consciousness to thinking, supporters of the "smart" economy do not see or do not want to see the dependence of the mind on morality, oppose the role of the mind to the value of moral values. We have already noted that the power of knowledge can only have its own vector on a private scale. In system terms, the power of knowledge is directed by indigenous, and not the private and corporate interests of the manufacturer. Morality was formed as the first derivative of labor as a way of first survival, then the development of mankind. The main criterion of social progress cannot be the efficiency of production - this is a purely economic parameter, Man is a social being and the degree of his achievements is determined by how much the movement strengthens human relations - first of all - moral.

Conclusion

Economic activity should be wise, when the mind is closed not on itself, but on the total, personal, national and universal interests. It's time to understand that it's dangerous to hold humanity for the masses of idiots, to build corporate happiness with other people's "hands". Without a strict moral regulation that subjugates all other aspects of human existence, there is no historical perspective. The mind is valid only in the form of an operator clearing the way to the economy of the future. If someone likes to call the economy of the future smart, intellectual, then it is imperative to clarify that smart means a reasonable economy, built not on cunning and private benefits. The current crisis has shown the vulnerability of democratic relations. The freedom to act that led to the crisis was opened up by the amorphousness of democratic postulates, not a clever worship of the regulatory abilities of the market, not an adequate perception of the actions of the "powerful ones". Innovations in economic construction express the new thinking of mankind, fusing intelligence and morality.

The Chinese and Indians will be the first to build an innovative economy, that is, those peoples who have retained the authority of moral values in their minds, subordinating scientific and technical achievements to national interests. It is they who in the near future will "shod" both Europeans and Americans, and, apparently, the same for us!

Wherever shoes produced by the enterprise are sold: in a company store, at wholesale fairs or federal exhibitions, it is always important to know the niche that is not occupied today and fill it urgently. This is possible only if the buyer has no limited choice for making a decision to purchase it, if the interests and capabilities of all consumer groups are taken into account. These are not beautiful words, but the reality of today's market. Without such marketing research, without a strict accounting of demand, without analyzing the reasons for the return of shoes by customers and analyzing their complaints, it is difficult to expect success, and this is simply impossible.

The more varied footwear offered to trade on the same basic basis, the more it will be sold, the easier it is for the enterprise to ensure the modernization of its production in a timely manner and to replace outdated, out-of-fashion footwear with one that will be in demand again. In general, you need to spin in order to be "afloat".

Men's and women's shoes are characterized by the same requirements for creating conditions for their demand, but already taking into account the market where these shoes will be offered for sale, for sale. Men's shoes are in high demand today, due to the change in the status of the Southern Federal District and the North Caucasus Federal District at the geopole of the Russian Federation. The border district, internal troops, military units of the Ministry of Emergency



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Situations, regular military units and formations, a huge flow of refugees, a large number of higher educational institutions - all this provokes the need for a large number of consumer goods, including shoes for various purposes. In this regard, the demand for men's shoes has its own characteristics, consisting in the fact that the autumn-spring assortment of shoes is in greatest demand on the market. And the presence of technical specifications for the production of special. shoes for military personnel using glue and injection methods expands the possibility of shoe enterprises in the development and manufacture of men's shoes, as it were, at the junction - everyday and special with the possibility of a slight change in the technology of making it for the consumer or offering it to military representatives as special. shoes. Such a wide range has already provoked the opening of numerous small enterprises for the production of men's shoes. I just wanted to draw the attention of business leaders and fashion designers to the principles of forming a range of men's shoes in order to ensure stable demand and high competitiveness in the supply market. It is important that the experimental group of the enterprise timely monitors the appearance of new materials and accessories on the supply market, securing the right to know-how, peculiarity, originality, thereby creating an image for your company, a respectful attitude towards the "brand" of the company and the trademark, so that in all cases this prestige is always maintained at a very high level. So, for example, if a molded sole with a side is used, then its fastening will always be carried out using a combined fastening method - thread and glue, as this is of high quality and ensures its durability, then the buyer will already know that the shoes of this company are distinguished from others by high quality, reliability, availability and comfort.

A special place is occupied by the production of women's shoes for the demand market of the Southern Federal District. A large volume of imported shoes, affordable prices make the production of women's shoes a less profitable business compared to children's and men's shoes. Again, the fact that the importance of marketing research is increasing, the definition of its range, which will never be taken into account by "shuttle traders" and foreign firms, is again striking. Therefore, the analysis of anthropometric changes that have occurred in the feet of the female part of the population of the Southern Federal District in recent years, the presence of a large number of customers with pathological deviations, significant differences in overall sizes allow manufacturers to produce women's shoes on the styles of such blocks that are more satisfying to customers in a comfortable and convenient shoes, and traditional high quality and reliability against the background of lower cost make such shoes always in demand and desired. Yes, and shoes for the elderly, socially unprotected, but with

even greater pathological changes in the feet, allow manufacturers, together with designers, taking into account these features, to make shoes that will always be in demand and sold. In addition, we need new solutions, unexpected proposals, and then you, the manufacturers, will be successful not only in the domestic market, but also foreign markets will become more accessible.

Thus, even today, despite the lack of a legal framework for technical regulation, each manager needs to choose his own, and only his own rules of the game and behavior in the market for supplying shoes from a domestic manufacturer, not forgetting to use the opportunity to export their products to the world market, especially on the eve of the accession of the Russian Federation in the WTO.

We sincerely wish you, our leaders, justified risk and success, both in the domestic footwear market and in foreign ones. Quality systems "ordering / 5 S" and "three" not "- the basis of stability and production safety. The 20th century that has come is destined to be a century of high quality in all its manifestations the quality of labor, products and services, the environment, that is, to implement the modern paradigm of civilized development. Ensuring competitiveness in the domestic market and promoting Russia in foreign markets is impossible without the production of high-quality products that meet safety requirements. Given this, enterprises need to implement a quality management system (QMS), which should be systematically developed and supplemented over time. The combination of its various elements contributes to the effective management of production and the production of quality products. One of the components of the integrated QMS is the Japanese system - "Ordering / 5S".

One of its ideologists is Kaoru Ishikawa, a world-famous quality management theorist. In particular, he came up with the idea of creating famous quality circles in the early 60s of the last century. The main objective of this system is to contribute to maximum stability and safety of production processes, maintaining order and discipline at each workplace with the participation of all personnel of the enterprise, especially highly skilled workers.

The first two elements in the "5S" system (Seiri è Seiton) are aimed at freeing the workspace from unwanted or unnecessary items and streamlining the remaining items. The workspace activity directly corresponds to these two steps in 5S (creating "workspaces where everything has its place"), in addition, the concept of assigning spaces to small groups is used. Activities to improve the working environment also contribute to the establishment of links between small groups, which is a condition for the improvement of the work of many enterprises.



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Table 1. Concepts of the system "Ordering / 5S"

Japanese term	Term meaning	Activity content		
seiri	Organization	Removing unnecessary		
Seiton	Accuracy	Arranging the placement of items		
seiso	Cleaning	Workplace cleaning		
Seiketsu	Standardization	Standardization of rules for cleaning, ordering and cleaning		
Shitsuke	Discipline	Developing habits of cleanliness and order		
* Each word denotes an element of activity to master the rules of maintaining an organized workplace.				

The third element of the "5S" system - cleaning the workspace - is necessary, because without it, cleaning the production premises turns into a routine removal of garbage, and pollution inside the machines remains a source of defects and breakdowns.

The fourth element of the 5S system, standardization, involves establishing and maintaining the best practices for shaping the work environment to ensure that the requirements of the first three elements of the 5S system are consistently met. Step 3 of learning the system (development of standards for cleaning and inspection) not only establishes standardized procedures for performing the work of steps 1 and 2, but also trains operators on how to maintain the equipment, taking responsibility for lubricating the equipment.

A key condition for ensuring the continuity of activity in the 5S system is the fifth and final element - discipline. Steps 4 and 5 continually educate operators on how the equipment works, along with setting standards for maintenance. As a result, operators are interested in maintaining the good condition of the equipment.

To implement the above five stages, it is necessary to go through twelve steps:

preparation for the introduction of the "Ordering" system;

removal of unnecessary;

rational placement of objects;

development of rules to comply with the principles of "removal of unnecessary" and "rational placement of objects"; consistent cleaning; trouble-shooting; development of cleaning rules; lubricant; simple check;

development of inspection and lubrication rules; standardization of the rules developed as a result of the previous steps;

daily activities within the framework of the "Ordering" system - discipline and responsibility.

In Russian practice, there are two fundamentally different approaches to the implementation of the 5S system: Western and Japanese.

The Western approach is focused on getting quick, mostly external results: cleanliness, order, visual control, compliance by staff with strict regulations. In these cases, the 5S system is implemented by a team of managers who make all the decisions, define the requirements, and formulate the rules for maintaining order. All employees must simply follow this order, without introducing anything into it.

The Japanese approach consists primarily in involving the entire staff in the process, including the intellect of each employee in the rational organization of his workspace. Of course, this method of implementation is longer; at first, it requires tremendous efforts to overcome the inertia and disbelief of employees. But in the end, it produces better and more sustainable results, making it easier and more efficient to implement full-scale lean projects.

References:

1. (2022). On the priority of the territory of advanced socio-economic development of small and medium-sized cities of the Southern Federal District and the North Caucasus Federal District in the production of demanded and competitive products by market consumers; with the participation and under total. ed. Bachelor A.A. Blagorodova., Dr. tech. sciences, prof. V.T. Prokhorov; Institute of Service and Entrepreneurship (branch) Don State Technical University, Doctor of Economics, prof. G.Yu. Volkova, LLC TsPOSN "Orthomoda". (p.656). Moscow: Reglet.



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	JIF	= 1.500	SJIF (Morocco)	= 7.184	OAJI (USA)	= 0.350

- (2021). Methodological and socio-cultural aspects of the formation of an effective economic policy for the production of high-quality and affordable products in the domestic and international market: monograph / O.A. Golubeva [and others]; with the participation and under the general. ed. can. philosopher. sciences, prof. Mishina Yu.D., Dr. of Tech. sciences, prof. V.T. Prokhorov; Institute of Service and Entrepreneurship (branch) of the Don State Technical University. (p.379). Novocherkassk: Lik.
- (2020). Features of quality management manufacturing of import-substituting products at the enterprises of the regions of the Southern Federal District and the North Caucasus Federal District using innovative technologies based on digital production: monograph / O.A. Golubeva [and others]; with the participation and under the general. ed. Dr. tech. sciences, prof. V.T. Prokhorov; Institute of Service and Entrepreneurship (branch) of the Don State Technical University. Novocherkassk: Lik.
- (2006). Prerequisites for the creation of shoe enterprises in the Southern Federal District in an uncertain market environment: monograph / V.T. Prokhorov [i dr.]. (p.191). Mines: YURGUES.
- (2008). Quality management of competitive and demanded materials and products: monograph / Yu.D. Mishin and others; under total ed. d.t.s., prof. V.T. Prokhorov. (p.654). Mines: Publishing House of GOU VPO "YURGUES".
- (2009). How to ensure sustainable demand for domestic products of the fashion industry: monograph / Mishin Yu.D. [and etc.]. (p.443). Mines: YURGUES Publishing House.
- (2009). Technical regulation: the basic basis for the quality of materials, products and services: monograph / V.T. Prokhorov [and others]. (p.325). Novocherkassk: Lik.
- (2009). Modern approaches to ensuring demand for the products of shoe enterprises in the Southern Federal District: monograph [Text] / V.T. Prokhorov and others; under total ed. prof. V.T. Prokhorova. (pp.29-137). Mines: Publishing House of GOU VPO "YURGUES".
- 9. (2012). Managing the production of competitive and demanded products: monograph by V.T. Prokhorov [and others]; under total ed. d.t.s., prof. V.T. Prokhorov. (p.280). Novocherkassk: YuRGTU (NPI).
- (2012). Restructuring of enterprises as one of the most effective forms of increasing the competitiveness of enterprises in markets with unstable demand: monograph / N.M. Balandyuk [and others]; under total ed. d.t.s., prof. V.T. Prokhorov; FGBOU VPO "South-Ros. state

University of Economics and Service". (p.347). Mines: FGBOU VPO "YURGUES".

- 11. (2012). Influence of cash flow on the efficiency of the cluster formed on the basis of shoe enterprises of the Southern Federal District and the North Caucasus Federal District / L.G. Gretskaya [and others]; under total ed. d.t.s., prof. V.T. Prokhorov. (p.354). Mines: FGBOU VPO "YURGUES".
- (2012). Innovative technological processes in the light industry for the production of competitive and popular products: monograph / V.T. Prokhorov, T.M. Aspen, L.G. Gretskaya; under total ed. d.t.s., prof. V.T. Prokhorov; ISOiP (branch) DSTU. (p.435). Mines: ISOiP (branch) DSTU.
- 13. (2012). Quality management of materials and products: monograph / V.T. Prokhorov [and others]; under total ed. d.t.s., prof. V.T. Prokhorov; ISOiP (branch) DSTU. (p.220). LAP Lambert Academic Publishing.
- 14. (2015). Science-intensive technologies in the service of human ecology: monograph / I.V. Cherunova, S.A. Kolesnik, S.Sh. Tashpulatov, A.D. Chorny and others - under the Society. ed. d.t.s., prof. I.V. Cherunova // Based on materials of the II Intern. sci.-tech. conf. "Scienceintensive technologies in the service of human ecology, ISOiP (branch) of DSTU in Shakhty. (p.144). Novocherkassk: Lik.
- (2015). Assortment and assortment policy: monograph / V.T. Prokhorov, T.M. Aspen, E.V. Kompanchenko [and others]; under total ed. Dr. tech. sciences, prof. V.T. Prokhorov; ISOiP (branch) DSTU. (p.246). Novocherkassk: YuRGPU (NPI).
- 16. (2015). On new opportunities for the regions of the Southern Federal District and the North Caucasus Federal District in the formation of preferences consumer for products manufactured at light industry enterprises: monograph / V.T. Prokhorov, T.M. Aspen, E.V. Kompanchenko [and others]; by total ed. d.t.s., prof. V.T. Prokhorov; Institute of Service and Entrepreneurship (fil.) Feder. state budget educate. institutions of higher prof. education "Don State. tech. un-t "in the city of Shakhty Rost. region (ISOiP (branch) DSTU). (p.316). Novocherkassk: YuRGPU (NPI).
- (2014). On the influence of nanomaterials and technologies on the casting properties of polymer compositions based on ethylene with vinyl acetate / V.T. Prokhorov, N.V. Tikhonova, T.M. Osina, D.V. Reva, A.A. Tartanov, P.N. Kozachenko. *Bulletin of the Kazan Technological University*, V. 17, No. 19, pp. 130-135.
- 18. (2015). On new opportunities for the regions of the Southern Federal District and the North



	ISRA (India)	= 6.317	SIS (USA)	= 0.912	ICV (Poland)	= 6.630
Impact Factor:	ISI (Dubai, UAE	() = 1.582	РИНЦ (Russia)) = 3.939	PIF (India)	= 1.940
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	JIF	= 1.500	SJIF (Morocco)) = 7.184	OAJI (USA)	= 0.350

Caucasus Federal District in the formation of consumer preferences for products manufactured at light industry enterprises: monograph / V.T. Prokhorov, T.M. Aspen, E.V. Kompanchenko [and others]; by total ed. d.t.s., prof. V.T. Prokhorov; Institute of Service and Entrepreneurship (fil.) Feder. state budget educate. institutions of higher prof. education "Don State. tech. un-t "in the city of Shakhty, Rost.reg. (ISOiP (branch) DSTU). (p.316). Novocherkassk: YuRGPU (NPI).

- (2017). The concept of import substitution of light industry products: preconditions, tasks, innovations: monograph / Prokhorov V.T. [and etc.]; under total ed. Dr. tech. sciences, prof. V.T. Prokhorov; Institute of Service and Entrepreneurship (branch) Don State Technical University. (p.334). Mines: ISOiP (branch) DSTU.
- (2014). Quality revolution: through advertising quality or through real quality: monograph / V.T. Prokhorov [and others]; under general ed. d.t.s., prof. V.T. Prokhorov; ISOiP (branch) DSTU. (p.384). Novocherkassk: YuRGPU (NPI).
- 21. (2015). Assortment and assortment policy: monograph / V.T. Prokhorov, T.M. Aspen, E.V.

Kompanchenko [and others]; under general ed. Dr. tech. sciences, prof. V.T. Prokhorov; Institute of Service and Entrepreneurship (fil.) Feder. state budget educate. institutions of higher prof. education "Don State. tech. un-t "in the city of Shakhty, Rost.reg. (ISOiP (branch) DSTU). (p.503). Novocherkassk: YuRGPU (NPI).

- 22. (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 total ed. Dr. tech. sciences, prof. V.T. Prokhorov; Institute of Service and Entrepreneurship (branch) of the Don State Technical University. (p.384). Novocherkassk: YuRGPU (NPI).
- 23. (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: a collective monograph / V.T. Prokhorov [and others]; under total ed. Dr. tech. sciences, prof. V.T. Prokhorov; Institute of Service and Entrepreneurship (branch) of the Don State Technical University. (p.337). Mines: ISOiP (branch) DSTU.

