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THE ROLE OF QUALITY IN THE BIRTH AND DEVELOPMENT OF GLOBAL EMERGING MARKET

Global trends such as new information and telecommunication technologies as well as democratization, have led to the fall of many dictatorial regimes, and the affected societies' understanding of their place and role in the global world order. The socio-economic processes taking place are immediately and adequately reflected in the economic category of "quality".

Quality is a key factor of competitiveness, determining the success of entrepreneurship in any given society. Companies may operate successfully only if they are capable of selling their products over a long-term period with relative profitability in the local or global markets and competitive environment.

Moreover, it should be emphasized, that quality issues are so multifaceted and complex, that they can't be solved at the level of an individual company. It is necessary to unite efforts, establish partnerships between companies and organizations, and implement quality management methods within the higher levels of governing - municipal, regional, national, international and global. However, within state borders, the product/service quality depends, first of all, on the level of economic freedom and the system providing stimulus to manufacturers and service providers.

Quality, as a category, reflects the effectiveness and efficiency of a certain socio-economic system, as it reflects the objective reality, its definiteness. It is an objective rather than invented category, which actually exists as a universal definiteness of objects and which reveals itself in the aggregate of individual properties. As a rule, the quality of an object can not be narrowed down to its separate parts, but relates to the object as a whole, covers it completely, being inseparable from it. For example, it was the analysis of the quality category that enabled one of the authors of this paper to predict the disintegration of the Soviet Union.

Quality management methods in the Soviet Union

The overwhelming majority of people living under dictatorships were isolated from the world beyond their national borders. Travel and most forms of communication (mail, radio, television, etc.) were severely restricted. Only high-level government officials and their relatives and cronies were able to see first-hand the lifestyles and standards of living enjoyed by people in free societies. In return for this privilege, as well as access to consumer and luxury goods from capitalist countries, and in order to maintain their own power, these bureaucrats endorsed the official propaganda about their "imperialist enemies."

But why was access to foreign-made goods such a coveted privilege of the top-level bureaucrats and decision-makers of dictatorships (this was correctly referred to as the *Nomenklatura* in countries of the Soviet bloc—a term that can be used for any dictatorship)?

Why did people living under dictatorships prefer used foreign cars to new domestic ones? Indeed, why did most dictatorships not even attempt to produce cars or other sophisticated consumer goods?

Command-economy dictatorships were incapable of producing these high-quality and technologically advanced goods because of the direct relationship between motivation and the availability of goods and services on one side of the equation, and freedom and variations in the quality of goods and services on the other. These relationships are the source of the fundamental distinction between command-economy dictatorships and free-market economies.

Quality of life (or standard of living) is determined by the availability of quality goods and services appropriate to varying individual preferences and needs. The production of high-quality goods and services requires a high quality of labor. High-quality labor is the result of effective motivation throughout the process of production. Effective motivation, in turn, helps ensure attentive, thorough, and professional workers. A fundamental ideal of communism and a staple of all command economies is the equality of wages, salaries, and other forms of remuneration regardless of a worker's level of output. This practice removes effective incentives for worker efficiency, innovation, or leadership, and often even integrity.

When motivation is removed from the process of production, the result is low-quality labor, goods, and services, and subsequently, a much lower quality of life. Furthermore, there is also a constant deficit of the various goods and services required by different individuals, which negatively affects quality of life. Consumers totally lack options. This absence of consumer choice allows goods and services to be produced and consumed, regardless of their quality. The inevitable poverty and low quality of life of command economies and dictatorships are tangible results of the suppression of motivation. Most importantly, beyond the political-repression characteristic of dictatorships, the result of a lack of motivation is the repression of the freedom of individuals to make choices that determine the quality of their lives. This is a structural weakness of command economies and dictatorships as well as the fundamental distinction between them and free-market democracies.

If a dictatorship were to introduce motivation to the production processes via differentiated remuneration that reflects productive input, the ensuing variation in product quality and standards of living as well as consumer's freedom

of choice would seriously contradict the ideology and relevance of the dictatorship. This introduction inevitably leads to the destruction of the dictatorship or at the very least a major revision of its ideology, such as the Chinese Communist Party's embrace of free-market principles.

Individual freedom of choice is the defining quality of a free society; any ruling structure that represses this freedom sows the seeds of its own destruction. The blunt names of the stores in the Siberian city of Krasnoyarsk illustrate the lack of freedom of choice and constant deficit of goods in dictatorships: "Meat" or "Fish"; "Shoes," "Dress," "Furniture," etc. One particular store, when it first opened in the 1960s, was called "Meat-Fish." When the shortage of meat became severe, the name changed to "Fish-Chicken." When there was a shortage of fish, the store was renamed "Chicken-Eggs," then both words disappeared for the same reason and the name was changed to "Vegetable-Fruits." Finally, it was called only "Vegetables." A more accurate name would have been "Potato-Cabbage."

In addition to the ensuring impoverished and miserable material existence for the majority of the populace, the anemic economic performance of command economies makes it increasingly difficult for the self-appointed leadership to maintain power. Poverty, combined with a lack of freedom, repression of minorities, government-sponsored nationalism and intolerance, and economic as well as political self-isolation create conditions that cannot be endured for very long, and that almost inevitably lead to democratic change. The form of these changes varies from country to country. However, in general, democratic changes began simultaneously, due to the influence of one of the most powerful global trends—democratization. The convergence of this trend with globalization and revolutions in global IT made it practically impossible for the overwhelming majority of dictatorships to resist democratic pressures. It is important, however, to point out that there are exceptions to this scenario. Dictatorships in unusually wealthy countries, typically with smaller populations, can maintain control for longer periods, primarily due to income derived from the sale of natural resources. Dictatorships and repressive regimes financed by petrodollars are an obvious present-day example. But the recent example of Iraq shows that even oil-rich dictatorships cannot last forever. Nevertheless, in most command economy dictatorships, it becomes practically impossible to generate the revenue necessary to dominate, appease, and/or placate the public. But it was the dramatic improvement in IT, an external factor completely beyond the control of any government, that has made it exceedingly difficult for dictatorships to exist and will likely be the proverbial nail in the coffin. Dictatorships' ability to control information has been seriously compromised.

Global communication systems made it exceedingly difficult for dictators to keep their populations isolated from and ignorant to the superior standard of living that exists in freemarket democracies. This was the beginning of the end for the majority of dictatorships throughout the world. Two obvious exceptions to this trend are China and Vietnam. The communist parties of these two countries introduced economic freedom and motivation to the production process and allowed foreign investment. Subsequently, the quality of goods and services and standard of living has improved steadily in these two countries. However, in most dictatorships political unrest led to the eventual replacement of dictatorial regimes with elected leaders, democratic governments, and economic freedom. The newly elected leaders looked abroad for proven methods to create economic growth and improve the standard of living. This led to a wave of market-oriented economic reforms, the appearance of the first modern EMCs, and eventually to a new economic and political phenomenon, the GEM. In any emerging-market democracy, in order for a political regime to be sustainable, its major strategic concept should include preferences that reflect the basic needs and choices of the public.

In the Soviet Union, the need to impact manufacturing in order to produce the high-quality products led to efforts in the development of numerous organizational and management systems. Thus, in the mid-1970's our domestic companies developed and widely used the comprehensive system for product quality management (KS UKP), which covered all functions of industrial activities and the requirements of such systems had the status of the company's mandatory standards.

In the development of the above systems, the concepts of "product life cycle," "life cycle stages", "management level" and "special functions of management" were used. The management was introduced at all stages of the product life cycle and at all management levels - from the workplace to the director. Such special control functions as: the statistics on the demand for the specific product and its required quality level, planning of the above level, designing and technological preparation of production when launching new products, HR and legal support, etc., appeared.

The main purpose of KS UKP was to ensure the continued compliance of the of the developed and manufactured product's quality, with the needs of the economy, population, exports, and on this basis to systematically improve the efficiency of social production.

Despite the wide development of this systematic approach in the Soviet Union, it was not possible to solve the basic problem: improvement of the quality of Soviet goods. This paradox could be explained by the fact that the quality management systems ware mainly aimed at solving the organizational problems and improving the business operation. In particular, their establishment enabled the reduction of production waste, acceleration of the production cycle and facilitation of the product's entry into the market, etc. Those systems were not aimed at technical management, the technical parameters of product quality: non-failure of operation, durability, maintainability, ergonomics, design, adaptability to manufacture, etc. In terms of the command system the only way to influence these parameters (hence, to enhance the product quality) was to standardize them through the **mandatory** national standards.

The evolution of the methods and forms of work applied in the country is presented in **Fig. 1**. They differed in their nature: directive-driven (government regulation) and initiative-driven. Some of the methods were initiative-driven per se, and at the same time supported by the decisions of the directive bodies. The standard requirements were the basis for quality assessment before the 1990's, and their violation was prosecuted. In this sense, the Soviet Union was a

unique country.

However, the method of product quality improvement through the mandatory standardization had two vital problems:

1. To provide the highest product quality, it was necessary to establish high standards of specification requirements. However, in that case, they could become unachievable for the majority of the companies. Therefore, the values of stated parameters proceeded not from customer needs, but from the technological capabilities of the companies. They were production industry- averaged instead of desirable ones.

2. However, even such requirements were fulfilled only by 60 % of companies because of the low industrial discipline – technological, engineering and labor. There was no **incentive** for product quality improvement, since no efforts in this field affected the economic activities of the company, and accordingly, the wages of people.

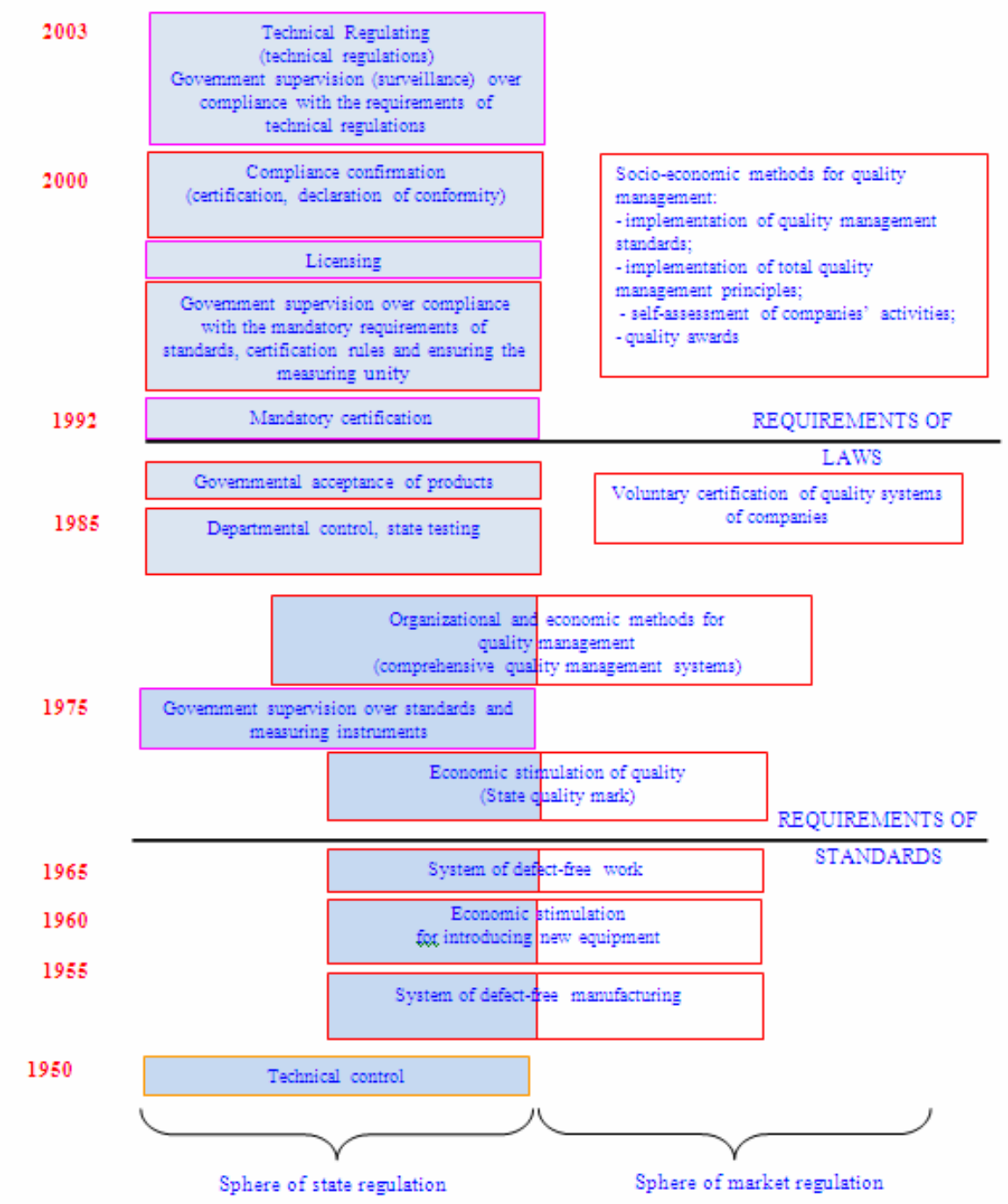

Fig. 1. Methods of impact on quality in the Soviet Union and Russia

In the late 1980's, Armand V. Feigenbaum, the internationally renowned expert in the field of quality, visited

the Soviet Union. Later he briefly formulated his impressions of the so-called «Russian Paradox». What had surprised him?

1. In the Soviet Union there was complex military engineering, advanced spacecrafts, but, at the same time, elementary household products were at the lowest technological level.

2. In the Soviet Union, there were 1.5 million qualified scientists (more than in any other country in the world), and, at the same time, 20 % of the company's machinery was outdated.

3. In the Soviet Union, there was centralized (thus, rather effective) planning, and, at the same time, the manufacturing of a product unit consumed two times more energy than in the USA.

4. The Soviet Union's production output was the second largest in the world, however it exported less than Taiwan or South Korea.

It is necessary to remember a remarkable fact: that there were two kinds of quality assessments within the Soviet Union, the internal one – inside of the country, and the external one - for the international market. The external assessment was performed by calculating the export effectiveness ratio (as a ratio of return from the product sales abroad to its manufacturing costs in the Soviet Union). The export was considered to be profitable provided that the returns exceeded the costs. This was demonstrated only by two products– caviar and furs.

Introduction to the economics of quality

The study of quality reveals the correlation of the sciences. The higher the complexity of the phenomenon being examined, the more branches of knowledge should be involved in the evaluation of quality **(Fig. 2)**.

Only the interdisciplinary synthesis and complex use of achievements and methods of various disciplines enable solving problems in the field of quality. Research of the product quality requires the application of fundamental sciences **(level 1)**, such as mathematics, physics, chemistry, metrology (the science on measurements) and, certainly, economics.

The quality of the product created during manufacturing is based on a number of processes. Therefore, it is necessary to assess the quality of the processes **(level 2),** additionally applying mathematical statistics and the probability theory.

Improvement of process quality leads to the enhancement of the quality of an enterprise **(level 3).** This level requires application of the law, as well as psychology and the control theory (cybernetics).

The industrial activity of an enterprise, its processes' and products' impact on the environment, is the habitat quality **(level 4).** Additionally, there is also the return influence of the environment on manufacture. At this level ecology, social science, conflictology, etc. should be applied,

All the above listed levels of the research subjects render the direct influence on quality of life (**level 5)**. The above-mentioned sciences should be used together with the study of sociology, medicine and culture. Here, practically the whole spectrum of modern sciences could be applied.

It is necessary to emphasize, that in the current conditions the concept "quality" is, first of all, an economic category.

First, all of the factors and parameters influencing quality, include an economic component. The search for the optimum parity between demanded expenses and effect should be carried out by economic methods.

Secondly, the high risk of operation in market conditions dictates the necessity to pay special attention in choosing the most correct and hence, economic criterion for the assessment of the efficiency of actions.

Thirdly, to undertake the planned measures, it is vital to involve experts who are professionally competent, committed to business ethics and understand that quality cannot be sacrificed for the sake of short-term commercial gains.

In recent years we have done research on economic aspects related to quality assurance and quality management. It resulted in the emergence of a new science – the economics of quality.

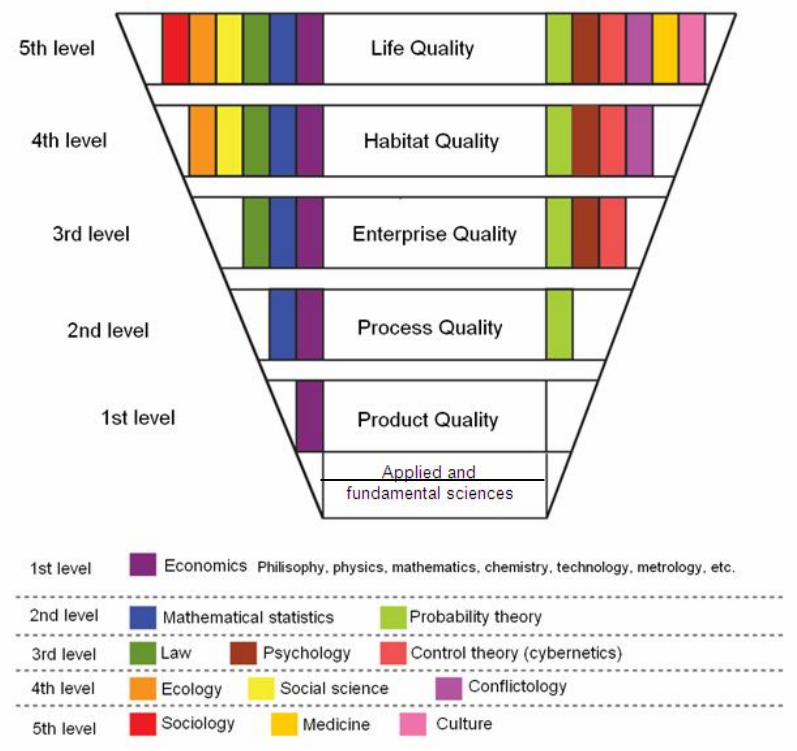

Fig. 2. Application of various sciences for quality research

Economics for Quality - is a field of economics which studies the interrelation between the qualitative characteristics of objects or phenomena and economic indicators, covers all areas of economic science and extensively involves the natural, social and technical disciplines (mathematics, physics, chemistry, sociology, psychology, jurisprudence).

Economics for quality is a unique phenomenon: being itself a branch of economics, it is an integral part in all other sections, bringing into focus qualitative characteristics investigated from various aspects.

This relates to the economics of labor, economic statistics, and regional economics.

The ultimate goal of economics for quality, as a science, is the construction of models adequately displaying a role of quality in natural, technological, social and legal regularities in functioning of the economic systems.

The use of methods of economics in studying quality revealed the necessity to focus not only on the quality of products, but also on the whole system of economic relations, to develop and investigate managerial processes of all of the activities of enterprises and to pay attention to such aspects as finances, resources, personnel, etc.

It is necessary to note, that the up-to-date methods of quality management enable solving any problem at any level, irrespective of a social order, pattern of ownership, the nature of manufacture, or the size and the number of the personnel.

The long-term operational experience of authors in a field of quality in various social and economic systems (planned economy, transition economy, market) has convincingly proved the validity of this thesis, as well as the universality and multi faceted nature of the forms and methods of economics and quality management.

The phenomenon of quality results from the complexity of its impact:

1. Quality provides savings: it reduces costs for recovery of failures, repairs, claims, loss of reputation among customers. Good quality produces the rise of incomes and new customers.

2. Quality inspires. It brings the labor satisfaction – the self-approving feeling of participation and pride in the success of the business.

3. Quality unites. It becomes the business of all and everyone. It penetrates into the minds and hearts of people. Quality can be regarded as a person's behavioral standard.

It is necessary to emphasize, that the solution of quality problems requires not only changes in the organization, the style of management, competence and behavior of the personnel, but also effort in creating a harmonious personnel team and corporate culture.

To achieve these, purposeful actions on training, education and the introduction of the best international practices, are necessary.

Quality cannot be provided solely through inspections and checks. It should be created, produced. This was proved by Edward Deming. It is necessary to strive for the prevention of failures rather than correcting them. One effective tool for this purpose is the self-assessment technique.

The self-assessment method has a universal nature. An enterprise performing regular self-assessment of its activities against the model criteria is approaching business excellence one step at a time.

The self-assessment process allows the company to clearly identify its strengths as well as areas that need improvement. Based on the results of self-assessment, the company develops plans of action for improvement and continuously monitors their implimentation. Organizations carry out such assessments & action cycles repeatedly, allowing them to achieve real and sustainable results.

The self-assessment technique is widely used by companies competing for national quality awards such as the Deming Prize, M. Baldrige National Award, European Quality Award and the Russian Quality Award.

The multilevel quality management system

Today, all economy branches require the establishment of quality management systems. Moreover, it could be predicted with confidence, that with the growth of the globalization of trade, finance and political relationships, the necessity for quality management systems is increasing in socio-economic systems. For just as a product's high quality provides for its stable operation, so does the high quality of the public's lives provide the social stability and enhancement of a country's competitiveness. The solution of this problem is an overall goal of the multilevel quality system suggested by the authors.

The multilevel quality management system is the integration of organizational structure, performance methods, processes and resources necessary for the provision of quality by means of operative measures.

The functionality of the multilevel quality management system **(Fig. 3)** starts from the formulation of target indices in various activities, which impact the socioeconomic development of a region and the quality of life of the population. These indices are established in light of the needs of the population, economic interests of the region, and standards of living.

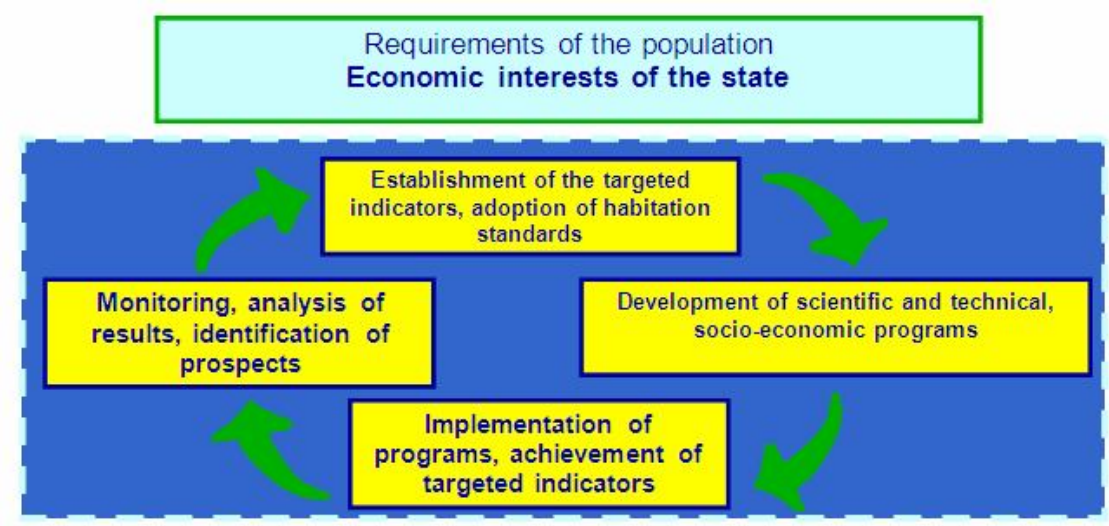

Fig. 3. Operational mechanism of the multilevel quality management system

The standards of living represent indices of the public quality of life which should be provided by the government. The formulated standards are the concrete quality-of- living obligations of the political authorities. The quantitative characteristics of these obligations are shown in the norms of standards of living.

The standards of living are shown in **Table 1**.

To achieve the planned indices, it is necessary to develop and implement the relevant target scientific, technical, social and economic programs. The implementation of programs is evaluated by comparing the current and planned values of indices within the monitoring framework. The results of monitoring enable one to decide on the necessity for corrective actions.

A unique feature of this system is that it overcomes the boundaries between different industries, as well as between product-makers/service-providers and authorities. Under its methodical and organizational management this system unites all existing quality monitoring bodies. It does not focus on enterprises and organizations, but overcomes their limits and includes the analysis of socioeconomic environments and needs of the population. It enables the collection of information from all stages of the production and consumption of products and services that allows for the continuous improvement of both the quality and the system itself.

Table 1

Examples of indexes of living standards in St. Petersburg

Category	Examples of indexes
Quality-of-life standard	
Demographic	– Birth rate; – Life expectancy; – Factor of natural increase (loss) of the population.
Incomes and expenditure of the population	– Ratio of monthly incomes per capita to living wage; – Share of residents with incomes below a living wage; – Share of expenditures on goods and service payments.
State of the society	– Human development index; – Crime rate; – Ratio of registered marriages and divorces.
Liveability standards	
Demography	– Share of economically active residents in total population; – Number of women of reproductive age; – Factor of population shift; – Rate of unemployment; – Share of youth, etc.
Territory	– Total territory; – Share of a residential zone and housing density; – Unused area; – Population density; – Share of commercial turnover territories, etc.
Economy and finance	– Gross regional product per capita; – Branch structure of gross added value; – Incomes and expenditures of budget; – Volume of investments into a fixed capital; – Ratio of wage fund and GRP, etc.
Fuel and energy complex	– Structure indexes of fuel and energy resources; – Indexes of efficiency of use of fuel and energy resources
Quality of environment	– Atmospheric pollution level; – Noise exposition above 65 DB and above 75 DB; – Percent of processed waste, etc.
Branch standards of living	
Quality of transport services	– Intervals of movement of land passenger transport; – Speed of transport streams at rush hours – Time of walking up to the nearest stop; – Equipment of roads with automated control systems.
Quality of public health services	– Availability of medical institutions; –Share of medical personnel in the population; – Rate of sickness of the population; –Share of residents undergoing regular medical examination.
Quality of educational services	– Availability of preschool establishments for children; – Number of students in primary, secondary and higher schools.
Quality of housing and communal services	– Time of elimination of malfunctions in housing and communal services; – Periodicity of general and partial inspections of elements and premises.
Quality of communication services	– Availability of stationary and mobile telecommunication; – Number of Internet users; – Average mail delivery time.
Quality of services in cultural and leisure spheres	– Number of spectator places, number of visits, number of establishments of culture (museums, theatres, cinemas, concert organizations, cultural and leisure establishments, libraries); – Availability of sports halls; – Availability of pools; – Share of paid sports services.
Quality of services of retailers	– Number of establishments in the territory (city, municipal district, district) – Availability of trading area; – Food availability; – Share of consumers addressing complaints to the consumer protection system in total consumer services.
Quality of services of public catering	– Number of establishments in the territory (city, municipal district, district) – Provision landing places; – Relative density addressed with complaints in system of protection of the rights of consumers in total of consumer services.
Quality of services of establishments of consumer services.	– Number of establishments in the territory (city, municipal district, district) – Provision of the population with services; – Share of consumers addressing complaints to the consumer protection system in total consumer services.

As has been said, the key objective of the multilevel system is to improve the population's quality of life **(Fig. 4)**. The system will also facilitate the achievement of high rates of socioeconomic development, create decent life conditions; provision the population with products and services of high quality, allow for the planning of actions in the field of quality management and support enterprises and organizations in their implementation.

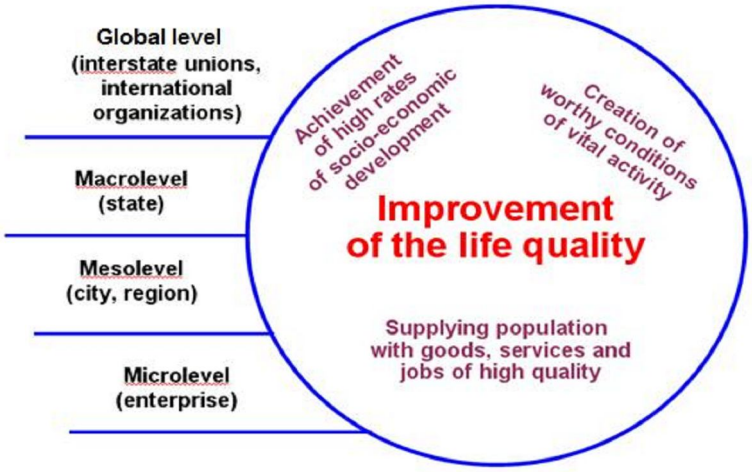

Fig. 4. Purposes of a multilevel quality management system

The system operates on four levels:
- micro-(enterprise);
- mezo-(municipal unit, subject of the Russian Federation);
- macro-(Federal District);
- mega-(interstate unions, international organizations).

At the enterprise level, the ISO 9000 management systems are being widely used as an effective tool. Currently, about 1 million of these systems are successfully implemented in 175 countries around the world.

Management systems are also actively being implemented at the municipal-district level. Today about 70 municipal authorities operate the management systems in compliance with the requirements of the international standard IWA 4:2009 "Quality management systems - Guidelines for the application of ISO 9001:2008 in local government".

As for the federal-district level, it is necessary to note, that the project for developing the multilevel quality management system is the first attempt at creating a tool that will make possible the integration of all management levels.

In its further development, the multilevel quality management system could reach the mega level and operate at the level of the international associations. This is especially urgent in terms of the globalizing economy.

The multilevel quality management system integrates education and science, innovations and manufacturing. Therefore, its introduction and effective operation will impact all aspects of scientific, technical and socioeconomic development, and the improvement of the country's quality of life.

The functioning of a multilevel quality management system is based on the international understanding of the term "quality of life" according to the United Nations Development Program (UNDP). Its basic idea is that the main objective of socio-economic progress is not the acceleration and development of the market economy, but the improvement of the human life quality.

The most frequently used indicator for assessing the quality of life is the *Human Development Index (HDI),* calculated by the UN method. HDI compares countries, regions or individual territories by the same parameter. Thus, Russia, according to UN data, in 1990, occupied the 29th position in the world. Then the quality of life, for known reasons, sharply worsened and only in recent years is a trend towards improvement it being observed. According to the data for 2010, Russia is included in the group of countries with high human development, leaving behind such countries as Kazakhstan, Azerbaijan, and Ukraine.

The Scandinavian countries traditionally occupy the first positions on the list. In 2002 Norway was the first, and Sweden – the second. A year later, Norway kept its world superiority, and Sweden moved down to the 6th position **(fig.5)**. It is interesting to note, that in 2010 Norway was the leader again, and Sweden slid down to the 9th position. Australia is second, New Zealand is third, and the USA is fourth.

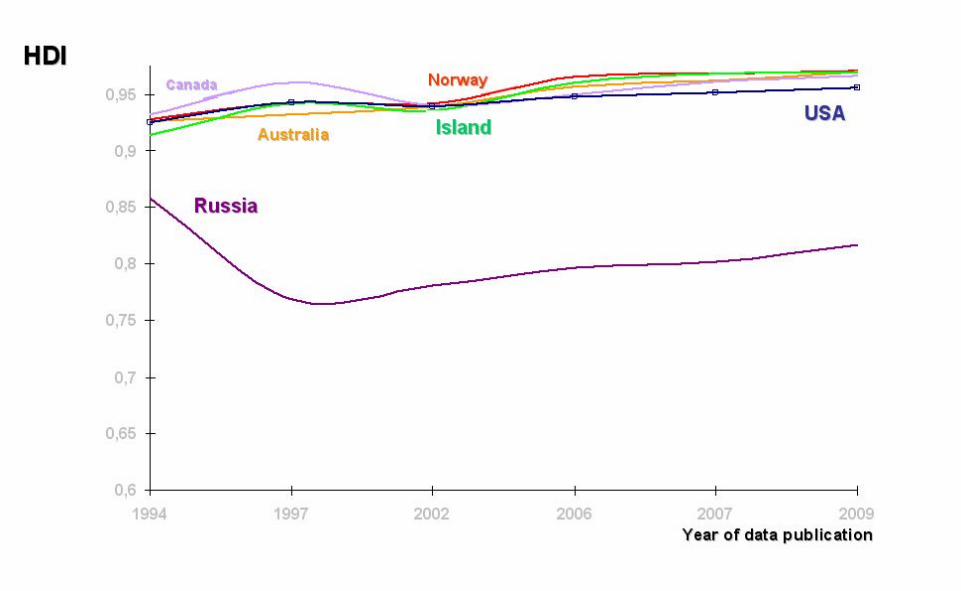

Fig. 5. Trends of HDI in developed countries

The countries of "BRIC" **(Fig. 6)** are of a special interest, since their actively emerging markets (and, consequently, the level of quality) have a growing impact on the global economy. As can be seen, only Brazil shows steady growth of the HDI, while China and India demonstrate recession, caused by the global crisis.

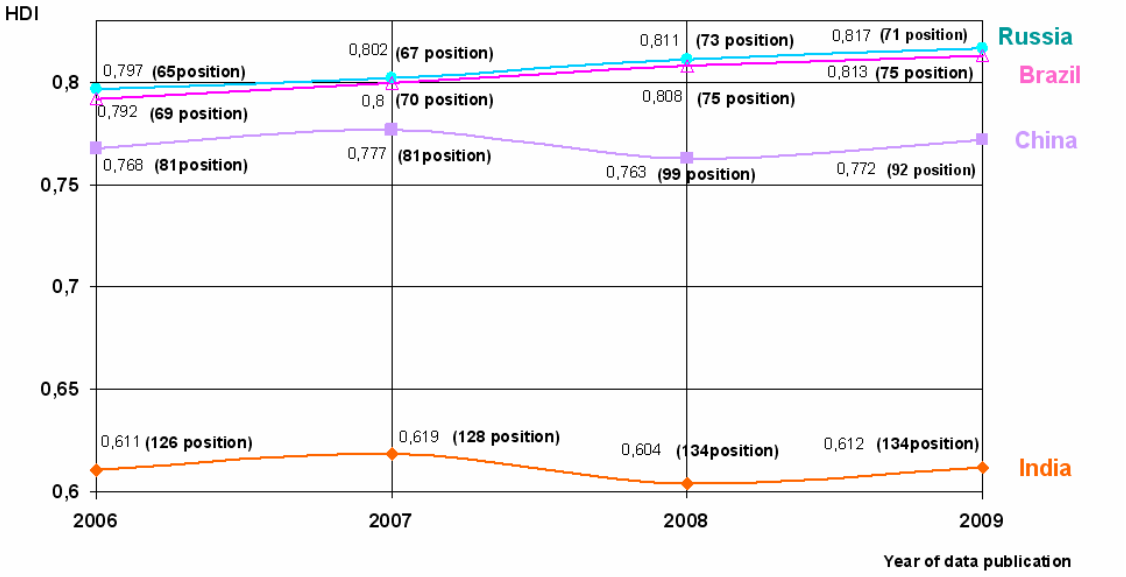

Fig. 6. Trends of HDI in "BRIC" countries

Solving the quality issues at the national level

The complexity and diversity of the quality of life issues and their interrelation with innovative processes requires coordinating the efforts of all the actors at the state level. The quality of life at the present stage has become the main criterion for the development of scientific, technical and human capacities of the country and for the achievement of its socio-economic security. Insuring a decent standard of living for the population shall become an unconditional priority of the government policy in general, as will the achievement of a quality of life equal to those of the advanced countries.

Therefore in the 21st century the strategy of any country shall be socially oriented. Substantial improvement of environmental conditions and the quality of life shall not only be the purpose, but also the basic criterion for undertaking economic policy measures.

Science, education, culture, high social standards, rational attitudes towards nature, physical and mental health, labor and business activity, are the key factors of economic growth in the 21st century. Investments in human beings become the most effective ones.

This problem can be solved by establishing the national quality management system **(Fig. 7)**, as an organizational part of the innovative system of the country, applied to the major economic sectors, including industry, nature, fuel and energy, transport and agro-industrial complexes, housing and communal services, information and communication, science and innovative activities and the tourism industry. Such a tool could greatly facilitate the neutralization of the harmful effects of the global crisis.

It is necessary to note, that the structure we recommend is based on the above universal principles and consists of blocks similar to those of the management systems at the levels of an enterprise and a region.

The "Input" of this system integrates the interests of the state in which the main role is played by quality: matters: economic, social, military, international, informational, environmental. They can be regarded as the societal needs.

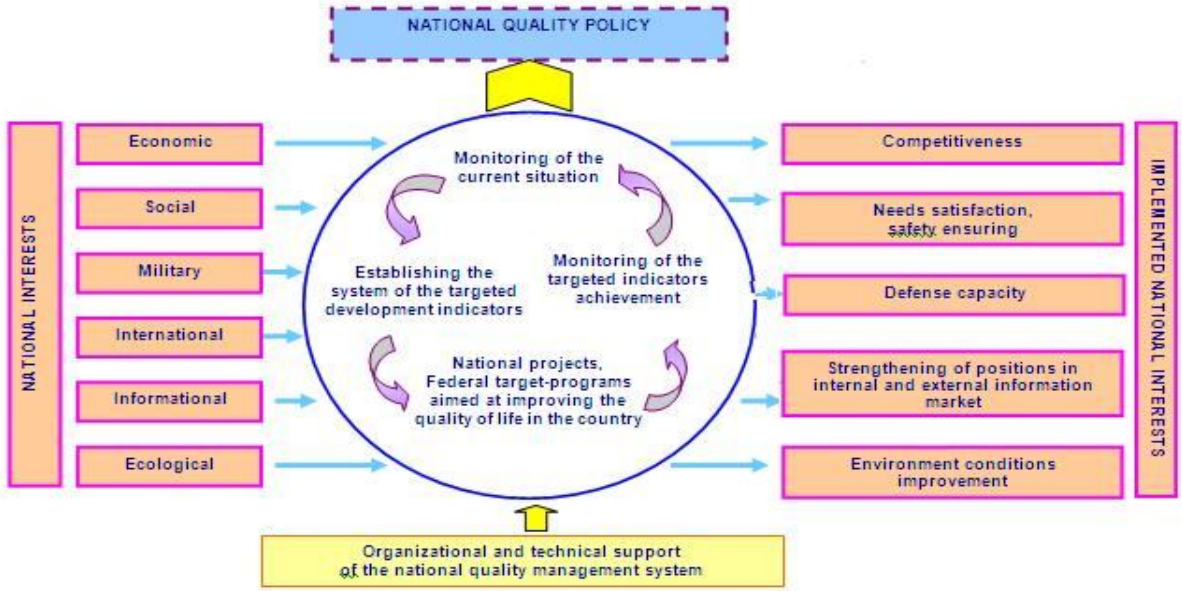

Fig. 7. National quality management system

The "Output" of the system integrates the results of the actualization of these state interests, namely: competitiveness, the satisfaction of society's needs, safety, defense, growth of national prestige in the world, the strengthening of positions on the internal and external information markets and environmental improvement.

At present, Russia is preparing for the implementation of a project establishing a national quality management system.

Summarizing the above, we come to the conclusion that the role of quality will be increasingly important in the subsequent development of our country and the whole of mankind for several reasons:

First, scientific and technological progress has caused a significant rise in the complexity of products and technologies.

Secondly, the globalization of the market has increased the competition of numerous manufacturers and caused them to search for new, additional ways to benefit in the market.

Thirdly, the needs of human society have considerably increased.

Summary

Currently, the economy for quality is well developed and has gained considerable practical experience and methodology in solving quality issues. The basic theoretical principles have been developed and the directions for further scientific research have been identified.

This science combines and synthesizes the knowledge, methods and techniques of many economic branches. At the same time, quality science is an independent scientific school focused on this independent subject of research.

This science combines concepts of economics as a tool for achieving certain outputs (for example, industrial) and the socio-psychological influence of human factors upon results. Therefore, quality management appears in the form of a set of functions, usually representing a management cycle, including motivations, control, organization of work, etc.

Quality science deals with the essential expansion of economic, social, spiritual, political, ecological, and other relevant areas. All these should be considered by economists when studying a quality problem.

Therefore when studying quality problems, it is necessary to expand the application of economic and mathematical tools, including mathematical statistics methods, probability theory, reliability, etc.

Moreover, it is necessary to mention the following directions of quality science development, which are most urgent at the present stage:

- Carrying out fundamental studies of quality problems, including monitoring and diagnosing matters related to economy, standardizations and metrology;
- Developing the action plans to implement national policy in the fields of improving the quality and competitiveness of products and services at all management levels;
- Understanding the correlation between quality-related activity and the industrial and social policy of the country;
- Improvement of legislation in regards to the quality and safety of products and services;
- Harmonization of the Russian standards with the international ones, introduction of the current international quality management standards;
- Further perfection of company assessment and self-assessment methodology, wide introduction of up-to-date quality management techniques;
- Development of a theoretical basis of risk of harmful products and search for optimum decisions in the field of product quality, processes and services;
- Development and introduction of a series of standards aimed at the improvement of quality of life;
- Development of a continuous quality education system, provision of scientific and methodical support of education of quality professionals at all levels.

The number of people enjoying at least the basic conditions of democracy and economic freedom is unprecedented in the history of civilization, despite the remaining communist one-party system in China and Vietnam as well as the existence of various forms of dictatorships in several other countries. Never before have individual freedoms and quality of life been valued highly by so many political and economic national and multilateral structures.

The general acceptance of democratic values, technological advancements (especially in communication), and international economic integration, have created an unprecedented level of global consciousness regarding human rights, cultural and religious tolerance, environmental protection, and other “quality of life” issues. This is at once both a cause and result of a new wave of increased political cooperation, economic integration, and the widespread dispersion of technological advancements, creating a virtuous cycle, leading to extraordinary improvements in the standard of living of most of the global population, despite the sad fact that the majority of the world’s people still live in poverty.

For the first time, the majority of nations are oriented toward the achievement of prosperity for their people and global cooperation. These processes lead to the formation of not only the GMP but also its very important subsystem, the global workplace, in which companies cooperate in development and production of goods and services. The products of this cooperation are marketed, advertised, distributed, and sold in the GMP. Increasing standards of living across the globe are largely a result of these integration processes. All of this is an incredible achievement of human civilization that cannot be overemphasized. Of course the world is far from perfect, and substantial segments of the world population do not enjoy these accomplishments. **Extending prosperity to these segments is one of the most formidable challenges facing contemporary civilization; attempts to solve these challenges are leading to the creation of a new global order.**