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Rovinj, Hrvatska/Croatia
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CROATIAN QUALITY MANAGERS SOCIETY

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14th International Symposium on Quality

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QUALITY AGAINST RECESSION

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QUALITY AS THE ANTI-CRISIS TOOL

KVALITETA KAO ANTIKRIZNI INSTRUMENT

Dr. sc. (Econ.), Prof. Vladimir Okrepilov
Full member of the Russian Academy of Sciences (academician),
Deputy Chairman of St. Petersburg Scientific Centre of RAS
General Director of State Centre TEST - ST.PETERSBURG (www.rustest.spb.ru)
St. Petersburg, Rusija/Russia
E-mail: okrepilov.v@gmail.com, E-mail: bsh.natalia@gmail.com

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ABSTRACT

The author considers and analyses quality management techniques and methods which allow the enhancement of the innovative activities efficiency, realization of the national interests, dynamical social and economic development, overcoming crisis effects. Special attention is given to the implementation of the quality management methodology on the higher levels of governance.

Key words: Quality management, innovations, national multilevel quality management system.

1. INTRODUCTION

Today’s environment of economic subjects operation has a number of significant features. Scientific and technical advancement leads to considerable complication of products and their manufacturing technology. Globalization of markets along with the severe competition among numerous commodity producers forces seeking for new additional factors providing success in the market. And the needs of society are considerably increasing.
Faced with acute challenges met by the mankind in any field - whether it be safety, ecology, or, say, education - we often have no clue that their solution lies in achieving high quality.

Since a customer makes the final choice of goods and services among the variety being in the market, the effective customer-focused strategy of business quality management aimed, above all, at the innovative development can become an "antidote" for any crisis effects occurring within economic organism of any state.

Quality-focused strategy acts as a kind of an immune system of any economic organism, be it a company or a national economy as a whole.

2. RESULTS OF THE RESEARCH

Following the above analogy, one can consider the crisis-related factors as the "microbes" attacking "an economic organism", which can be successfully fought only through "immunization" (Fig. 1).

Such quality management tools as standardization, metrology, product testing, implementation of management systems based on international standards, self-assessment based on the criteria of quality awards become particularly important and useful in the difficult economic situation. Their use in terms of the limited financing allows reducing production costs, saving resources, ensuring technological processes stability, improving the technical level and product quality, increasing demand and production volumes, and largely contributes to the innovations development.

Any innovation is a transition to a qualitatively new level of characteristics and parameters of an object that allows achieving a positive effect. The effect of innovations can be assessed through the use of the well-known methods of Total Quality Management (TQM).

The TQM-based tools are the universal ones. Being applied in different spheres, they can be used for assessment of various innovative projects. Among the most effective tools in the today’s environment, are: management systems, EFQM Excellence Model criteria, Standards of Living and indicators of Quality of Life.
Over the last 15 years in many countries, including Russia, companies have been using international standards of the ISO 9000 series as a basis for the establishment of quality management systems and their adaptation to the current or future marketplaces of business operation.

According to the latest official statistics of the International Organization for Standardization, the total number of certified ISO 9001:2008 quality management systems in the world is 1 109 905, and China (297037) occupies the first position, Italy (138892) – the second and Russia (62265) – the third one.

The widespread use of this model has been influenced and ensured by a rapidly growing trend towards the inclusion into relevant standards of the specific requirements covering such diverse and complex areas of activity as the aerospace industry, automotive industry, telecommunications, software, agriculture, healthcare, medical devices, oil and gas production and other sectors.

As is known, there are international standards for environmental protection, food safety, information security, occupational safety and even social responsibility.

Application of various management systems results in a significant organizational and economic effect for the companies. In most cases, it ensures the improvement of manageability and understanding of the processes, as well as the increased production efficiency and customer satisfaction.
However, the establishment of QMS itself is not enough. It is necessary to regularly assess its effectiveness in order to find ways of its further improvement, which can be done through the evaluation against the EFQM Excellence Model criteria developed in 1991 by the experts of the European Foundation for Quality Management (EFQM).

Model criteria represent the factors which allow a company to objectively assess its own capabilities and business success, as well as to identify the areas of further development in order to achieve a more efficient manufacturing, better product quality and competitiveness.

Since 2006 the EFQM Excellence Model is the most prestigious European award for business excellence of organizations. Among 306 winners, awarded within 1992–2012, there are large companies, such as Bosch, BMW and Coca-Cola, as well as the medical clinics, municipal hospitals and many other authoritative public organizations.

However, the quality issue is so multifaceted and complex, that it cannot be solved at a level of an individual company. There is a need for synergy, partnerships between companies and organizations, implementation of quality management methodology on the higher levels of governance – municipal, regional, federal ones.

Thus, at the municipal level, as the closest one to the people and business community, establishment of a quality management system ensures that the needs and expectations of citizens are met in a better way. It can be provided through the implementation of an international document IWA 4:2009 “Quality management systems - Guidelines for the application of ISO 9001:2008 in local government” as a methodological basis. Examples of the relevant systems being implemented already exist in the administrations of Austria, Spain, Romania, Italy, Poland, Germany, etc.

Such work in the field of quality management contributes to the formation and maintenance of public confidence in state institutions. At the end, one of the most important national tasks is being achieved, which is the improvement of customer satisfaction and quality of life.

Relevant works are being carried out in Russia as well. In particular, in the late 90’s in such a large metropolitan area like St. Petersburg a city’s quality management system was developed.

The core of the system consists of the scientific, technical and socio-economic programs, being implemented in the city, as well as the standards of living and quality of life. They are being developed in order to achieve the targeted indicators that are being established based on the monitoring of the current situation and scientific projections.
Standards of living and quality of life are approved by the Law of St. Petersburg, and include:

- standards of living - a set of the requirements to the living quality of St. Petersburg population, which the executive bodies of the city government aim to fulfill;
- standard of population life quality - requirements to the level of consumption of material benefits, services and satisfaction of the spiritual needs of the citizens;
- standard of ensuring the life activity - requirements to the structure, amount and effectiveness of the use of demographic, territorial, economic, fuel, energy, environmental and other resources;
- industry standards of living - requirements to the population living quality, aimed at ensuring the social effectiveness and availability of the industry infrastructure, as well as the quality of its services.

Special attention is paid to the industry standards of living in the most important areas of life such as healthcare, housing, education and transport. Their performance is evaluated through monitoring and results of such control are a good basis for the formation of the city budget for the relevant items.

However, the complexity and diversity of the quality issues and their interrelation with the innovation processes requires coordination of efforts among all parties at the federal level. The solution of this problem lies in the establishment of a national multi-level quality management system as an organizational part of the country’s innovation system.

Establishment of such a tool for managing the critical economy sectors, including the banking sector, would largely facilitate the elimination of the harmful global crisis effects.

Functional scheme of the proposed system is shown in Figure 2.

“Inputs” of the system are the state interests, aimed at solving the most pressing problems, and quality issues play an important role in this relation.

“Outputs” of the system are the results of implementing the above public interests, namely the reduction of resource and energy intensity of economic activity, product quality improvement, minimization of the economic, technological, social risks, increased population incomes.

The above results will be achieved if the mechanism of a national system, consisting of the following four units, works:

- monitoring of the current situation and identification of targeted indicators of development;
- development of national projects, federal targeted programs;
- control of the targeted indicators achievement;
- carrying out of the corrective actions.

The first unit: based on the monitoring results and data, targeted indicators of development are being generated for various areas and fields of activities, which affect the results of country's socio-economic development and citizens' life quality.

The second unit: of the system is represented by the set of basic documents to be implemented, namely, national projects and federal targeted programs.

Indicators contained in those documents are intended at the improvement of the life quality of all Russian citizens to a new level, gradually bringing it closer to the international standards.

The third unit: is formed by the mechanisms for controlling the execution of programs and achievement of targeted indicators, representing a network of control and analytical cells.

The fourth unit: of the system consists of the action plans on the improvement of the multi-level quality management system.
Figure 2. Functional scheme of multilevel quality management system

Source: The authors’ own.
3. CONCLUSION

Management cycle begins and ends with the monitoring of the situation, including the assessment of the state of affairs, positive and negative results of implementing current indicators, plans for socio-economic development and all approved programs.

Implementation of the proposed system at all levels of governance (from a company to a country) is a necessary condition for an effective solution of the problem on improving the life quality of the Russian society. Its creation will enhance the efficiency of innovation activities and realization of the national interests of Russia, provide a dynamic socio-economic development and ensure the crisis overcoming.

Implementation of the above techniques and tools allows providing the necessary environment for the effective solution of the quality-related problems. They will provide the enhancement of the innovative activities efficiency, realization of the national interests, dynamical social and economic development, overcoming of any crisis and the possibility to achieve a world-class level in quality matters.

Sažetak:

**KVALITETA KAO ANTIKRIZNI INSTRUMENT**

*Autor razmatra i analizira tehnike upravljanja kvalitetom i metode koje će omogućiti povećanje učinkovitost inovativnih aktivnosti, ostvarivanje nacionalnih interesa, dinamičan društveni i ekonomski razvoj, prevladavanje posljedica krize. Posebna pozornost usmjerenja je na implementaciju metodologije upravljanja kvalitetom na višim razinama vlasti.*

**Ključne riječi:** upravljanje kvalitetom, inovacije, nacionalni višerazinski sustav upravljanja kvalitetom.

4. LITERATURE

3. ISO 22000 - Food safety management systems - Requirements for any organization in the food chain.