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THE MODERN APPROACHES TO QUALITY MANAGEMENT AS A NECESSITY TO USE IN NATIONAL ENTERPRISES

СУЧАСНІ ПІДХОДИ ДО УПРАВЛІННЯ ЯКОСТІ ЯК НЕОБХІДНОСТІ ВИКОРИСТОВУВАТИ В НАЦІОНАЛЬНИХ ПІДПРИЄМСТВАХ

This article is devoted to the benefits of implementing total quality management in modern enterprises. The relevance of the development and implementation of new approaches to enterprise management is determined by many factors: the complexity and uncertainty of the external environment, the change in management models and methods associated with the informatization of society, the change in the management paradigm and others. Enterprises of the Republic of Moldova are also in a difficult position due to geopolitical and migration processes. The principles of universal quality management developed back in the mid-20th century are reflected in the ISO standards implemented by companies around the world. The implementation of these standards puts enterprises at a level higher than others and sets them apart favourably in the international arena.

Keywords: quality, standard, general quality management, competitiveness, competitive advantages, process, business process, ISO.

Дана стаття присвячена перевагам впровадження тотального менеджменту якості на сучасних підприємствах. Успішно застосовуючи принципи, які є основою цього підходу, багато компаній з усього світу переглянули свої позиції щодо конкурентів. Концептуальні засади якості були покладені ще в кінці 19-початку 20 століття. На сьогоднішній день багато принципів діяльності застаріли. Актуальність розробки і впровадження нових підходів до управління підприємством обумовлена багатьма факторами: складність і невизначеність зовнішнього середовища, зміна моделей і методів управління, пов'язаних з інформатизацією суспільства, зміна парадигми управління та іншими. Нестабільність політичної та економічної ситуації в Республіці Молдова поглиблюють проблеми функціонування підприємств. Найчастіше багато молдавські компанії задаються питаннями підвищення рівня кількісних показників, що характеризують рівень управління: продуктивності, прибутковості, рентабельності, ліквідності. У той же час, якісні, або незмірні, слабо вимірні показники, відіграють величезну роль. Це, в першу чергу, задоволення унікальних потреб клієнтів, додатковий рівень сервісу, ставлення до соціальної відповідальності, екологічність, турбота про навколишнє середовище, задоволення потреб персоналу, просування по кар'єрних сходах, сучасні підходи до лідерства, командоутворення. Всі ці моменти не можуть залишитися без уваги. Підприємства Республіки Молдова знаходяться в скрутному становищі ще й через геополітичних і міграційних процесів. Принципи загального менеджменту якості, розроблені ще в середині 20 століття, знайшли своє відображення в стандартах ISO, які впроваджують компанії по всьому світу. Дані стандарти дозволяють «налагодити» бізнес-процеси організацій і зробити їх клієнто-орієнтованими. Республіка Молдова ще в 2015 році взяла курс на «Сталий розвиток», тому багато державних політики та галузеві регламенти також орієнтуються на дотримання зазначених стандартів в різних областях діяльності. Впровадження цих стандартів ставить підприємства на рівень вище інших, вирішує різні проблеми, передбачає потенційно можливі проблеми, і, в кінцевому рахунку, вигідно їх виділяє на міжнародній арені.

Ключові слова: якість, стандарт, загальне управління якістю, конкурентоспроможність, конкурентні переваги, процес, бізнес-процес, ISO.

Данная статья посвящена преимуществам внедрения тотального менеджмента качества на современных предприятиях. Актуальность разработки и внедрения новых подходов к управлению предприятием обусловлена многими факторами: сложность и неопределенность внешней среды, изменение моделей и методов управления, связанных с информатизацией общества, изменение парадигмы управления и другими. Предприятия Республики Молдова находятся в затруднительном положении еще и по причине гео-

политических и миграционных процессов. Республика Молдова еще в 2015 году взяла курс на «Устойчивое развитие», поэтому многие государственные политики и отраслевые регламенты также ориентируются на соблюдение указанных стандартов в различных областях деятельности. Принципы всеобщего менеджмента качества, разработанные еще в середине 20 века, нашли свое отражение в стандартах ISO, которые внедряют компании по всему миру. Внедрение этих стандартов ставит предприятия на уровень выше других и выгодно их выделяет на международной арене.

Ключевые слова: качество, стандарт, общее управление качеством, конкурентоспособность, конкурентные преимущества, процесс, бизнес-процесс, ISO.

Introduction. The development of a quality concept has a long history. Even in antiquity, philosophers and scientists tried to define this concept from various perspectives. For example, Aristotle associated with quality “the property of a certain object to be what it should be.” During the industrial revolution, a quality concept began to be thought of in terms of compliance with any characteristics. Most often, these definitions boiled down to the concepts of good-bad, consistent-inconsistent [1].

With the development of business, the very attitude to quality is developing. At the same time, the attitude to quality management differs in many respects from modern approaches as a result of labour, which will be discussed in this article.

Formulation of the problem. Modern Moldovan enterprises are influenced by many factors. Firstly, the uncertain external environment – internal and external competitors, secondly, a complex geopolitical environment, which has a negative impact on the investment climate in the Republic of Moldova, thirdly, the need to use new management methods, given the increased informatization of society.

To increase competitiveness, many companies around the world are introducing various quality systems that are aimed at the multilateral rethinking of business.

Formulation of objectives of the article. Firstly, to analyse the concept of quality in an evolutionary context, secondly, to consider the principles of Total Quality Management, thirdly, to justify the need to apply the principles of universal quality management at enterprises of the Republic of Moldova.

The approach to quality as an enterprise management system determines the importance of understanding and applying the principles of total quality at modern Moldovan enterprises, which strive to increase competitiveness and to strengthen their positions in national and foreign markets.

Research analysis. The evolution of quality management as a systems science is most often associated with the emergence of management science itself, that is, with the works of Frederick Taylor and representatives of his School of Scientific Management, that is, the period of the late 19th and early 20th centuries. During this period, the emphasis was on improving the productivity and efficiency of organizations through the management of technical processes. The era of Taylorism has brought a lot to the enterprise management processes, in particular, many of the management principles developed by Taylor are still applied today.

At the same time, the further development of management science has influenced the work of scientists in the field of quality. The next period was largely devoted to human relations in management and behavioural sciences in management. This is the period when the first

concepts in the field of quality management appeared – the 1920s–1950s.

The dissemination of statistical methods of quality control SQC – *Statistical Quality Control*. At the same time, quality comes down to a greater extent to check the conformity of goods, materials, finished products to basic products, or to a standard [2; 3].

The next stage of quality management is associated with the works of the quality management guru – E. Deming, J. Juran, Ph. Crosby, K. Isikawa, A. Feigenbaum. The concept of quality is widely disseminated in cross-country contexts. Japanese methods of quality management are widely popular. During this period, the following concepts appear and become popular [2; 3; 4; 5]:

- **TQC (Total Quality Control)**, concept author – A. Feigenbaum;
- **QC (Quality Circles)**, concept author – G. Taguti;
- **CWQC (Company Wide Quality Control)**, concept author – K. Ishikawa;
- **QFD (Quality Function Deployment)**, concept authors – Yoji Akao and Shigeru Mizuno;
- **ZD (Zero Defect)**, concept author – Philip Crosby.

During this period, the principles and methods of quality management begin to acquire a systemic character, quality is associated not only with input and output concepts but also with processes occurring in enterprises. Quality becomes the most important task of both each unit, contractor and the organization as a whole. Such an understanding in management philosophy is being formed closer to the 1980s. These trends served as prerequisites for the emergence of the next stage, which is still gaining momentum.

Results and discussions (statement of the main material). The concept of TQM (Total Quality Management), which originated in the 1960s, is associated with the implementation and implementation of a quality policy at all stages of company development and in all divisions. It was widely used in the 1980s and to this day is the basic concept for most quality standards.

TQM principles today are the basis for the formation of quality policies of many companies around the world.

The principles of TQM are presented in Table 1.

Considering the features of the TQM philosophy, the advantages associated with the implementation of quality systems are becoming obvious.

Debugged processes, customer focus, loss minimization, and many other advantages distinguish companies that have implemented these methods from the rest. Therefore, today, these concepts are becoming increasingly popular.

To improve the process of developing and maintaining quality management systems, the **International Organization for Standardization (ISO)** was created.

Table 1

Total Quality Management Principles

Principle number	Principle of TQM	Description
1	Focus on the customer	The whole company system is reduced to the main indicator of efficiency – customer satisfaction, therefore, when developing standards, any process should be considered through the prism of highest customer satisfaction, whether it is a product, service, or any other action.
2	Leadership role	The quality policy should be developed and approved by a higher authority, management should provide all the necessary processes for planning, organizing, motivating staff, as well as monitoring the implementation in the implementation of quality-related programs.
3	Employee Engagement	When a company introduces TQM, absolutely all employees must participate in the implementation of the principles of the system, otherwise, this will not lead to the desired result, since the result depends on each individual and on the system as a whole.
4	Process approach	The new philosophy implies new organizational structures that are focused on the process, rather than on separate disparate functions, the process is a lot of interconnected stages, ultimately with access to the client.
5	System approach to management	The organization is a system of interconnected elements. Changes that occur in one element will immediately lead to changes in others, so the implementation and implementation of quality systems will affect all elements of the system.
6	Continuous improvement	In organizations that implement quality systems, there should always be a place for innovation, cardinal or not significant, only with openness to innovation, the system can develop harmoniously.
7	Factual approach to decision-making	Decisions are made only if reliable information is available, whether it is an internal inspection, for example, about the percentage of defective products in an enterprise, or an external analysis, for example, a study of customer requirements.
8	Mutually beneficial supplier relationships	Suppliers are at the initial stage of the entire business process, the quality of the whole process will depend on the quality of their deliveries, timeliness, additional properties of the products.
9	Minimization of losses associated with poor quality work	The reasons for the quality mismatch must be carefully analysed and eliminated. Given that poor-quality work increases the costs of the enterprise, even when planning, if possible, it is necessary to reduce these costs.

Source: developed by the author according to the results of a literature study [1; 2; 3; 4]

The ISO story began in 1946 when delegates from 25 countries met at the Institute of Civil Engineers in London and decided to create a new international organization ‘to facilitate the international coordination and unification of industrial standards.’ On February 28, 1947, the new organization, ISO, officially began operations.

ISO is an independent, non-governmental international organization with a membership of 164 national standards bodies. Through its members, it brings together experts to share knowledge and develop voluntary, consensus-based, market relevant International Standards that support innovation and provide solutions to global challenges [6]. Table 2 shows the popularity of standards and their application areas.

At the end of 2018, the national standards bodies (NSBs) from 162 countries were part of ISO’s worldwide membership: 120 NSBs were full members, 39 NSBs were correspondent members, and 3 NSBs were subscriber members. Record number published in 2018 – 1637 standards [5].

The Republic of Moldova has got in a path of transformation since the late 90s. By this period, national enterprises began to develop both the form of ownership and the principles of activity.

In September 2015, the UN member states, including the Republic of Moldova, adopted the Declaration

of Sustainable Development Summit by which have committed to implement the 2030 Agenda for Sustainable Development. Thus, during the next 15 years, countries will have to mobilise their efforts to eradicate all forms of poverty, to combat inequalities, and to address the climate change problems, making sure that no one is left behind.[8]

In this context, the application of the principles of Total Quality Management is one of the key components for the implementation of the plans. The introduction of ISO standards should help the enterprises of the Republic of Moldova to improve the management system in all areas and thereby stand out internationally. It should be noted that ISO standards are designed for a huge number of areas and directions in the enterprise and affect absolutely all areas of the Sustainable Development Program.

Conclusions. Until recently, there were no specialized organizations for the development and implementation of standards in the Republic of Moldova. Today there are more and more of them. They specialize in the implementation of basic quality standards – ISO 9001, ISO 14000, ISO 22000, as well as more specialized ones. Their introduction will help enterprises to overcome various existing crisis phenomena, problems with competitiveness, and also to reach higher quality and prestigious level.

Table 2

Areas of Iso Standards by Technical Sector for 2018 [5]

Area of implementation	% of the total standards
FORMATION TECHNOLOGY, GRAPHICS AND PHOTOGRAPHY	21,7
MECHANICAL ENGINEERING	15,6
TRANSPORT	12,4
NON-METALLIC MATERIALS	9,1
HEALTH, MEDICINE AND LABORATORY EQUIPMENT	6,4
BUILDING AND CONSTRUCTION	5,6
FOOD AND AGRICULTURE	5,3
ORES AND METALS	4,8
CHEMICALS	3,8
SPECIAL TECHNOLOGIES	3,6
SUSTAINABILITY AND ENVIRONMENT	3,2
ENERGY	3,2
HORIZONTAL SUBJECTS	3,1
FREIGHT, PACKAGING AND DISTRIBUTION	1,0
SERVICES	0,6
BUSINESS MANAGEMENT AND INNOVATION	0,2
SECURITY, SAFETY AND RISK	0,1
OTHERS (UNDER TMB)	0,3

Source: compiled by the author according to the results of the Annual Report 2018 of the ISO Organization [7]

Bibliography:

1. Шибкова О.С. Категория «качество» в учении Аристотеля и его последователей. III Международные Бодуэновские чтения: И.А. Бодуэн де Куртенэ и современные проблемы теоретического и прикладного языкознания : материалы конференции, Казань, 23-25 мая 2006 г, Казань, 2006. С. 189-191.
2. Глухов В.В., Гасюк Д.П. Управление качеством. Санкт-Петербург, 2015, 384 с.
3. Огвоздин В. Ю. Управление качеством. Основы теории и практики. Москва, 2009, 304 с.
4. Joseph M. Juran. Juran on planning for quality. Michigan, 1988, p.341
5. Joseph M. Juran. Juran on Leadership for Quality: An Executive Handbook. Michigan, 1989, p.376.
6. ISO: about us, <https://www.iso.org/about-us.html> (accessed 16.10.2019)
7. Annual Report 2018 https://www.iso.org/files/live/sites/isoorg/files/about%20ISO/annual_reports/en/annual_report_2018_en.pdf (accessed 16.10.2019)
8. Ghid privind naționalizarea Obiectivelor de Dezvoltare Durabilă: https://www.md.undp.org/content/dam/moldova/docs/Publications/Toolkit_UNU_RO.pdf (accessed 16.10.2019)

References:

1. Shibkova O.S. Kategoriya "kachestvo" v uchenii Aristotelya i ego posledovateley. [The category of "quality" in the teachings of Aristotle and his followers]. III International Baudouin Readings: I.A. Baudouin de Courtenay and contemporary problems of theoretical and applied linguistics: conference proceedings, Kazan, May 23–25, 2006, Kazan, 2006. P.189-191 (In Russian)
2. Glukhov V.V., Gasyuk D.P. Upravleniye kachestvom. [Quality management]. Sankt-Petersburg, 2015, 384 s. (In Russian)
3. Ogvozdin V. YU. Upravleniye kachestvom. Osnovy teorii i praktiki. [Quality management. Fundamentals of theory and practice]. Moskow, 2009, 304 s. (In russian)
4. Joseph M. Juran. Juran on planning for quality. Michigan, 1988, p.341
5. Joseph M. Juran. Juran on Leadership for Quality: An Executive Handbook. Michigan, 1989, p.376.
6. ISO: about us, <https://www.iso.org/about-us.html> (accessed 16.10.2019)
7. Annual Report 2018 https://www.iso.org/files/live/sites/isoorg/files/about%20ISO/annual_reports/en/annual_report_2018_en.pdf (accessed 16.10.2019)
8. Ghid privind naționalizarea Obiectivelor de Dezvoltare Durabilă [Guide on the nationalization of the Sustainable Development Goals]: https://www.md.undp.org/content/dam/moldova/docs/Publications/Toolkit_UNU_RO.pdf (accessed 16.10.2019)