

УДК 334

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THEORETICAL ASPECTS OF TOTAL QUALITY MANAGEMENT IN SMALL AND MEDIUM-SIZED ENTERPRISES

In the phase of globalization and internationalization, businesses and organizations around the globe have launched Total Quality Management programs in an endeavor to gain or remain competitive in this dynamic business environment. Herein, this paper focuses on the role of total quality management, as a management tool effect on small and medium-sized enterprises as far as performance measurement is concerned. Total quality management standard helps companies of all types and sizes to work more efficiently, increase productivity and expand into new markets. For small and medium-sized enterprises, such benefits can have a significant impact on the annual turnover, in some cases, determining the economic success or failure.

In this article questions of the following nature are considered: importance of economy of small and medium scale enterprises in activity of the state, the overview of modern (alternative) concepts of quality management, use of a quality management system on small and medium enterprises.

Key words: Total Quality Management, small and medium enterprises, management.

Introduction. The creation of a favorable business climate for entrepreneurship is becoming a key issue not only for the small and medium-sized enterprises (SME) sector, but also for the economy as a whole.

Any excessive administrative pressure (the introduction of administrative barriers) to SMEs not only directly affects the activity of this kind of enterprises (an increase of direct and indirect costs), but also the most direct way is blocking positive externalities for the economy and social sphere of the country.

It is necessary to emphasize the regional dimension of small businesses. Low economy is a genuine basis of the market economy in the region. Small business brings considerable income to the local budget. In turn, small businesses are very interested in close and effective cooperation with the authorities on the ground, as most of the problems of small businesses development is connected with the decision of issues of regional and local importance.

At the present level of development of the concept of “quality” is considered as a complex component, which includes the quality of the final product, the quality of management, quality of deliveries or work, the quality of life of people (employees) and society as a whole. Quality management – is coordinated and interconnected management activities, which was built in such a way as to ensure safe and smooth operation of the organization. Quality management includes four basic components: quality control; quality assurance; quality planning; quality improvement. The understanding and rational use of these components contributes to the achievement of good results of activity of small and medium enterprises.

In recent years, all SMEs achieve certain results and are increasingly out with their products on the economic market. For one of the strengths

of the company include the development of an innovative product and competently carried out the marketing policy, thanks to which is possible to find and to find its niche among consumers. Unlike its major competitors, manufacturers, small business has the competitive advantages such as: mobility, flexibility of response to demand closer to the consumer, management efficiency and decision making, the ability to more rapidly move forward, has the ability to rebuild, fast susceptibility to all new and innovation.

Role of SMEs. SMEs play a significant, largely irreplaceable role in solving the most pressing economic and social challenges facing the transformation economy. SME has a number of socially significant functions, the implementation of which it has advantages in comparison with other economic actors.

First of all, SMEs make a significant contribution to the stabilization of the social situation in the country, solving the most acute problems associated with social tensions and employment, without requiring a significant investment on the part of the state budget. SME manufactures and supplies a wide range of goods and services, creating new markets (so, is expanding the range of goods and services). SME promotes overall economic efficiency, acting as a subcontractor, supplier of large enterprises [1].

SMEs helps reduce the transaction costs of interaction of subjects of the market, reacting quickly and flexibly to changes in the external environment, dynamically changing needs and requirements of different customer groups (proximity to the consumer, information openness).

The results of the implementation of the described benefits of SME entities in nature are positive externalities for other social groups that increase the total social welfare.

Small and medium business is one of the cornerstones of a modern market economy in most developed and developing countries.

For example, a small business in the EU – is: 90% of the total number of enterprises; 50% of the total turnover and value added; 70% of the total employed population. In USA: 54% of all employees; 35% of net income. In Japan, the share of enterprises employing up to 300 people (99.5% of all enterprises) account for 78% of employment and 52% of all sales. The share of small and medium-sized businesses in the US GDP – 52% of the EU – 67%, Japan – 55% [2].

In fact, small businesses in developed countries is not only one of the key economic forces that are essential to sustainable economic development. Given the number of economically active population employed in this sector, small businesses – the backbone, which is based on, first of all, the stability of the political situation in the country. It is, in fact, is the middle class, without which, as we know, it is impossible to ensure political and economic stability in the society.

Well this understanding, the management of all pays close attention to the support of small business, without exception, developed and developing countries.

According to experts estimate that the contribution of the SME sector to the economy, job creation and security will be significant, if the proportion of small enterprises in employment and the creation of added value exceeds a threshold of approximately 40 percent. In this case, again created enterprises will be able to master resources released the “old” sector, and to contribute to sustainable economic growth. It is not enough to have only a small number of highly productive small enterprises. Without a rapid increase in the share of total employment in small businesses will not be able to achieve the critical mass needed to ensure the total economic development.

Quality management is closely linked with the names of many scientists and engineers who have made a significant contribution to the quality problems. The works of a number of them were “catalysts” transition of quality management for the next phase of its development.

Concept of Total quality management (TQM).

At the present stage of development of quality management has a high theoretical framework that incorporates elements of many sciences. However, since the emergence of the present day quality management is an applied science. Its main task – to plan, create and provide high quality results (products, management, processes, infrastructure, environment, etc.). The solution to this problem is provided by creating applied systems, which are implemented and work in different companies.

The most famous and popular systems that quality management involves to date are:

1. ISO 9000 – quality management system based on international standards ISO 9000. This is one of the most popular and formal systems. It focuses on the strict regulation of activities, a clear interaction of employees and continuous improvement of individual subsystems, and the organization as a whole.

2. TQM (Total quality management) – this is a system and philosophy of management at the same time. The most popular and widespread uses TQM in Japan, where it was developed. The basis of TQM concepts lie Deming, Juran, Crosby, etc. The main principle on which is based management system. It is the principle of improvement of all that can be improved in the company. Strictly formal requirements (for example, in ISO 9000), which should be constructed a system does not exist.

3. Premium Quality – can be considered as yet another embodiment of the quality system. Different countries have their Quality Award, for example, the Deming Prize, Award Baldrige, EFQM (European Foundation for Quality Management). Prizes are awarded only to the best organizations that meet the award criteria. A set of criteria is wide enough, and in order to meet these criteria, the organization must apply different methods of quality management.

4. 6 sigma – method of improving the quality of the organization's processes. It focuses on identifying and removing the causes of the various inconsistencies and defects. Method 6 is a set of sigma quality tools and strategies. It was originally developed and applied in of Motorola, and has gained popularity since the late 80s of the 20th century. The methodology 6 sigma are working Taguchi.

5. Lean Manufacturing (Lean manufacturing, lean production) – is a set of production practices, the use of which helps reduce costs and improve the quality of the final product. The concept of lean manufacturing is the principle by which the expenditure of any kind was the organization's resources must be directed only to the creation of value for the end user. Accordingly, any resource consumption, which does not increase the value, should be reduced. To do this, use a set of different methods, techniques and quality management tools. The concept of lean manufacturing and distribution became famous after the publication of information on the Toyota Production System in the early 90s of the 20th century. The basis of this concept is the work of Shigeo Shingo.

6. Kaizen – philosophy and set of practices aimed at continuous improvement of the organization's processes. This is a Japanese term that means striving for the best. Kaizen took shape as a sys-

tematic approach to improving the performance since the beginning of the 50s and is one of the basic approaches in the TQM system. The essence of this approach is to perform even small and minor improvements, but to implement them consistently (daily). As a result, over time, a large number of minor improvements will lead to a major improvement. In this regard, it expresses Kaizen known dialectic law of transformation of quantity into quality.

7. Best practices – a set of methods and techniques that allow you to get high quality results. Under the quality of the result meant the best in the industry. Dissemination of best practices since the early 90s of the 20th century. Typically, they are formed as a collection or standards. It contains requirements for the application of different methods in these standards, including quality management [3].

In TQM significantly increases the role of human and training. Motivation reaches the point where people are so passionate about the work that the refuse of the holiday, stay at work, continue to work at home. A new type of workers – hard workers. Education becomes inclusive and continuous accompanying workers throughout their working life. Significantly altered forms of learning, becoming more active – use business games, special tests, computer techniques, etc. Education and turns into a part of the motivation for a well-trained person feels confident in the team, is able to be the leader, has the advantages of his career. Develops and uses special methods of development of creative abilities of employees.

On the relationship between suppliers and customers has a strong influence quality system certification for compliance with ISO 9000. The main target the installation of quality systems that are based on ISO 9000, – ensuring the quality of products required by the customer, and to provide evidence of his company's ability to do so. Accordingly, the mechanism of the system, applied methods and tools focused on this goal. However, in the ISO 9000 series of standards, target setting on cost-effectiveness is expressed very poorly, and on-time delivery is simply not available.

But despite the fact that the system does not solve all the tasks needed to ensure competitiveness, its popularity is growing like an avalanche, and today it has a strong place in the market mechanism. The external sign of whether the enterprise quality management system in accordance with ISO 9000 standards, is certified in the system.

As a result, in many cases the existence of the enterprise quality system certificate has become one of the basic conditions for its admission to the tenders for participation in various projects. Widespread use of the certificate for quality manage-

ment system found in the insurance business: since its presence indicates the reliability of the enterprise, the enterprise often given preferential insurance terms.

For successful operation of companies on the market that they have a quality system according to ISO 9000 standards, and the certificate it is, perhaps, not quite sufficient, but a necessary condition. Therefore, in Russia there are already dozens of companies that have implemented ISO 9000 standards and have certificates for its quality system. The greater the degree of TQM approaches set forth in ISO 9004: 2000, which are the methodical manual on the application of the quality system. ISO 9001: 2000 contains the minimum requirements for customer satisfaction.

The main difference from TQM ISO 9000 series is that TQM is the pinnacle of modern methods of quality management focused on increasing the quality of the products at the existing level, and the implementation of standards ISO 9000 is more focused on reducing the probability to do something wrong.

Quality – a versatile concept that determines the effectiveness of all aspects of the activity: the development of the strategy, organization of production, marketing, human resources, etc. For quality management as an object has all the basic components of management: planning, analysis, control, special units, to coordinate the work on quality management can be provided in the company's organizational structure. The distribution of the special quality control functions between the units depends on the size and nature of the firm.

TQM at the SME. Experience in the implementation of TQM in the small business problems and errors indicate a lot of pitfalls that today impede the adequate perception of the new business philosophy.

Thus, the experience of developing countries can be regarded as one of the stages of evolutionary development of TQM philosophy in Russian business, provided a clear understanding of the fact that the driving force behind the quality of the movement were the interests of the state, unlike the West, where the determinant is the customer and his interests. In addition, the experience of developing countries formed a school, preparing the specialists in the field of quality, which is both a huge advantage and pitfalls in the implementation of TQM implementation problems in countries with economies in transition.

Approach to the quality of both the standards set exhausted, modern management of quality has long gone beyond the mathematics and statistics, and in terms of quality requirements to a specialist – a knowledge of economics and management.

However, to this day area of interest and competence of SMEs in quality is often limited to a decrease in the number of specialists defects, improve product reliability, so the production of technical components.

As already mentioned above, many approaches to improve the organization of the control system and increase its competitiveness based on TQM principles. Some modern approaches already used in small and medium business. This ISO 9000 in the field of premium quality, benchmarking, self-esteem. How effective are these techniques and tools? The answer may not be unique. Approaches perfection arise evolutionarily and have methodological and practical base. Managers of foreign companies perceive customer orientation, continuous improvement, process approach, involvement and commitment of employees, social responsibility as an integral business principles. In Russia the business, these principles are introduced artificially, so the problem of adaptation of the western approaches to the forefront. Leaders, on the one hand, understand that you must change the philosophy, on the other hand, there are many barriers: lack of knowledge of how and what to change, the resistance of workers, lack of understanding of colleagues and business partners.

Analyzing any of the instruments of perfection, we arrive at the same conclusion that the lack of basic TQM culture hinders the effective implementation and application of these tools in small and medium-sized businesses. Expect the companies involved in the improvement process, when the culture and philosophy of quality at the enterprise is missing or set up only on paper – it means “putting the cart before the horse.” You cannot improve what has not. First, the formation of a culture of quality – and only then its improvement. The first step here – face the consumer, not declarative, but real.

SMEs are already fairly well mastered the skills of market research and attract new customers. However, customer satisfaction is not only the ability to impose their goods, consumer satisfaction is an art – to give the consumer what he expected and even more. For managers of SMEs is important to feel the logical chain from the consumer's point of view: the purchase – satisfaction – repurchase. For foreign companies the task is not so much to find new customers, how to keep the existing ones, i.e. increase the share of regular customers. Small business should realize that consum-

er satisfaction – a loyalty to the company, the more loyal customers, the company feels confident on the market. Therefore, it is necessary to change and approaches in marketing – from the general and niche marketing to marketing one-to-one marketing on databases [4].

Another factor related to the satisfaction of consumers – this is a one-sided perception of the customer – just as the final product or service buyers. The concept of the internal customer [5], when the next process is the customer of the previous, is not used in the majority of small and medium-sized organizations, as companies rarely consider their activities as a set of processes. But it is a process approach is one of the basic principles of TQM, and the quality of each individual organization of the process is the quality in general. High-quality business process ensures the satisfaction of their internal customers, which allows to produce in the end a quality product or service.

Conclusion. Modern economists claim that SMEs have the leading role since favorable conditions for the development of entrepreneurship and SMEs are the foundation of a rich and harmonious developing economy.

In today's fast-changing economy, the role of SMEs is growing every day because small enterprises are more mobile and flexible. They respond more quickly both to external and internal changes.

On the whole, the economic situation of the SME sector is largely determined by the dynamics of household income, underscoring their focus on the demand from households. Economists note that investment and external demand to a much lesser extent determine the development of small and medium-sized business in Belarus.

Quality depends on many factors of technical, economic, social and psychological types. Enterprises engaged in focused and deliberate policy to improve the quality of their products and services, are using a variety of tools, methods and means to achieve their goals.

The point of this concept is that it consists of hard laborious work to create both a system, that can effectively control the quality and the conditions under which quality will be put in charge of the production process.

Today there is a process of “merging” general management and quality management. In the following chapters we will consider the most common methods and models of quality management used both by foreign and domestic business.

References

1. OSCE, Strategy Document for the Economic and Environmental Dimension. Available at: <http://www.osce.org/eea/20705> (accessed 18.02.2017).
2. EBRD, Transition Report and Business Environment and Enterprise Performance Survey (BEEPS). Available at: <http://www.ebrd.com/downloads/research/transition/TR05.pdf> (accessed 18.02.2017).

3. The place of social factors in the concept of TQM. Available at: <http://quality.eup.ru/MATERIALY2/msftqm.html> (accessed 18.02.2017).
4. Valmohammadi C. The impact of TQM implementation on the organizational performance of Iranian manufacturing SMEs. *The TQM Journal*, 2011, no. 23 (5), pp. 496–509.
5. Problems and solutions in the field of TQM for small businesses Available at: <http://quality.eup.ru/MATERIALY11/smk-small.htm> (accessed 18.02.2017).

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Received 24.03.2017