

The practice of implementing the concept of continuous improvement at the enterprise

Alla Glebova

National University «Poltava Yuri Kondratyuk Polytechnic», Ukraine

Corresponding author's e-mail: allaglebova@gmail.com



Abstract

The article examines the management tools that emerged in the XX century. These are Kaizen, Poka-yoke, Kanban, 5S, TQM, Jit and more. They allow not only to form competitive advantages, but also to ensure sustainable development precisely for manufacturing enterprises. There are three groups of methods: methods that are directly aimed at managing business processes; methods that have a different scope but can be used to manage business processes; methods that involve the use of a process approach. The practice of implementation of the concept of continuous improvements is described, which allowed the company to take the leading position and expand the market for products.

Keywords: continuons Improvement, sustainable development, kaizen

1 Introduction

Increasing the competitiveness of domestic enterprises is usually associated with a significant release of new products, with new technologies, which should be distinguished by energy conservation and reduced production costs. In a competitive environment, there is a need to ensure sustainable development based on the use of modern management achievements, namely the tools that were formed in the XX century. Kaizen, Poka-yoke, Kanban, 5S, TQM, Jit and more. For Ukraine, which has significant production potential and a large number of problems in terms of energy and resource conservation, product quality, this is relevant. As the processes of globalization and internationalization both open up new opportunities for development and create new threats and challenges every day.

A modern enterprise in a highly competitive environment must constantly improve and implement changes to avoid the danger of stagnation and capture by surprise. Managers managed by businesses need to be open-minded, responsive to what is happening outside of them, in order to maintain leadership and competitiveness in an ever-changing market. At the same time, they must learn not only to make changes, but to manage them and act with care and judgment. This is the first strategic objective. The second strategic goal of managers is to optimize losses in the production and management process. Especially given the experience of Toyota, which has not lost its relevance in recent decades.

2 Overview

In particular, the well-known kanban cards and mugs are widely used by other companies. Thus, on the basis of the analysis of scientific works, it is advisable to identify three

groups of methods of continuous improvement (Figure 1).

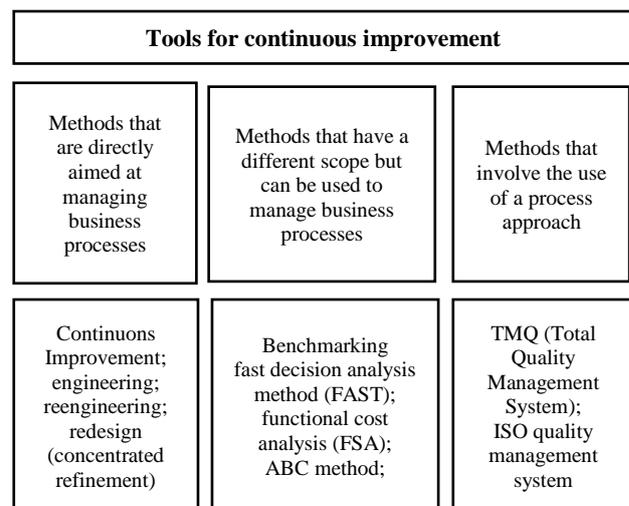


Figure 1 Continuous Improvement Concept Tools [1-4]

These methods, as evidenced by world experience, allow us to ensure sustainable development based on the implementation of the principles of continuous improvement, have their strengths and weaknesses. In Ukrainian practice, not many businesses have experience in using such methods. One of the modern enterprises-leaders in the market of Ukraine is JSC "Mirgorod Mineral Water Plant". Its successful development experience has been based on the use of quality management techniques since 2000.

As a result (table 1):

TABLE 1 Evolution of the quality management system at the Mirgorod Mineral Water Plant [Generalized based on 5]

Year	Achievement
1997	International Gold Award for Commercial Prestige (Spain)
1998	Honorary Certificate for Excellence in Quality Management, Technical Innovation, Business Level and Prestige in the European Market (Brussels). Arch of Europe for Excellence and Quality (Spain).
1999	International American Quality Award (Puerto Rico).
2001	"The Best Trademark of Ukraine" (National Rating, Kyiv) Medal "For High Quality" (Kyiv, "Beer Festival"). Gold medal for the high quality of medical and table waters - "Mirgorodskaya" (Kyiv).
2002	Diploma for active participation in the exhibition-fair Green Week-2002 (Berlin) Diploma of the winner of the All-Ukrainian Competition of 2002 among medium-sized enterprises manufacturing food products (Kyiv).
2003	Diploma "Best Employer of the Year" of the 3rd All-Ukrainian Competition (Kyiv). Diploma of the finalist of the regional stage of the All-Ukrainian competition for the quality of products "100 best goods of Ukraine" (Poltava). Winner of the National Rating 2002 "The Best Trademark of Ukraine" (Kyiv).
2005	Winner of the Festival of Competition "Choice of the Year" in 2005 in the nomination "Mineral Medicinal Table Water of the Year" - "Mirgorod" and in the nomination "Drinking Water of the Year" - "Old Mirgorod".
2006	Winner of the 2006 Choice of the Year Competition in the Mineral Medical Table Water of the Year nomination, Mirgorodska.
2008	Diploma of the finalist of the regional stage of the All-Ukrainian competition for the quality of products "100 best goods of Ukraine" (Poltava).
2009	Myrgorod Mineral Water Plant was ranked 9th in the Annual Ranking of the Top Employers of Central and Eastern Europe in the Big Companies category. The IEOM has become the only Ukrainian company to be included in this category of well-known research conducted annually by the international company Hewitt Associates with the sponsorship of the Wall Street Journal Europe.
2011	Mirgorodskaya Lagidna Mineral Water - Winner of the All-Ukrainian Contest "100 Best Products".

3 Decision

Thus, the quality management system is one of the main areas of continuous improvement, which provides the opportunity to implement the growth strategy in a highly competitive environment.

The next direction of continuous improvements at PJSC "Mirgorod Mineral Water Plant" at the company is the improvement of the organizational and legal form (Table 2).

TABLE 2 Stages of improvement of the organizational and legal form of JSC Mirgorod Mineral Water Plant [generalized on the basis of 5]

Year	Characteristics
1927	Year of foundation
1992	state company
1994	Joint Stock Company
2010	Public Company
2017	Private Joint Stock Company

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As an example of a project for testing automation the Siebel CRM testing automation system will be considered. Using a set of open-source software an automated testing system was created that are not inferior to the characteristics of the complete, large, and paid solutions. Technically, the created tests are http queries sent to the server, and test scenarios can be described using any programming language. This makes the solution more flexible and easily scalable. Rejecting the finished programs for automated testing, which requires significant hardware and software resources it was possible to significantly reduce the cost of testing automation and to achieve faster and more reliable tests.

Thus, the management of the company seeks to provide competitive advantages from the organizational form.

In 2018, the following actions are taken by management to hold leadership positions:

- a 5S office system has been implemented (work / space organization designed to enhance corporate culture, improve work area efficiency / manageability, increase employee productivity by reducing wasted time and energy, create comfortable working conditions and a base for continuous improvement.
- continuous improvement of the 5S system in the enterprise (workplace / space organization aimed at creating optimal conditions for performing operations, maintaining order, cleanliness, accuracy, saving time and energy).
- developed a program "Team Change", which is aimed at continuous improvement of all production processes, management, business processes at the level of workplace, shop, department, unit, company as a whole (valid for 9 months, deadline April 2019);
- SMED production system was created and implemented, which made it possible to increase flexibility (work in small batches), reduce the number of deviations from quality standards and ensure process stability.
- constant satisfaction of customer and end-user requirements, which is confirmed by stable quality indicators (coefficient of complaints from the end consumer is 0.3 per 1 million bottles of manufactured goods and the rate of complaints from the retail consumer is less than 1 per 1 million bottles of manufactured products);
- expansion of the scope of accreditation of the measuring laboratory accredited in accordance with DSTU ISO 17025: 2006.

4 Conclusion

Thus, in the mineral water market, which is highly competitive, modern management tools allow us to take leadership positions and ensure sustainable development. Features of development of the given enterprise are constant, systematic improvement not only of production technology, but also of management system. At the present stage, it is the only enterprise in the region where the smallest number of management staff is employed. There is a steady tendency to develop in the conditions of crisis deployment.

Economical production: concept, tools, experience Kiev, p.157

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