Continuous Improvement Culture is a Key to a Company's Development and Success

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Abstract. In the Russian Federation, programs aimed at developing continuous improvement culture are being launched in many industrial areas of economic activity. These programs lead to the modernization of all processes and technological stages of production. Pilot projects to introduce improvement culture are already being developed and implemented in several regions of Russia. This area is currently very important and promising not only in the Russian Federation, but also in the global industry. There is already accumulated experience from a number of global manufacturing companies.

1. Introduction
The national project “Labor Productivity and Employment Support” is being implemented in today’s Russia. Its main aim is to possibly achieve labor productivity growth at medium and large scale production enterprises of the basic non-raw sectors of the national economy of at least 5% per year by 2024. A total labor productivity increase should reach about 20% by 2024 [1].

To ensure the implementation of the national project, more than a thousand companies in forty-nine regions of the country will have to develop their production systems to a level allowing to minimize losses and make continuous improvements.

JSC “Velikonovgorodskiy Myasnoy Dvor” (VNMD) is one of the companies participating in the national project “Labor Productivity and Employment Support”.

Being one of the largest meat processing enterprises in the Northwestern Federal District of the Russian Federation, the VNMD company carries out a full cycle of work with an annual volume of production and sale of meat and meat-containing products reaching more than thirty-six thousand tons. Over a quarter of a century of intensive work and successful development has allowed the company to become one of the leading enterprises in Russia. JSC “Velikonovgorodskiy Myasnoy Dvor” mainly focuses on the production of pork, beef, veal, lamb and chicken products of appropriate quality, competitive and in demand on the Russian market. The solution of high-quality product manufacturing tasks on everyday basis enables the company to reduce the cost of their produce, ensure its competitiveness, and keep up a large assortment with the guarantee of high quality in the food market.

The production at “Velikonovgorodskiy Myasnoy Dvor” JSC includes several departments:
- Primary processing department;
- Pre-fabricated foodstuffs production department with a fifteen-thousand-ton capacity. The range of products is quite extensive.
- Canning department. Its production capacity is sixty million tins per year. The manufactured assortment includes more than sixty items of meat and meat-containing products: there are canned meat and vegetable products, meat pastes, ham, cereals with meat, pet food and others among them;
- Sausage department. Its produce equals nine thousand tons.

The plant works intensively and actively, it benefits from interacting with retail chains, which allows it to manufacture foodstuffs not only of its own brand, but also of its partner chains’ ones.

JSC “Velikonovrorodskiy Myasnoy Dvor”’s meat and meat-containing products are environmentally friendly and organic. They contain meat of the animals bred by the Adept Company Group. Product quality has been verified by quality certificates for many years.

Several years ago the enterprise used to have and actively promote a HACCP food safety management system. The plant is certified according to Rosstandart indicators in accordance with the requirements of GOST R ISO 22000: 2005, in December 2014 a certificate No. DE 31100210 FSMS was received, which is recognized by the German national accreditation system DAkkS and the international certification organization IQNeT.

The production at VNMD is certified according to the international FSSC 22000 system standards. Every year, the company is obliged and successfully audits for compliance with the indicators applied by federal chain retailers, Rosrezerv, “MarrRussia” and other companies.

Developing its production system, VNMD gives a leading role to continuous improvement culture, actively involving all employees in upgrading the company's processes and making maximum efforts to implement the employees’ improvement proposals on a daily basis.

2. Results

What is in fact “continuous improvement culture ”: is it just an element of the “lean” philosophy or a truly powerful and effective tool for company development and strategic goal achievement? There can only be one answer - truly effective companies follow a very clear strategy and principles every day. Such companies are absolutely customer-oriented, as they are focused on creating value specifically for their customers and monitor each process in real time.

In case problems arise, effective companies do not look for anyone to blame, but direct their maximum efforts to figure out what has caused these problems and eliminate them as soon as possible. A production system working this way cannot only ensure the company’s effective functioning today, but is highly likely to prepare it for the changes that may occur tomorrow [2].

In the definition provided by D.V. Ovsyanko and V.A. Chaika, continuous improvement is a planned, organized and systematic process of ongoing changes that cover the entire organization and affect the processes existing in it daily and hourly in order to amend the organization's performance [3].

The main characteristic of continuous improvement is the extensive involvement of employees into improvement processes. C Rinders and G Boer point out that continuous improvement is hundreds of heads’ intelligence release. This means that it is possible to use the company's potential in innovative processes to a maximum extent [3].

The best possible use of the employees’ intellectual potential is VNMD’s strategic goal, measured by the number of improvement proposals aimed at upgrading and enhancing organization process efficiency submitted by its employees and the number of implemented ones.

Solving problems within the framework of reaching this goal allows us to work with the so-called eighth type of losses identified by Jeffrey Liker as “employees’ unrealized creative potential: your employees’ ideas, skills, improvements, and experience your company will not receive” [4].

Continuous improvement culture is an innovative approach to the organization of production activities, analysis of unsuccessful actions, continuous improvement of technological operations, and further introduction of production innovations. Schematically, this can be represented as Plan - Implementation - Verification - Action.

The goal of continuous improvement culture is the introduction of stable transformations in the management system while creating optimal working environment as well as employees’ training with a simultaneous emphasis on fundamental technological processes.
The development of continuous improvement culture has such basic features as a sequence of actions and systematization. To fix sequentially changing actions is most important and significant in the production culture formation. This is manifested, first of all, in the behavioral component of lower and middle level employees as well those from auxiliary services.

Systematization is one of continuous improvement culture elements and is also a component of a company's success, its economic and production efficiency.

A continuous improvement culture program includes:
- stimulating working environment improvement;
- defining and implementing new competencies through staff training;
- communicative relation improvement.

The fundamental goal is the implementation of such performance indicators that tune up more efficient work [5]. In order for employees’ production activities to be based on improvements, it is necessary to introduce a universal contract system evaluating each employee’s contribution to the continuous improvement culture.

To upgrade business management process, a system of improvement formulating, implementing and reproduction is set up. All this should lead to a change in managerial approaches, new full-time employees should be hired whose responsibilities will center around maintaining ongoing processes of continuous improvement culture introduction.

The introduction of continuous improvement processes in production will result in the necessity to determine the variable part of employees' wages namely bonuses.

It seems to be equally important to be able to motivate employees for further career promotion.

It is also essential to visualize each employee’s personal targets and contribution to overall success. The organization of a favorable working environment helps to increase people's involvement with production processes, makes their work more efficient, and has a favorable impact on production communications.

However, in real life this does not always happen. Employees may neither know nor meet the requirements for new, recently created technological processes; they may be unaware of methods to improve them. For these purposes, it is crucial for employees to acquire and apply new competencies. This will help to improve production processes. Supposing it is clear, an employee will be able to identify the problem point and eliminate the difficulty that has arisen, thereby ensuring improvement of the production organization.

An employee’s competency development happens due to:
- long-term training
- training sessions
- discussion session being held
- internships at other leading companies.

Further implementation of the best employees’ practices along with informing other employees about their colleagues’ success brings about implementation of the received experience at an enterprise.

The company’s management’s assessment may also prove to be beneficial for employees. This is especially useful when a personal employee - company executive meeting takes place at a production site where the best practices are being implemented. This helps to evaluate the contribution of each employee to the mechanism of continuous improvement culture more accurately.

Everyone is familiar with the fact that any changes, even if they contribute to improvement, can meet human resistance. And this is not due to the “bad character” of employees, but because of people’s psychological state, their crave for stability, unwillingness to change themselves or change anything. Sometimes this leads to worsening conditions. In order to prevent this from happening, it is necessary to implement a set of measures and programs to develop continuous improvement culture with a mandatory set of measures to develop each employee’s communication skills.

It is exceptionally useful for a company to have its corporate media. Together with external media, they allow to convey to employees the importance of their enterprise in the life of the city and country as well as each employee’s impact on internal and external production processes.
Since the introduction of continuous improvement culture, the company expects individual project implementation from its employees, their knowledge of technological processes at workplaces along with communication relation improvement.

Thus, VNMD has issued a special regulation for submitting and stimulating improvement proposals. Within the framework of this document, each employee of the enterprise can submit a proposal that will help improve working environment, increase labor safety, improve labor organization, modernize labor means and objects, optimize the production method, technological process and raw materials composition, improve product quality as well as ecology, reduce material use and intangible costs and resources. The suggested improvement proposals should stick to one basic principle: "A proposal implementation should not require significant costs." At the same time, it was taken into account that during the implementation of such proposals employees’ working environment should not deteriorate and no law requirements should be violated.

So, even at the initial stage of continuous improvement culture formation at VNMD there was registered employees’ high interest and involvement in the process of improving their workplaces and production process, which peculiarities and bottlenecks they know way too well. However, at the same time, measures to eliminate problems were either not implemented for a long time or taken without the participation of the employees responsible for a particular operation.

It should be noted that only after VNMD issued a regulation meant to urge improvement proposal submission and stimulation, the employees of only one canned meat capping and packaging department formulated and submitted more than 30 improvement proposals (IP) over the period January - March 2020. The structure and categories of improvement proposals submitted by VNMD employees from January to March 2020 are presented in figures 1, 2.

![Figure 1. IP structure.](image-url)
The employees’ improvement proposals (IPs) are focused on changing the working environment for the better, designing a more convenient and effective workplace as well as improving equipment technical characteristics.

It should be noted that the expected economic effect in monetary terms, obtained as a result of the implementation of only 20% of the IPs submitted by the employees, exceeded the expenses spent on employees’ bonuses as part of stimulating the IP flow and attracting a wide range of employees to technical creativity and of rationalization thinking development by more than 16 times (figure 3).

A number of transformations VNMD has witnessed recently have led to the necessity of improving production processes and technological operations. The company management have decided to create a
set of measures to introduce conditions for constant and continuous improvement of technological processes. This is the first step in establishing a system of quality and production efficiency improvement.

3. Conclusion
Thus, in modern economic environment, the use of employees’ intellectual potential within organization, direction and management in innovative project development can be studied as a continuous process. Moreover, it will be aimed at the company’s long-term work in market conditions. Therefore, continuous improvement culture can be viewed as an innovative process.

Stimulating the company’s production activity growth is an important component of VNMD’s success. This is relevant for both new production areas and those existing for many years. This is also exceptionally relevant for new promising projects that need to be developed and implemented in the shortest possible time.

The result of this activity as one of the innovation process components will be the so-called modernization innovation. It will contribute to improving economic results, new technology design and implementation, changes in production technical aspects. All these together will have a significant positive impact and ensure quality indicator improvement and develop continuous improvement culture at the enterprise.

References
[1] Gavrikova N A, Dolgih I N and Dyrina E N 2016 Increase Productivity Through Knowledge Management IOP Conference Series: Materials Science and Engineering International Scientific and Practical Conference on Urgent Problems of Modern Mechanical Engineering 17–18 December 2015 Vol. 127
[2] Aziz R Z A, Azima M F and Irianto S Y 2018 Development of knowledge management system for determining organizational culture in micro, small and medium enterprises using organizational culture assessment instrument IOP Conference Series: Materials Science and Engineering 2017 1st International Conference on Engineering and Applied Technology (ICEAT)29–30 November 2017 (Mataram: IOP Publishing Ltd.) Vol. 403
[3] Ovsyanko D V and Chaika V A 2006 Features of organizing the process of continuous quality improvement in Russian companies and its relationship with the processes of strategic behavior (Saint-Petersburg: Research Institute of management SPbGU) 6 https://gsom.spbu.ru/files/upload/niim/publishing/papers/Ovsianoiko_Chaika.pdf (accessed: 08.03.2020)
[4] Rodríguez Chinchilla and AM and Velásquez Pérez T 2019 Government of information technology and organizational culture in application of management and management processes Journal of Physics: Conference Series, , 5th International Week of Science, Technology & Innovation 20 November 2018 (San José de Cúcuta: Vol. 1388
[5] Zhilenkova E, Budanova M, Bulkov N and Rodionov D 2019 Reproduction of intellectual capital in innovative-digital economy environment Materials Science and Engineering, Volume 497, International Scientific Conference “Digital Transformation on Manufacturing, Infrastructure and Service” 21–22 November 2018 (Saint-Petersburg: IOP Publishing Ltd.)