

Section 5. Economics and management

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POSSIBILITIES OF APPLYING MODERN PRINCIPLES OF QUALITY MANAGEMENT IN ORGANIZATIONS PROVIDING HEAT SUPPLY SERVICES

For a modern heat supply organization, the main priority is the provision of reliable and high-quality heat supply services, with maximum benefit for consumers, ensuring uninterrupted supply of thermal energy and accuracy of calculations, creating stable and comfortable working conditions for employees, contributing to the implementation of their initiatives and creative potential, continuous improvement of production and management processes aimed at ensuring break-even activity for shareholders and the state.

Focusing on the long-term development of favorable living conditions for the population, organizations providing services for the transmission and distribution of heat energy need to constantly support the development of consumer service technologies, while ensuring an increase in the quality level of the corporate and professional culture of employee interaction, in order to positively influence the development of creative, positive atmosphere in the team, creating a favorable environment for the realization of creative potential. In modern organizations providing heat supply services to the population, a common rule for all should be cultivated: “Consumers can be both internal and external. These are not only buyers of the final product (service) produced by the organization, but also any of your work colleagues to whom you transfer the results of your work. A modern heat supply organization should strive to ensure maximum customer focus, form its own philosophy of interaction, both with consumers and work colleagues, and with external stakeholders. In this sense, it is advisable to study and try to adapt the basic principles of Kaizen (Jap. 改 (change) 善 (good (for the better)) – 改善 – Kaizen (continuous improvement)) where the main task of the organization is not to win competitors in the market, but to win consumers. The constant desire to increase customer loyalty by creating conditions

when the consumer becomes a partner in a common cause that excludes confrontation between the parties can safely be called the highest professionalism of a modern manager who will undoubtedly lead the company he leads to success., in modern conditions, it is not possible to provide an individual approach to each consumer, however, it is necessary to strive to meet the modern trends of the times as much as possible, by automating the calculations of accruals, introducing remote service methods, constantly improving the rules of interaction and customer service rips. Providing a focus on the consumer, increasing his satisfaction with the services provided, heat supply organizations create favorable and comfortable conditions for the life of the population¹.

Over the 30 years of the existence of a market economy in the Republic of Kazakhstan, the principles of organization management have also changed dramatically, moreover, in the last 5–10 years, the dynamics of changes has been steadily growing. In modern management, a whole direction has appeared – “Change Management” (Agile management)². Changes in the management of companies have occurred in all spheres of life, this has affected the management of relationships with suppliers, employees, consumers, and external stakeholders, including government and non-government bodies, commercial and non-profit organizations. To manage such a company, it is necessary to have versatile knowledge in law, management, economics, professional field, IT technologies, psychology, etc. As a rule, it is almost impossible to be a professional in all areas at the same time, therefore one of the primary tasks of a modern leader is to form a highly effective team of like-minded people. So what should a modern leader be like to ensure effective management of the organization? If we turn to the chronology, 20–25 years ago, when the business was just emerging, it can be noted that in the 90 s of the last century, managers-lawyers were in trend. First of all, this was due to the emerging demand for knowledge and skills in the field of business organization, hiring employees, making deals with suppliers and customers. Later, in the first half of the 2000 s, at a time when the development of production was gaining momentum, the popularity of managers with engineering education increased. In Kazakhstan, we could observe a shortage of civil engineers. In the second half of the “zero” there was a demand for managers – financiers. Companies have gained a foothold in their market niches, a permanent clientele has appeared, banks have begun to actively issue loans for business purposes. In the second decade of the 21st century and to the present, managers with leadership abilities are in demand, who can set an ambitious goal, unite people around themselves, creating a highly effective team of like-minded people and follow the plan. The task of the modern leader is to provide an atmosphere of trust and work without fear, initiating, recognizing

¹ National standard ST RK ISO 9000–2017. “Quality management systems. Fundamentals and vocabulary”.

² Jurgen A. Agile management. Leadership and Team Management. Alpina Publisher. 2019.

and encouraging the contribution of people, maintaining honest relationships¹. Such an atmosphere contributes to the maximum disclosure of the creative capabilities of the staff and the best solution of quality problems.

In order to minimize the resistance of personnel to changes associated with the constant development of the company, to ensure continuous improvement, modern organizations need to create a transparent and understandable system of motivation for everyone, in order to increase the interest of personnel in the implementation of plans and the most effective solution of operational tasks, which, in turn, will contribute to the development of disciplinary responsibility of employees. It is also necessary to ensure continuous professional development of employees by updating professional training programs, maintaining an appropriate level of competence. It's no secret that the concept of competition, for any company, is relevant not only from the point of view of the market, i.e. external factors, but also within the organization itself among employees. Every manager has come across such situations when, for example, one employee is more productive than others. Or other cases when one employee, performing a larger amount of official duties, receives on a par with his negligent colleague. Such issues need to be addressed on a systematic basis, i.e. decisions should not be one-time, but regular. When developing a motivation system in a communal enterprise of the quasi-public sector, first of all, it is necessary to understand from what it is planned to form a bonus fund, in other words, where to get the money. In organizations providing heat supply services that belong to the quasi-public sector, making a profit is not the goal of the activity, the main task is to ensure break-even. As you know, according to the legislation of the Republic of Kazakhstan, the salary of employees consists of a constant – 75% and a variable – 25%, parts², in other words, the employer, on the basis of internal regulatory documents (acts of the employer), has the right to use the variable part of the remuneration as a motivational / stimulating component. Initially, an enterprise supplying heat energy needs to determine key performance indicators, which are target indicators and reflect the performance of the entire organization. At the next stage, it is important to establish the criteria for the performance of an employee or a structural unit as a whole, to determine the degree of influence / importance of each criterion in relation to the achievement of the set functional goals and objectives. Monitoring of achievement, both performance criteria and effectiveness, should be carried out on a regular basis, and the motivation system itself should be transparent and understandable to all employees participating in the performance evaluation system. A fair and transparent motivation system will contribute to the development of a healthy competitive spirit in the team, will have a

¹ Jurgen A. Agile management. Leadership and Team Management. Alpina Publisher. 2019.

² Labor Code of the Republic of Kazakhstan dated: November – 23, – No. 414-V ZRK. 2015.

positive impact on maintaining order in business and, as a result, will positively affect the quality of services provided to the end user.

It should be noted that in almost all regions of Kazakhstan, one should take into account the high (service life – more than 25 years) wear and tear of heating networks, which leads to frequent ruptures of pipelines and emergency situations that directly affect the occurrence of excess losses, a decrease in energy efficiency and, accordingly, negatively are reflected in the economic efficiency of the enterprise associated with energy losses. Given the critical social importance of continuity and quality of heat transmission services, investments are made at the state level in programs aimed at modernizing heat networks. Obviously, at present, many domestic enterprises, for a number of objective and subjective reasons, cannot fully ensure the transition to absolute automation, the notorious “human factor” and the regular personnel errors associated with it, adjustments of calculations / charges to inefficient use of working time by staff, complaints / dissatisfaction of consumers and, accordingly, negatively affects the reputation of the enterprise. In order to continuously improve production and management technologies, it is advisable for modern heat supply organizations to apply a process approach based on the PDCA Continuous Improvement Cycle (Plan – Do – Check – Act)¹, with a clear definition of regulations and rules of work, which will optimize time costs, have a positive impact on increasing productivity and reducing costs, as well as on the positive dynamics of the quality of heat supply services. services today, the maximum automation of internal business processes is extremely relevant, for example, based on the platform “1C: ERP Enterprise Management 2 for Kazakhstan” (including “Target IT Architecture”). Many modern organizations that have mastered the above management tools apparitions appreciated their merits. The use of automation significantly speeds up the processes operating in the company, prevents errors associated with the notorious “human factor”, has a positive effect on improving the quality of products / services provided and reducing receivables, ensuring profitability and economic efficiency of the enterprise. In the future, realizing that there is no limit to improvement, it is advisable to start adapting, for example, such Lean Production tools as Value Stream Mapping in order to identify and optimize (eliminate / minimize time) processes that do not add value to the finished product / service². It is important to understand that in our “world of speeds”, time is the most important and non-renewable resource, and at the same time, it is also the main factor that has a direct impact on both customer satisfaction and the economic efficiency of any organization.

As noted above, heat supply organizations should strive to create a corporate culture of continuous improvement, covering all areas of the enterprise’s life, providing pro-

¹ National standard ST RK ISO 9001–2016. “Quality management systems. Requirements”.

² Masaaki I. Gemba kaizen: A way to reduce costs and improve quality. Alpina Business Books. 2005.

duction activities with the necessary human, intellectual and material resources. Given the current dynamics of a comprehensive scientific, technical, economic, geopolitical, etc. development, an enterprise providing heat supply services should strive to create conditions in which each employee will be interested in consciously making efforts for continuous self-development. It is advisable to develop a system of internal PR – (public relations), explicit or hidden informational impact on employees in order to manage staff relationships, create a certain image of the company in the eyes of employees and further broadcast to the external environment, adjust behavior when interacting with colleagues, partners, external interested parties. One of the intangible assets of an enterprise is its organizational culture, which, among others, forms the value of the organization, expressed in achieving and maintaining an appropriate reputation, which is the most important value of current and strategic functioning. A modern heat supply organization, realizing its role and importance in ensuring the stability of the provision of public utilities to the population of the city, should position itself as a high-tech company that meets modern challenges and provides a consistently high level of trust for all stakeholders. Another intangible asset of the organization is the competence of the staff. Given the current trends in the development of scientific and technological progress, heat supply companies should strive to create a self-learning corporate culture that promotes the constant development of human resources, systematic improvement of competence, the formation of favorable conditions for professional growth and the realization of the creative potential of employees. It must be remembered that when providing heat supply services, one of the key indicators is the level of customer service. In order to provide a high level of service and anticipate the needs of subscribers, it is necessary to create and constantly improve a modern service management system aimed at increasing satisfaction and developing long-term partnerships with consumers. Another value of a heat supply company is its specialization, since the services provided are unique in their own way, they cannot be performed by anyone except the heat supply company itself, it is necessary to focus on technical equipment, which must comply with modern trends. An enterprise providing heat supply services should strive to meet the requirements of scientific and technological progress and the needs of consumers, constantly modernizing the technical and artificial intellectual potential, ensuring the introduction of automation and improving energy-efficient technologies and equipment that help reduce energy consumption and water consumption.

Evidence-based decision making is a top priority for any organization. It is important to understand that in a company, at all levels, it is necessary to cultivate openness and honesty in terms of the data and information provided, even if it does not meet expectations. As you know, back in the middle of the last century, the famous American social psychologist Douglas McGregor formulated the management theories X and Y (Theory X and Theory Y). Theory X implies that a person, by default, loves to work

and avoids work whenever possible, so it is necessary to take appropriate measures of influence, i.e. to punish inconsistencies, using “repressive management” in the work and reward for positive results. With such an approach, as a rule, it is not the process of production / provision of services that is considered, but the performer of the process, while it should be noted that only once punishing the employee for the discrepancy between the expected result, in the future the employee will close in himself, in his mind there will be a fear of registering negative events and data, which will lead to a distortion of the actual figures. The world-renowned management guru, the most famous American scientist, statistician and management consultant William Edwards Deming said: “Wherever fear appears, we get false numbers”¹. Managers themselves can very rarely admit that their management is not effective enough, the processes are not built correctly, the management system fails, as a result, a negative atmosphere develops in the team, employees feel psychological discomfort, competent and promising employees, with high potential, quit due to inability to develop, lack of professional and career growth. It is advisable for modern organizations to analyze the possibilities of application and build their management systems based on the theory of management Y, which implies that it is as natural for a person to work as to relax or play. It is necessary to create such a management system in which the staff will be able to reveal all their abilities and realize their talents. With such a management system, employees jointly solve emerging difficulties and / or problems, focusing not on correcting the error, but on preventing its recurrence, in other words, to create a risk management system. In order to ensure the most effective risk management, by achieving the planned performance indicators of the joint venture, the enterprise must regularly monitor and analyze key performance indicators and the effectiveness of the structural units, purposefully promote and develop a culture of work on errors aimed at finding the causes of potential inconsistencies and developing measures upon their warning².

A modern enterprise should strive to develop long-term partnerships with all external and internal stakeholders, to derive mutual benefit from such relationships based on mutual respect and parity of opinions, using the principle of “WIN – WIN” (“winner – winner”). The combined interaction of internal and external stakeholders has a direct impact on performance. To minimize the impact of uncertainty on the work of the organization, it is advisable to apply a risk management system, which is regulated by the International Standard ISO 9001 / National Standard ST RK ISO 9001. In order to manage risks, ensure clarity of actions, it is necessary to identify all stakeholders interacting with the heat supply enterprise and establish their needs.

¹ Neave H. Organization as a system. Principles of building a sustainable business by Edwards Deming. Alpina Publisher. 2014.

² Shelldrake J. Management Theory: From Taylorism to Japanization. – St. Petersburg, – Peter. 2001.

When identifying stakeholders, strengths, weaknesses, opportunities and threats, teamwork methods should be used, in particular, a quantitative SWOT analysis, which will allow an assessment of the current situation of the enterprise and its structured description. Quantitative ABC-analysis will allow classifying strengths, weaknesses, opportunities and threats according to their degree of importance, setting priorities for developing further solutions and forming plans for their implementation. The stakeholders of the organization providing heat supply services, their requirements and expectations, as well as monitoring methods are listed below in Table 1.

Table 1.

| № | Interested party | Requirements/Expectations | Метод мониторинга |
|-----|--|--|--|
| 1. | Consumers | Uninterrupted supply, quality of heat supply, price, timeliness, fulfillment of obligations under the contract (agreement) | Contract (agreement), feedback, questioning, complaints / complaints |
| 2. | Government | Compliance with the legislation of the Republic of Kazakhstan, provision of jobs, implementation of investment programs | External checks, internal audits |
| 3. | Owners | Profit / break even, reputation, execution of production plans | Meetings, reports |
| 4. | Employees | Professional growth, salary, training at the expense of the enterprise | Labor contract |
| 5. | Supervisory authorities | Compliance with industry norms and standards | Certification, inspection checks, internal checks |
| 6. | Bodies for conformity assessment of MS | Compliance with the requirements of ST RK ISO 9001, ST RK ISO 50001 | Product quality control, internal audits |
| 7. | Suppliers | Price, terms, volume, permits, licenses, certificates, fulfillment of obligations under the contract | Contract, assessment/re-assessment of suppliers |
| 8. | Partners, professional associations | Legislation, MoUs, contributions, participation in forums | Legislative change |
| 9. | Banks | Solvency, economic stability of the enterprise | Treaty |
| 10. | Non-Governmental Organizations (NGOs) | Memorandums of Understanding, Safety, Environment, Benefit to Societies | Meetings |

In the future, all established requirements and expectations of stakeholders must be transformed into specific action plans with the definition of deadlines, responsible persons and the form of completion.

As can be seen, the principles of doing business described above, generally accepted by the world community, are closely related and complement each other, which indicates the need for a comprehensive application of transformations aimed at continuous improvement. For heat supply organizations, which are the most important infrastructure component of any settlement, in ensuring comfortable life of the population, continuous improvement should be a way of thinking and a key element of activity.

References:

1. National standard ST RK ISO 9000–2017. “Quality management systems. Fundamentals and vocabulary”.
2. Jurgen A. Agile management. Leadership and Team Management. Alpina Publisher. 2019.
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