

INTERRELATION OF COMPETITIVENESS, ORGANIZATIONAL STRUCTURE AND HUMAN RESOURCES

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ABSTRACT

The authors examine the mutual influence and interdependence of the human factor, the structure and competitiveness of the organization, the differences in the effectiveness of its individual elements, the features of such characteristics as the competencies of individual agents that make

up the organization. The problems of occurrence of problem zones in the organization structure and ways of their elimination are analyzed. On the basis of the revealed regularities, the possibilities of managing the efficiency of organizations, including the example of the transport sector, are considered.

Keywords: human resources, personnel management, internal communications, communication networks, organizational structure, transport sphere, competitiveness, organization efficiency.

Background. In a broad sense, the organizational structure can be viewed as the unity of the static characteristics that form the structure of subordination, and the dynamic characteristics of formalized and unformalized interaction between individual agents that make up the structure of interaction and information exchange [1]. Numerous recent studies prove the existence of the influence of the organizational structure on competitiveness of the organization [2, 3]. In particular, the results of a study carried out by the authors [4] show the interconnection and interdependence of the creation of a qualitative organizational structure and competitive supply in a changing external situation. At the same time, attention is drawn to the fact that in the absence of due attention to the development of the organization and its adaptive abilities, the availability of a competitive offer is limited in time.

On the other hand, such an element of the organizational structure, as intra-organizational relations, is an indicator of the effectiveness of goal-setting and goal-achievement [5]. The competitiveness of an organization is determined not only by the correct vision of business processes, but also by the ability of management to achieve the goals stated by executive management. At the same time, the decrease in the awareness of individual goals and tasks by employees in the framework of achieving the organizational goal leads to low individual labor productivity. This is indirectly connected with the impossibility of timely identifying problems with the management of the organization, reducing the likelihood of the correct establishment of organizational goals. In addition, there is a probability of irrational distribution of functions among performers, a reduction in the level of coordination and synchronization of performing activities [6].

Objective. The objective of the authors is to consider interrelation of competitiveness, organizational structure and human resources.

Methods. The authors use general scientific methods, comparative analysis, evaluation method, analytical method.

Results. An analysis of the work of train crews serving the Strizh train has allowed us to prove that the efficiency of train crews can be substantially increased only due to information about imposing sanctions for insufficient level of passenger service. The methods developed by the authors to get information about the level of service by the administration (Internet interviewing of passengers, use of technology «secret buyer») emphasize the importance of feedback, what an important auxiliary tool it can become, especially against the background of «soft» management actions aimed at using Information and communication flows by managing entities [7].

The analysis shows that there are peculiarities of information dissemination in closed and open

communication networks connected with the establishment between elements of not only formal, but also informal intra-organizational links. Moreover, the establishment of informal links between elements changes the features of the flow of the information flow, transforming open networks into closed ones, which is connected with the possibility of generating messages alternative to the official [8].

The authors found that the strength (frequency) and the proximity of the links between individual elements, the level of trust between them, exerts a special influence on the information exchange process. At the same time, the trust of agents to the received information messages is determined by the «proximity» of the source, which is also characteristic of the informal network. At the same time for agents, communications, characterized by a high degree of confidence, are preferred, and information transmitted through such channels is perceived less critical. This, in particular, is pointed out by P. Shtompka [9].

At the same time, it is determined that the essential factor is not only the level of trust between contacting nodes in the information transfer chain, but also the level of confidence in its source. And it is the level of trust in the source in communication networks of various types that has a significant influence on the behavior of the agents that make up the network. This allows to assert that the nodes interested in building confidence in the messages sent by them, primarily those who occupy high positions in the organizational structure, should pay special attention to the correspondence of official messages in formal networks to those information tricks that can be transmitted through informal channels. Their compliance significantly increases the level of confidence in the source and, conversely, the mismatch of official messages and informal information significantly reduces this level [8].

Within the framework of the idea of the organizational structure as a network of interacting agents, the important question is the influence of one or another type of heterogeneity of the communication network on the characteristics of organizational effectiveness of the organization [10]. The reason for heterogeneity can be both in the individual characteristics of the agents – the different ability to process information, and in the features of the interrelations between agents – the availability of additional confidence in the information received from this agent.

Let's consider two models that are the most different from each other: the model of an organization focused on internal relationships, the so-called clan model, and the model of an organization aimed at achieving rational goals, which is a set of related project teams. Both models were proposed in the work of R. Kuhn [11], devoted to the classification of possible types of organizational structures, and are now widely used in analyzing organizational effectiveness, (see, for example, the survey [12]). Kuhn introduced two main characteristics, according to which all organizations are classified, –

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hierarchy and orientation to external signals. The two types of organizational structures chosen by us are as far apart as possible within the limits of these characteristics.

The communication network of the clan organization is homogeneous, representing a set of related project teams – a «star», in the center and at the ends of the rays of which are located groups of closely interconnected agents. The dissemination of information was modeled by a change in the state of one of the agents, which was later distributed according to the individual ability of personalities to assimilate new information. As a measure of the efficiency of the process, the time of the transition of the entire organization to a new state was considered.

The results of the simulation show that the change in the number of agents differing in individual effectiveness of agents and the degree of their difference from the average level of organization makes it possible to manage its effectiveness to a considerable extent.

Let's consider the impact on the organization of a positive heterogeneity of the communication network – the emergence of a group of agents that are more capable of processing information. For the clan structure, because of its homogeneity, when each agent is connected with each, the appearance of more productive agents leads to a practically linear increase in the efficiency of the organization as a whole. However, as the efficiency of individual agents increases, their influence on the organization decreases – we see an analogue of the law of diminishing return. The presence of diminishing returns is always connected with the presence of nonlinear constraints in the system, in our case this limitation is the finite size of the organization. The conclusion that can be drawn from the simulation results is that the increase in the individual productivity of agents should be in line with the goals set for the organization in terms of increasing its overall efficiency. When implementing organizational changes, it is necessary to determine exactly what levels of effectiveness of the organization we plan to achieve.

A variant for the reduced efficiency of a number of agents in the case of a clan structure stands apart. Despite the presence of a large number of channels for delivery of information, the emergence of a group of low-performance agents leads to the blocking of the processes of its dissemination, primarily within the group itself. The organization breaks up into two weakly interacting units, in the limit the connectivity of effective agents decreases, and the set of efforts becomes ineffective. It should be noted that the weakness of the system will only increase with any change in the structure of subordination.

The behavior of an organization based on project teams is different from the clan case. Initially, the presence of highly effective agents within a single group does not have a strong impact on the organization as a whole, significant changes occur when several groups become highly effective. The dependence is less smooth than in the case of the clan, since a particularly strong effect on the effectiveness of the organization is the presence of strong agents at a time when such people appear in the new project team.

The heterogeneity of the individual characteristics of agents as they decrease relative to the organization's average level can be viewed as a conflict zone, that is, a zone of misalignment of the interests of the managing and managed systems, which negatively affects organizational effectiveness. Such a conflict can be obvious or hidden, potentially have some kind of force of expansion, but in both cases their significance for organizational effectiveness is great. In fact, they act as indicators of bottlenecks of management, and their diagnosis and elimination of problem areas can affect the company's competitiveness [13].

The nature of such zones is diverse. On the one hand, this is the discrepancy between the request of employees in stimulating and the response proposal of the organization. On the other hand, such zones reflect the discrepancy between the employee's competence proposal and the organization's request [14].

Similar effects of the emergence of «problem zones» were found, in particular, in an organization focused on work «together», where the majority of employees are loyal to the local leadership, but not consolidated with it, the zones of heterogeneity arise that negatively affect the overall efficiency. At the same time, one can speak of a decrease in the competitiveness of the level of work that the organization creates, which can be achieved by eliminating the phenomenon of heterogeneity. Moreover, the incentives-ties offered by the organization to its employees can be characterized as satisfactory. This allows us to state that the potential for improving the efficiency of an organization is associated with a change in the set of incentive-proposals. At the same time, the maximization of the result is associated primarily with efforts to consolidate the team, and therefore requires substantial resource investments from management [15].

Studies show that one of the reasons for the negative heterogeneity in the team is demotivation of staff [16], the consequences of which are often underestimated by management. Demotivating factors reduce the employee's self-confidence, cast doubt on the stability of his official position, the possibility of promotion, and, finally, form a loss of interest in work in favor of the organization [17], that is, they negatively affect internal motivation. Moreover, in order to overcome the consequences of the emergence of demotivational situations, rather large volumes of the manager's personal resources are needed, the more significant the more destructive the process is. Moreover, according to R. Shprenger [18], the level of influence of demotivating situations is several times higher than motivating, which allows us to speak about the high speed of demotivation processes and, accordingly, the high rate of growth of destructive processes. It seems logical that the exclusion of demotivational situations is more profitable for the organization than the efforts to eliminate their consequences.

Another reason that determines the emergence of negative heterogeneity in the team may be the lack of social skills of individual agents that make up the structure [19]. Surveys have shown that employers believe that employees with low social skills are slowly developing, have reduced productivity, and in addition, create a malevolent climate in the team. The desire to exclude the possibility of the appearance of problem zones explains the management's desire to minimize the inclusion of «problem» elements in the structure. However, despite the fact that the issue of the availability and quality of social skills for modern business seems to be significant, often management consciously goes to create «problem areas», involving employees with reduced indicators of social skills, but with a portfolio of competencies important for the company.

According to the authors, there is a significant link between the competitiveness of the organization and the involvement of staff in the formation of the organizational proposal. At the same time, the mechanisms of formation of satisfaction, loyalty and involvement are closely related to the personnel motivation system. The system of material and non-material incentives, built on the equity of resource exchanges, can serve as a basis for increasing loyalty and involvement, and violations of the equity of resource exchanges lead to their reduction.

The authors' research showed [20] that the system of non-material motivation used by JSC Russian Railways, large and efficient within the holding, does not take into account the concrete demands of workers (locksmiths of the 1st shift, random sampling) of the Ramenskoye depot for the repair of a motorized rolling stock. The survey contained 11 questions, ten of which determined the level of motivation of workers, and the latter identified attitudes to types of non-material motivation. According to the data received, the organization motivates the employees rather well (80% of respondents say that it is good, and only 20% consider the level of motivation to be average). Moreover, 60% of respondents consider their salary level to be

appropriate for their work, while 40% find it difficult to answer, which allows us to talk about a certain satisfaction with the material component of motivation. At the same time, the workers of depots are interested in using of non-monetary incentives on a non-monetary basis by the administration, among them: participation in an important meeting, inclusion in the discussion of the company's plans, representation of the organization at an external event, participation in contests and training sessions, recognition of the employee's uniqueness, singling out his activities, and publication of articles on the work activity of employees.

It is logical to assume that the implementation of the request of workers of the depots to participate in the listed events will lead to an increase in their individual labor productivity, including through the development of a competitive component. Undoubtedly, and another: the orientation towards achieving individual goals stimulates the achievement of the organizational goal – increasing the effectiveness of the system.

Analysis of the individual motivators of employees of one of the services of JSC Russian Railways, which activities are related to personnel management and social development, showed that the main ones have an intangible basis: interpersonal relations in the team, the personality of the manager, normal working conditions and interest in it [21]. However, being effective, intangible motivators are not always competently used by the administration. Thus, a survey of employees of the service showed that only 45% are satisfied with the system of non-material motivation, and 36% are not satisfied, and 18% are partially satisfied.

An explanation of many of the dependencies that exist here is given in the works by E. A. Locke [22], who proved that the management process in the organization is ensured by the level of achievement of the goal and the level of satisfaction of employees in the course of realization of labor activity. That is, the employee's satisfaction with the management system is the key to his motivation. At the same time, there is a significant conclusion that the effectiveness of various tools of non-material incentives is variable for formation and maintenance of satisfaction, loyalty, involvement. And satisfaction, can be considered as the fact that the company arranges the employee, he agrees to be in it, and loyalty is an indicator that the employee likes the company, he accepts its goals and norms, is ready to work for a long time in it. In other words, loyalty is associated with a certain degree of integration of the employee into an organization, the instrument of which is the construction of «proximity bridges» as a positive sensory connection [23].

The effectiveness of the organizational structure increases with the transition of the employee from satisfaction to loyalty and involvement [24]. The authors established the weight of intangible incentives as a tool to increase internal motivation to maintain the involvement of staff. At the same time, material incentives, which act as a measure of fair remuneration for investing personal resources, are not only a tool for increasing satisfaction, but also an instrument for increasing the employee's internal motivation. Conversely, there are patterns of the negative impact of resource exchange injustices on employee involvement, even if they remain satisfied with the company [25].

It is proved that the potential of the organization's competitiveness is related to the formation of such motivational incentives, which correspond to the needs of the team, the creation of a micro environment, which makes it possible to realize the resource potentials of agents. Such an organization is characterized, on the one hand, by the commonality of the goal, and on the other hand by the willingness of the agents to cooperate to achieve it. In this situation, the effectiveness of resource investments of individual agents determines the competitiveness of the organization.

In connection with the fact that in real organizations, in addition to formal interactions between organizational units and within them there are always unformalized

ones, the question of how the characteristics of organizational effectiveness will change in the presence of such interactions becomes significant. Quantitative modeling of the organization's behavior, which is a set of interacting project teams, shows that the presence of unformalized interactions leads to a significant increase in organizational effectiveness. The mechanism of influence of unformalized interactions provides the individual agent with an additional channel for obtaining information about the organization, overcoming the constraints imposed by the subordination structure. However, one must know: a significant number of unformalized interactions lead to the fact that the organization acquires the features of a clan structure, a separate agent receives at some point a quantity of information, sometimes exceeding its capacity for processing, and the efficiency growth slows [26].

Conclusions. The general patterns revealed during the analysis of the impact of intra-organizational interaction processes on work efficiency are very significant for organizations of different orientations. For example, in the framework of the study [27], devoted to the tasks of increasing the level of motivation of the employees of the Situation Center of JSC Russian Railways, the main problem areas were identified, which included shortcomings in understanding the quarterly bonus system, the dependence of labor remuneration on performance, and the obvious lack of demand for elements of a complex of non-material incentives. To improve the motivation of the center's employees, improve the social and psychological climate in the team, reduce tension, and optimize intra-organizational relations, measures are proposed to help overcome existing problems.

In addition, a comprehensive analysis of the activities and intra-organizational relations of the Department of Personnel Management and Social Development of the Moscow Directorate of Traffic Management was carried out [28]. The management structures characteristic for the system of project teams were singled out, formal and informal interaction structures were defined. Variants of improvement of intra-organizational interactions are suggested, possible groups of employees are named, investments in the improvement of whose skills will give the maximum effect. Analysis of the informal network of the organization made it possible to identify potential bottlenecks of management and concentrate attention on their elimination.

These two examples confirm the validity of the approaches demonstrated in the studies, and, consequently, the promise of the topic stated in the article.

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