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**UP-TO-DATE MANAGEMENT OF A UNIVERSITY**

Kutuev Ruslan Azaevich (a)\*

\*Corresponding author

(a) Chechen State University, 32, A. Sheripova str., Grozny, Russia, kra-07@mail.ru

**Abstract**

The paper describes the management paradigm of the educational environment that has emerged in the new socio-political and economic realities. The rapid development of new methods of management in the economy since 1990s required corresponding changes in other sectors. A noticeable decrease in the state participation in the country's economic space, the transition to functioning according to market laws could not but affect the education sector. The need to work in the conditions of new realities also required a restructuring of the entire management paradigm of the higher education system. There is a need to create an effective management model capable of ensuring the priority role of the university in the socio-economic development of the region and the country. The main problem faced by universities in this matter is the conservatism of the university environment, the craving for the old administrative model of management based on the laws of a planned economy. A formal approach to this issue was no less dangerous. Some regional universities are confidently developing in the direction of the real transformation of the management paradigm and, having fulfilled the minimum program to become the leading universities in their region, set ambitious goals for themselves to occupy their "own" niche in the country's economic space. Chechen State University is an example of such a regional university.

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## 1. Introduction

The beginning of the 21st century is characterized by changes in the relationship between the state and higher education, justified by the economic processes taking place in the country. New challenges universities face necessitate the adaptation of the management paradigm to new realities. To survive, universities need to take their place in the new market realities and make efforts to become one of the key segments of economic growth both in the region and in the country as a whole. The socio-political changes that took place in the country in the early 90s led to the dismantling of the command-administrative system of management. The departure from a total planned economy in the context of emerging market relations showed the inefficiency of the previously existing management system and the need for a new approach to organizing management, including in the field of university management. Much attention has been paid to this problem in recent decades (Bobko & Petrova, 2017; Bychkova, 2016; Mintzberg, 2004; Strongin, 2017; Verbitskaya & Kasevich, 2006; Wissema, 2016).

## 2. Problem Statement

The new concept in the relationship between the state, science and higher education involves reducing the share of state funding and linking it to the effectiveness of the university, which implies the need to search for alternative sources of funding. According to the managers, in the educational environment the stable position of the university directly depends on the number of funding sources. The more sources of funding, the more stable the position of the university will be (Vasiliev, 2001).

## 3. Research Questions

The new political and economic paradigms that have arisen have predetermined high competition between universities for leadership in the quality of educational services provided, and the desire for economic efficiency. New economic realities have pushed to reorient segments of education towards consumers: the state, employers, students. There is a need for a new approach to university management.

Today, one of the pressing issues facing the organization is the choice and determination of the correct tactics and effective management model.

In management, there are mainly three management methods:

- Administrative;
- Economic;
- Socio-psychological.

## 4. Purpose of the Study

Before proceeding with a detailed analysis of these methods, it is necessary to clearly define and understand what the object of application of management techniques is. So what is an organization?

The concept of organization has a fairly broad interpretation. In general, this is the unification of a certain group of people to achieve common goals. The activities of these people must somehow be

coordinated. The presence of such coordination in activities allows qualifying this association as an organization.

Organizations are divided into formal and informal.

## 5. Research Methods

A formal organization is a legal entity, the goals and objectives of which are reflected in the constituent documents. The activities of this organization are strictly regulated by regulatory legal acts.

An informal organization is an organization without a legal entity.

We are interested in formal organization as a complex system.

To effectively manage an organization, there must be a clear understanding of the "nature" of the entity. Any organizational structure is a complex system (general structure) consisting of a number of simple systems (services, departments, etc.). The main task of effective management of an organization is to create conditions for combining the efforts of each autonomous element in order to achieve the common task facing the organization.

## 6. Findings

In the modern world, progress is impossible without combining the efforts in various areas of science. Since the middle of the twentieth century, in principle, there has been a process of mutual influence of completely different, as it would seem, scientific spheres, including the joint development of natural science and socio-humanitarian areas (for example, econophysics) (Mudrik, 2016; Vodolazsky, 2012; Vodolazsky, 2013). The term "econophysics" (economic physics) was first introduced into circulation by an American physicist Eugene Stanley. In the 90s of the twentieth century, there was a certain methodological crisis in the economy, a discrepancy between financial datasets and theoretical models in economics that existed at that time was revealed. Then, in the mid-1990s, an attempt was made to explain the complex problems posed by economics in terms of physical methods. Thus, a new interdisciplinary scientific direction of econophysics emerged.

Under the influence of turbulent processes in world social development, the management paradigm has also undergone significant changes. The management paradigm is a system of views on management based on new scientific results of scientists and perceived by managers. In our case, the processes occurring within the organization as a complex system are very well described and predicted by such a direction of physics as "synergetics" (joint development). The concept of synergetics is interpreted differently by different authors. But its essence, perhaps, was better conveyed by the German theoretical physicist Haken (1980). Haken suggested under the term synergetics to perceive the coherence of the interaction of parts in the formation of a single whole. In our case, this is the interaction of structural units to achieve a common goal.

As noted above, an organization is a complex system. In order for it to function effectively, it must organize itself. In synergetics, self-organization is understood as the process of formation of ordered structures in complex nonlinear systems far from equilibrium near the so-called bifurcation points. At these points, the system has not yet determined its further development vector (attractor) and minor

influences (making any decisions) can change its state. Here we can talk about the transition from chaos and disorder to order.

It is the combination of these subjects which implies the presence of an organization.

The purpose of management is precisely to create a kind of interconnected system from autonomous "unstable" subdivisions in a state of bifurcation by means of certain influences. Move from chaos to order"

Lack of effective interaction between various services and departments leads to disorder and chaos. Here, the need for all elements of the structure to recognize the priority of the main goal and tasks defined in the organizational documents of the organization comes to the fore. In essence, on the basis of comprehensive research, a new concept has arisen – synergetic management. If we move from the general to the particular, then the ideal description of management in terms of synergetics occurs in the education system, in particular in universities. This is due to the fact that the university is a rather complex nonlinear open system and, accordingly, there is an acute task of establishing an effective system for coordinating the activities of various subsystems and elements of the university.

The first step to establish an effective management system should be an understanding of the goals and objectives of the university and the division of services in accordance with the Charter of the institution into main and auxiliary. The main ones are the services that manage the processes of education and science. All others, by the nature of their activities, are serving. Without a clear distribution in line with these criteria, it is impossible to create an effective system for the functioning of the university. The activities of all structural units of the support cycle should be aimed at solving the goals and objectives specified in the Charter of the organization. This is ensuring the effective functioning of the university as an educational and scientific organization.

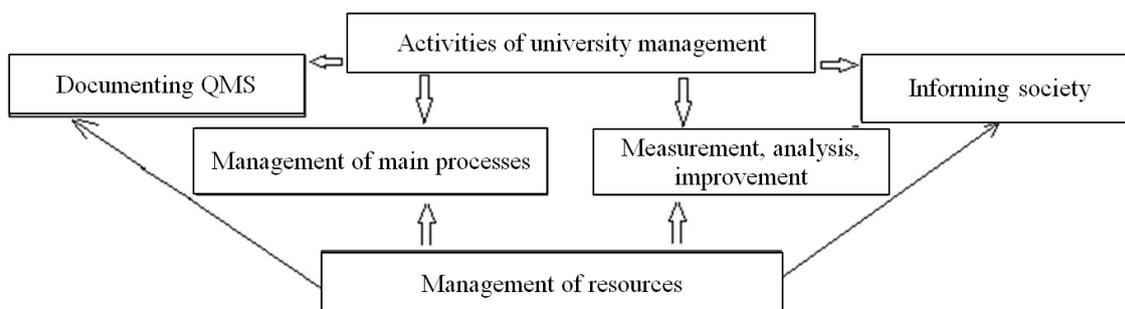
Based on the tasks facing the management at the university, to organize this work in 2004, the order of the Federal Agency for Education "On the development and implementation of an intra-university education quality management system in higher educational institutions" was issued (No. 304 as of 03.12.04). This system was supposed to become a universal management tool for ensuring high efficiency of the University's activities, which implies the release of high-quality "products" that meet the modern world conjuncture.

In solving this issue in universities, two approaches are noted:

- Formal. Such a service is created under the subordination of the vice-rector for academic affairs and is engaged purely in ensuring control over the educational cycle.
- Informal. A similar service is created under the direct subordination of the rector, and it is a key tool in the management of the organization.

Of course, the second approach is more effective, since the activities of all services, including financial, personnel and economic, are aimed at improving the quality of education. This education quality management service is essentially designed to organize, manage and control the effectiveness of all processes in the university; organize and provide methodological support to the processes; test the existing management structure and, if necessary, submit proposals for the management's consideration to adapt this system to newly emerging external changes.

In the quality management system of education of the university, the following structural components can be distinguished: the activities of the leadership in the quality system, documentation of the quality system, informing the society, management of the main processes, the activities of the university in measuring, analyzing and improving, resource management (Figure 01).



**Figure 1.** The quality management system of education of the university

The effectiveness of the implemented education quality management system directly depends on the choice of the nature, management style.

Management can be divided into two styles:

- Authoritarian;
- Systemic.

The authoritarian style was characteristic of management almost until the end of the twentieth century. This was often due to the traditionally resource-oriented organization of the past. At this stage, the organization is based on knowledge. In order for a system consisting of many subsystems to ensure their effective interaction, it is necessary to constantly improve the educational level of workers. Each service should have an understanding of the nature of the activities and the main aspects of the work of related services with which they are called upon to interact in solving common problems. However, this is only a part of the measures that will have a short-term effect. As noted by the authors of (Ignatov & Albastova, 2006), if the participation of employees in decision-making is not ensured, then all other changes make only a temporary improvement in the activities of the organization.

In the 21st century, the concept of democratization of the management process came to the fore in management. For the effectiveness of this process, work should be established to constantly monitor the compliance of the levels of professional knowledge and skills of employees of all structural units with the requirements for competencies, to ensure the production of competitive specialists adapted to the existing conjuncture and the production of high-quality science-intensive products. There should be a clear understanding: a "democratic" approach to university management should be accompanied by constant work on the self-improvement of each specialist.

In modern conditions of rapid changes in external conditions and market needs, the university is faced with the task of timely response to such changes, including structural responses. The organizational structure must constantly adapt to external changes that affect the activities of the university. To solve this problem, a systematic approach should be established in the activities of all services of the university.

In complex multifaceted open systems (Prigozhin & Stengers, 2008) such as universities, only a systematic management approach is effective.

The main task of system management is the organization and maintenance of close interaction as a whole between the leadership of the university and the teaching staff, between the teaching staff and service personnel, between various services and departments. For this, interstructural informative communications must function effectively.

To achieve this goal, various methods are used, which we noted above:

- Administrative;
- Economic;
- Socio-psychological.

These methods are presented in detail in (Ignatov & Albastova, 2006).

**Administrative management methods** include:

- regulation;
- organizational design;
- rationing.

The purpose of these methods is to establish the order of organizational activities (charter of the educational institution, local acts, etc.), general rules that must be followed. These management methods are used to achieve results when it is necessary to focus the efforts of the team on solving specific management problems. To achieve the effectiveness of these methods, the condition must be met of an impeccable degree of labor discipline, in which all managerial messages “from above” are accurately received and without distortions are fulfilled by lower levels of management. Administrative methods also have certain weaknesses. Effective when certain conditions are met in small teams, they are not always applicable autonomously without reference to other methods in large organizations, where the interaction pattern is much more complex than in small organizations. As shown in (Ignatov & Albastova, 2006), the implementation of administrative methods is carried out using the following mechanisms:

- Administrative: order, order, instruction.
- Regulatory: law, regulation, instruction, task.
- Economic: salary, regulation of the percentage of bonuses paid, the cost of paid services provided by an educational organization.
- Socio-psychological: reprimand, awarding a diploma, gratitude, etc.

Economic management methods.

First of all, this is a system of wages and incentive payments, which should be inextricably linked to the performance of a university employee in his field of activity or to the performance of an educational organization as a whole. In addition to these methods, the following are also used:

- guarantees and compensations;
- additional salary;
- prizes;
- benefits and privileges;
- material aid.

The most important advantages of these methods are their flexibility and impact on people through their immediate interests.

At the same time, it should be noted that economic methods, having significant advantages, are also not deprived of a certain disadvantage associated with the object of application, in particular, in relation to mental workers, for whom economic incentives are essential, but they are not the most important ones. Here, the demand and effectiveness of socio-psychological methods increases significantly.

#### **Socio-psychological methods.**

Within the framework of these methods, two directions of influence on the behavior of an employee and an increase in his labor activity can be distinguished.

The first goal is the formation of a favorable moral and psychological climate in the team, the development of friendly relations between its members.

The second goal is to reveal the personal abilities of each employee, help in their improvement, which ultimately leads to the maximum self-realization of a person in their work activity, and, consequently, to an increase in their efficiency.

Content:

Socio-psychological management methods play an important role in the fight against staff turnover and involve the following:

- the influence of the leader on the moral and business inter-leaf climate in the team;
- the investigation of the degree of impact of the structure of the organization or structural unit on the activities of the team;
- the study of the psychological characteristics of various forms of collective labor;
- taking into account the degree of influence of the existing disciplinary practice in the organization on the mood of the collective;
- the influence of style and management methods on interpersonal relationships in the team;
- the influence of the individual in the team and the identification of employees with leadership qualities;
- the psychological foundations of the authority of the individual.

Forms:

- social research in the form of a questionnaire, survey;
- social experiment, communication trainings;
- interviewing and personal observation;
- social stimulation and encouragement.

It is obvious that the choice of only one of these methods for organizing effective management of the university is counterproductive. The maximum effect of university management can be achieved with the ability of management to combine all these methods. Together with strict control over the implementation of managerial decisions, a system should be established that allows each of the managerial links to feel their involvement in the way out of the state of uncertainty (bifurcation). There is a natural need for self-development, which presupposes the threshold of this introspection and self-esteem. At this stage, a significant motivational component is to create conditions under which the

activities of all employees are restructured adequately to the set management goal, due to which consistency in work is achieved.

The cornerstone problem of the new management paradigm is the need to ensure and adhere to all cycles identified in the structure of education quality management. A formal attitude to any of these cycles leads to a sharp decrease in the efficiency of the entire system of education quality management. In the new realities of conceptual changes in the management of educational institutions, one of the main tasks for the leadership is the need to achieve a balance between the management function of the university and the implemented "democratic" system of decision-making on the choice of goals and development paths, ability to keep the process from sliding into "anarchy". For this, a decision-making mechanism must function, which provides for the consideration of collegial opinion. This mechanism is the Academic Council of the university. Thus, the task of establishing the effective work of this body becomes urgent. For this, it is obvious that the initiators of any changes, improvement of processes brought up for discussion and adoption of a collegial decision should be offered a SWOT-analysis. Such analysis of issues allows analyzing the depth of consideration of the problem by the initiator and contributes to the adoption of an adequate management decision. At the same time, it is also a kind of incentive for the need for constant self-improvement both for each of the workers, and for the structure or subsystem as a whole as an element of a single complex system. Thus, we can say that when making managerial decisions at a university, it is advisable to use such a mechanism for determining decision making as a decision tree. On this tree, by means of introspection and self-examination, the current state of the development of the university is marked. The points of uncertainty (bifurcations) are determined, various options for the development of the university are given, depending on the choice of the direction of development (attractor). At the present stage of development of the higher education system, the role of employers, the main users of the "products" produced by the university, has significantly increased. This is both the legally approved obligation to involve representatives of employers in the educational process, and the need for a joint work training program with the main employers (requirements of the Federal State Educational Standard). All this speaks of the increasing role of employers in organizing and ensuring the educational process. In this regard, the question is raised about the need to involve representatives of employers in the management system of education. In particular, it is advisable to involve representatives of the main users of the product of the university's activity in the work of collegial management bodies (Academic Council).

An essential role in increasing the efficiency of the university management system is played by not formal, but real involvement of students in the management process through their various associations. Often, the image of a university among graduates of schools, colleges, technical schools is formed through the perception of a given university by its students. The connecting link between the leadership of the university and the students is the student asset, the trade union and other associations of students. As noted above, the objectives and goals set for the university can be achieved only by joint efforts, including with the active support of students. It is here that mistakes are made, which can ultimately lead to a "breakdown" of the seemingly impeccable progressive movement of the university along the path of development in modern realities. It is important that in the collegial bodies of students, at the head of their various associations, there are students who enjoy authority among students, since it is they who are the

conductors of the policy of leadership in the student environment. The level of students' perception of the adopted conceptual management and other decisions by the university will depend on the degree of their authority. From the “shoulders” of the leadership of the educational structural divisions of the university, falls off a large burden associated with work with students in various directions. At the same time, the student's asset must have a clear vision of the development of the university and feel their involvement in all the positive changes taking place in the educational institution. All these seemingly insignificant points play a significant role in our management paradigm. A formal approach to any seemingly insignificant managerial step can lead, speaking in the language of physics, to a random error risks growing into systemic ones, which can have a significant impact at the “output”. Given the current tough competition between universities, this factor is important.

One of the main mechanisms for ensuring the effectiveness of education management at a university is the introduction of modern information technologies in all areas of its activities. The main role in this is played by information and communication technologies. The introduction of information technologies into the management system allows:

- increasing the effectiveness of control over the organization's activities;
- reducing the time-consuming and at the same time increasing the range of possibilities for planning and qualitative analysis of the made management decisions;
- increasing labor productivity in the management segment of the university;
- ensuring the entry of the local resource systems of the university into the general information space of higher education;
- providing more effective communication with the main users of the services provided by the university.

## 7. Conclusion

1. It is impossible to create an effective model of university management without establishing strong information and communication links with the environment. There should be a clear understanding that a university is a rather complex open system.
2. In complex multifaceted open systems such as universities, only a systematic management approach is effective.
3. The combination of three management methods – administrative, economic and socio-psychological – can enable a university to achieve a high level of development and occupy a worthy niche in the modern economic space;
4. The collegial model of management of a higher educational institution is the most developed form of management and allows ensuring the highest quality management of a higher educational institution when integrated into a multilevel management model of a higher educational institution.
5. One of the main tasks of the modern management system is to create favorable conditions for the implementation of the possibilities of the controlled system, which appear only with the expansion of the initiative and responsibility of each subject of self-government, the wider use of methods of self-development and self-government.

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