

# Reengineering of Business Processes of the Higher School: its Prerequisites

**Bogdanova Anna Vladimirovna, Aleksandr A. Korostelev, Olga L. Shepelyuk, Anna E. Rodionova, Irina N. Fardeeva, Andino Maseleno**

*Abstract: This paper presents reengineering of business processes of the higher school. Reengineering in the framework of this article means the change in the functional structure of business processes due to the impact of various factors of the external and internal environment of the university. It is noted that the need for business process reengineering appears in each university periodically, as the processes themselves tend to minimize changes, and the requirements for the university from the outside are constantly increasing. It was concluded that the use of information technologies as the basis for the reengineering of business processes of a university allows one to streamline this process and practically eliminate or at least noticeably minimize redundant informational activities.*

*Index Terms: reengineering, business processes, higher school, university*

## I. INTRODUCTION

In the conditions of actively developing Russian education [1][4], one of the modern specific factors that encourage universities to change the internal organizational structure and business processes is the change in the nature of the relations between them in the course of the reforms [5][7]. There are constant qualitative changes in organizational and legal forms, property institutions, educational standards, training technologies, etc. Nowadays, the university should show constant mobility and readiness for changes in the internal structure and business processes [8][11]. This is necessary to ensure that the level of services provided is in line with the social and state order, while maintaining competitiveness [12][15]. This article discusses the contradictions that currently exist in the higher education system of the Russian Federation. Among them is the desire of intra-university administrative and management structures to create a closed educational, scientific, technological and organizational cycle with a clear need for territorial and industrial development. It was also noted that Russian universities are in the process of active development, their borders, as well as the environment of their activities, are still mobile, and the introduction of the latest information and communication technologies makes it necessary to revise many traditional axioms of management of university business processes [16][18].

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**Bogdanova Anna Vladimirovna**, Togliatti State University, Russia  
**Aleksandr A. Korostelev**, Togliatti State University, Russia. E-mail: azshar2017@mail.ru  
**Olga L. Shepelyuk**, Tyumen Industrial University, Russia.

**Anna E. Rodionova**, Bashkir State Pedagogical University Named after M. Akmulla, Russia

**Irina N. Fardeeva**, Kazan Federal University, (Naberezhnye Chelny Institute), Russia.

**Andino Maseleno**, Institute of Informatics and Computing Energy, Universiti Tenaga Nasional, Malaysia; Department of Information Systems, STMIK Pringsewu, Lampung, Indonesia.

innovative development of national education and its The corporate model of educational institution management is described as the best option for the release to the world level in terms of the quality of formal educational results, the status and image of universities and their graduates. The model deals with the complete reengineering of the system of intra-university business processes, since the principles, concepts and technologies used in this field are today noticeably inferior to those taken as a basis in other industries, for example, in finance or industry [19][21].

## II. TARGET MODEL OF THE ADMINISTRATIVE AND MANAGEMENT SYSTEM OF THE UNIVERSITY

While in economically more developed countries, territorial-industrial development is increasingly becoming the main focus of universities, support for production facilities concentrated alongside them and access to promising new educational and scientific horizons, in Russia, university educational and management structures are changing rather to create a closed educational, scientific, technological and organizational cycle as shown in Figure 1.



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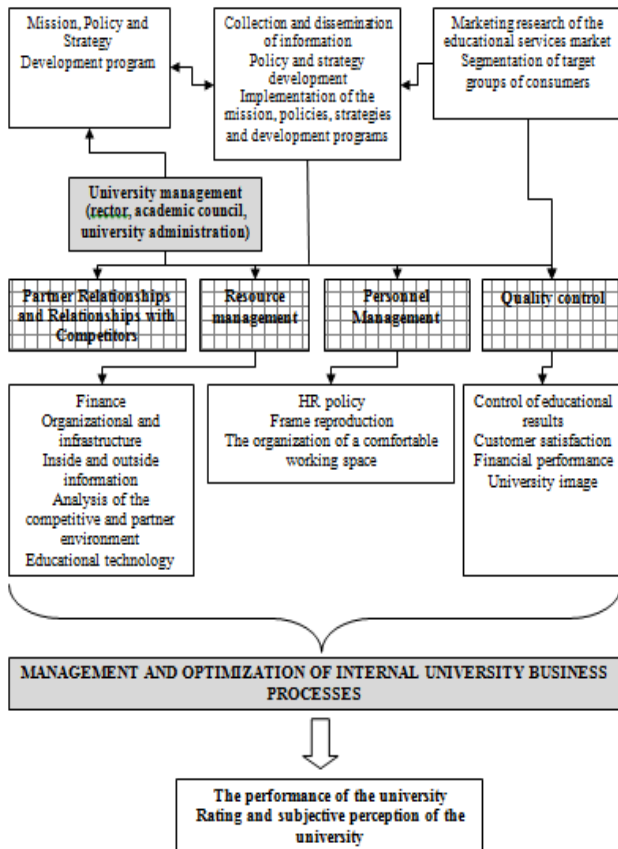


Figure 1. The generalized target model of the administrative and management system of the university

In addition, during the ongoing educational reforms, many universities, having received freedom of action, to some extent lost controllability. This is due to the fact that over the decades of centralized management in our country a school of so-called state administration of educational institutions has been formed. Developed and time-tested skills and techniques of this school can be successfully implemented in the management of a single unwieldy structure, rather than a specific university in today's conditions, which can rather be described as a competitive market.

### III. CORPORATE MANAGEMENT MODEL IN EDUCATION

Many Russian universities are in the process of active development, their borders, as well as the environment of their activities, are still quite mobile. At the same time, the introduction of the latest information and communication technologies makes it necessary to revise many traditional axioms [5]. The current stage of development of the educational system is characterized by a constant increase in the volume of information, the rapid development of information technologies, their widespread introduction into all educational processes, which in turn are undergoing more and more significant changes. Informatization is a general social phenomenon, a tool, a tool for the formation of culture and the development of civilization. Structurally stable with a rigid internal organization of the Russian university is gradually becoming a thing of the past.

It is replaced by the corporate management model of an educational institution, as the best option for innovative

development of national education and its entry into the world level on the quality of formal educational results, status and image of universities and their graduates as shown in Figure 2.



Figure 2. Corporate management model in education

The issues of close coordination of actions of the whole structure, the centralized management of the university, the business processes within it and, above all, the issues of optimal information management, receive the greatest relevance. A Russian university should be a combination of educational and technological foundations of the establishment of a centralized management period and various modern market elements borrowed from economics and optimal control theory [2]. For the successful development of the university, it is necessary to identify the most effective and promising areas, coordinate work on them, create a favorable internal climate, choose the optimal form of teamwork, optimize workflow, and use the capabilities of modern information technologies in the field of management.

In addition, the entire system of intra-university business processes as a whole often requires complete reengineering, since the principles, concepts and technologies used in this field are today noticeably inferior to those taken as a basis in other industries, for example, in finance or industry. By reengineering in this case, we understand the change in the functional structure of business processes due to the impact of various factors of the external and internal environment of the university. This is not a mechanical process of transferring the experience of other areas of activity, since it is necessary to take into account the peculiarities of the education system, and the social and territorial features of each specific university. This is a creative search for new optimal solutions.

#### IV. SIMULATION MODEL OF REENGINEERING OF A UNIVERSITY'S BUSINESS PROCESS SYSTEM

In Russian education, positive processes are increasingly growing, allowing the issue of effective management of business processes at a higher education institution to be put as a practical task. In Figure 3 presents a simulation model of the process of reengineering a university's business process system, performed using the SADT methodology. Information technology and well-coordinated information and document management at the university should play a decisive role in this process. It should be borne in mind that information today acts as an independent factor of the internal environment and the most common use of various information as a tool for quickly solving university problems, developing effective strategic solutions, coordinating joint actions and adapting to external conditions.

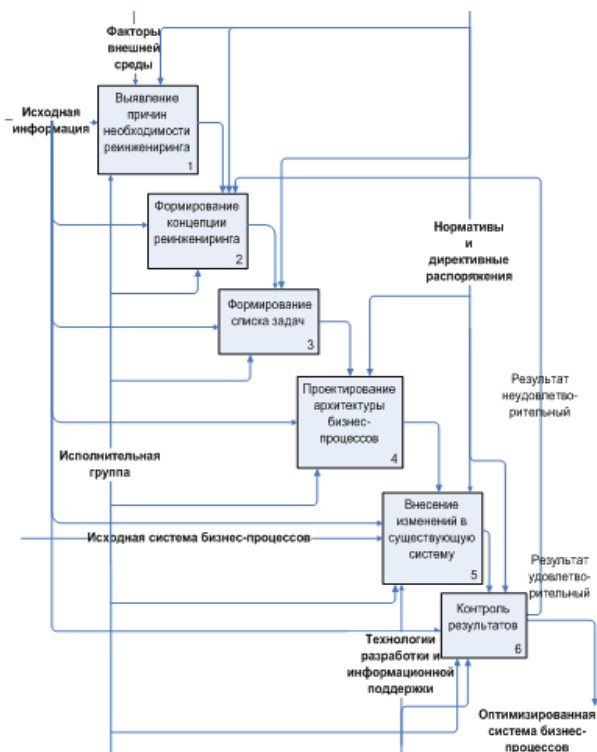


Figure 3. Simulation model of reengineering of a university's business process system

The information systems of universities, their information infrastructure, information and communication space, which is not only an environment providing access to information, but also a basic part of administrative and management activities, have acquired special importance in modern conditions [22][25]. It is a set of systems, processes and services, without which it is impossible to ensure the correct organization of both management and training. Effective management of resources and business processes at the present stage, especially in the conditions of corporate management of the university, requires constant modeling and analysis of the vital processes of its main subsystems. Therefore, it is important to correctly and correctly design the functional architecture of the university's business

processes, build and further build a technical information platform within the information and communication space.

#### V. CONCLUSION

The need to reengineer business processes sooner or later appears at the university with a noticeable frequency. This is due to the fact that by themselves all internal processes tend to minimize changes, but at the same time the requirements for the university from the external environment are constantly increasing. Correct restructuring of business processes ensures compliance of administrative and managerial activities within the university with existing conditions, including changing educational standards, changes in the competitive market of educational institutions in the country and the region. The use of modern information technologies as a basis for reengineering of business processes of a university allows you to streamline this process and eliminate or minimize the informal side of the university's work with information resources. Modern technologies are developed in such a way as to provide users with comfortable work, and to the management of the institutions using them - the most transparent and quick access to any inside information. This area is the most promising in the development of Russian universities, since the high dynamics of the evolution of technological means of working with information is the spirit of the times, the most important factor in the life of the whole society.

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