

The System of Internal Audit as a Management Tool of Key Processes in Regional Flagship University

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Abstract: The study attempts to justify the need for the organization and development of the university internal audit system in order to ensure high competitiveness of educational services of the developing Flagship Technical University in Volgograd region. The researcher prove the necessity for implementing this kind of system, define the database of its functioning in the framework of the joint structure, clarify its relation with the quality management system and summarize the experience of the leading Russian universities in the research area. Particular emphasis is placed on the necessity to grant for the system of internal audit the status of the main internal procedure for monitoring the quality and efficiency of business processes implementation (primarily the implementation of educational services) for more effective quality management, taking into account the increasing requirements of regional and Federal entities to the graduates.

Key words: Benchmark-universities, internal environment, external environment, quality, Flagship University, processes, requirements, internal audit system, quality management system

INTRODUCTION

On the background of the reform and modernization of the Russian system of higher education, the continual integration of national universities into the world educational area and improving the system of standardization and control of the process and results of universities educational activities, the assurance of high quality of the services provided has become a major landmark in the educational process.

Launched in 2015, at the initiative of the Ministry of Education and Science of the Russian Federation, the program for the establishment of flagship regional universities is another progressive step towards improving the quality of the student's knowledge and skills at regional universities.

This basis has been one of the predominant objectives for the merger and integration of Volgograd State Technical and State Architectural Universities into the Flagship Technical University of Volgograd region (Volgograd State Technical University, VSTU) (Anonymous, 2016).

Correlating the concept of quality with educational services, it is necessary to understand that today "the quality of educational services" is more than a simple measure of conformity to the expectations of the consumer of educational services (student) with their actual learning outcomes. In the external environment, especially at the regional level, there are also other

stakeholders, interested in the "qualitative results" of learning, who impose their specific requirements to the level of professional training of future graduates.

Among these stakeholders, there is the state (represented by the various authorities at the Federal, regional and municipal levels), employers, the professional community and other stakeholders.

A kind of "guarantor" of the quality of educational services in modern national universities which is an integral part of the internal environment and that takes into account the "external" requirements to these services is the Quality Management System (hereinafter-QMS), it includes, in addition to the principles, functions and basic quality management guidelines, certain quality monitoring tools for implementation of the requirements and procedures (Gonik *et al.*, 2016).

With regard to the activities of universities such monitoring tool is the internal audit. The continuous, systematic, targeted, reasonable and justified from the perspective of the external requirements, impact on the educational process with the aim of improving the quality of educational services is the main purpose of the QMS in modern Russian universities.

For decades, the quality management concept, based on the implementation of the QMS and the execution of the required standards is one of the dominant trends in the structure of administrative and management influences on the educational process in Russian universities. It is through the implementation of the QMS

in practical activities of universities, the effective achievement of the stated objectives becomes possible owing to consolidation of the internal parameters, by the fulfillment of the requirements of the external environment and through meeting the needs of all stakeholders in the quality of educational services the reproduction of the management cycle in the activities of the university is provided.

On the other hand, the existing necessity of searching the ways of optimization of the expenditure part of the universities budgets, the need to find ways to attract the most talented students as well as the need to enhance the position of Russian universities in the world and national rankings, improving their competitiveness, will require the development and implementation of certain systemized procedures. Such procedures should satisfy the indicated requirements on the basis of improving the operational efficiency and quality of development, adoption and implementation of administrative decisions of all levels of university management.

Their implementation is particularly urgent in the scope of consolidation of efforts of regional universities to create flagship universities.

In the domestic and world practice, it is recognized that such an integrated, adaptive and flexible system (a set of monitoring procedures provided that they are formalize) acts as the system of internal audit of the university, used to improve the efficiency of the main substantive activities of the national educational organizations.

IMPLEMENTATION BASE OF INTERNAL AUDIT SYSTEM OF A FLAGSHIP UNIVERSITY

The internal audit system of the university is considered to be one of the most effective mechanisms of monitoring and quality control of internal processes implementation. In fact, the internal audit system of a university is often understood as a complex of interrelated measures and procedures, aimed at optimization and improvement, first of all, of its basic, i.e., educational, activities with regard to the strategy, goals and objectives of the system functioning.

Therein lays the difference of the similar audit system for educational organizations and commercial organizations where the outcome of internal audit in its "classic" understanding is the revealing of reserves of profit growth with account of fulfilling legal requirements.

Historically, the understanding of the main target orientation of the practical implementation of the internal audit system in universities has been the reason that within the majority of universities in Russia, it is

implemented as an integral part of the quality management system and is aimed at monitoring and assessment of primarily, the university educational activities.

Though internal audit in the framework of educational institutions, takes into account certain adjacent aspects (e.g., financial, managerial, etc.), it is focused on identification of reserves to improvement the quality of the educational services provided. Meanwhile, there are other approaches to the practical implementation of the internal audit system of universities. Embodiments (variants of implementation) of the system of internal audit of a university:

- The system of internal audit as a documented procedure in the framework of the quality management system
- When the scope of the quality management system in educational organization is limited
- When the nature of the quality management system in the educational organization is complex
- The individual elements of the system of internal audit of educational activities in the framework of other tools for monitoring the effectiveness of the university activities, regardless of the presence/absence of the quality management system
- The system of internal audit as an independent tool for monitoring and controlling the quality of educational services

It is important to distinguish between the internal audit system of educational activity and the internal audit system of quality management. In the case of internal audit system of quality management, the object of audit is the process of quality management in the educational organizations, various aspects of optimization of the quality management system, integration into the management structure of educational organization. First of all, this is the assessment of the effectiveness of implementation and functioning of the quality management system.

In the specified case, internal audit is a documented procedure, the implementation of which is aimed primarily at improving the educational services provided by the university but is limited by the scale of the QMS. If, for any reason, the contour of the QMS of the University does not include some process or some structural division, the audit impact on the quality of educational services in this case will be either impossible or will give distorted results. On the other hand, if the QMS of the university is really applied to all, without exception, internal processes, the documented procedure for internal auditing also becomes complex as if it was implemented

outside of the quality management system. In this case, it is possible to assess (to a reasonable extent) the effectiveness of educational activities on the basis of the audit within the QMS, although, the evaluation is still incomplete. In the practical part of the activities of educational institutions, for example while budgeting, personnel certification or when providing information to regulatory authorities, the individual elements of internal audit which characterize certain aspects of the quality of educational services, can also be implemented.

The “peak point” of the development of the internal audit system should be considered as the embodiment 3, when the system is an independent tool for monitoring the implementation of most of the processes in the university, since, in this case, it is possible to identify not only direct but also indirect factors that affect the quality of rendered educational services.

Therefore, with any of the above embodiments (variants of implementation) of the system, the main aspects and peculiarities of implementation of the internal audit system within the educational organization are based on and originate from a variety of requirements (primarily of the external users of the university educational services and other interested parties) imposed to educational activities.

In turn, the requirements are formalized by means of targets (i.e., results that a participant of educational process aims to achieve) and specific methodological apparatus—a peculiar “method of targets delivery” to the educational organization which is the instrument of practical interaction of the university with the external environment.

Thus, the external base of the system of internal audit is presented by the requirements that are applied to the educational process by the external participants. The requirements to the educational process within the university are set on the basis of the external requirements.

The complex of these requirements is the basis of the internal audit system as while implementing it acts as an indicator of the quality assessment of the educational services provided. This is the methodological apparatus of design, implementation, operation and optimization of the internal audit system of the university.

So, the internal audit system of the university should be focused on the rapid identification of accomplishment of objectives, targets (orientations).

International requirements (internal base of the university audit system)

Target setting (orientations):

- The need for maximum compliance with requirements, both regulated/specified and desirable

- The need to increase the quality of education services to consider education market conditions, trends, challenges of the times of the time, etc

Methodological apparatus:

- Internal orders, instructions, regulations, acts, guidelines, processes, procedures
- QMS, quality policy and its purposes, system for monitoring and quality assessment of educational activities, etc

External base of the university audit system state requirements

Target setting (orientations):

- Monitoring and quality assurance of educational services
- Social importance of educational services on the national scale
- Economic significance, reasonability, feasibility, etc

Methodological apparatus:

- Orders, instructions, regulations, statutes, acts, guidelines
- Recommendation state professional and educational standards, etc
- International, supranational standards, guidelines

Consumer (customer) requirements

Target setting (orientations):

- Employment
- Mobility
- Prestige and social significance of education obtained
- Adequacy/compatibility of the knowledge gained with the market reality, etc

Methodological apparatus:

- Professional industry standards, job descriptions
- Target training, training periods
- Public-private partnership in education, etc

Competition requirements

Target setting (orientations):

- Innovative experience and best practices
- The prestige of the university and the competitive position in the regional and national scale
- Opportunity to attract incoming students and find new directions/areas of educational activity, etc

Methodological apparatus:

- Contests, competitions, rating/rankings
- Benchmarking, partnership, competition, joint projects
- Efficiency monitoring, etc

Othwer stakeholders requirments (public organizations, Unions, associations, etc.)

Target setting (orientations):

- Public importance, the use of future specialists
- International and cross industry integration
- The prestige of education professions in the country and in the world, etc

Methodological apparatus:

- Agreements, principles standars, codes
- Grants and joint projects
- Professional/public accreditation

At the same time, this set of targets is also a means of ensuring control of efficiency of the internal audit system itself of the implementation of its goals and objectives, regardless of whether such a system is a part of the university QMS or not.

It is clear that the above list of targets is not the final version but minimum essential for the development of the internal audit system of the University and for improving its competitiveness.

Therewith, the quality of implementation of these targets should be increased due to consolidation of actions in the framework of merger/integration of universities into the regional flagship one.

It is also worth noting that in the framework of the emerging regional flagship university the internal audit system needs to become comprehensive, it should identify not only growth potential of the quality of educational services but other related processes, including QMS processes.

QMS PROCESSES OF THE COOPERATE UNIVERSITY AND INTERNAL AUDIT OF THE EDUCATIONAL SERVICES QUALITY

Modern concept of QMS is based on the effective implementation of the process approach with singling out certain groups of processes. And activities of the University in this sense are no exception.

With regard to the establishment of a Regional Flagship University, it is QMS that could become a kind of “merger base” of potentials, structures and internal business processes of the integrating universities, because this system is unified, formalized and standardized for a wide range of administrative and managerial tasks. For example, structural modification of QMS processes of the merged/united Flagship Technical University of Volgograd region may take the following form (Fig. 1-3).

The internal audit system, implemented before the merger is initiated by the subprocess 1.5 and process 4 in Fig. 2 and aims to monitor the achievement of target values of the indicators which characterize subprocess 2.1-2.11 and 3.1-3.8 of scientific, educational and other support activities of the University. For example, for the subprocess 2.3 “pre-university training” such indicators are the number of applicants at the Faculty of Pre-university training of VSTU during the year and the percentage of applicants (those who attended pre university training courses) enrolled in educational programs of VSTU, etc.

Meanwhile, in the framework of the consolidation of the structures, potential and objects of technical (facilities), financial and information support/provision of the Regional Flagship University, the initiation of internal audit, being strategic in nature is carried out within the subprocess 1.1. Under this approach, internal audit is an independent instrument of quality policy. In prospect, consolidate united indicators will be subjected to audit. And the composition of these indicators will vary.

In this approach, special emphasis is placed on the orientation of accountability of the external requirements, i.e., target settings and demands under the requirements of external environment, in accordance with which the composition of indicators, characterizing QMS processes will also subject to revision and adjustment.

The composition of criteria for evaluating the effectiveness and quality of educational services provided which are to become more market-oriented and competitive will also change. Such an approach would better meet the requirements of the current version of QMS standards GOST R ISO 9000-2015 and 9001-2015, predetermining features of the development for QMS of a flagship university through the system organization of internal audit of the quality of educational activities (Fig. 3). For evaluation of the practical implementation of this approach there is a good reason to consider the experience of setting and implementing internal audit systems in universities.

EXPERIENCE IN THE IMPLEMENTATION OF INTERNAL AUDIT SYSTEM AT LEADING NATIONAL UNIVERSITIES

Based on the best practices of organization, implementation and development of the internal audit system of educational activities in Russian



Fig. 1: The implementation base of the internal audit system of a flagship university

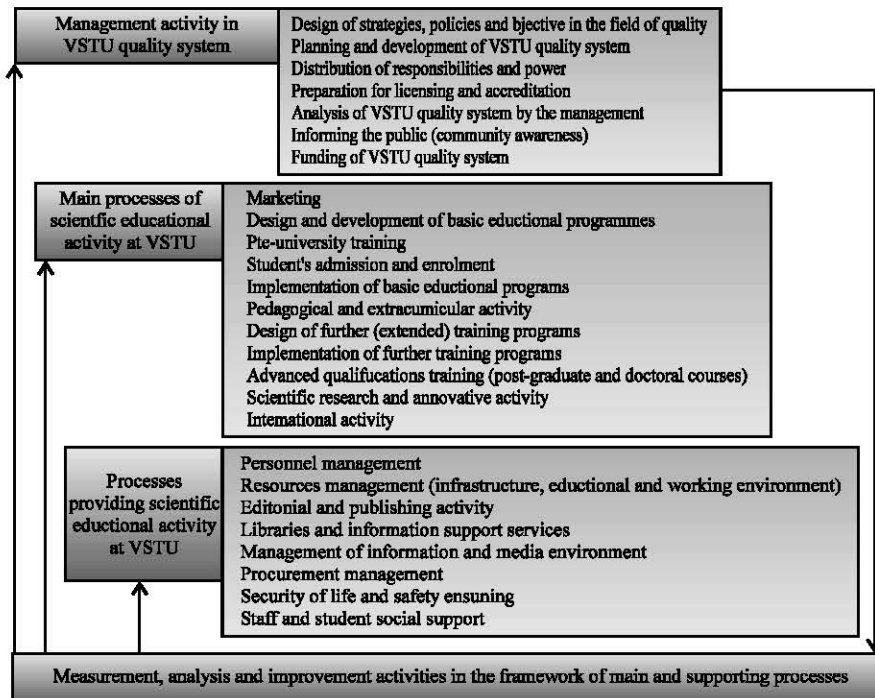


Fig. 2: Generalized groups of QMS processes of VSTU before the merger

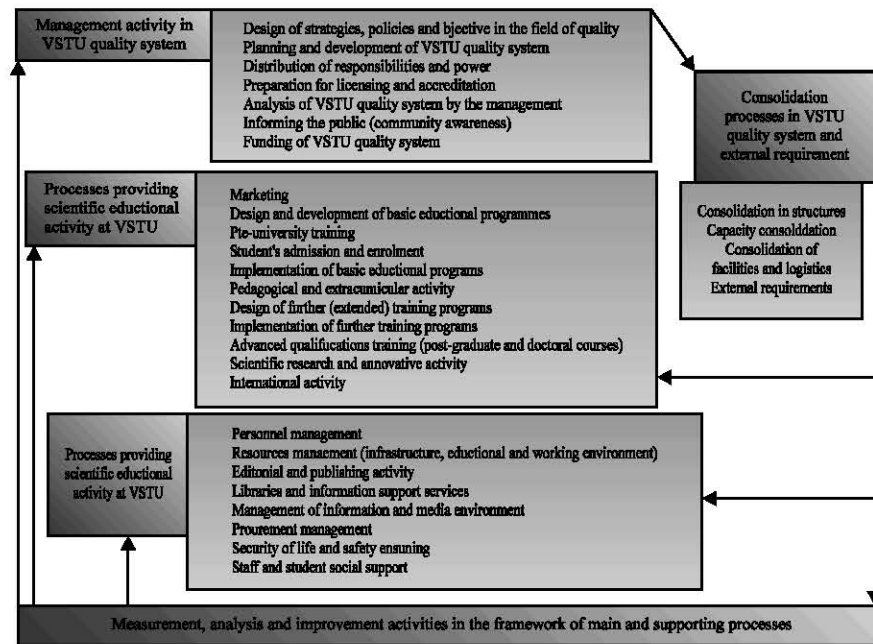


Fig. 3: Process groups of the quality management system of the united/corporate Flagship Technical University of Volgograd region

benchmark-universities (“leading”, “advanced”, “breakthrough” universities, among them are Moscow State University n.a. M.V. Lomonosov, MSTU “STANKIN”, MADI, MAMI, MSTU n.a. N.Uh. Bauman, MISIS, TSTU, SFU, UFU, Tomsk Polytechnic University, etc.), it can be concluded that in the vast majority of these universities the system of internal audit is a documented procedure in the structure of highly-developed and well-organized quality management system. The main features of internal audit in leading universities:

- The object of the study is the main processes rather than divisions, curricula, staff, infrastructure, etc
- Audit is comprehensive and permanent
- Clarity and high quality of the initial planning of the audit
- Ensuring the operational efficiency of audits
- Promoting the idea of quality and work with emotional mood and psychological attitudes of audited entities (executors/contractors and customers of the process)

In this case, in the framework of the quality management policy in advanced universities, internal audit within the QMS of the university is carried out for the purpose of compatibility assessment of the educational and other activities or individual processes with requirements and basic standards, directives,

regulations orders, decrees and other documents, i.e., the requirements of a methodologies of internal audit base; assessment of the QMS conformity to the requirements of ISO; updating the QMS and the internal audit procedure, identifying opportunities and ways of their improvement performance assessment of the University activities or individual processes from the point of view of achieving the objectives defined in the strategy and quality management policy of educational activities definition of inconsistencies in mainstream or in separate processes compared to the requirements of the authorities or the external environment; checking the effectiveness and efficiency of revision actions based on the results of previous audits (Tumanova, 2009).

Internal quality audit of the main activities in this particular case is a systematic documented process of examination of the university and its processes based on existing documentation and determining compliance of the object of study with specific audit criteria, the main aims and objectives of the university, external and internal requirements (Tumanova, 2009).

The best practice suggests that the object of the study should serve the main processes, rather than divisions, the curriculum, staff, infrastructure, etc., although fragmentary check “on demand” is not excluded. For example, audit of divisions loses largely in terms of completeness of the information received as its elements of the main educational activity (sub-processes,

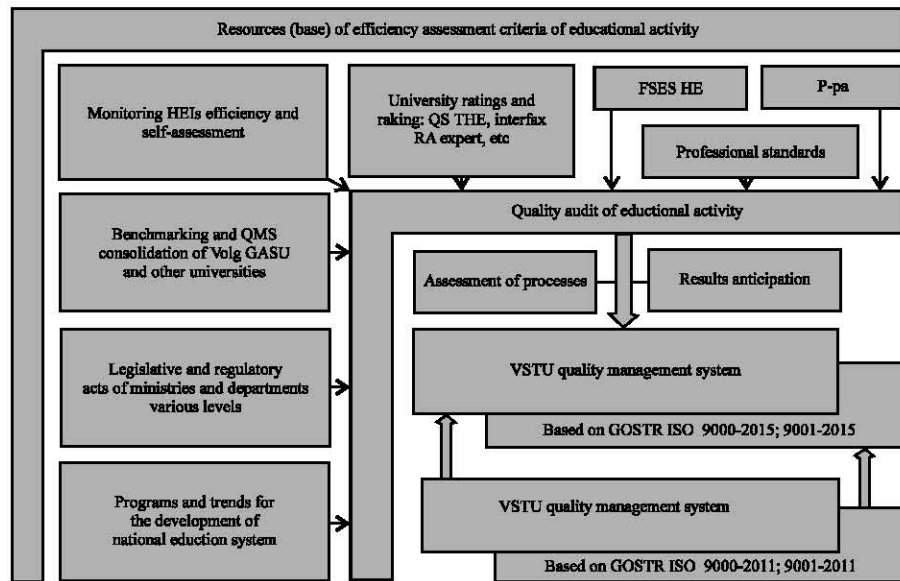


Fig. 4: Development of a flagship university QMS through the organization of the system of internal audit of the quality of educational activities

procedures) are being investigated not as a whole but piecemeal. When collecting data and making decisions on quality improvement of core activities through internal audit of divisions, standard requirement to completeness of information is in contradiction with the requirement to its relevance. The results of the divisions audit do not provide all the necessary information to analyze the causes of problems and to search the ways of their elimination (Tumanova, 2009; Gorbunov, 2016).

Having a clearly identified problem and data on the functioning of the individual divisions, it is hardly possible to give a valid conclusion about the causes of the problem and to formulate more or less adequate solution. For this reason, advanced universities have moved from audit of divisions to the audit of processes, naturally with account of a clear and complete description and qualitative identification of these processes.

Best practices also suggest that within the universities mentioned above, this research is conducted on permanent basis by the subject matter specialists.

In the context of integrating Volgograd universities, this work is implemented by the structural subdivision responsible for implementation of QMS in HEIs. In particular in VSTU it is the Department of quality management of educational activities, in the structure of educational-methodical administration. At the same time, the work as a part of the internal audit system is fragmented, even with the practical implementation of the process approach. This circumstance dictates the feasibility of establishing a special structural subdivision

(Department of Monitoring and Development of Internal Audit) in the process of consolidation of capacities and personnel structure of the generated Flagship University in Volgograd region as it is implemented in the “leading” universities (Fig. 4 and 5).

In this case, the specialized structural subdivisions which exist in the benchmark-universities, primarily plan and define the volume of the upcoming inspections. Moreover, the reviews themselves are of an operational nature and are initially designed to offer time savings, since the elongation of the audit will inevitably cause negative reactions from employees involved in the audited process.

Against the background of popularization of the ideas of quality in the frame of integrated management system, it is possible to somewhat compensate the lack of understanding the essence of the internal audit by the audited employees. The model of promoting the idea of orientation to the quality of the main university activity, in the particular case, includes the moral training of the personnel for the possible detection of inconsistencies.

The high cost of internal audit, the need for careful planning and coordination of inspections, higher complexity (when auditing processes, rather than structural divisions) are subsequently covered by improving the quality of educational services provided, by optimization of core activities and the appearance of rapid response capabilities as well as strengthening the adaptability and flexibility to changes in the external environment, improvement of competitiveness and

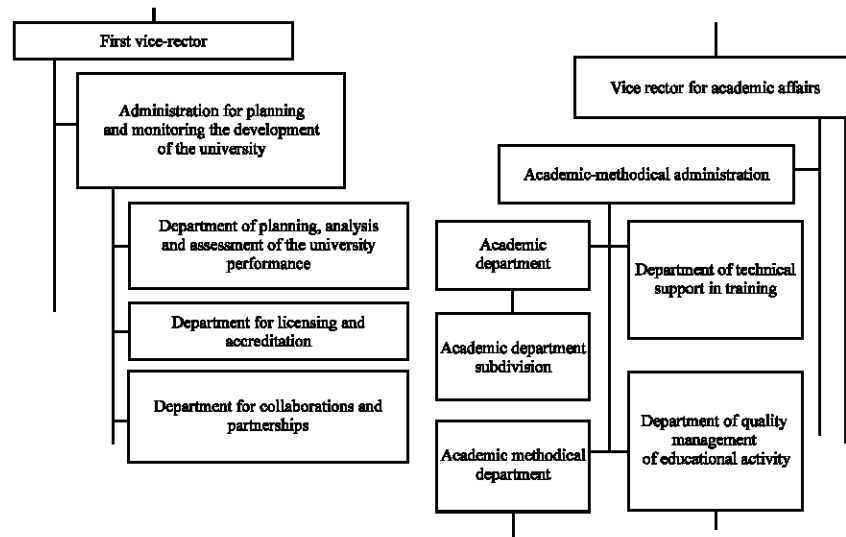


Fig. 5: The variant for creating a special structural subdivision for audit, activity monitoring and development of a Flagship Technical University in Volgograd region

attractiveness among prospective students and other external environment. Also, these response (immediate) internal audit is generally a good source of information for a variety of reports and ratings, allowing, in the first case, to submit the required information quickly and efficiently (pre having a clear understanding of the conceivable results of the audit) and in the second case, to increase the university prestige and status (regional, national).

The best practices of internal audit of such benchmark-universities as National Research Tomsk State and Tomsk Polytechnic Universities, Saratov State University and Technological University “MISIS”, show that today their systems of internal audit are ready to separate out and to exist on a par with the QMS. Such systems in the short term will “determine” policies in the field of quality management, based on the maximum accounting of requirements of the external environment and satisfying social and economic demand for highly qualified personnel. The attempt of developing such a system should be undertaken when creating a flagship technical university of Volgograd region.

CONCLUSION

The internal audit system of the generated Regional Flagship Technical University (VSTU) should not be perceived by employees as just another oversight authority which could mete out punishment of both administrative and teaching staff. Well-organized and efficient internal audit system with proper distribution of functions, powers and responsibilities, corresponding to

basic internal and external processes will stimulate the personnel of the united University, allowing proactively detect problem points, challenges and eliminate or adequately compensate them until the negative consequences.

In summary, the qualitative and effective functioning of such a system is being of key importance in the course of the integration process of the universities merger; it allows to carry out on-going monitoring, efficiently, on time and with high accuracy to anticipate the results of certain administrative decisions, becoming the major and independent instrument for ensuring quality functioning/effective performance of the university, investing the university policy on quality management of educational and other activities with market orientation and competitiveness.

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