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## QUALITY MANAGEMENT AS A TOOL FOR QUALITY CULTURE EMBEDMENT: VILNIUS UNIVERSITY APPROACH

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Quality, quality culture, quality management, learning organisation,  
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## ***Abstract***

### **QUALITY MANAGEMENT AS A TOOL FOR QUALITY CULTURE EMBEDMENT: VILNIUS UNIVERSITY APPROACH**

Quality problems appeared in higher education discourse during the last decades of the 20th century largely due to the effects of the massification of higher education. The Bologna Process from 1999 onwards, brought a wide range of quality concerns into the higher education discourse. The recent decades have seen an explosion of national quality assurance systems in Europe. However, quality development in higher education is a great deal more than the formal quality assurance processes. The aim of the paper is to present the methodological approach of Vilnius University for the enhancement of quality culture by means of quality management.

## **Presentation**

# **QUALITY MANAGEMENT AS A TOOL FOR QUALITY CULTURE EMBEDMENT: VILNIUS UNIVERSITY APPROACH**

## **Introduction**

Among the main reasons causing the growing concern for the quality assurance within the expanding global higher education system are rapid expansion of student numbers, growing public expenditure on higher education, the demand for better public services, increasing competition within the educational „market” for resources and students, the tensions between efficiency and quality, increasing public demand for the accountability of higher education (Becket & Brookes 2006). This expansion and the complexity of the global higher education system indicate a clear demand for more structured systems of management in higher education. As managing in universities today involves making educational provision and social organisation compatible with the demands of the international economic system (Morley 2003). Moreover quality assurance procedures in higher education should be both rigorous and transparent and quality enhancement initiatives should be firmly embedded into quality management in order to support continual efforts to enhance the quality of provision (Becket & Brookes 2006).

The emphasis of the Bologna Reform (European Quality Assurance Standards and Guidelines 2005) on the development of quality culture to monitor internally all university activities and services in a way that is congruent with core academic values, in order the internal quality assurance should not be reduced to formalized processes, also, though indirectly, reveals the importance of quality management.

*The aim of the paper is to present the methodological approach of Vilnius University for the enhancement of quality culture by means of quality management. Paper presents and discusses various approaches to quality culture embedment mostly in European higher education practice, reveals the importance of the quality management for the quality culture embedment and presents the approach of Vilnius University towards the quality culture embedment.*

## Defining quality in higher education

Quality is a subjective term for which each person or sector has its own definition. The concept has always been subject to historical, economical, national and international context.

The quality movement started in manufacturing industries and traces its roots back to medieval Europe, where craftsmen began organizing into unions called guilds in the late 13th century. These guilds were responsible for developing strict rules for product and service quality. Inspection marks and master-craftsmen marks served as proof of quality for customers throughout medieval Europe. This approach to manufacturing quality was dominant until the Industrial Revolution in the early 19th century.

The factory system, a product of the Industrial Revolution in Europe, put emphasis on product inspection. Quality in the factory system was ensured through the skill of labourers supplemented by audits and/or inspections. Defective products were either reworked or scrapped. (American Society for Quality 2009).

In contemporary manufacturing industries and service sectors the concept of quality is mostly used in the following meanings:

- quality as customer satisfaction;
- quality as fitness for use;
- quality as conformance to requirements.

Quality issue and quality assurance practices in higher education sector at a large scale evolved in the last decades of the 20<sup>th</sup> century alongside the massification of higher education. On the other hand, quality assurance in higher education has also been seen as one of the key development areas in efforts to construct a European Higher Education Area by 2010. European countries are developing their own national solutions for evaluation and enhancement of higher education quality in line with the objectives of the Bologna process, and in particular with the Standards and Guidelines for Quality Assurance in the European Higher Education Area developed by ENQA, EUA, EURASHE and ESIB, and adopted by European Ministers responsible for Higher Education in the Bergen Conference in 2005.

In its generic comprehensive understanding the term of quality in higher education is defined as a multi-dimensional, multilevel, and dynamic concept that relates to the contextual settings of an educational model, to the institutional mission and objectives, as well as to specific standards within a given system, institution, programme, or discipline (Quality assurance and accreditation 2007).

Meanings of quality concept vary depending on the understanding of:

- various interests of different constituencies or stakeholders in higher education (e.g. students; universities; disciplines; the labour market; society; a government);
- its references: inputs, processes, outputs, missions, objectives, etc.;
- the attributes or characteristics of the academic world worth evaluating;
- the historical period in the development of higher education.

Though, each approach has advantages and disadvantages, being more or less suitable for a specific period of time or national context, however, common to all of these quality approaches is the integration of the following elements:

- the guaranteed realization of minimal standards and benchmarks;
- the capacity to set the objectives in a diversifying context and to achieve them with the given input and context variables;
- the ability to satisfy the demands and expectations of direct and indirect consumers and stakeholders;
- the drive towards excellence (Dirk 2003).

The content of quality definitions implies that to assure the quality of higher education with emphasis on improving quality as a whole there are necessary certain managerial measures taken regularly at system or institutional level.

However, at this point it is necessary to note that alongside such terms as quality management, quality assurance and quality mechanisms within the context of higher education inseparably emerges the concept of quality culture. So called “cultural perspective” is more acceptable for the university environment than pure managerial approach. Academic community argues that pure managerial terms often convey top-down approach whereas quality culture imparts a connotation of a shared value and a collective responsibility for all members of an institution, including students and administrative staff (Quality Culture in European Universities: A Bottom-Up Approach 2006). At the same time It is necessary to point out that the academic community does not question the importance of managerial element per se. On the contrary, quality culture is understood as an organisational culture that is characterised by two distinct elements (Quality Culture in European Universities: A Bottom-Up Approach 2006):

1. A cultural/psychological element of shared values, beliefs, expectations and commitment towards quality;
2. A structural/managerial element with defined processes that enhance quality and aim at coordinating individual efforts.

These two aspects, however, are not to be considered separately: both elements must be linked through good communication, discussion and participatory processes at institutional level.

In the quality culture perspective, quality is beheld as values and practices that are shared by the organisation and that have to be nurtured on many levels and by various means at the same time (Vettori et al. 2007). The ingredients of a quality culture are awareness of and commitment to the quality of higher education, in conjunction with a solid culture of evidence and with the efficient management of this quality (through quality assurance procedures).

Thus, the term “quality management” as a generic term, covers all activities that ensure fulfilment of the quality policy and the quality objectives and responsibilities and implements them through quality planning, quality control, quality assurance, and quality improvement mechanisms. Quality management is an aggregate of measures taken regularly at system or institutional level in order to assure the quality of higher education with an emphasis on improving quality as a whole (Quality assurance and accreditation 2007).

### **Quality management systems for quality culture embedment**

Higher education institutions are beginning to wake up to the need of quality management system for the development and embedment of internal quality culture. Different researchers have demonstrated considerable interest of quality management application in higher education. The results of the scientific literature analysis and investigation of several cases of university practices mostly in European higher education area have indicated that there are no universal models of quality management application in higher education institutions and quality can be interpreted and measured in a number of different ways (Adomaitiene & Ruzevicius 2002; Wiklund et al. 2003; Srikanthan & Dalrymple 2004; Becket & Brookes 2006; Srikanthan & Dalrymple 2007).

On the other hand, there are common elements to every quality assurance system of any institution which attempts to support quality culture embedment. by developing quality management system. First of all, institutions should commit themselves explicitly to the development of a culture which recognises the importance of quality and quality assurance in their work. To achieve this, institutions should develop and implement a strategy for the continuous enhancement of quality. The strategy, policy and procedures

should have a formal status and be publicly available. Higher education institutions should have formal mechanisms for the approval, periodic review and observation of their programmes and awards. Every institution of higher education should gather, analyse and use for the management of study programmes such information as: students' opinions about study programmes, teachers' work efficiency, students' progress and results, graduates' opinions and placement information, employers' opinion, etc.

Furthermore, adapting quality management philosophy in order to assess higher education quality there is a demand to broke every academic activity down into simpler and more manageable parts; and complex processes should be translated into empirically identifiable quality indicators and measures (Consortium for Excellence in Higher Education 2003a; Morley 2003; Becket & Brookes 2006). The balance of academic, financial and other performance measures is critical if long term observation and measurement is to be accurately reported to external shareholders and used for internal decision making.

Different management models (Becket & Brookes 2006) recognize three essential components of education: input, process and output. Therefore the indicators that help to assess inputs, processes and outputs of quality management system, likewise the indicators that measure satisfaction of internal and external shareholders and performance measures of institution are essential to higher education institutions. Traditionally, the focus within higher education has been to assess quality for assurance purposes often driven by external shareholders. Today on assessing quality in order to inform change and enhance provision assessments are driven by internal shareholders. Internal assessment of the educational process allows higher education institution to react to a number of internal as well as external stimuli (coming from students, employers, university graduates, accreditation bodies, etc.). Internal assessment offers important feedback between the educational institution and its customers (Kotlanov 2000). External scrutiny is still very important to the enhancement process, but to be effective it needs to be linked to internal quality enhancement processes (Becket & Brookes 2006).

The challenge for the sector is to balance the needs of externally applied indicators against those that are meaningful and relevant to higher education institution. (Consortium for Excellence in Higher Education 2003a).

Quality assessments should become an integral part of quality planning, quality assurance or quality enhancement activities rather than a standalone analysis activity. Measurement is vital under continuous improvement as it promotes understanding, provides information and shows trends to support informed decision making. An evidence-based approach to quality improvement is required if a university is to attend to both accountability and improvement (Srikanthan & Dalrymple 2004).

**Learning oriented quality culture.** Becket & Brookes (2006) state that higher education institutions are now also required becoming learning organisations. As the main purpose of higher education institution is to create intellectual and social capital in addition to economic capital, and transform society into a learning society, thus the institutions of higher education should undergo self-transformation – through a continuous internal self-evaluation – into learning organizations. Denton emphasises, that without a culture that encourages learning, no organisation will be able to become a learning organisation (Consortium for Excellence in Higher Education 2003b). Higher education is about “transforming the person”, not simply about transforming his or her skills or domain of understanding. A commitment to life-long learning, critical thinking and continuous flow of change are the main characteristics of transformation.

Students are not passive recipients of educational services. Through their participation in the learning activities they „co-produce“ their education (Kotze et all. 2003).

It is important to develop approaches for increased student involvement and to let the students take more responsibility for their own learning and their part of the assessment

process of higher education quality.

According to service market theorists a customer can be regarded as co producer or partial employee when he or she work in partnership with a service organization to help assess the need for service, customize the design and the delivery of the service, and produce a portion for him/herself (Kelly et all. 1992). Thus, students should be considered in a way as partial employees of higher education institution, and , therefore, they should be actively managed to ensure that their participation facilitates the educational service encounter and its desired outcomes.

Learning organisation is an adaptive, reflexive organisation that learns about itself and the dynamic context in which it operates (Morley 2003). Learning oriented culture needs to be developed via feedback which is central to the assessment of quality in teaching and learning; but this depends on changing personnel attitudes towards evaluation and assessment, and reframing them as a feedback-oriented basis for quality development. Thus, it is more than evident that that development and implementation of effective quality management system is inseparable from learning organisation development.

**Importance of information system for effective quality management.** Successful implementation of quality management principles, which is first of all characterised by immense information flows, should be supported by effective information system (Standards and Guidelines for Quality Assurance in the European Higher Education Area 2005). During implementation of mechanism of studies quality observation there is a need to have not only data base with reports defined in advance but also information system that helps to solve problems, to make a decision and that maintains development of learning organisation (Lari 2002). Usually information systems that are used at universities assure particular management of performance data of organisation. However majority of universities do not integrate separate information systems to one whole and do not connect them with quality assurance plans (Welsh & Dey 2002). Today quality measurement is understandable as objective to link up information systems properly that they would meet the needs of internal and external information about study programmes and service quality.

**The efforts within national systems to assure quality in higher education.** Most of the European countries have their own national quality assurance systems in line with the Standards and Guidelines for Quality Assurance in the European Higher Education Area (2005).

International quality assurance level deals with degrees and diploma recognition issues, free mobility, competition among higher education institutions, implementation of international agreements and conventions, spreading of good practice, etc.

At the national level quality assurance level is related to accountability, shareholders' needs satisfaction, national qualification frameworks, rational usage of state budget resources and optimization of the higher education institutions network.

Quality of higher education can be measured and assessed only in the institution of higher education. Internal quality assurance level is related to the setting of internal requirements and self assessment and evaluation procedures and practices within a particular higher education institution.

The harmonisation of international, national external and internal quality assurance levels is quite a challenge for the higher education system.

In the European higher education area there can be observed variety of ways and efforts to develop to a more or less extent coordinated system of quality assurance at the national levels.

The above mentioned quality assurance issues are being quite successfully solved in the quality assurance practices in the higher education systems in United Kingdom, Ireland and Finland.

**Internationally respected quality assurance system: a case of United Kingdom.** In UK universities quality and standards are underpinned by a strong, internationally respected system. Alongside to universities' own internal quality maintenance systems national quality assurance system for higher education in UK is based on:

- Frameworks for higher education qualifications, Subject Benchmark statements and a sector-wide Code of practice for the assurance of academic quality and standards in higher education;
- independent external review of each university by the Quality Assurance Agency for Higher Education (QAA), resulting in published reports; QAA also publishes themed reports based on the external review material, what allows universities to learn from the experience of others;
- effective engagement with students and employers, including professional, statutory and regulatory bodies, which helps to shape what universities do;
- The National Student Survey which provides information for universities and public about students' views about their university experience, including their overall satisfaction.
- The Higher Education Academy which supports professionalism in teaching through professional development, the UK Professional Standards Framework, and fellowship schemes.

**Irish universities at the front of national quality assurance system.** In Ireland the leading role in quality assurance at the national level has been played by the universities themselves. In 2003 a Framework for Quality in Irish Universities was developed as a result of a concerted action of Irish Universities Association (IUA) and Irish Universities Quality Board (IUQB) established also in 2003 to maintain the momentum of these developments, with the support of the IUA. Throughout the period 2003 -2007, government perception of the national importance of quality in higher education was clearly demonstrated by significant funding to the universities and the IUQB by the Higher Education Authority under the National Development Plans (A framework for quality assurance in Irish universities 2007)

Overall, the principles of the framework are entirely consistent with the Standards and Guidelines for Quality Assurance in the European Higher Education Area.

Ownership of quality processes rests with each university. While the common principles and operating framework apply to each institution's processes, there is institutional autonomy and responsibility regarding the exact nature of quality procedures and protocols.

Each of the universities has a quality office with responsibility for quality assurance and quality improvement in academic, administrative, service and support areas. Working within the common set of principles outlined by general framework, each institution has devised a quality assurance and improvement framework of its own.

The roles of the quality offices vary according to institutional structure but normally include:

- providing professional support for the development of university policy in relation to quality assurance and improvement in line with good international practice,
- driving new initiatives designed to resolve issues arising repeatedly in review reports,
- promoting a sense of ownership by individual departments and units of the university's quality assurance and improvement systems and procedures,
- supporting departments and units in implementing internal and external quality review processes,
- publishing review reports and other relevant reports,
- working with the other universities and with the IUQB to improve cooperation in support of the Board's programme of sectoral projects and annual conferences.



**Audit model of quality assurance systems of Finnish higher education institutions.** Of particular interest is the Finnish audit model of quality assurance systems of higher education institutions. In 2004 Finnish Higher Education Evaluation Council (FINHEEC) launched a project for auditing the quality assurance systems of higher education institutions. This audit model was developed in 2005–2007, and the quality assurance systems of 12 institutions were audited during this period. It is planned that every Finnish university and polytechnic will undergo an audit by the end of 2011.

The most important aim of the audit is to support the quality assurance system development of the institutions to meet the European quality assurance principles by promoting the competitiveness of the Finnish higher education institutions in the global education market. Therefore, FINHEEC audit model for quality assurance systems is based on the corresponding European guidelines and recommendations which underline the importance of the institution's own quality policy development, the significance of quality assurance systems as management and steering tools, the role played by the students and staff, as well as the commitment of the institution to the continuous improvement of its quality assurance (Audits of quality assurance systems of Finnish higher education institutions 2008).

In the audit model the institution can decide on its own quality assurance system, and FINHEEC evaluates its performance. The institution remains responsible for the quality of their own operations. The audits focus on the procedures and processes which the institution uses to steer and develop the quality of its education and other activities. The aims, operative contents or performance of the institution are not, per se, touched upon in the audits. Result assessment is the domain of the institution itself and is also performed by the Ministry of Education in the framework of its management by objectives and performance.

According to the feedback and audit reports, the audits have clearly boosted the systematic improvement of quality assurance systems and procedures. Quality assurance has generated tools for the internal management of the institutions, directing them in their work to develop their operations as a whole. The quality assurance of education seems to be most advanced. The effectiveness of the quality assurance systems and the continuous utilisation of the information generated through the systems are the major development challenges for the institutions.

**National and international quality awards.** In US higher education environment national and international quality awards are often used as models of measurement and assessment of organisation processes according to certain criteria.

The Baldrige National Quality Award model with its quality management framework, for instance, is rather popular with the USA institutions of higher education. The Baldrige National Quality Award challenges organizations to identify and recognize existing systems within their organization. Systems encompass every aspect of any organization from student recruitment to delivery of instruction, from planning to human resource management. The University of Wisconsin-Stout was the first institution of higher education to win the Malcolm Baldrige Quality Award in 2001. This demonstrated that the Baldrige criteria do apply to higher education and can be used effectively to demonstrate performance excellence. Now a number of universities and colleges (Belmont University, University of Missouri-Rolla, Northwest Missouri State University, Richland College, University of Alabama, University of Penn State, and University of Rutgers) use the Baldrige Quality Award model in education to achieve academic excellence (Bokhari 2006).

**Application of ISO series standards in higher education.** Also some higher education institutions, mostly technically oriented (Adomaitiene & Ruzevicius 2002; Lomas 2004) apply ISO 9000 series standards for their administration systems or even full scope of activities (for instance, Wolverhampton University (UK), Faculty of Commodity science of Poznan

University of Economics, etc. (Adomaitiene & Ruzevicius 2002; Lomas 2004; Bokhari 2006).

### **Quality culture embedment in Lithuanian higher education institutions: Vilnius University Approach**

Lithuanian higher education institutions that have implemented quality management systems according to ISO 9001 standard are those which have more relationships with business organizations. Among the first was the Lithuanian Maritime Academy that in 2001 implemented and certified ISO 9001 quality management system (Ruzevicius 2007). In 2006 Vilnius Law and Business College and in 2008 International Business School at Vilnius University, Kaunas Technical College and Vilnius Co-operative College also received ISO 9001 conformity certificates.

In 2008 it was the first time when Lithuanian National Quality Prize was awarded to the institution of higher education, namely Vilnius Law and Business College. Vilnius Law and Business College pursues continuous quality assurance of education and uses performance results and quality management system documents to demonstrate to the interested parties the abilities of the College to prepare high qualification specialists that fully correspond to changing requirements of labour market (website of Vilnius Law and Business College).

Meanwhile most of the Lithuanian universities have chosen strategies to develop their own internal quality assurance systems following the European guidelines for quality assurance in the European higher education area.

Until recently the Lithuanian national system of quality assurance in higher education has been mainly based on the accreditation of study programmes and oriented to static quality assessment. Institutional assessment was applied only to the colleges of higher education with the purpose to assess whether the college has accomplished the conditions confirmed upon during its establishment.

The Lithuanian quality assurance system is to undergo a reform as the new law on Science and Studies (2009) declares that every institution of higher education is to have internal study quality assurance system based on the European standards and guidelines for quality assurance, its own strategy for quality improvement of overall performance and continuous self evaluation of its performance.

Vilnius University started to develop internal quality assurance system a year before the new law was passed.

The University during its lifetime has been committed to excellence in teaching and research at the national and international levels. For more than four hundred years several academic generations cherished a traditional, elitist academic view of quality culture as excellence: the best standards of excellence were understood and used as revealing true academic quality.

However, massification of higher education system (shareholders diversity and their needs variety, students' numbers increase, diversity of students educational backgrounds, institutions and study programmes variety, etc.) posted the challenge to consolidate individual efforts and activities to enhance academic quality and make quality culture operational by developing and implementing quality management system.

In addition in 2004 the University underwent EUA institutional evaluation procedure. EUA evaluation team as one of its final recommendations suggested to establish a robust quality assurance system based on Berlin Communiqué of Education Ministers and EUA Graz Declaration with the goal of improving all activities of the University (EUA Evaluation Report 2004).

In 2007 the University Senate approved a decision to develop administrative structure and permanent support system for the quality assessment process and coordination of specific improvement actions of all university activities.

Pursuing the purpose in 2008 Quality Management Office was founded. The mission of the established office is the promotion of quality culture while initiating, supporting and coordinating the development and implementation of the quality management system.

The main objectives of Quality Management Centre are:

- to initiate and coordinate the implementation and development of quality assurance and improvement forms, methods and procedures of all University activities;
- to initiate the development of effective self evaluation system and assure its implementation for quality culture embedment
- to initiate the development of the monitoring system which would enable to obtain objective data on quality assurance in studies, research and service areas and coordinate its functioning;
- to initiate, develop and promote quality improvement model at the institutional level, taking consideration to European higher education development trends, competitive higher education environments world wide and the best practice of world class universities.

Taking into consideration the results of the scientific literature and case study analysis of quality assurance practices in different western universities the methodological model for studies quality continuous improvement at Vilnius University has been developed. The continuous performance improvement model has been developed in accordance with the Standards and guidelines for quality assurance in European higher education area and grounded by:

- quality culture concept;
- the main principles of quality management;
- learning organisation theory;
- principles of management information system.

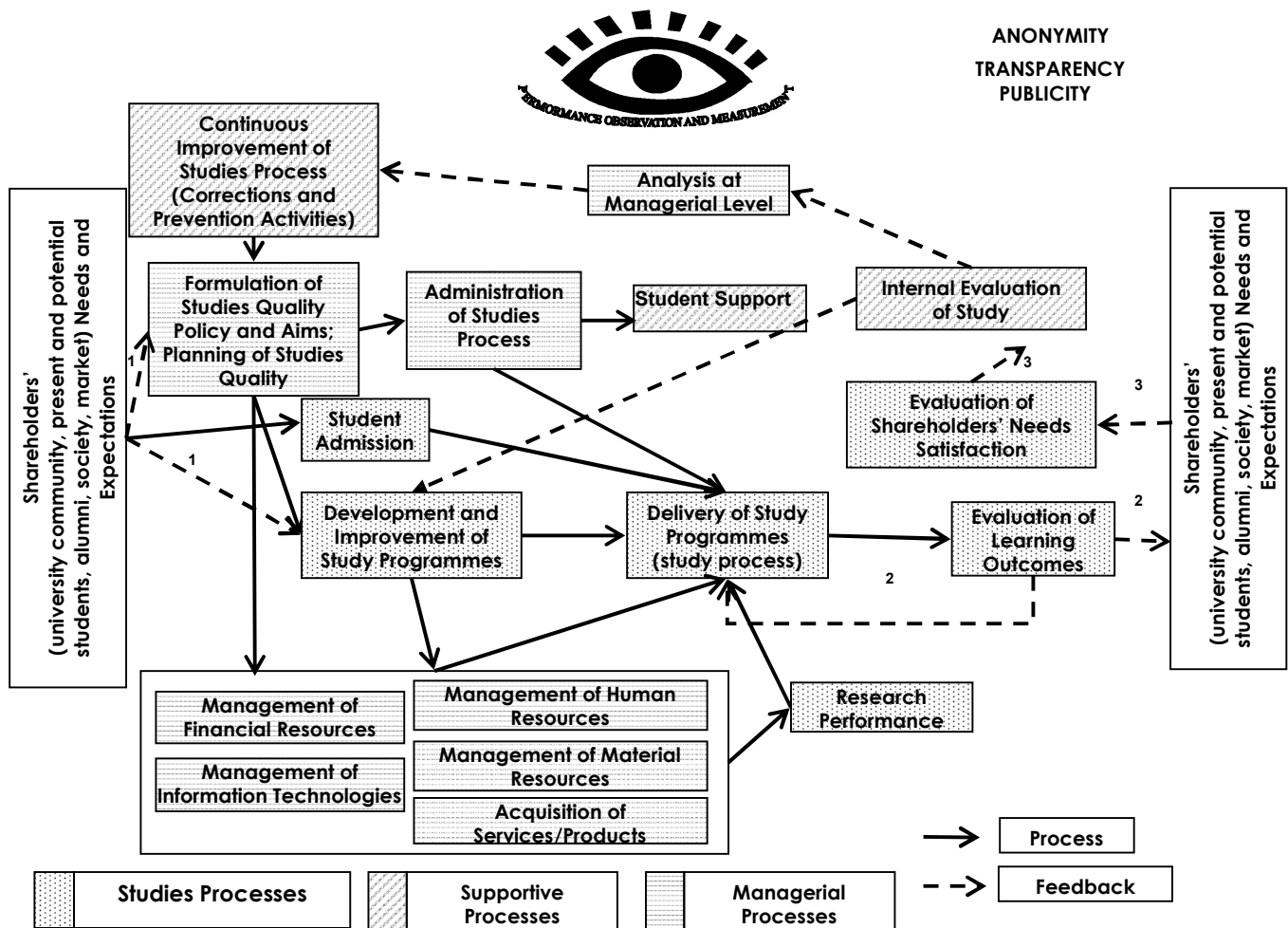
Performance observation and measurement is the mission and the main function of quality management within the continuous process of studies quality improvement at Vilnius University. The strategy of the implementation of the methodological model for study quality assurance and improvement is based on the continuous feedback cycle (Figure 1 Continuous performance improvement).

The main principles on which a continuous performance improvement is grounded are: feedback, measurement and information loops. The three main feedback cycles at different organisational levels indicate the importance of the analysis of the shareholders (university community, present and potential students, alumni, society, market) needs and expectations for the formulation of studies quality policy and study programmes development; the direction 2 emphasises the importance of the feedback staff to students on their study achievements; and the direction 3 indicates the relevance of the feedback about the level of satisfaction of the shareholder needs (Figure1 Continuous performance improvement).

Implementation of monitoring mechanism of studies quality assurance and improvement foresees the following main stages:

- studies quality policy formulation
- strategy and quality planning development

- specification of studies quality monitoring processes and quality assurance and improvement procedures;



**Figure 1. Continuous performance improvement**

- analysis, updating and/or development of the documents that regulate processes of studies quality monitoring;
- development of the system of studies quality criteria and indicators, and their calculation methods;
- piloting of the criteria and indicators system while monitoring input, process and output indicators of the studies process quality;
- approval of the system of studies quality criteria and indicators, and their calculation methods as a framework for studies quality assurance and improvement;
- development and implementation of management information system.

Some of the above presented implementation stages are going to be carried out simultaneously.

## Conclusions

The assurance and improvement of academic quality is inseparable from nurturance of quality and learning culture supported by effective managerial structures. Successful quality management principles should be supported by effective information systems.

Most European countries have been developing national quality assurance systems in accordance with Standards and guidelines for quality assurance in European higher education area. The strengths of UK system is its compatibility with national frameworks for qualifications in higher education, national student satisfaction survey system and national agenda for professionalism in university teaching. Of particular interest is the leadership and joint efforts of Irish universities' and their general agreement about their internal quality assurance systems; and Finland's strategy to strengthen the competitiveness of its universities by means of auditing of quality assurance systems of higher education institutions. Design and implementation of internal quality assurance systems tend to be none doubtful responsibility of higher education institutions.

The methodological model of continuous performance improvement at Vilnius University has been grounded on the nurturance of quality and learning culture while developing and implementing quality management system.

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