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BENCHMARKING AS AN INSTRUMENT FOR IMPROVEMENT OF QUALITY MANAGEMENT IN HIGHER EDUCATION

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Abstract. Conditioned by globalisation and constant change, higher education institutions (HEIs) are forced to pursue new instruments for quality assurance in higher education. States seem to pursue this aim by attempting to create an efficiently operating system of higher education that satisfies needs of diverse societal groups. Quality dimension is the most important element of efficient and effective higher education. From the perspective of a state, assessment and monitoring of quality are instruments for the management of processes of higher education. The article substantiates these statements using the evolution of the dimension of quality in the European and Lithuanian higher education in the course of the Bologna Process. The article also presents a benchmarking method and discusses its development and application tendencies in business organisations. Also, it looks at possibilities to apply this method in higher education. The main aim of this article is to explore benchmarking as an effective instrument for the improvement of performance quality in HEIs and complement the already implemented quality management systems. Another aim is to suggest this method to national agencies for quality assurance in higher education for monitoring and analysis of qualitative changes on the systematic level. The object of the article is the improvement of performance quality in HEIs. Benchmarking is proposed for the use in higher education on the institutional level as an instrument that complements presently introduced quality management systems in Lithuanian HEIs. This way, it will contribute to the formation of the culture of quality in higher education.

Keywords: higher education, Bologna Process, quality assurance, benchmarking, performance quality, studies.

JEL Classification: I21, I23.

1. Introduction

Universities are reasonably considered among the oldest acting types of an organisation. In the middle-ages, European universities developed from monastic schools, were acknowledged by secular authorities and were granted rights of self-governance. From the middle-ages to the beginning of the 19th century, European universities were

"ivory towers", where intellectuals created and disseminated science that usually had nothing to do with practical routine demands (Garcı´a-Aracil, Davinia 2010). For entire centuries, science remained a privilege of a small part of society. Only in the 20th century, urbanisation and industrialisation made higher education accessible to wider society. As higher education was exceptional and intended for the elite, there was no objective demand to monitor, measure, and assess its quality. In other words, there was no education higher than higher education, which subsequently determined its best or highest quality. From the mid-20th century, differences between education systems of European countries started to diminish. This transformation can be explained by pervasion of democratic education and business influence on societies, which challenged important changes in the whole higher education (academic) system (Garcı´a-Aracil, Davinia 2010).

The dimension of quality in higher education gradually developed in the second half of the 20th century. It was related to the number of factors but among the most important were the increase in the extent of higher education, i.e., the increase in numbers of institutions and students. The phenomenon of the extent of higher education depends on two essential elements: rapid growth of global economy and rapid development of technologies. The latter was significant as knowledge, which was previously the sole important element of higher education and required most of the time and efforts, became quickly and inexpensively accessible to the larger part of society. Mass, internationalisation and market impact were the strongest factors influencing changes within the sector of higher education (Harvey, Williams 2010).

In the second half of the 20th century, rapid societal changes were conditioned by globalisation processes, economic-social and demographic factors particular to regions and separate states. Soon, the so-called "quality movement" started in the United States of America, Australia, and later in Europe. It embedded instruments for the improvement and development of the quality of performance in companies and the public sector institutions. Among the instruments were Total Quality Management, international quality standards, re-engineering of business processes and benchmarking (Alstete 1995).

Although HEIs are not usually considered flexible and dynamic institutions, the discussed societal changes accelerated changes in the higher education and demanded more change management efforts from states. HEIs are under constant change as organisations and performers of their most important education and science activities. Study processes in higher education undergo substantial changes: studies are becoming more accessible, conditions are changing (e.g., the factor of internationalisation) and the duration is getting shorter. However, expectations and requirements for higher education formulated by states and society have remained almost the same as during the time when it was intended for the elite. To be precise, once entrance conditions significantly changed, the result remained essentially unchanged. Due to the increased number of

students, it became more difficult to ensure high-quality management of study and science processes. Without proper reaction to conditions of the dynamic environment, devaluation of mass higher education may spark social conflicts. States struggle with the challenging question whether a mass product (or a potentially mass product) can be of required quality? Another question to ask is what instruments could adequately ensure the quality of such a product as higher education studies?

In contemporary socioeconomic context and knowledge-based society, HEIs perform three inter-related missions: (1) education (dissemination of knowledge), (2) research and (3) the new so-called third mission that connects university's scientific activities with the external economic and social worlds. The ambition to discover the best balance between these roles and responsibilities is among the key challenges of universities. Stakeholders monitor universities from the economic perspective (employers, business groups), social perspective (families of potential students, community organisations), and educational perspective (providers of education). Some external stakeholders monitor universities in a local context, and others – in the international context (Houston 2008). Despite all changes, expectations of society toward universities remain very high: universities are anticipated to perform successfully under "market conditions" and be innovative.

The development of the quality dimension in higher education is analysed in the context of these changes and transformations. Thus, the object of the article is the improvement of the quality of performance in HEIs. The research aim is to explore benchmarking as an effective instrument for the improvement of the quality of performance in HEIs and complement the already introduced quality management systems.

The research has two tasks. Firstly, it seeks to compare and analyse the development of the quality dimension in higher education (HE) in Lithuania and Europe. Secondly, it explores assumptions and opportunities for application of benchmarking as a method in HEIs to develop their quality of performance.

The article uses such research methods as the comparison and analysis of the development of the quality assurance dimension in higher education of Lithuania and the Bologna Process. Based on literature review, an additional analysis focused on possible opportunities for application of benchmarking in HEIs.

2. Development of the quality assurance dimension in higher education of Lithuania and the Bologna Process

The development of the higher education dimension in Lithuania is represented by legal acts regulating higher education and studies and the establishment of institutions for assessment and monitoring of the quality of higher education. A decade earlier than the Bologna Process, Lithuania began the introduction of separate elements of the system for organisation of studies, e.g. the implementation of three cycles of studies

and the calculation of the scope of studies in credits (Fig. 1). After the restoration of Lithuania's independence in 1991, the first iteration of the Law on Science and Studies was adopted. However, the Law did not regulate the quality of the performance of HEIs (Pūraitė 2011). As the state aimed to ensure the quality of the education system, it established two institutions: the Centre for Quality Assessment in Higher Education (SKVC) in 1995 and the National Examination Centre (NEC) in 1996. SKVC was assigned periodic assessments of the quality of higher education study programmes and an assessment of the performance of newly established schools of higher education. NEC organised the implementation of the system for national maturity examinations. Following the establishment of the uniform system of national maturity examinations in 1998, two Lithuanian universities started the common admission of students. In 2001, this initiative evolved into the Association of Lithuanian Universities for Joint Admission (LAMA BPO). Eventually, almost all state HEIs joined the association, despite their type (colleges and universities) or the type of their founders (state or private). Once the admission processes were transferred to the virtual space, the quality of services and transparency improved. In 1999, the establishment of private capital HEIs commenced in Lithuania. They enlarged the accessibility to higher education and provided entrants with more options.

Lithuania was among 29 European countries that adopted the Bologna declaration (1999) and inspired changes in higher education. The document established the shift to two (and later to three) cycles of studies, comparative credit systems, the development of the quality assurance dimension and guidelines for promotion of the mobility of students and lecturers (Reinalda 2008). The declaration launched the Bologna Process. In the last decade of the 20th century, it had become one of the best examples of networking in the area of higher education in Europe. Even in 2001, Westerheijden stated that the goal of the Bologna Process was to improve the transparency of higher education in Europe and encourage the development of a clearer process for quality assurance (Westerheijden 2001).

From the very beginning of the Bologna Process, the quality of studies was stressed as the essential priority for the development of Europe's higher education. This message was also asserted by all adopted Bologna process declarations (Fig. 1). Multidimensional missions of HEIs were stressed to secure the diversity of European education systems. They comprised education, research and services for society, increase of social cohesion and cultural expansion. Quality assurance of studies was considered an important part of academic professionalism and the essential element of institution's reputation or idiosyncrasy on the competitive local as well as international market. The quality of studies cannot be analysed separately without the context of higher education studies. All spheres of activity of the Bologna Process – internationalisation of studies, social dimension, student-centred learning model and others – have a direct connection to the quality of studies.

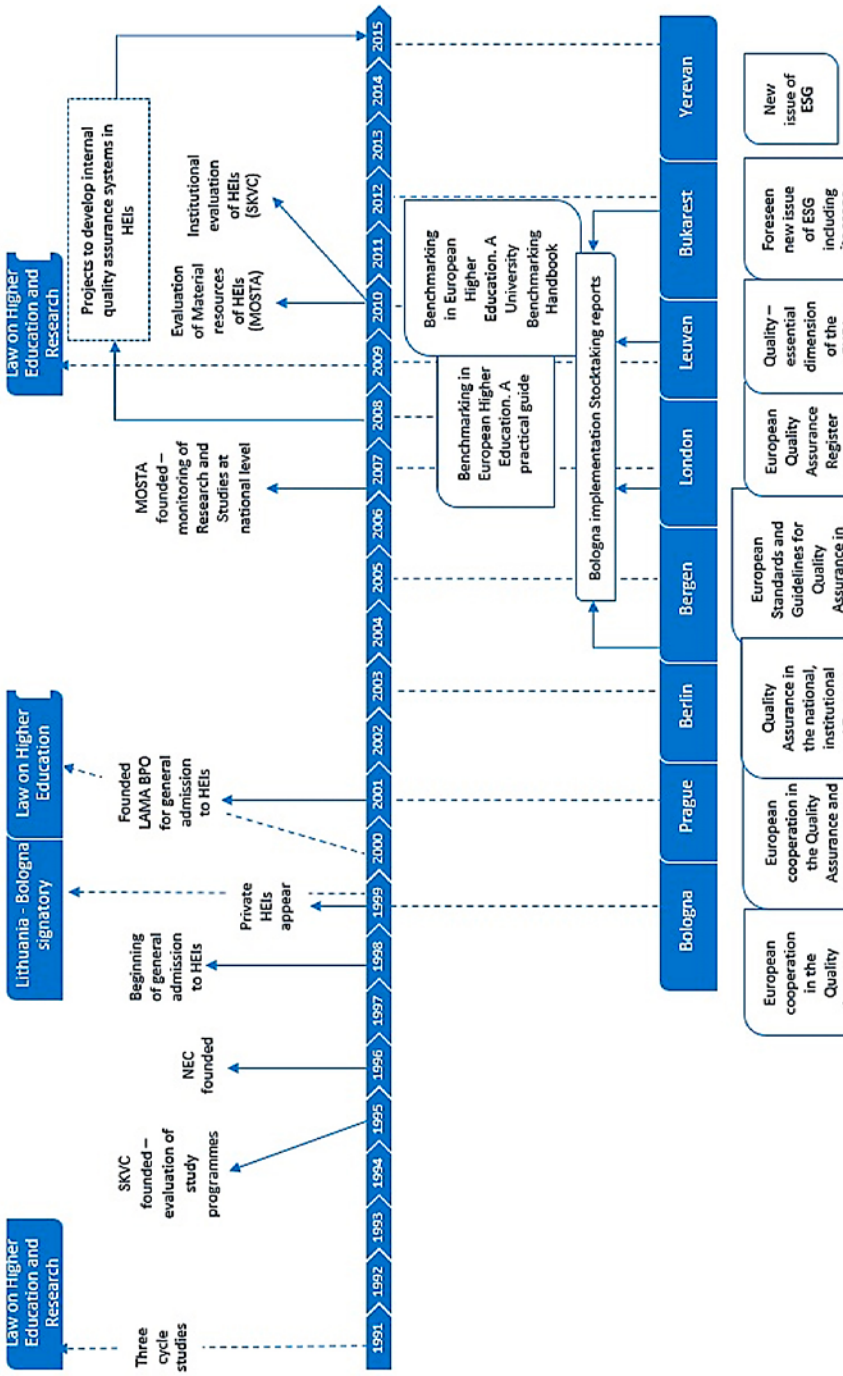

Fig. 1. Development of quality assurance in higher education in Lithuania and the Bologna Process in 1991–2015 (source: created by authors based on information provided by EHEA 2014)

The Law on Higher Education of the Republic of Lithuania was adopted in 2000. It established the binary system of higher education and colleges as the new type of non-university HEIs. They were granted the right to organise the first cycle studies, honour professional qualifications and perform applied science centred on practical activities. This system of higher education allowed better satisfaction of market needs through the training of specialists of different levels. These provisions corresponded to European trends of the time. E.g., the United Kingdom was implementing the higher education reform and incorporated colleges and polytechnic schools into the system of higher education in 1998 (Green 1994). The Lithuanian Law set forth certain obligations for state HEIs, such as to inform its founders and society about undertaken activities, instruments used for the quality assurance of studies and the use of funds. The Law also touched upon the quality of studies, indicated functions of self-governance bodies and top executives.

Apparently, the Law already included principles for assurance of quality in the system of higher education and certain particular requirements for quality of studies, e.g., general requirements for study programmes.

During 2000–2008, higher education in Lithuania experienced the period of rise and growth to masses. During that time, some HEIs gradually grew as well as numbers of students. Although Lithuania had the possibility to participate actively in the activities of the Bologna Process, the elaboration on the quality of higher education did not receive proper attention. No institutional quality assessment of HEIs was undertaken. In 2007, the Centre for Monitoring and Analysis of Science and Studies was established. It started a systemic analysis of processes of science and studies and their results on the national level. In general, the development of the higher education system was extensive during this period.

Simultaneously, the dimension of quality in the Bologna Process was coherently elaborated as reflected in documents approved during 2001–2009. The European Standards and Guidelines for Quality Assurance in Higher Education (ESG) were adopted in 2005. The document stressed the internal quality of study in 7 areas and was considered one of the most significant events of the Bologna Process in terms of the development of quality assurance of higher education (Standards and Guidelines… 2009).

It is important to note that standards and guidelines on quality assurance of European higher education correspond to international guidelines for quality assurance in higher education of UNESCO and OECD. The guidelines emphasise that the development of internationalisation of higher education demands quality assurance of studies. However, ESG did not establish standards for quality, i.e., they did not indicate what is considered the best quality HEI. Despite this, ESG referred to the following clearly formulated principles:

1. The responsibility for provided services and the assurance of their quality belongs to HEIs in the first place;
2. Quality assurance processes are adapted to the diversity of higher education systems, institutions and programmes;

3. The quality assurance process includes and refers to the expectations of stakeholders and society;
4. The quality assurance contributes to the development of quality culture.

In general, it can be stated that ESG consolidated provisions for HEIs creating the internal system for quality assurance of studies. Also, the document defined guidelines for institutions assessing the quality of studies in HEIs.

In 2005, 2007, 2009 and 2012, stocktaking reports on the progress of the Bologna Process were issued. The documents analysed ways states took to reach their national goals. Realisation of quality assurance instruments was measured by the following parameters (Reinalda 2008):

1. Stage of the development of the quality assurance system;
2. Key elements of the evaluation systems;
3. Level of participation among students;
4. Level of international participation, co-operation and networking.

Achievements of the states in the implementation of provisions of the Bologna Process in certain areas were evaluated using a five-point system. It should be said that the constantly corrected methodology led to incomparability of all four stocktaking reports. However, the assessment of the progress in states formed assumptions for the comparison of the progress achieved by states. Although this method was informal and took place in the network of HEIs of a certain state, stocktaking reports on achievements are considered a useful material for comparison.

In 2009, the new Law on Higher Education and Research of the Republic of Lithuania came into force. Also, subsequent legal acts were adopted and altogether formed the background for the systemic reform of higher education. The adopted law elaborated on the provisions for quality assurance of studies:

– The statute of a HEI has to specify the procedure for quality assurance of research and studies (Article 28);
– One of the functions of the senate of a HEI (academic council) is the approval of internal system for quality assurance of studies and the control over its implementation (Article 21);
– HEIs are responsible for the quality of research (art) activities, studies and other activities (Article 40);
– Every higher education institution must have an internal system of quality assurance in studies based on the provisions of quality assurance in studies of the European Higher Education Area and on the strategy of improvement of activity quality approved by the higher education institution itself; must provide for action methods and measures which help to ensure the quality of higher education provided by the institution (Article 41).

Several essential elements of the reform in Lithuanian higher education can be distinguished. First, HEIs were obligated to implement internal systems for quality assurance

of studies. The Law also established that external assessment of study programmes can be performed by the national Agency for Quality Assessment in Higher Education (SKVC) as well as other agencies for quality assessment in higher education that are on the European Quality Assurance Register for Higher Education (Putkiranta 2012). In 2010, the reform necessitated the adoption of the new procedure for the assessment and accreditation of HEIs. The newly introduced procedure was complex. The institutional assessment of HEIs comprised two parts: assessment of material resources and assessment of compliance.

Assessment of material resources focuses on facilities and learning resources, investments, composition and qualification of staff engaged in pedagogy and administration, scientific and applied research activities, academic training of students and number of drop-outs, and the effectiveness of state budgetary funds. Also, the state started to monitor the level of readiness among applicants to study at HEIs. This monitoring only covers entrants to study places financed by the state in the HEIs. However, several state and private HEIs have already introduced the use of minimal requirements (admission score) for entrants under their initiative before 2015. Admission score is considered a strong qualitative indicator irrespective of the party that makes the estimation, i.e., the state or a HEI. The state has challenged the initiation of regulation for the level of all entrants to HEIs on the national level.

Compliance assessment of HEIs focuses on the performance in following areas described in a self-analysis report prepared by the HEI under assessment: strategic management, studies and life-long learning, research, innovations and contribution to the development of the state. The analysis considers the collaboration with local and foreign academic and social partners, the demand for trained specialists on the scale of the state, efficiency of the internal system for quality assurance, the level of academic ethics, and dissemination of exact and objective information on the performance. Based on the assessment results, recommendations for the improvement of performance of the HEI is provided, and the decision on accreditation of the HEI is made. Positive assessment results in accreditation for the period of six years. Negative assessment results in accreditation for three years, during which the accreditation procedure is repeated. Second negative assessment means no accreditation and suspension of the license to organise higher education studies.

In conclusion, Lithuania uses external quality assurance as an instrument for regulation of for the control of higher education. The assessment exercise focuses on the external assessment of study programmes and institutions to make decisions regarding accreditation. Therefore, it aims to achieve minimal standards and ensure responsibility (Pivoras, Skaburskienė 2012). As the observed quality assurance mechanisms in higher education are directed to the satisfaction of minimal requirements and assurance of responsibility, they are only imposed procedures for HEIs that need to learn to perform "correctly". It should be mentioned that assessment of study programmes and institutional assessment of HEIs are executed on the basis of self-analysis reports prepared by HEIs. Self-analysis is an attribute of mature perspective on quality. However,

HEIs understand the difficulty of being self-critical, especially in a competitive environment (Newton 2006).

Another important element that contributed to the development of quality was projects implemented by Lithuanian HEIs. They were committed to the creation and elaboration of HEIs' internal systems for quality assurance of studies. During 2008–2014, thirty-six state and non-state HEIs, despite their type, used the support of the European Union to implement such projects (Skaburskienė 2014). The absolute majority of HEIs that implemented the projects, created quality management systems based on quality management systems such as ISO, EFQM or ISO + EFQM. Since continuous improvement is the central principle of quality management, international quality standards such as ISO, establish only the minimal limit for performance of a quality system. Their attention to improvement techniques is conditionally limited, an attribute of the use of these standards is the process of audit (Houston 2008).

A deeper perception of quality in higher education has two dimensions at least: structural (guidelines for quality management, definition of processes, instruments) and organisational value dimension (related to values skills and attitudes of members of the organisation). The described period of project implementation and creation of quality management systems had to contribute to the perception and development of ESG provisions in Lithuanian HEIs and establishment of a quality culture. However, reality demonstrates that the quality in Lithuanian HEIs was perceived only as the establishment of structural units for quality management and acquisition of certifications, e.g., ISO. To paraphrase Harvey, an internal studies quality assurance system "cannot be simply equated to institutional quality assurance system, even though this system is its important part" (Harvey, Williams 2010). In summary, the ultimate goal to ensure internal and external quality in HEIs.

The European Association for Quality Assurance in Higher Education (ENQA) disseminates the best practice in the area of quality assurance in higher education (Hämäläinen 2002). The Association indicates that internal quality is based on basic institutional operations and is essentially assessed locally (in the institution). Its main aim is to warrant the quality, student assessment processes and academic resources. External quality is an added value, which is composed of the best practices of institutions. Frequently external quality assessment refers to the procedures used in institutions to self-evaluate the internal quality (Garcı´a-Aracil, Davinia 2010).

The new ESG edition emphasises that quality assurance has two basic goals: quality improvement and accountability. The selected conception for quality assurance presents quality as an instrument to "fit for purpose". This means that quality assurance has to guarantee a study environment where content of study programmes, conditions to study and infrastructure fit the intended purposes (draft ESG, https://revisionesg.wordpress.com/ (Official website of the ESG revision 2014)). The new ESG edition should be adopted at the Bologna ministerial meeting in 2015.

Differences between presently valid ESG provisions and the new draft are presented in Table 1.

Table 1. ESG provisions of 2005 and the new draft of 2015 (source: composed by authors)

ESG 2005	ESG 2015 (draft)
1. Policy and procedures for quality assurance	1. Policy and process for quality assurance
2. Approval, monitoring and periodic review of programmes and awards	2. Design and approval of programmes
3. Assessment of students	3. Student-centred learning, teaching and assessment
	4. Student admission, progression, recognition and certification
4. Quality assurance of teaching staff	5. Teaching staff
5. Learning resources and student support	6. Learning resources and student support
6. Information systems	7. Information management
7. Public information	8. Public information
	9. On-going monitoring and periodic review of programmes
	10. Cyclical external quality assurance

The presented table indicates that the new draft of ESG guidelines revisits certain definitions on the basis of principles of the total quality management: "procedures" are replaced by "processes" and "information systems" by "information management". Cyclical external quality assurance is introduced. The Bologna principles, the social dimension and student-centred learning change and at the same time extend the previous "assessment of students".

It is important to note that the aspects influencing the quality of higher education as a system of several cycles or external assessment of study programmes were perceived and launched in Lithuania before the beginning of the Bologna Process. However, the Bologna Process suggested the concept of the internal system of quality assurance of studies based on the ESG principles. Neither Lithuanian national nor institutional levels managed to perceive and properly assess this aspect. This statement could also be substantiated by the fact that Lithuanian higher education institutions rarely considered ESG provisions during the implementation of the projects aimed at the creation of internal systems for quality of studies systems.

It is rational to analyse assumptions and possible application of the benchmarking method for the search of mechanisms that help to develop quality assurance and change management in higher education and pursue a quality culture.

3. Benchmarking method and its application in businesses

In the second half of the 20th century, the benchmarking method was widely applied in businesses as an easily understandable and effective instrument for strengthening the competitive ability of companies. At the time, the method gained recognition and was positioned among such instruments for improvement of organisational performance as Total Quality Management, Continuous Quality Improvement, and Business Process Reengineering (Alstete 1995).

Scientific literature defines this method differently (Camp 1989; Epper 1999; Fernandez *et al.* 2001; Kumar *et al.* 2006; Wong, W., Wong, K. 2008; Anand, Rambabu 2008; Huggins 2010; Rigby *et al.* 2014; Talebi *et al.* 2014; Kuhlmann 2010). Despite this diversity, all definitions include three main elements of benchmarking that are performed in the following order:

1. Search and identification of exceptional best practice;
2. Systematic learning from others;
3. Change in the activity.

Organisational products, services, processes and activities can be benchmarked. It is important for the activity to be continuous. Benchmarking involves the strongest competitors or companies that are considered to be the leaders in a certain field. The purpose of benchmarking is to provide owners (managers) of a process with information on its quality and measurement costs. A specific external standard is used for the measurement, which also helps to determine ways to improve the activity. In other words, benchmarking is a structured method used for the implementation of changes within an organisation. Also, benchmarking is the search for a practice that suggest the best way to implement activities or processes.

XEROX case is a classical example of benchmarking used in a business. In the 1980s, this international documentation management corporation pursued a competitive edge and retrieval of the lost market share. Benchmarking helped the corporation to understand reasons behind the lost market share and the absence of competitive ability.

Another example comes from the same decade. Ford – one of the largest world automobile manufacturers – hired about 500 accounting employees in North America. The company aimed to optimise its costs by improving performance and processes. This measure had to lead to redundancies amounting to 20 per cent. The team of researchers made an analysis and chose benchmarking for this activity the same process implemented by Mazda, which was a counterpart for the exercise. Researchers found that Mazda used a group of 5 employees to conduct the function (however, the scope of activities were not benchmarked in this case). Based on the results, Ford began to essentially reform the function. In the end, a significantly fewer employees were conducting the mentioned function instead of several hundred (Keegan, O'Kelly 2004).

Consequently, the dissemination of benchmarking among businesses was conditioned by the circumstances presently relevant to higher education institutions, namely:

1. Growing international competition;
2. Increasing interest in the techniques of quality improvement or the so-called quality movement;
3. The rapid advancement of information technologies that facilitated the collection and management of statistical data.

Benchmarking requires a careful selection of suitable counterparts. The following "pyramid" may be helpful for the rational and consistent selection of partners: 1. World class. 2. The best-in-class. 3. A best practice. 4. An improvement of current practices. 5. A practice similar to the current practices (Qiping, Guiwen 2007).

One of the aims of benchmarking is to stimulate activity and creativity in an organisation (Slack *et al.* 1998). Benchmarking is appropriate means for separating facts from visions and opinions. A discovered better way necessitates the implementation of change (innovation) and saves the organisation from "reinventing the wheel". However, certain researches indicate that the dissemination of this method in business companies changed during the last 15 years. It became popular at the end of the 1990s, but later the expansion went downwards. The research suggests one of the reasons for this tendency: there is no clear link between benchmarking and changes in results of a company's performance (Putkiranta 2012).

4. Studies on application of benchmarking in HEIs

Review of scientific literature on the subject involved analysis of some articles issued in Lithuania and worldwide. In the articles, comparative analysis is used for one or another aspect of higher education. It should be stressed that no articles examine the use of benchmarking in Lithuanian HEIs.

The following part of this article presents the most significant articles and publications on the applicability of benchmarking in HEIs.

One of the most cited sources on the topic is Alstete's work published in 1995, entitled "*Benchmarking in Higher Education. Application of Best Practices for Quality Improvement*". The text provides a detailed description of benchmarking types and possibilities of application in higher education. The author claims that benchmarking helps to overcome the resistance of HEIs to changes. Also, it gives a form (structure) for external evaluation and creates new communication networks between HEIs, enabling them to share valuable information and practices (Alstete 1995).

In 1998, UNESCO prepared and released a study "*Benchmarking in Higher Education*". The study includes different conceptions of the method and its application examples in the United Kingdom, Europe, North America and Australia. The publication "*Benchmarking. A Guide for Australian Universities*" was released in 2000. It analyses

Australian universities and suggests as many as 25 possible areas of activity for benchmarking (McKinnon *et al.* 2000).

The European Commission initiated several studies on this subject as well. In 2008, "*Benchmarking in European Higher Education. A Practical Guide*" was prepared and released by the European Centre for Strategic Management of Universities and its partners. In 2010, the Centre prepared "*Benchmarking in European Higher Education. A University Benchmarking Handbook*". This publication had an extensive theoretical part and examples of benchmarking of some areas of activity of universities. The analysis involved issues related to management, life-long learning, cooperation between universities and companies, and curriculum.

The first benchmarking project "*European Benchmarking Initiative in Higher Education*" was financed by the EU and implemented in 2006–2010. This project was aimed at modernisation of management in higher education and improvement of the attractiveness of the European higher education. According to the European Commission, benchmarking could be a modern management instrument for progress and institutional reforms to increase performance efficiency and capability while adapting to new challenges in the environment (Woźnicki *et al.* 2013).

5. Assumptions and opportunities for application of benchmarking in HEIs

Most HEIs have the ambition to learn from each other and share best practices. However, typical problems experienced by HEIs can range across a wide variety of issues. They include scarce market knowledge and customer-centred approach, slow and bureaucratic preparation of new study programmes, high costs of performance, the average quality of studies (or organisation) or even uncompetitive prices. HEIs are among especially conservative organisations that have implemented very few changes during a long period. Benchmarking could be a suitable method for solving these problems.

Benchmarking can help universities to indicate areas of successful performance and compare them with universities of the same profile (group). Also, the instrument helps to acknowledge areas of improvement and prepare targeted strategies for enhancement of performance in these areas.

Benchmarking is a modern management instrument with a great added value. It can be helpful to executives of HEIs making strategic decisions for the development of their organisation. The decisions are based on a systematic collection of data and identified objectives for higher performance results. Benchmarking is described as one "of the most effective antidotes to the complacency that is treated as a stigma of higher education" (Sorensen *et al*. 2005).

Benchmarking is spreading between universities that recognise the need to compare their performance with that of other universities. This comparison helps HEIs to analyse their strong and weak sides and introduces processes for the improvement

of performance results. Therefore, the usefulness of this exercise strongly depends on groups used for comparison, which should be as indiscrete as possible. Discreteness could significantly influence the results (Agasisti, Bonomi 2014). Universities should participate in benchmarking on a voluntary basis and free of charge.

Benchmarking can be:

1. Internal (inside the institution) and external (between several institutions);
2. Intended for comparison of results;
3. Intended for comparison of processes (comparing procedures and processes of institutions);
4. Strategic (comparing operations and decisions on the strategic level).

Possible ways of benchmarking in HEIs:

1. The institution compares procedures and results with those of other institutions (comparative assessment) to comprehensively strengthen and improve its performance.
2. The institution has procedures for generalisation of results on indicators measuring satisfaction of students and researchers and compares the results to those of other similar institutions.
3. The institution compares student performance data with relative student performance data of other institutions (Agasisti, Bonomi 2014).

The evaluation of benchmarking types and methods (Woźnicki *et al.* 2013; Garcı´a-Aracil, Davinia 2010; Anand, Rambabu 2008; Vught 2008, 2010; Dotun *et al.* 2010) reveal a number of essential issues. The following issues could be viewed as opportunities for HEIs to participate in the benchmarking exercise and reach clearer insights for performance improvement:

1. Analysis of documents providing information on operation of strategic planning and quality management systems:
   1.1. Governance and leadership (clarification of objectives and consistency on various levels);
   1.2. Administrative capacities of the institution (clearly defined lines of responsibility);
   1.3. Economic (material) and human resources (employees, academicians);
   1.4. Changes in financial structure (finance diversification);
   1.5. Quality management system (level of organisational culture);
   1.6. Ability to correspond to changes.
2. Analysis of the meanings of key performance indicators (KPI). Processes of the main activity, generating value for stakeholders (clients):
   2.1. Flexibility of the study process;
   2.2. Reaction to demand changes (establishment of new specialities);
   2.3. Sufficiency and accessibility of material resources for studies;
   2.4. Administrative services for students;
   2.5. Scope of applied research (scientific activity), impact of art (artistic activity);

2.6. Fitness of study programmes and qualification courses;
2.7. Career development and monitoring;
2.8. Composition, structure and qualification of pedagogical and administrative personnel.

3. The influence of the institution on the external world (society and region):
3.1. Competitiveness;
3.2. Reputation (attractiveness);
3.3. Student satisfaction;
3.4. Employability of graduates (locally, internationally);
3.5. Development of private sector initiatives;
3.6. Commercialisation: net return on equity.

Benchmarking should not be confused with presently popular rankings. These systems are usually composed of certain defined criteria and sums of their scores. It is true that the criteria used to compose certain rankings can be included while benchmarking results. However, rankings are usually characterised by compiled order of the rated. Therefore, although benchmarking and ranking systems have certain similarities, they are essentially different in their purpose and have different objectives.

Despite many recommendations and numbers of successful cases, benchmarking receives criticism regarding the application in HEIs (Putkiranta 2012). Some authors believe that benchmarking is a simple means to implement minor changes in an organisation and is usually used for improvement of the administrative process. But it is considered a euphemism and can also reveal shortcomings of an institution to the public.

The essential principle of benchmarking is voluntary participation in a research effort based on partnership. Currently, various national institutional initiatives are discussed to exercise this method externally. Possibly, results of a certain HEIs will be compared or a "top-down" benchmarking approach will be applied. However, it will not be the benchmarking exercise, which answers the question in what way and for what reasons certain results were received.

6. Conclusions

Under the influence of globalisation, higher education is turning into the mass phenomenon that changed the very concept of quality. The problem of quality has become essential to Lithuania and in the entire European Higher Education Area.

In the context of European states, the development of quality dimension in the Lithuanian higher education was gradual. There was a timely understanding of the importance of quality. The required legal regulation followed soon after. With time, attention to quality grew. Still, demographic and economic circumstances of 2000–2008 decelerated the development of this dimension in Lithuania. It should be noted that the instruments chosen for the elaboration of quality management systems in HEIs did not produce the expected result. The state chose the model, according to which the supervision and

control of quality in higher education was entrusted to the institution subordinated to the ministry. However, HEIs attempt to satisfy the requirements rather than identify their place in the country and the region. Similarly, universities aiming to improve management should focus on strategic directions, such as simplification of internal structure and subordination, and attribution of clear responsibility for the results to either academic or administrative units. However this effort requires new priorities in strategic development, focused on the efficiency of university management and strengthening of accountability to society.

Together with other management means, such as Total Quality Management, benchmarking is suggested as an instrument for HEIs seeking for qualitative changes and higher performance results. Benchmarking is not enforced externally but perceived as means for continuous learning. It is effective under networking circumstances and can help HEIs to satisfy stakeholder needs and meet challenges of globalisation.

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