

QUALITY MANAGEMENT IN HIGHER EDUCATION INSTITUTIONS IN LATVIA

Dita Stefenhagena¹, Mg.sc.soc., PhD candidate of management science,
Voldemars Bariss², Dr.phil., associated professor,

¹University of Latvia

²University of Agriculture, Latvia

Abstract. The paper is part of the doctoral thesis „Implementation of Management by Objectives Approaches at the Higher Education Institutions in Latvia” in Management Science, subfield of Educational management, University of Latvia. Economic crisis, decrease of public resources, negative tendencies in demography as well as rapid globalization and increased competitiveness are the main factors which have created new challenges in higher education management. External environment changes have determined necessity to introduce management by objectives approaches in higher education institutions’ (HEI) management. HEIs’ goals, objectives and results of studies and research under new conditions can’t be reached by traditional bureaucratic management methods. The aim is to research what are the contributing factors and what are the obstacles of implementation of quality management in HEIs. Awareness of problems in quality management would lead to possible changes and institutional management improvement. Research object is quality management at the public higher education institutions in Latvia. Scientific knowledge of public management and educational management authors, reports and research by international and local higher education organizations (European University Association, higher education consulting organization “Dynamic University”, etc.) are used as theoretical basis of the paper. Results from quantitative approach (inquiry of different level university heads) are used as empirical basis. Main results of the paper: HEIs institutional management problems refer to application and implementation of all operational components of life-cycle, especially assessment and analysis of outputs and performance results and using it as a feedback in decision making. Conclusion: quality management (using EFQM Excellence model) is an efficient management by objectives approach in HEIs institutional management in case of application of all steps (operational components) of Deming’s life-cycle.

Key words: higher education institutions (HEIs), quality management, life-cycle

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Introduction

There are 16 public higher education institutions in Latvia which include six universities, seven academies and three university colleges. HEIs are located in the capital city of Latvia – Riga (11 HEIs) and in other cities of Latvia (5 HEIs).

Research results of higher education consulting organization „Dynamic University” (organization provides strategic consultations in providing excellence, management of change in Latvia and other European countries) indicate that „...total 20 % of all HEIs in Latvia have reported that quality management and internal quality assurances systems have been introduced and implemented because it has been required by the normative regulationsThis statement doesn’t ensure that HEIs have clear understanding of usefulness and meaning of quality management in raising institutional effectiveness” (Quality Assurance at HEIs, Dynamic University, 2013:16).

Necessity of quality management in HEIs has been strongly recommended by EUA (European University Association). Quality management policy, appropriate processes and structures have been emphasized in order to ensure a cycle for continuous improvement. Institutions should have a policy for quality assurance that is made public and forms part of their strategic management. Internal stakeholders should develop and implement this policy through appropriate structures and processes, while involving external stakeholders. Policies and processes are the main pillars of a coherent institutional quality management system that forms a cycle for continuous improvement and contributes to the accountability of HEI. It supports the development of quality culture in which all internal stakeholders assume responsibility for quality and engage in quality assurance at all levels of the institution (EUA Annual Report, 2015).

The **problem** to be researched is the following: how effective are the new management approaches, e.g., quality management at HEIs institutional level? Is the quality management used in accordance to its essential meaning and goals? Do HEIs purposefully use quality management in order to improve institutional management and decision making process, or is it used more for formal than practical purposes? The **aim** of the research is to determine the contributing factors and obstacles of implementation of quality management in HEIs. That would lead to possible changes to be suggested at the HEIs institutional level in order to ensure result oriented processes and effectiveness of attained goals, objectives and results. The following **research tasks** are set forth to achieve the aim: (1) To analyze theoretical concepts of quality management as management by objectives approach; (2) Assess and analyze problems of implementation of quality management in HEIs in Latvia based on results of universities' inquiry.

The following **research methods** were used: analysis of scientific literature and normative regulations, monographic method, inquiry with sampling, factor analysis. The main information sources are: scientific knowledge of management science authors (Deming E., 1994, Spasos S., et al, 2008, Arjomandi M., et al., 2009) and international higher education organizations' reports („Dynamic University, Ltd., European University Association), Total Quality Management (TQM), European Foundation for Quality Management (EFQM) Excellence model.

Research results and discussion:

1. Theoretical description: applying life – cycle and feedback to quality management.

Quality management is characterized as management approach based in processes in order for the organization to be result oriented and able to measure its functional effectiveness (to which extent objectives are implemented and results achieved). The quality management theory has been developed starting from 19

century 20ies by Shewhart, Feigenbaum, Ishikawa, Deming and Juran. Systematic quality management research called Total Quality Management (TQM) was introduced by US professor, expert of statistical quality management methods E. Deming (Organization Theory, 2010; Saarti J.et al., 2011).

Role of quality management increases by every year in HEIs institutional management. That has been emphasized by EUA recommendations (Quality Assurance, 2014; Standards and Guidelines for QA, 2015; Trends in quality management research in HEI, 2016) and by higher education normative regulations: HEIs implement their own inner quality assurance systems by establishing policy and procedures for higher education quality (Law on Higher Education Institutions, 1995, article 5, part 2). Regular quality management and quality assurance forums have been organized by EUA (EQAF – European Quality Assurance Forums) and HEIs' international evaluation programmes (IEP – Institutional Evaluation Programmes).

It has to be explained that there is a difference between quality assurance and quality management concepts which are used in literature. Quality assurance is a broader term which ensures effectiveness of HEIs' study and research goals, but quality management refers to implementing a quality management system, e.g., according to ISO (International Organization for Standardization) or EFQM Excellence model (Investors in Excellence) standards at the institutional management level (Standards and Guidelines for QA, 2015). The main responsibility of implementing a quality management system lies on HEIs administration. Quality management is integrated into the inner quality assurance system and it defines concrete principles/criteria and operational components which have to be implemented by attaining goals, objectives and results at all HEIs structural levels. Thus both of these concepts (quality assurance and quality management) are closely connected theoretically

and practically – the quality of studies and research is assessed by implementing a quality management system.

EFQM Excellence model is the most popular quality management model in HEIs in Latvia and other EU countries - most European universities have implemented EFQM as the basis for the measurement of their activities (Spasos S., et al., 2008, Arjomandi M., et al., 2009). Principles of EFQM Excellence model are integrated by various public sector and educational management authors in Latvia and abroad, applying the model to higher education and HEIs management (Applying self-assessment against EFQM Excellence model in Higher Education, 2003; EFQM Excellence Model, Higher Education version, 2013; EFQM Excellence model for higher education, 2009; Rauhvargers A., 2009). The model is characterized as self-assessment, planning and measurement tool where the key management approaches are divided into the following groups, or according to EFQM Excellence model – principles or criteria: leadership (leaders' involvement with personnel), strategic management (establishing needs and expectations of target groups), personnel management (identifying, developing and sustaining people skills, rewarding and recognizing), resources management (providing access to all types of resources, including information and knowledge) and management of internal processes (dynamic and efficient implementation of all internal processes, supporting personnel with process change). The model illustrates that the leadership of executive representatives is considered one of the main principles of implementing quality management and creating continuous progress of HEI policy, strategy, management of personnel and resources (EFQM Excellence Model Higher Education Version, 2013). Leadership in HEIs quality management refers to explaining goals, objectives and results to personnel and motivating it to reach outcomes (results at

department level) and performance results (results at institutional level) by using quality management at all structural levels of HEI.

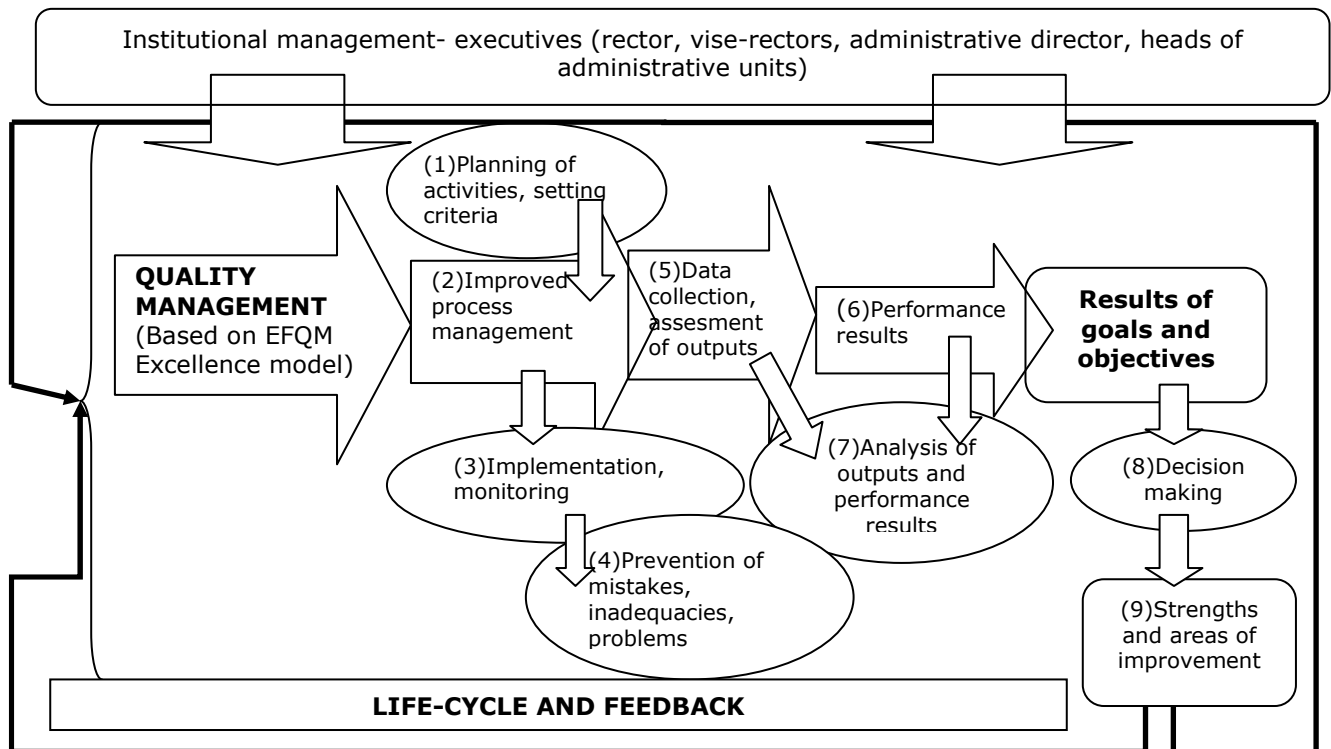
HEIs plan and implement activities which characterize accomplishments of all principles/criteria defined by the EFQM Excellence model. By using EFQM Excellence model it is convenient that HEIs can decide by themselves - what are the activities in each of the represented groups (leadership, strategy, personnel, resources, internal processes), and in which way activities are implemented in order to reach the results.

As mentioned before, there are certain operational components required by quality management and to be applied to all of the EFQM Excellence principles/criteria (Figure 1). These operational components are associated with Deming's life – cycle (Deming E., 1994, EFQM Excellence Model Higher Education Version, 2013) which is planning of actions and criteria (1), implementation of processes (2), processes are monitored (3), and inadequacies and problems are solved during the implementation (4), assessment of results: outputs (5) and performance results (6), analysis of outputs and performance results (7), decision making (8), based on analysis of results and considering strengths and areas of improvement (9).

It has to be emphasized that application of the life-cycle and feedback is mainly the responsibility of HEI's institutional level management (executives) which consists of rector, vice-rectors, administrative director, heads of the main administrative units (Figure 1). Based on the life-cycle management, HEI continuously review and refine their objectives and tasks to improve processes, outcomes and performance results. Quality management is implemented by planning and implementing processes, attaining goals, objectives and results, and by developing new improvement activities at each of the groups of leadership, strategy, personnel, resources and internal processes. That

is shown by Figure 1 where decision making on new activities to promote strengths and improve areas of weaknesses goes back to quality

management planning, and the life-cycle starts its management way again.



Source: developed by authors based on Deming E., *EFQM Excellence Model Higher Education Version, 2013, TQM and Operational Excellence, 2014.*

Figure 1. **Quality management with life – cycle, feedback and operational components.**

Continuous improvement is the main purpose of applying life - cycle under condition that none of the operational components are missing. That means that there is a close and integrated connection among planning, implementation, monitoring, assessment, analysis and decision making.

Public organizations, including HEIs have problems of applying assessment and analysis component in quality management (Organization Theory and Public Management, 2005). That leads to a situation that there isn't sufficient identification and analysis of mistakes and inadequacies, and decision making based on problem identification is not following. In data collection, analysis and assessment of outputs and performance results, it is important to be oriented by realistic, proven and documented facts what help to avoid from decision making based on subjective assumptions.

EFQM Excellence model characterizes management enablers on the part of the heads of

HEIs, and attained goals, objectives and results at the level of personnel (internal level) and target groups (internal and external level - e.g., students, employers, businesses, etc.). Quality management is effective if goals, objectives and results are obtained by all structural levels of HEI, and the life-cycle operational components are used as integrated approach.

2. Empirical description: evaluation of quality management components by universities' personnel (heads of higher, middle and lower level).

In order to optimize processes and accomplish results both at department level (outputs) and institutional level (performance results), HEIs introduce and implement new methodological management approaches. EU research reports show that, for example, quality management and internal quality assurance has been implemented by 63 % of European HEIs (*EUA Trends 2015*). Strategy, quality, performance management are those management by objectives approaches which have been gradually introduced also by

HEIs in Latvia. More than half of all HEIs (54 %) implement quality management and quality assurance systems for more than five years (33 private and public HEIs were surveyed in Latvia) (Quality Assurance at HEIs, Dynamic University, 2013).

Authors have organized a quantitative inquiry at six university level HEIs in Latvia. The aim of the inquiry was to explore university higher, middle and lower level heads' opinion on introduction and implementation of management by objectives approaches (quality management, implementation of various quality management components) at HEIs.

Respondents gave assessment in a scale 1 to 10, and the data was summarized and analyzed in three groups: 1. responses in a scale 1-4 (opinion of „completely disagree“, „disagree“, „rather disagree“), 2. responses in scale 5-6 („don't have an opinion“, „no information“), 3. responses in a scale 7-10 („completely agree“, „agree“, „rather agree“).

The majority of respondents (58 %) were of opinion that quality management system within the last three years have been successfully introduced and implemented at HEIs. At the same time quite large number of respondents

(almost ¼ -24 %) were of opinion that quality management system hasn't been introduced or isn't efficient. The main drawbacks are identified as formal approach (quality management is documented but lacks adequate practical application) and lack of applying all operational components of life-cycle in practice.

23 % of respondents didn't have opinion or were missing information on quality management issue, and 21 % of respondents were of opinion that quality management hasn't been implemented according to its essential meaning and goals. These results indicate that almost 1/4 of respondents are not satisfied with application of quality management system at the university institutional management, and university personnel (higher, middle and lower level heads) are missing information about implementation of quality management system at their universities. These facts may lead to an assumption that there isn't a sufficient information flow regarding new management approaches from the university executive management to middle and lower level management. Because of missing information, middle and lower level heads may not be aware of essential meaning and goals of quality management.

Table 1

Respondents' opinion(%) on components in quality management at HEIs
(scale 1-10; 1- „definitely no“, 10- „definitely yes“), n=209

No	Operational components	Responses (%) scale 1-4	Responses (%) scale 5-6	Responses (%) scale 7-10	Scale (Factor analysis)
1	Planning of processes and criteria	26.1	19.3	54.5	0.806
2	Implementation of processes	28.4	21.7	50.0	0.837
3	Monitoring and evaluation	23.2	15.5	61.4	0.823
4	Analysis and assessment of outputs and performance results	22.0	21.9	56.1	0.732
5	Decision making	31.1	20.1	48.9	0.873
6	Prevention of mistakes, inadequacies, problems	30.1	21.4	48.6	0.893

Source: authors' research at universities, Latvia, 2012/2013

Respondents' opinion in regard to operational components applied to life-cycle and feedback in quality management show that majority (43 %-73 %) agree that the components are

implemented (Table 1). At the same time more than 30 % of respondents were of opinion that decision making, prevention of mistakes, inadequacies and problems are not efficient. More

than 20 % of respondents were of opinion that planning, implementation of processes, monitoring and evaluation, assessment of outputs and performance results are not sufficient. The fact that 20 %-30 % of respondents are critical about implementation of various operational components may lead to assumption that the life –cycle and feedback in decision making aren't sufficiently implemented. The life –cycle and feedback application in quality management may be considered as management area which requires improvement.

Factor analysis method was used to describe what variables (operational components) are the most important (correlated) with the factor „Quality management“. The method (using rotated component matrix) indicates which variables have the closest correlation with the factor. Components which indicate interaction on the factor „Quality management“ in prioritized order: (1) „prevention of mistakes, inadequacies, problems (0.893)“, (2) „decision making“ (0.873)“, (3) „implementation of processes (0.837)“, (4) „monitoring and evaluation (0.823)“, (5) „planning of processes and criteria (0.806)“, (6) „analysis and assessment of outputs and performance results (0.732)“ (Table 1). Respondents evaluate highly all of the components described (scale from 0.732 to 0.893). According to Factor analysis, component of “analysis and assessment of outputs and performance results (0.732)” is considered to be of a more problematic implementation than other components. These results coincide with the authors' previously mentioned statement: outputs and performance results aren't assessed and analyzed in a sufficient manner and it leads to situation when appropriate feedback is missing in decision making.

Conclusions.

General:

1) Application of life – cycle and feedback in decision making is one of the main characteristics of efficient and functional

quality management system in HEIs. There is a close and integrated connection among planning, implementation, monitoring, assessment, analysis and decision making.

2) Leadership in HEIs quality management is defined as executives' involvement with personnel by explaining goals, objectives and results and motivating to reach outcomes (results at department level) and performance results (results at institutional level) by using quality management system at all structural levels. Leadership helps to raise awareness of personnel in regard to essential meaning and purpose of quality management.

Preventing factors:

- 3) Necessity of quality management and inner quality assurance in HEIs have been strongly recommended by European higher education organizations and required by higher education normative regulations in Latvia.
- 4) HEIs as autonomous entities may decide on introduction and implementation of quality management by defining quality policy, appropriate processes and structures in order to ensure a cycle for continuous improvement.
- 5) In order to optimize processes and accomplish results HEIs introduce and implement new methodological management approaches. Quality management and internal quality assurance have been implemented by 63 % of European HEIs. The fact that more than half (54 %) of all HEIs (public and private) in Latvia implement quality management and quality assurance systems for more than five years is considered as a serious practical experience.

Obstacles (problems of efficient implementation of quality management):

6) Formal approach (quality management is documented but lacks adequate practical application, quality management is introduced because of normative requirements, etc.) may be a problematic issue at HEIs institutional management.

- 7) HEIs institutional management problems refer especially assessment and analysis of outputs to application and implementation of all and performance results and using feedback operational components of the life-cycle, in decision making.

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