

A. Piasecka

Maria Curie-Skłodowska University (UMCS)

Faculty of Economics

Department of Quality Management and Knowledge

ORGANIZATIONAL INNOVATION IN MANAGING A MODERN HIGHER EDUCATION INSTITUTION

© Piasecka A., 2016

In the modern university decision-making processes are becoming more complex. Higher education institution functions as an enterprise, it should be remembered that efficient operation of such an institution depends on its effectiveness.

The article presents examples of implementation of selected management methods, which are organizational innovation in higher education: quality management system according to ISO 9001, Balanced Scorecard, Navigator.

Key words: higher education institution, quality management system according to ISO 9001, Balanced Scorecard, Navigator.

ОРГАНІЗАЦІЙНІ ІННОВАЦІЇ В УПРАВЛІННІ СУЧАСНИМ ВИЩИМ НАВЧАЛЬНИМ ЗАКЛАДОМ

© Пясецька А., 2016

Процес прийняття рішення в менеджменті сучасним вищим навчальним закладом стає все більш системним та комплексним. В управлінні університетом, як і в управлінні підприємством важливо пам'ятати, що ефективність операцій впливає на результативність функціонування установи загалом. Наведено приклади використання різних методів управління вищим навчальним закладом, що ґрунтуються на інноваційному підході: управління якістю за стандартами ISO 9001, використання збалансованої системи показників, застосування моделі “Скандія-навігатор”.

Ключові слова: вищий навчальний заклад, управління якістю за стандартами ISO 9001, збалансована система показників, модель “Скандія-навігатор”.

Statement of the problem

For centuries, higher education institutions have functioned in an undisturbed environment. Since the end of the 20th and beginning of the 21st century, their operation, including the related decision-making processes, have become increasingly complex [8, p.21]. This was the result of the development of knowledge economy and the growing turbulence and uncertainty in the environment of modern organizations.

Changes in the environment, challenging higher education institutions in terms of the applied management concepts and systems should also include dissemination resulting from massification of higher education and internationalization of the activity of higher education institutions referred to as the process of inclusion of the international, cross-cultural aspect to the mission and tasks carried out by the higher education system [10, p.165].

A consequence of the said changes and the changing relationships between an academic institution, and the economy and society, is the emergence of today's concepts of higher education institutions. Among concepts referred to most often, there is the concept of entrepreneurial university.

Assuming that a higher education institution functions as an enterprise, it should be remembered that efficient operation of such an institution depends on its effectiveness [11, pp. 422, 423].

Analysis of recent research and publications

The problems of the organizational innovation and management of higher educational institutions occupy a prominent place in the researches of the foreign and Poland scientists: Kowalczyk J., Moszkowicz M., Oldroyd D., Elsner D., Poster C., Kaneko M., Kok A. and others.

The formulation of objectives

The aim of this paper is to present the indicated organizational innovation in theory and practice. The objectives of this article are: to explore the trends of management of the universities and to propose the examples of implementation of organizational innovation in higher education (quality management system according to ISO 9001, Balanced Scorecard, Navigator).

Presentation of main materials

In the communication of the European Commission entitled “*The role of universities in the Europe of knowledge*”, six basic challenges to be faced by higher education institutions are presented. They include:

- increased demand for higher education,
- the internationalization of education and research,
- development of effective and close cooperation between universities and industry,
- the proliferation of places where knowledge is produced, resulting from the growing tendency of the business sector subcontracting research to universities,
- diversification and specialization of knowledge created in higher education institutions,
- the emergence of new expectations regarding needs in education and training which stem from building the knowledge-based society [1].

To generalize on the above-mentioned demands from higher education institutions, it may be concluded that they primarily include: relevance of produced and provided knowledge, efficiency and ensuring quality and efficacy of education [4].

Implementation of these objectives, as well as acting in line with the concept of entrepreneurial university makes the university managers introduce organizational innovation in the previously applied management concepts and methods.

Innovation has been defined as change that is human-made and deliberates [9]. There are four most common types of innovation: product innovation, process innovation, marketing innovation and organizational innovation.

Organizational innovation means the implementation of a new organizational method in the undertaking's business practices, workplace organization or external relations. Organizational innovation, when compared to other organizational changes, is an organizational method that has not already been used in the undertaking and which has resulted from strategic decisions made by the management [17].

A review of theoretical and empirical literature allows pointing a number of management-related organizational innovations introduced in higher education institutions. These include:

- implementation of a quality management system complying with requirements set out in ISO 9001 standard,
- use of the balanced scorecard in strategic planning,
- use of the Navigator in managing intellectual capital.

Seeing higher education institutions as entrepreneurial organizations has changed the approach to the process of determining the quality of educational services. Traditionally, this process would make use of quality control, whereas nowadays the concept of quality management has been used increasingly often [12, p.94-95]. In practice, the use of this concept has been manifested in implementation of quality management systems (QMS) complying with ISO 9001 standard.

ISO 9001 international standard is of organizational nature and sets out requirements to be met by a quality management system. In ISO 9001:2008, these requirements are classified into five groups related to:

- quality management system,

- management responsibility,
- resource management,
- process management,
- measurement, analysis and improvement.

Additional information related to selected aspects of a quality management system may be found in: ISO 9000 Quality management systems – Fundamentals and vocabulary, ISO 9004 Managing for the sustained success of an organization – A quality management approach, ISO 19011 Guidelines for quality and/or environmental management systems auditing.

It should be added, that important guidelines related to design and implementation of quality management systems are also included in IWA 2 Quality management systems – Guidelines for the application of ISO 9001:2000 in education. This document is addressed to educational institutions planning to implement or which have already implemented quality management systems built in line with requirements set out in ISO 9001 standard.

In line with the definition provided in ISO 9000 standard, a quality management system is “a management system for leading the organization and its supervision in relation to quality” [15, pp. 25, 27].

Therefore, it may be stated, that a higher education institution which is planning to introduce the system in line with requirements set out in ISO 9001 standard, aims to increase satisfaction of its customers by providing teaching or research services complying with their requirements.

Design and implementation of a quality management system requires the stakeholders to take into account the principles underlying the quality management system as well as the requirements set out in ISO 9001 standard [15, pp. 7, 9].

Implementation of quality management principles means the necessity to take actions related to:

1. determining the needs and expectations of customers who may include: students, employers, state representing the society, employees,
2. creating vision and developing the associated implementation policy [3],
3. use of employee competencies and developing proper attitudes by building culture promoting quality,
4. identification of the main and auxiliary processes, their measurement and improvement,
5. managing the interrelated processes and activities,
6. ongoing search for methods of improving operation of educational institutions and the quality system,
7. making decisions after analysis of available data and information,
8. establishing partner relations with higher education institution suppliers and cooperation with stakeholders.

IWA 2:2007 guidelines additionally accentuate the following principles of:

– Creating learner value to encourage learners to feel satisfied and measure this satisfaction. Satisfaction measurements determine the degree to which the received values meet learner’s needs and expectations; whereas measurement results help higher education institutions improve the processes for creating learner value.

– Focusing on social value. Higher education institutions can ensure sustainable growth only when the larger society appreciates value-added output of learners.

– Agility, which is essential to ensure sustained growth in a changing education environment and turns the changes into an opportunity to achieve success.

– Autonomy based on self-analysis and circumstance analysis in higher education institutions [3].

The process of building the quality management system is an undertaking involving a number of stages, including: designing, implementation, sustaining and improvement of the system [7, pp. 59-60]. These stages involve activities such as: employee training, drawing up of documentation, internal auditing, improvement and certification of the system.

Based on research results, it may be concluded that major causes of implementing quality management systems by higher education institutions in Poland should include:

- creation of a transparent and efficient system for institution's organization and management,
- improvement of its competitiveness,
- improvement of training quality,
- improvement of processes intended to increase effectiveness,
- evoking customer satisfaction,
- confirm meeting of quality standards in training [13, p.74].

It should be emphasized that higher education institutions may draw specific benefits from implementation of ISO 9001 requirements and efficient operation of the quality management system. Research results presented above show that the most tangible benefits following system implementation included:

- improved image of a higher education institution,
- creation of a transparent and efficient system for organization and management of the institution,
- improved awareness of the members of the academic related to problems with training quality in a higher education institution,
- improved circulation of information serving as the basis for decision-making,
- knowledge of the goals of a higher education institution and identification with its quality performance by all employees [13, p.75].

It should be added that a quality management system in a higher education institution is strictly determined by its specific operation and nature of relations between the institutions and the government. The relations result from the adopted model of ensuring quality training, whereas specific operation of a higher education institution is related with its constitutive features, tasks to be completed determined by the laws and operating conditions.

The Balanced Scorecard developed by R. S. Kaplan and D. P. Norton is a system for strategic management supporting the implementation of organizational strategy [5, p. 29]. It essentially translates an organization's mission and strategy into a comprehensive set of performance metrics. This strategic management system measures organizational performance in four perspectives:

- financial: the metrics refer to financial standing of an organization,
- internal business process: the metrics refer to efficiency of processes in the organization,
- customer: the metrics refer to the level of customer satisfaction and obtaining larger market share,
- growth: the metrics refer to possible development of new products and acquiring new skills in the future [5, pp. 38–45].

Educational organizations are managed owing to internal autonomy of such institutions. The specific nature of this process additionally results from statutory tasks carried out by higher education institutions.

The Balanced Scorecard was used in strategic planning activities at Maria Skłodowska-Curie University (UMCS) in Lublin. The main objective of its implementation had been to develop strategic action plans for the university, as well as the implementation metrics. Draft scorecard development was commissioned in 2011 to an external company, however with active involvement of academics.

The activities were performed in the following order:

I. Analysis of a higher education institution and its external environment, including SWOT analysis.

The analysis was performed in relation to five areas:

- domestic and international processes and documents, overarching the UMCS development strategy,
- shape of UMCS's external environment,
- demographic change at the national and voivodeship level (Lubelskie Voivodeship),
- possible financing of higher education with public funding,
- global trends.

II. Development of the mission and vision statements, strategic objectives and their translation into the system of metrics.

Based on the analysis, UMCS mission and vision statements have been developed, as well as strategic and operational objectives together with associated metrics. Due to the fact that UMCS is a public

sector organization, objectives have been identified for three perspectives: customers, processes and growth. Considering the basic tasks implemented by every educational organization and major groups of recipients of services provided by UMCS, strategic and operational objectives have been assigned to the following five areas according to three perspectives:

1. Perspective of recipients of the services:
 - area of training,
 - area of scientific research,
 - area of relations with external environment.
2. Perspective of internal processes.
3. Perspective of development.

III. Cascading higher education institution strategy into the strategies of specific faculties.

This process involves translation of the general UMCS strategy into the strategies of individual organizational units. It embraces all faculties and selected general university units. Cascading involves determination of:

- mission and vision of the unit,
- strategic and operational objectives, as well as activities resulting from the cascading process,
- metrics for achievement of strategic objectives,
- detailed measure cards for the unit.

The development strategy for Maria Skłodowska-Curie University, prepared using the balanced scorecard, was drawn up for the years 2012-2021. It has been implemented since May 2012.

It should be noted that as a result of Balanced Scorecard implementation, the management, especially lower level executives, may come to realize that effective operation of a higher education institution depends to a large extent on how much the institution is able to adjust to change in its environment. Functioning of an educational organization is significantly affected by building relations with employers, collaboration with other higher education institutions or active search for new sources of funding for research activities.

Skandia Navigator has been one of the most popular methods of managing intellectual capital. The underlying assumption is that intellectual capital of an organization is composed of the human capital and structural capital, whereas the latter includes the organizational capital (innovation capital and process capital) and customer capital. The Navigator is based on the system of indicators grouped into 5 components: financial, customer, process, human, and development/innovation. This method enables to measure all components of the intellectual capital [2, pp. 54–117].

The Navigator has been used in the University of Johannesburg, South Africa. In the initial phase of implementation, 12 key success factors have been determined and grouped into 6 areas. The discussed areas including key success factors were:

- human capital: higher education institution's ability to attract and retain competent employees, engaged staff, having suitable capital measures to support effective staff and students,
- structural capital:
 - customer capital: designing a positive image of the university, higher education institution's ability to attract good students,
 - organizational capital – innovation capital/intangible assets: technological support, quality of research, relevant curriculums,
 - organizational capital – innovation capital/intellectual property: quality of research, internationalization,
 - process capital: vision of strategic management, fulfilling the mission of an educational organization,
- financial capital: financial standing of the higher education institution.

Each key success factor has been assigned specific indicators, with their total number of 67. What is characteristic of these indicators is that they:

- comprise a system of indicators providing a picture of activities carried out in the university,

- describe the process of creating value of the university,
- are related to 3 basic components of intellectual capital (human capital, organizational capital, customer capital),
- are financial or non-financial,
- are verifiable.

It should be added that the Navigator has been used with great success in the process of achieving organizational objectives in the University of Johannesburg.

Conclusion and prospects for future research

Modern higher education institutions have often been perceived as enterprises offering specific services. This draws the attention to effective management of such organization and to difficulties connected with operation of such institutions in a turbulent environment.

Traditional management methods applied to date may prove insufficient; therefore university authorities have begun to introduce organizational innovation into management practices.

The above examples of applying new specific management methods and tools (a quality management system built in compliance with ISO 9001 standard, balanced scorecard, the Navigator) refer to modifications of: operating principles, workplace organization, relationships with external environment, and they result from strategic decisions made by the management, therefore they may be referred to as organizational innovation.

1. *Communication from the Commission of 5 February 2003 - The role of universities in the Europe of knowledge*, <http://eur-lex.europa.eu/legal-content/EN/TXT/?uri=URISERV%3Ac1106722>. 2. Edvinsson L., Malone M. S., *Kapitał intelektualny*, WN PWN, Warszawa, 2001. 3. IWA 2:2007 *Quality management systems – Guidelines for the application of ISO 9001:2000 in education*, ISO 2007, Switzerland. 4. Kaneko M., *Beyond the Politics of Competence. Balancing the Social Claim and Core of Higher Education*, OECD/IMHE General Conference on Quality, Relevance and Impact of Higher Education, 8–10 September 2008, <http://www.oecd.org/site/eduimhe08/41217871.pdf>. 5. Kaplan R. S., Norton P. D., *Strategiczna karta wyników. Jak przełożyć strategię na działanie*, WN PWN, Warszawa 2001. 6. Kok A., *Intellectual Capital Management as Part of Knowledge Management Initiatives at Institutions of Higher Education Learning*, „The Electronic Journal of Knowledge Management” 2007, Volume 5, Issue 2. 7. Kowalczyk J., *Szef firmy w systemie zarządzania przez jakość ISO 9001-TQM*, Wydawnictwa Fachowe CeDeWu, Warszawa 2005. 8. Leja K., *Zarządzanie uczelnią. Koncepcje i współczesne wyzwania*, Oficyna a Wolters Kluwer business, Warszawa 2013. 9. *Leksykon zarządzania*, Difin, Warszawa 2004. 10. Morawski R. *Z Uwarunkowania międzynarodowe i internacjonalizacja szkolnictwa wyższego*, [in:] *Polskie szkolnictwo wyższe. Stan, uwarunkowania i perspektywy*, Wydawnictwa Uniwersytetu Warszawskiego, Warszawa 2009. 11. Moszkowicz M., *Rynek w edukacji i nauce*, [in:] *Bieniok H., Kraśnicka T.(ed.), Innowacje w zarządzaniu przedsiębiorstwem oraz instytucjami sektora publicznego. Teoria i praktyka*, Wydawnictwo Akademii Ekonomicznej im. Karola Adamieckiego w Katowicach, Katowice 2010. 12. Oldroyd D., Elsner D., Poster C., *Educational Management Today*, Paul Chapman Publishing Ltd., London 1996. 13. Piasecka A., *Uwarunkowania wdrażania systemu zarządzania jakością w szkole wyższej*, [in:] *Kaczmarczyk M. (ed.), Uczelnie w przestrzeni publicznej. Zarządzanie – marketing – public relations*, Oficyna Wydawnicza „Humanitas”, Sosnowiec 2012. 14. Piasecka A., *Wdrożenie strategicznej karty wyników w szkole wyższej – studium przypadku*, „Zarządzanie i Finanse” 2013, Vol. 11, Nr 1, Cz. 2. 15. *PN-EN ISO 9000:2006 Systemy zarządzania jakością - Podstawy i terminologia*, Polski Komitet Normalizacyjny, Warszawa 2006. 16. *PN-EN ISO 9001:2009 Systemy zarządzania jakością – Wymagania*, Polski Komitet Normalizacyjny, Warszawa 2009. 17. *Podręcznik Oslo: zasady gromadzenia i interpretacji danych dotyczących innowacji*, http://www.rpo.lodzkie.pl/images/konkurs_2.3.1_cop_28122015/Podrecznik_OSLO.pdf