

## Cost Management in European Universities – a Time of Change

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### Abstract

**European higher education institutions are becoming increasingly focused on cost reduction and accurate linking of costs to the accomplishment of their strategic goals.**

**Research problem of this paper is a search for factors, common in managerial accounting practice, which could become a basis for convergence of management accounting systems across Universities. The authors have formulated conclusions, important for a successful completion of the process of changes in cost accounting and management accounting in the strategic management context.**

**Keywords: full costing, management accounting, cost management.**

### Introduction

In line with the objectives of the Bologna Process, governments of many European countries have taken steps aiming at the introduction of management accounting methods, in particular, cost accounting, in higher education institutions, to strengthen the competitiveness of European universities and to ensure a more effective allocation of funding from diverse sources. As literature claims, this process has been going on for over a decade now, with varying outcomes in different countries (Doost, 1997; Bultitz, Martin, 2007; Ismail, 2010; European University Association, 2011). The degree of implementation of advanced forms of full costing with elements of Activity Based Costing (ABC) (Schweitzer, Kupper, 1986; Johnson, 1988; Horvath, Mayer, 1989; Cooper, 1990; Cooper, Kaplan, 1992) varies widely across the higher education sector in Europe. Cost accounting is the area of extensive analysis in literature (Cooper, Kaplan, 1991; Glautier, Underdown, 1991; Coenenberg, 1992; Kaplan, Atkinson, 1998; Drury, 2004; Horngren, Harrison and Bamber, 2005), especially in the production organisation (Haberfellner, 1973; Cooper, Kaplan, 1987; Horvath, Mayer, 1989; Tanaka, 1989; Badiru, 1996; Sakurai, 1997). The main point of analysis in these considerations is driven by a search of profit (Frohling, 1989; Veeken van der Wouters, 2002; Horngren, Datar and Foster, 2003). Few authors focus their attention on non-profit organisations, including healthcare organizations (Jones, Mellet, 2007; Young, 2008), charity organizations (Charity Commission, 2004; Accounting Standards Board, 2005), sport clubs

(Locke, Abigail, 2004), or political parties (Soobaroyen, 2011). Universities (educational institutions) are not favourite actors on this stage. Reporting connected with universities is scarce and is mainly presented at cost accounting conferences. Among the issues in this respect are: methodology of calculating the cost of research (Mitchell, 1996; Kaplan, 1998; Bultitz, Martin, 2007), the method of academic workload planning (Hurd, 2011), Time Allocation Models (Elsa, 2010; Aartsen, 2011; Bateman, 2011; Espinasse, 2011; Aarsten, 2012).

This paper explores the implementation of changes in cost accounting in European universities. On top of the issues the authors present their research also using the full cost method. The conclusion drawn is that, contrary to the belief that the best models are impossible to implement in the university environment, the focus point is in implementation, not in design.

The authors do this analyzing the research process of changes during the period of 1990 through 2011 at 8 universities in different European countries. This is followed by the description of activities in exploring the information system at the university. The adopted way of reasoning leads through the review of factors that influence management accounting practices in universities.

Finally, the authors present a proposal of an approach to the design and implementation of university cost system.

### Research assumption

There are two main streams of thought in cost accounting (Kaplan, 1984; Horngren, Fostee and Datar, 1994; Horngren et al., 1999; Sobanska, 2004; Kalinowski, 2005). The first one is full cost accounting. This concept assumes that each and every factor of production (services as a type of productions) is able to be fully and strictly valued (Horngren et al., 1999; Estermann, 2011; Hammer, 2011). The representatives of this stream focus their effort on methods of calculating the value of each factor, later summing them up to draw the conclusion about the cost. The strength of this approach is in obtaining information, useful for comparing the results of competing entities. The drawback of this approach is its costliness and demandingness.

The second stream of thought is direct cost valuation. This concept assumes that it is easier, cheaper, and applicable to the valued cost; however the result is approximate,

Table 1

**Summary of the EU countries, in which the full costing implementation process has commenced**

Country	Case study	Survey results in literature	Time of changes
Austria	X		2006–2007
Finland	X		2009
The Netherlands	X		-
Germany	X	X	2000
Poland	X	X	2003–2013
Portugal	X		2000–2007
Sweden	X	X	2005
United Kingdom	X	X	1998–2000
Italy		X	1998–2000

not strict as the above (Johnson, Kaplan, 1987; Belkaoui, 1992; Horngren et al., 1999). The representatives of this stream focus on valuation of cost of objects engaged in production (services being the type of productions). The strength of this approach is in the simplicity of calculations and procedures. However, the results obtained are specific for a particular organisation and do not constitute the basis for comparisons.

The present research has been based on the first of the two above presented concepts, namely, on full cost accounting. The point has been adopted because it is relatively uncomplicated and applicable.

**Research methodology**

To achieve the purpose of this paper, the analysis has been made of the change process in cost management across European universities over the period of 1990 through 2011. The analysis has been based on:

- a) results of surveys published in European literature,
- b) experiences in implementing full costing systems in European higher education institutions, both published in literature and presented within the framework of the ‘Full Costing’ project,
- c) research conducted by the authors at the University of Lodz (Poland).

Literature study and case studies used in the analysis reflect the experiences of universities from 9 countries. Table 1 documents the process of changes towards full costing and improved management accounting at universities in these countries.

Table 1 shows the structure of research documentation for the countries with universities as objects of research, used in this study. Case studies providing the basis for this analysis have been taken both from literature of the subject and from the presentations made during the ‘Full Costing’<sup>1</sup> Project meetings.

<sup>1</sup> This project was designed to:

- raise awareness about full costing as a strategic management tool for universities to manage their activities efficiently,
- bring best practice examples, promote mutual learning and sharing of experience in the development of full costing,

This project has been carried out in the form of study visits and country workshops, designed to exchange participants’ experience in managing costs at higher learning institutions. The authors of this study participated in both types of project activities. The meetings were held to share knowledge and experience through discussions about local problems in the introduction of advanced cost management methods.

**Process of change in cost management in the higher education sector within the European Union**

**Changes in university cost accounting in Austria<sup>2</sup>**

The obligation to implement a full costing system has been imposed by Austrian legislation on higher education. It requires higher education establishments to report full costs of teaching and research activities to assist the process of managing such an establishment; a full costing system is regarded as a tool used in strategic management. In addition, full cost information is necessary for securing funding for the activities performed as it constitutes a basis for allocation of funds by the Ministry of Education and Research.

The University of Vienna, Austria’s largest university, which initiated the process of implementation of the full costing model in 2006/2007, carried out the integration of the financial accounting and management accounting systems. For this purpose, analytical cost records for costs incurred in the process of teaching activity, separately for the different lines of study were used. In cost accounting,

- provide expert advice in the development and implementation of full costing in universities across Europe taking account of the diversity of situations and experiences,
- encourage national support to foster the development of full costing, showing the positive correlation between national support and the development of this management accounting tool,
- encourage funding bodies to address the complexity, diversity and inflexibility of current funding regulations, which leads to uncertainty about how to implement full costing. (EUIMA report, 2010, June).

<sup>2</sup> Based on Hammer (2011).

direct costs are traced on a real-time basis to appropriate cost objects.

The allocation of indirect costs is done retrospectively, in annual cycles. It is a transparent process, based on a small number of consistent and reliable cost drivers. The main driver is academic staff time, allocated by activities: teaching (by lines of study), research projects, and other activity. It is done using the formula: total workload (in hours) – teaching labour hours (by lines of study) – research labour hours = other activity labour hours.

As a result of the procedure described above, full cost is determined for three levels:

1. faculty,
2. type of activity, e.g. teaching, research financed from external sources, etc.,
3. activities as, e.g., teaching modules, research projects, etc.

Cost information provided by a full costing system is used as a basis for negotiations with the Ministry of Education and Research about the level of funding. However, political factors ultimately determine funding levels for educational services.

### **Changes in university cost management in the Netherlands<sup>3</sup>**

Cost management based on the full cost model is viewed in Dutch universities primarily as a question of transparency of financing their activities. At the same time, similarly to the case of the Portuguese higher education institutions, the role of the private sector in this sphere of activity is growing, which means increasing competition that state owned schools have to face.

In the Netherlands, the process of introducing advanced cost management methods in universities is strongly supported by the managing bodies of these academic units. The University of Amsterdam is a good example clearly illustrating a strong correlation between devolution of management processes ( e.g. transferring of nearly 90% of funding to the faculty level) and increased demand for full cost information about the processes being realized at the university (teaching, research, commercial projects).

The construction of an advanced cost management system at the University of Amsterdam comprised three main stages:

1. identification of key activities at the university,
2. analysis of cost drivers (both main and additional),
3. design of a cost allocation system.

Key activities include teaching, research, and other activities, such as intellectual capital development, care given to patients (in hospitals – applicable to the Medical Faculty), preservation of cultural heritage (museums), and consultations. Major cost drivers include, for example, academic staff time, auxiliary staff time, the use of floor space of buildings (in m<sup>2</sup>) and the equipment, the use of IT network (number of work stations, number of laptops), etc.

This system of cost management has been accepted by university management (both central management and heads of faculties) as the only transparent information base for managerial decision-making. It provides knowledge about costs of different lines of study, and by matching them with revenues it is possible to establish their profitability. The new accounting information system also serves as a basis for reporting to various funding institutions, both national and international (e.g. the 7th Framework Programme).

### **Changes in cost accounting in German universities<sup>4</sup>**

German higher education institutions have developed and generally used a traditional approach to budgeting and financial management, called „Kameralistik“. It is primarily oriented to cash flow planning. The first proposal for a cost accounting system for universities, devised by professor M. Schweitzer, was put forward when cameral accounting was a prevalent system applied in universities. The proposed model did not find practical application and remained the subject of discussion among academic accountants.

The process of reforming accounting and costing systems in Germany looks differently in different German lands due to varying attitudes of lands' governments as to a proper shape of the accounting system for the higher education sector. In some of the lands, e.g. Hesse and Lower Saxony, universities are required to follow the rules applied by commercial entities. For example, in January 2000, the government of Hesse issued a decree on finance and accounting in higher education institutions stating that „higher schools shall keep their accounts in accordance with the principles of double entry accounting on the basis of the provisions of the Commercial Code“, and prescribing all the elements of financial statements, including the report on activity and notes to the statements. The decree also contains a provision that higher education schools must introduce a cost accounting system, separately disclosing costs by nature, activity, and cost object, which enables effective management as well as performance and efficiency evaluation.

An example of a German university that is now in the process of implementing a full costing system is Technische Universität Dresden.

The new costing system is intended to supply information on full cost of individual products: teaching modules, research projects (including sources of funding) and other activities. It takes account of the synergy effect in teaching, research, infrastructure, and administration. Full costing has become a strategic management tool, supporting strategic goals, such as raising the quality of research and education and attracting to Dresden best researchers and students from across the world.

<sup>3</sup> Based on Aartsen, 2011, June; Estermann, 2011, October; European University Association, 2011; Aartsen, 2012, January.

<sup>4</sup> Based on Küpper, 2000; Kopp, 2002; Winker, 2011, June; Wündisch, 2011, June.

## Change process in Poland<sup>5</sup>

Higher education in Poland, which was earlier functioning in a highly centralized system of management and control, since 1990 has been going through a reform process aiming, like other European Union countries, at providing to public universities a gradually increasing degree of autonomy in the spheres of research, education, organization, finance, and accounting. An important step forward in this direction was the promulgation in 2005 of a new law on higher education, which is now being implemented. The increased decision-making autonomy of universities' managing bodies has been accompanied by changes in the environment of higher education institutions, such as:

- 1) intensified competition as a result of a rise in the number of private higher schools with simultaneous decrease in the number of students (period of population decline),
- 2) expansion of educational offer (including interfaculty courses of study), which compounds the complexity of links between university organizational units,
- 3) increasingly detailed rules of accounting for public funds,
- 4) limited funding from the state budget,
- 5) varying cost-intensity of the different courses of study have resulted in a growing demand for financial and non-financial information for management purposes.

University authorities have been increasingly aware of this need which has resulted in implementing changes in information systems for university management purposes. These systems are intended to provide an adequate information base for appropriate restructuring and efficient management.

The process of changes has stemmed from the decision of Lodz University authorities and was neither inspired nor supported by the Ministry of Research and Higher Education.

In 2004, the authorities of the University of Lodz<sup>6</sup> were fully aware that information generated by the existing system has little relevance for management purposes. The problem was put forward at the Senate session and was referred to deans of all the faculties, with a recommendation for implementation of changes in cost accounting in the context of the necessary decentralization of management and increasing of the responsibility for costs, revenues and results at lower management levels, such as faculties, library, university press, conference centre, transport etc. This provided a starting point for initiating the process of reform of the information system for university management purposes. A team was appointed for the purpose of creating an integrated

management information system, which was to be designed by a team of the Accounting Department<sup>7</sup>.

The project was carried out in the years 2004 – 2006<sup>8</sup>. Its objectives included:

1. Development of a multipurpose cost accounting system combining the principles of a number of cost systems, in particular:
  - standard cost system based on marginal costing (in the multi-step and multi-bloc form),
  - standard cost system based on full costing (ABC), with separate statement of the costs of basic processes fulfilled realized at the university,
  - project life-cycle costing.
2. Taking into account a hierarchical organizational structure of the university.
3. Implementation of responsibility accounting at all management levels through creating designation of responsibility centers for costs, gross margins, and profit.
4. Implementation of bottom-up budgeting based on guidelines prepared by top management.
5. Orientation of the management accounting system to the provision of information for the purposes of strategic management and operational management.
6. For the purposes of university's statutory task realization, the following processes have been identified:
  - education process,
  - research process,
  - financial assistance (for students) process,
  - logistics process,
  - marketing process,
  - university management process,
  - human resource management process,
  - infrastructure process,
  - university development process.
7. The measurement of costs, revenues, and profit will be done within the framework of this process-based structure, with the aim of introducing, in the future, of process-oriented management.
8. Specification of types and directions of internal services and principles of the calculation of transfer prices:
  - for educational services, performed by all faculties and the library, the archives and the physical education center,
  - for the remaining internal units.
9. Application of the balanced scorecard principles for the measurement of the performance of the university as a whole and of the individual internal units.
10. Development of a new internal reporting structure suitable for a decentralized management system (budgets execution reports, multi-step profit and loss report, parametric assessment reports according to the balanced scorecard structure).

<sup>5</sup> Based on Sobanska, 2006, Sobanska et al., 2007.

<sup>6</sup> University of Lodz in Poland is one of the biggest universities in Poland. It comprises 11 faculties, of which currently only four generate a profit. It is, however, insufficient for the University as a whole to make a profit. At present the University of Lodz has about 40,000 full-time students.

<sup>7</sup> The authors of this paper are co-authors of the project being described. Prof. Irena Sobanska headed the project work.

<sup>8</sup> The project was presented in greater detail at the 30th Annual Congress of the European Accounting Association Lisbon 2007.

The project has since 2006 been scheduled for implementation, but there are a number of external barriers: lack of funding for purchasing an ERP system, public orders procedure, and successive changes in legislation on the functioning of higher education in Poland (new law since 2011). The new regulations and procedures for obtaining funds from the National Centre for Research do not put pressure on universities to use advanced systems of cost accounting and management accounting.

### Process of change in cost management in Portugal<sup>9</sup>

The external environment of higher education in Portugal contributed in a significant way to initiating the reform of university management system, particularly in the area of cost management. Among the factors that have prompted the change were:

1. implementation of the Bologna Process,
2. expansion of research activity,
3. increased number of research projects with various sources of funding, both national and international,
4. rise in the number of postgraduate students,
5. domestic principles of financing higher education,
6. increased role of private schools in higher education and their growing competitiveness.

There were two milestones in the development of cost management in Portuguese universities:

- The year 2000 brought change in the principles of the Accounting System for Education:
  - specific rules for three accounting subsystems (including the principles of activity based costing),
  - inside an autonomous structure of governmental funding since 1997.
- The year 2007 witnessed change in Portuguese Regulations on Higher Education Sector (RJIES):
  - a different governmental model,
  - similar principles of financial autonomy, although with stricter budget restrictions imposed by the need to overcome the international financial crisis.

The University of Coimbra is a Portuguese university which has installed an advanced cost management system. Its design has been based on a full costing model with the elements of activity based costing (ABC). A pilot implementation of this system began in 2002/2003 at the Faculty of Economics. In the years 2003/2004, five more Faculties joined in, concentrating on the monitoring and improvement of indirect cost drivers. The Faculty of Medicine was the last to join the implementation project in 2005/2006. In the following years, the work was centred on stabilisation of the developed procedures. The most important observations made in the course of development, implementation and operation of the cost management system are as follows:

- importance of precise definition of the principles and methodology of cost accounting,
- strong involvement of academics in international research programmes (e.g. 7th Framework Programme),
- securing the system's technical conditions (both in respect of finance and management),
- stimulating research teams to ensure growth of academic potential,
- increase in external sources of funding,
- main focus on a full costing model.

Cost management at the University of Coimbra has been based on a decentralised system of managing the university and suites the autonomous (also in financial terms) structure of faculties. In the course of the implementation process, the university had to overcome a number of various barriers:

- a) financial – the cost of the project had to be borne by the University of Coimbra, because there was no government support for this type of projects,
- b) technical – difficulty in estimating the cost of the project before its launch and in risk assessment, legal obstacles (e.g. ownership of buildings, depreciation, insurance, real cost of historical buildings),
- c) accounting – new principles (coding of accounts, reports, etc.), adjustment of the new costing model to financial reporting requirements,
- d) cultural – the measurement and recording of academic staff time, resistance to change,
- e) The key factors that contributed to successful completion of the cost management development and implementation project include:
  - f) a clear vision of strategic changes adopted by the university managing bodies,
  - g) comparability of financial data across Faculties,
  - h) involvement of the Faculties in the implementation process,
  - i) a pilot stage,
  - j) knowledge and skills of the employees engaged in the implementation process, professionalism of the team working on the project.

### Process of change in cost management in Sweden<sup>10</sup>

A higher education reform in Sweden began in the early 1990s. Following the promulgation of new principles of financing in the higher education sector in 1993, the Minister of Education and Research decided that universities and colleges should use modern systems of cost accounting to provide information support for local decisions on resource allocation considering the changing needs of students. Country-wide studies, conducted in 1994, revealed that nothing more than a few proactive local experiments were achieved. In the following years, successive governments continued to exert limited pressure on universities to develop more sophisticated procedures. In 2000, the absence of progress in the development of local cost accounting systems was the subject of a critical

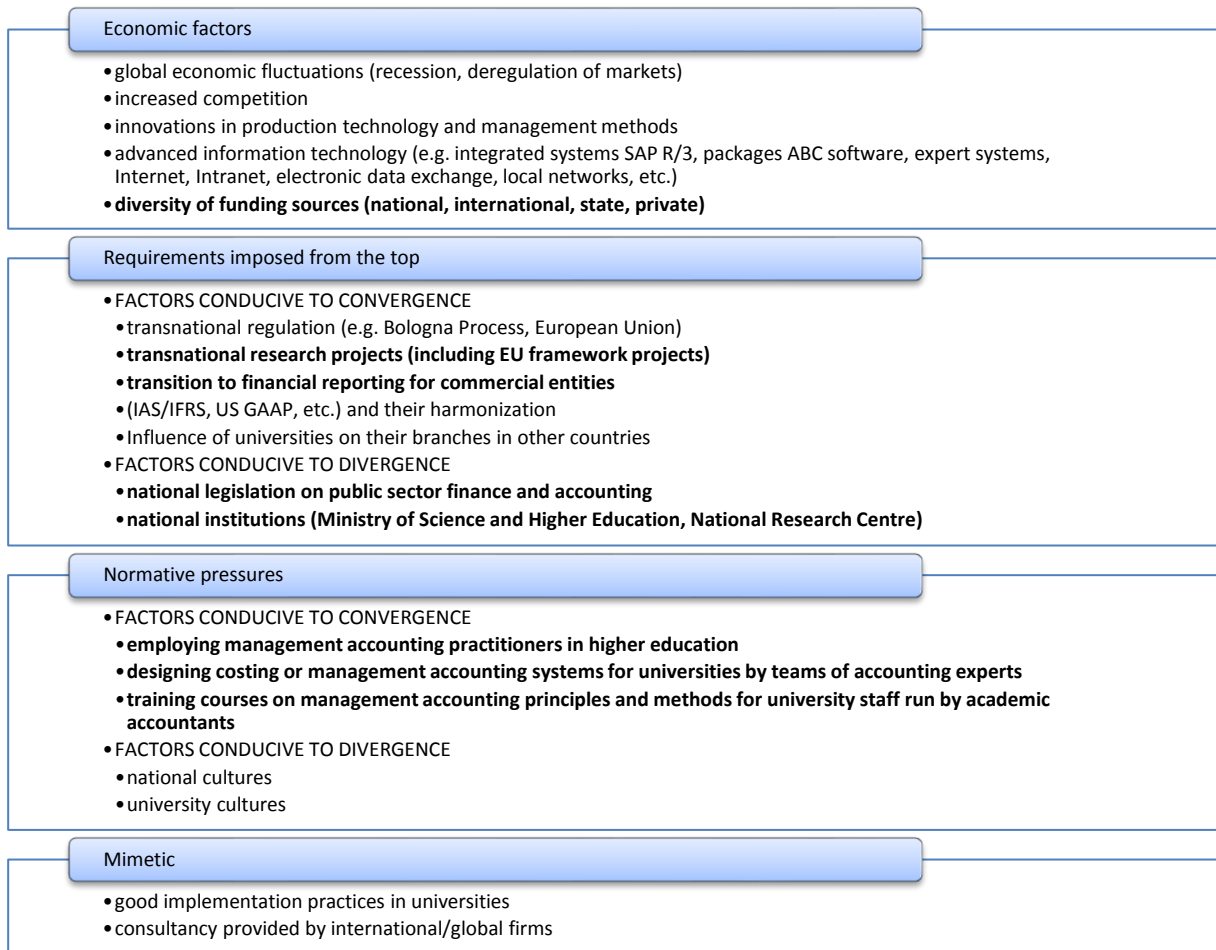
<sup>9</sup> Based on Cravo, 2010, December; Elsa, 2010, December; Gomes, 2010, December; Xavier, 2010, December.

<sup>10</sup> Based on Brignall, Modell, 2005.



Table 2

**Factors which have influence on management accounting practice in universities**



opinion issued by Swedish Parliamentary Auditors. Their diagnosis included criticism of the national model of public funds allocation, which, according to this board, allowed universities to avoid responsibility for internal allocation of resources and undermined the motivation to install more developed cost accounting systems.

As a result of this critique, the Minister of Education and Research undertook a number of initiatives. A comprehensive review and evaluation of management control practices in the higher education sector was carried out and several pilot projects were run in selected universities to test the functioning of activity based costing. The pilot projects encountered strong resistance from universities. A more detailed calculation of costs per student was criticised on the grounds of additional costs of generating this information. The accuracy and comparability of cost estimations for these projects was questioned because of inaccurate representation of the complex structure of universities and clear criteria for classification of students. In addition, universities were against the model of cross-subsidizing the teaching and research processes. This negative attitude to using more sophisticated cost accounting systems contributed to the

failure of the pilot projects and put a stop to undertaking such initiatives on a wider scale.

In 2003, the National Audit Bureau negatively assessed a lack of progress in the development of university cost accounting (Brignall, Modeli 2005). This critique prompted the Ministry of Education and Research to take some action, but up to 2005 it largely concentrated on general aspects of managing higher education establishments. New standards were developed only for university overhead allocation to be used in calculating costs of funded research contracts.

According to the authors of the research, referred to above, the transition to mass education and gradual reduction of per capita financing at Swedish universities was not accompanied by the development of advanced activity based cost accounting (Brignall, Modeli, 2005). The prevailing model is a primitive full cost, based on arbitrarily determined indirect cost rates.

## Process of change in cost management in Great Britain<sup>11</sup>

The development of modern cost management systems in the higher education sector in Great Britain is conducted with strong central government support. The reform process started in 1998, with launching a project „Transparent Approach to Costing” (TRAC), targeting standardisation of university cost management practices at the national level. The first version of the project was published in January 2000.

In the early stage of the TRAC project development (1998) pilot universities were appointed, one of which was the University of Birmingham. Development and implementation of new cost accounting principles was preceded by preparatory activities, which consisted of:

- ensuring direct involvement of university managing bodies,
- assembling a team of accounting experts,
- appointing a project team,
- running discussions and seminars at university,
- explaining the benefits of using internal services price list based on cost,
- measuring costs and revenues for 1999 separately for teaching activities and research activities.

In designing new cost accounting principles the project team paid special attention to the opinion and approval by the academic staff. The procedures were to be used for quantitative measurements (such as staff time monitoring, costing templates, and templates for transfer price determination). Cost information was reported at year end.

Since work on cost management reform at the University of Birmingham was an element of change at a national level, some external factors, too, contributed to the final success of the project. The main external determinants were:

1. fostering trust between the government and academia,
2. improving relations with other funds providers,
3. exempting the University for one year from preparing some of the financial statements to facilitate the transition.

The outcome of the first stage of the TRAC project in Great Britain (completed in 2000) is unification of the rules for university reporting. Each university presents an annual statement of full cost, available for study by all other universities. It provides detailed information about each of the basic activities, which enables comparisons of these activities efficiency and mutual learning.

## Discussion and conclusions

The analysis of the experiences of universities in different countries, as to the development and implementation of cost accounting and other management accounting practices, brings to mind a vision of a huge ‘construction site’ with varying degrees of progress in construction work, depending on the country. Nevertheless,

convergence of management accounting methods and principles across the European higher education sector is taking place in the course of the reform process. The authors have grouped the factors which affect the convergence process that is congruent with a model by Granlund and Lukka (Granlund and Lukka, 1998, p. 157), developed for business organizations.

The analysis has revealed that main groups of factors, such as economic, normative, or mimetic are identical with those identified in the model. There are, however, differences in elementary factors identified within different groups, as presented in Table 2. The factors specific to management accounting convergence process are typed in bold.

There are two paths of conclusion that come from this research. One of them goes through the understanding that the factors influencing the choice and implementation of the model of cost accounting in universities are similar, regardless of the country, because all the European countries under research follow the concepts and guidelines of the Bologna process. This understanding is presented in Table 2. Since it is believed that Table 2 accurately depicts the intention of the research authors, the analysis goes deeper along the second path which highlights imperatives of the universities cost system implementation. The imperatives are like follows:

1. Support from the central government is a key success factor in introducing cost accounting and other management accounting methods at universities. It consists of stimulation and coordination of efforts aimed at creating a uniform (nationally) cost management system, which should ensure, among other things, control over the allocation of funding from various sources.
2. Allowing a transition period (e.g., a year) for universities implementing new cost management principles, during which they are not required to use old rules of financial statement.
3. Financial support from the central government for universities undertaking development and implementation projects (e.g. for purchasing ERP system).
4. The process of cost management reform should include, as in the case of commercial activity, development of a comprehensive project of such a system taking into account the specifics of a particular university (types of activity, funds, stakeholders' information needs).
5. Implementation of a new system should be preceded by preparation of a detailed implementation plan and appointment of the Steering Committee.
6. It is advisable to ensure the engagement of university's own academic staff, particularly the specialists in financial accounting and management accounting, in the development and implementation process. If such persons are not available, services of consulting firms or specialists from other universities can be used.
7. A necessary condition for the functioning of a new cost management system is an appropriate IT tool – an integrated ERP system. In the presented examples,

<sup>11</sup> Based on Bateman, 2011, October; Clark, Bush, 2011, October; Espinasse, 2011, June; Hurd, 2011, October; Mitchell, 1996.

two solutions have been used: either a system bought on the market, prepared for commercial organizations, e.g. SAP (Austria, Germany), or an individually tailored system ordered by a university (e.g. the University of Birmingham).

8. The implementation process is a time of trial for the whole organization. It is important to ensure constant communication of goals and objectives and financial motivation of the academics participating in each stage of the project to minimise the implementation risk.
9. It is essential to secure commitment „from the top” (rector, chancellor, bursar) during the entire implementation process, as it will facilitate resolution of many problems.
10. Cost management at universities requires a decentralised model of managing a university, with autonomy at least at the level of faculties and independent organizational units.
11. A major risk involved in implementing a costing system is that a management accounting system functioning in a decentralised organizational structure makes use of information created by persons not being financial specialists, who also are beneficiaries of the knowledge generated by this system.
12. The process of implementation of new principles and methods of management accounting leads to institutionalisation of knowledge, i.e. increased awareness and knowledge of people engaged in the process of generating information according to new rules. Institutionalisation of knowledge can be achieved through organizing training courses for employees of financial and accounting departments as well as for non-financial personnel (academic and administrative staff), who will participate in creating information and will use it in decision-making at all levels of management.
13. Creation of a new cost accounting system at a university results in the emergence of a new organizational culture.

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#### Kaštų valdymas Europos universitetuose: laikas keistis?

Santrauka

Europos aukštojo mokslo institucijos vis labiau orientuotos į kaštų mažinimą ir išlaidas planuoja atsižvelgdamos į strateginius tikslus. Kitaip tariant, institucijos siekia pagerinti savo veiklos efektyvumą ilgalaikėje perspektyvoje. Kaštų apskaitos įgyvendinimo procesai universitetuose, paspartėjo prasidėjus viešųjų finansų sektoriaus krizei. Daugelyje Europos šalių dėl krizės buvo stipriai sumažintas finansavimas, skirtas aukštajam mokslui. Daugiausiai lėšų skirtų viešajam sektoriui sumažinta Lietuvoje (66%), Graikijoje (35%), Italijoje (20%), Airijoje (16,4%) ir Nyderlanduose (10%).

Šiame straipsnyje keliamas tikslas - atsižvelgiant į pilnųjų kaštų modelių ir išanalizavus konkrečius atvejus, pateikti pasiūlymus universitetams, reformuojantiems savo kaštų valdymo sistemas.

Straipsnyje keliami tokie uždaviniai:

1. Pristatyti kaštų valdymo reformos procesą, vykusį Europos šalyse 1990–2011 metų laikotarpiu 9 universitetuose, kuriuose šis pokyčių procesas vyko gana pažangiai.
2. Suformuluoti bendras išvadas, parengtas remiantis kaštų valdymo procesų analize ir pateikti gaires, siekiant efektyviai įgyvendinti šį procesą strateginio valdymo kontekste, atliepiant Europos aukštojo mokslo erdvės tikslus.

Siekiant tikslo, straipsnio autoriai atliko Europoje publikuotų mokslinių tyrimų analizę ir adaptavo įgytą patirtį, orientuotą į pilnųjų kaštų (angl. *full costing*) modelių Europos aukštojo mokslo institucijose. Tyrimo rezultatai pristatyti 'Full Costing' projekte. Šis projektas yra dalis EUIMA projekto, vykdyto EUA ir finansuoto Europos Komisijos iš 7-osios bendrosios programos (įgyvendinimo laikotarpis 2010-2012 m.). Autoriai taip pat atliko savo tyrimus Lodzės universitete (Lenkija).

Atlikta kaštų valdymo Europos universitetuose pasikeitimo proceso analizė, suteikė galimybę pateikti pastabas ir išvadas, kurios, autorių nuomone, yra svarbios, siekiant sėkmingai įgyvendinti pilnųjų kaštų modelį švietimo institucijose:

1. Pagrindinis sėkmės veiksnys pristatant kaštų apskaitos ir kitus valdymo kaštų metodus universitetuose yra centrinės administracijos parama. Ši parama apima skatinimą ir koordinavimą, sukuriant vienodą (nacionalinę) išlaidų valdymo sistemą, kuri turėtų užtikrinti ir padėtų kontroliuoti lėšų iš įvairių šaltinių paskirstymą.
2. Numatyti pereinamąjį periodą (pvz., metus), kurio metu universitetai galėtų pritaikyti naujus kaštų valdymo principus, nebetaikant senų finansinės atskaitomybės taisyklių.
3. Centrinė administracija turėtų skirti finansinę paramą universitetams, atliekantiems ir įgyvendinantiems projektus (pvz., įsigyjant verslo valdymo sistemą (angl. *ERP – Enterprise Resource Planning*)).
4. Kaip ir komercinės veiklos atveju, kaštų valdymo reformos procese sistema turėtų būti plėtojama visapusiškai, įvertinant universiteto specifiką (veiklos rūšis, fondus, suinteresuotųjų šalių informacijos poreikius).
5. Prieš įgyvendinant naują sistemą, turėtų būti parengtas išsamus veiksmų planas ir paskirtas iniciatyvinis komitetas.
6. Tikslinga į šios sistemos kūrimo ir įgyvendinimo procesą įtraukti universiteto dėstytojus, ypač finansų apskaitos ir valdymo apskaitos specialistus. Jeigu tokių specialistų universitete nėra, galima naudotis konsultacinių firmų paslaugomis ar pritraukti specialistus iš kitų universitetų.

7. Būtina sąlyga, siekiant užtikrinti naujos išlaidų valdymo sistemos funkcionavimą, yra tinkama IT priemonė – integruota verslo valdymo sistema (ERP). Pateiktuose pavyzdžiuose buvo naudojami du sprendimai: 1) sistema įsigijama rinkoje, ji parengta komercinėms organizacijoms, pavyzdžiui, SAP (Austrija, Vokietija), arba 2) individualiai universitetui pritaikyta sistema (pvz., Birmingemo universitetas).
  8. Pilnųjų kaštų sistemos įgyvendinimo procesas yra išbandymų metas visai organizacijai. Siekiant sumažinti įgyvendinimo riziką, svarbu užtikrinti ryšį tarp keliamų tikslų ir uždavinių, o kiekviename projekto etape dalyvaujantčius mokslininkus motyvuoti finansiškai.
  9. Itin svarbu garantuoti įsipareigojimus „iš viršaus“ (rektorius, kancleris, išdininkas) visą įgyvendinimo procesą, nes tai palengvins daugelio problemų sprendimus.
  10. Kaštų valdymas universitetuose reikalauja valdyti universitetą taikant decentralizacijos modelį - autonomija fakultetų ir nepriklausomų organizacinių padalinių lygmeniu.
  11. Didelė rizika, įgyvendinant kaštų apskaičiavimo sistemą, yra ta, kad valdymo apskaitos sistema, funkcionuojanti decentralizuotoje organizacinėje struktūroje, naudoja informaciją, kurią pateikia ne finansų specialistai, kurie patys yra žinių naudotojai.
  12. Valdymo apskaitos procese naujų principų ir metodų įgyvendinimas padeda įtvirtinti žinias, t.y. didina žmonių, įtrauktų į šį procesą, supratimą ir žinojimą, kaip generuoti informaciją remiantis naujomis taisyklėmis. Žinių įtvirtinimas gali būti pasiektas, organizuojant kvalifikacijos kėlimo kursus finansų ir apskaitos skyrių darbuotojams, taip pat ir akademiniams bei administraciniam personalui, kurie dalyvaus kuriant informaciją ir naudosis informacija priimančiais sprendimus įvairiuose valdymo lygiuose.
  13. Naujos kaštų apskaitos sistemos sukūrimas universitete sąlygoja ir naujos organizacinės kultūros formavimąsi.
- Reikšminiai žodžiai:* pilnųjų kaštų modelis, valdymo apskaita, kaštų valdymas, universitetas.

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