

# PERSPECTIVES ON AND OBSTACLES TO THE INTERNAL REPORTING REFORM AT HIGHER EDUCATION INSTITUTIONS – CASE OF BOSNIA AND HERZEGOVINA, CROATIA AND SLOVENIA

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Received: 2. 6. 2017

Review

Accepted: 16. 11. 2017

UDC 378.4-024.61(047)<(497.6)(497.5)(497.4)

## ABSTRACT

*Higher education institutions are going through a different reform processes that differ from country to country. However, the common challenge of higher education institutions is to assure the financial sustainability and only those institutions that have stable financial structure will be able to fulfil their missions and goals in conditions of limited financial resources. One of very important preconditions for assuring financial sustainability is a high quality reporting system, providing comprehensive and detailed information about all aspects of the activities, performed by an institution of higher education and, especially, its full costs. The objective of the paper is two-fold. On the one hand, its aim is to address reform processes regarding reporting systems at higher education institutions in*

*selected countries; Bosnia and Herzegovina, Croatia and Slovenia, and on the other hand, to highlight most important obstacles for development of efficient internal reporting systems. The empirical research was conducted in 2016 and data collection was based on the survey method. The questionnaires were sent to all public higher education institutions in Bosnia and Herzegovina, Croatia and Slovenia. The results of research have shown that, even though there is a positive perception regarding the need to improve existing internal reporting systems, there are significant differences in obstacles for development of efficient internal reporting systems in observed countries.*

**Keywords:** *internal reporting, higher education institutions, reform, management, obstacles*

## 1. INTRODUCTION

In the reform processes that are currently being undertaken in the researched countries, the common challenge of higher education institutions (HEIs) is to assure finan-

cial sustainability. A very important precondition for assuring financial sustainability is a quality reporting system that provides comprehensive and detailed information on all the aspects of HEIs and especially on full costs of all their activities. This means that

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external financial reporting is not enough for HEIs to successfully monitor and control costs and develop new programs to respond to the demands of a very active and dynamic higher education market. To successfully meet the needs of this market, HEIs need to have an effective internal reporting system.

Internal reporting, which complements the mandatory external reports, makes specific accounting reports tailored to the requirements and needs of internal users. The owners and the management are those who demand this type of reporting. However, as there is no legal requirement for the preparation of internal reports, they are usually not prepared at regular timeline, they are not part of the developed reporting system and very often do not follow the information on the total costs and their relation to the activities, but focus on the relationship between revenue and expenditure. However, the need for internal reporting of the new public management imposes further requirements for the accounting data processing for the development of internal reporting, which will be methodologically harmonized with external reporting and operational means to use the same database to create reports according to the requirements of internal and external users (Vašiček, 2009: 415).

The objective of the paper is to research reform processes regarding reporting and the necessity to improve the existing internal reporting system at HEIs. In addition, the obstacles to the internal reporting reform at public HEIs in selected countries, i.e. in Bosnia and Herzegovina, Croatia and Slovenia, are researched. In connection with the aforementioned objectives, we will attempt to answer the following research questions. First, is it necessary to improve the existing accounting system of internal reporting at HEIs in order to manage the HEIs more efficiently? Second, is it necessary to

implement full costing method that will allocate all direct and indirect cost to the final services or programs? Finally, what are the main obstacles to the development of efficient internal reporting systems at HEIs? Based on the following questions, the main research hypothesis is that public HEIs in Bosnia and Herzegovina, Croatia and Slovenia are aware of the fact that it is necessary to improve the respective existing internal reporting systems, but there are still significant obstacles to the development of efficient internal reporting systems that differ from country to country. The research methodology is based on the quantitative statistical analysis – survey, returned by the heads of accounting departments at HEIs in selected countries.

The paper is organized as follows. After the introductory chapter, chapter two provides the literature review on the reporting reform at HEIs. The analysis of reporting systems at higher education institutions in selected countries is given in chapter three. In chapter four, the observed data and used research methods are presented along with research results and discussion. In the final chapter, conclusion and recommendations for future research are given.

The research findings revealed that HEIs in Bosnia and Herzegovina, Croatia and Slovenia are familiar with reporting trends at developed European HEIs. In that context, the need to improve the existing internal reporting systems was identified as well as the main obstacles to the development of efficient reporting systems. These results could provide a solid basis for a successful reform of reporting systems in selected countries.

## 2. LITERATURE REVIEW ON THE REPORTING REFORM AT HIGHER EDUCATION INSTITUTIONS

The traditionally significant public (budget) funding of European HEIs has recently been perused by the trend of diversifying their income structure to other sources. The most relevant additional sources are business contracts, philanthropic funding, service-related income, and international public funding. The student financial contributions (tuition fees) are also becoming one of the important sources. The fact that predictions about the future funding show public funding for teaching and researching is being reduced, is even more alarming (EUA, 2011). All of the above-mentioned should be a great motivation for the HEI sector to reform the accounting reporting system focusing mainly on the efficient and effective service delivery. While the financial reports present organizations' health to shareholders or potential investors, they can be the diagnostic tools for financial management in a wider sense.

The role of the financial management at HEIs can be observed from the wider context of constant administrative and financial reforms in the public sector in the last twenty years, which is well known as the New Public Management (NPM) concept. Those changes are reflected in several market- and corporate governance-oriented changes and result in high-quality management and consequently high-quality service delivery. Having in mind the central role of HEIs in the economic and social development process there are several important elements of the NPM reforming process results that need to be emphasized (Roje, 2006):

- introducing accrual accounting principle;
- redefining the role of public management focusing primarily on the direct

responsibility for executing basic functions and achieving results;

- transparency of procedures and accountability of public management;
- performance-based management;
- achieving greater efficiency and effectiveness of entities through by promoting market competition, outsourcing and using cost-benefit analysis.

The classical accounting system almost exclusively concentrated on financial transactions, events and conditions resulting in financial reports for external users. This was its primary role for a long time, especially in public sector accounting, while the role of financial reports in the management process of decision-making was completely neglected, considered incidental and peripheral (Nagendrakumar, 2006). The traditional accounting system of HEIs primarily focused on external accounting reports required by the state, while the internal (managerial) reporting was underestimated, especially from the management and decision-making points of view (Pettersen and Solstad, 2007).

Liliana (2015) stresses that the majority of reporting reforms considering HEIs modernization of management process are oriented to making financial reports more comprehensive and accountable. Management's decision-making process demands useful information from financial reports for financing, allocating, using and recovering funds, controlling implemented decisions and determining rights, obligations, responsibilities and incentives. However, relatively few studies concentrate on management accounting in public HEIs, such as studies by Vašiček and Dragija (2011: 28), Sordo et al. (2012), Mamontova and Novak (2015).

Vašiček and Dragija (2011) highlight that external financial reports assure synthesized information that are prescribed by the

normative framework. Unfortunately, information from the external financial reports is insufficient for the management at HEIs when making decisions. While external reports are standardized, the internal financial reports are non-standardized and cannot be prescribed by the law and consequently are in management domain. Dražić Lutlisky (2006) conducted an empirical research in Croatia, which focused on the implementation of cost and management accounting in HEIs. Inter alia, the study revealed that the use of cost and management accounting instruments is limited and that although internal reporting system is not developed in detail, the accountants at HEIs record some additional data in order to be able to prepare internal management reports. In the case of Italy, Sordo et al. (2012) revealed that the cost accounting system and the cost accounting technique of Italian universities do not allow users to have all the information for a rational decision-making. It turned out that the current delegation process of economic responsibility is in line with a possible implementation of different types of accounting systems. The introduction of marketing principles in the academic environment caused the acquisition of competitive advantages that influence the availability of information provided by the accounting system and better cost accounting techniques.

The main objective of the external financial reporting in the public sector is to meet the normative requirements and not to provide high quality information for an efficient and effective management of internal users. Consequently, the need for internal financial reporting arises commonly. Basically, internal reports are designed for the management and consist of targeted and detailed information on costs, revenues, assets, liabilities, etc. Additionally, the need for specific internal reporting information inside the NPM concept imposes further demands on accounting

systems to develop data processing, which is methodologically harmonized with external reporting (Dragija et al., 2015).

In close connection with the aforementioned issues regarding the importance of internal reports for efficient management in addition to external reports, it is necessary to mention the implementation of full costing at HEIs. Full costing can be defined as the ability to identify and calculate all the direct and indirect costs per activity and/or project that need to be considered to conduct these activities and, therefore, is a source of quality information for reporting purposes, especially the internal ones. According to the EUA (2008), full costing provides benefits for universities and national governments on the European level. The benefits of full costing for universities are: a more systematic approach to activity analysis and costing; a more efficient internal resource allocation; improved strategic decision-making based on better understanding of investment decisions; benchmarking possibilities within the sector and an enhanced ability to negotiate and price activities, which lead to higher cost recovery of project costs and contribute thus to financial sustainability. Following a growing awareness that full costing methodology is an important tool in addressing challenges of European HEIs regarding the decision-making process and the management, some European countries such as the UK, Finland, Sweden, and Ireland have implemented full costing at HEIs in more or less all universities (Estermann and Claeys-Kulik, 2013). However, in most European countries none of the universities has developed full costing. The reasons for that could be found in the following internal (institutional) and external obstacles. The most common institutional obstacles found in the literature are resistance to change and to the managerial approach in universities, concerns over time accounting and a lack of management and

leadership commitment. The most common external obstacles are a lack of autonomy, legal barriers and a lack of trust between stakeholders, in particular between funders and universities (EUA 2008). HEIs also face a lack of external financial support to implement full costing which is a costly process and a strain on financial, technical, and human resources (EUA, 2008). In the following sections of the paper the authors will also research the most important obstacles to the development of internal reporting systems and full costing at HEIs in Bosnia and Herzegovina, Croatia and Slovenia.

### 3. REPORTING SYSTEMS AT HIGHER EDUCATION INSTITUTIONS IN SELECTED COUNTRIES

Reporting systems at HEIs differ from country to country primarily due to different normative frameworks and different types of HEIs. In order to reveal the most important reporting features, the reporting systems at HEIs in selected countries: Bosnia and Herzegovina, Croatia and Slovenia are presented. The focus is given to public HEIs

because they dominate the higher education systems of the mentioned countries. In table 1, the authors present the most important differences regarding external reporting at public HEIs.

From table 1, it is evident that there are differences among the observed countries in both the accounting basis applied and the set of external financial reports made. Those differences also have an influence on internal reporting system because the content of accounting information is determined by the use of a particular accounting base. Therefore, in the following paragraphs, the authors explain in more detail the external reporting system of every country and they highlight the level of development of internal reports.

#### 3.1. Bosnia and Herzegovina

Bosnia and Herzegovina has two entities: the Republic of Srpska (RS) and the Federation of Bosnia and Herzegovina (FB&H) and Brčko District (not subject of analysis of this paper). Both entities have their own legislation concerning higher education so there are differences among them concerning reporting systems.

*Table 1. Differences in external reporting at public HEIs*

Country	Accounting base	Basic financial reports
Bosnia and Herzegovina	Modified accrual basis (full accrual is used only in the Republic of Srpska)	Balance sheet The report on revenues and expenditures The report on financial flows The report on capital expenditure and financing
Croatia	Modified accrual basis	Balance sheet The report on revenues and expenses, receipts and expenditures The report on changes in values and volumes of assets and liabilities Notes to financial reports
Slovenia	Accrual and cash basis	Balance sheet The income and expenditure account The notes to the financial reports

*Source: Authors' illustration based on legislation*

Higher education institutions in Bosnia and Herzegovina (B&H) can be public or private institutions. The public HEIs are established in accordance with the Framework Law on Higher Education (Official gazette of the Republic of Srpska No. 59/07), the County law on higher education for the Federation of Bosnia and Herzegovina or in accordance with the Law on Higher Education for the Republic of Srpska (Official gazette of the Republic of Srpska No. 84/09, 120/11). Normative framework depends on the territorial position of HEIs. For the purpose of this paper, the analysis focuses on public HEIs. Public HEIs are established as non-profit public institution where the aforementioned Framework Law, County law or Law on Higher Education considers University a single legal person, with different Faculties being organizational units, not autonomous legal entities (even though this is still the case in some universities in the Federation entity) (Čergar et al., 2016) Universities that are the users of budgetary funds, in accordance with the internal organizational rules, distribute those funds between faculties. These Universities are a part of the State treasury system and all transactions are carried out through the General Ledger of Treasury.

Funds for HEIs in B&H are still allocated according to the historical spending criteria (the amount for the previous year increased or decreased for a certain rate of growth in line with the GDP growth) and we can speak of “financing per teacher”. Moreover, salaries are planned based on the number of employees, which is contrary to the basic European trend where the funds are planned on the basis of the number of students. Material costs are mainly planned on the basis of budget execution in the past year. The Ministry of education exercises budgetary control in B&H, which is based solely on the “input criteria”. Public revenues available

for financing Higher Education in B&H are insufficient and to achieve financial sustainability it is necessary that HEIs have their own sources of funding (Branković, 2012: 37-41). The revenues (the tuition fees, administrative enrolment or participation in the projects) that public HEIs have internally earned also enter the system of total revenues of budget beneficiaries (Dragijja et al., 2015: 116).

Concerning the legal regulations, public HEIs in B&H are subject to:

- The Law of budget system – for the Republic of Srpska;
- The Rulebook for budget classifications, content and application of chart of accounts for the budget users of the Republic, municipalities, cities and funds – for the Republic of Srpska;
- The Rulebook for accounting, accounting policies and accounting estimations for budget users in RS;
- Law on FB&H institution budgets;
- The Regulation on budget accounting – for FB&H;
- The Rulebook on the accounting policies for budget users of FB&H;
- The Rulebook on the financial reporting and annual report of accounts for the budget users of FB&H.

Public HEIs in FB&H must prepare external financial reports by using modified accrual basis and public HEIs in RS. Since the beginning of 2013, HEIs have been applying full accrual basis to record transactions and prepare financial reports (even though by Law they can use the modified accrual basis). HEIs are obliged to submit the quarterly and annual reports.

In accordance with the legislation, HEIs in FB&H must prepare:

- Report on revenues and expenditures;
- Balance sheet;
- Report on financial flows;
- Report on capital expenditure and financing.

Additional reports being drafted annually are:

- Special report on salaries and number of employees;
- Annual budget execution report;
- Annual report on investment activity;
- Report on calculated and paid compensation for the protection of natural and other disasters.

In RS, HEIs obligatory reports include:

- Report of revenues, receipts, expenditures and expenses (General Ledger of Treasury fund 01);
- The functional classification of expenditures and net expenditures for non-financial assets reported to General Ledger of Treasury;
- An overview of the assets, liabilities and sources reported to General Ledger of Treasury;
- Report on the number and structure of employees;
- Explanatory notes.

Budget execution reports are also used in both entities.

HEIs prepare and submit financial reports, in addition to the annual ones, for quarterly periods that include:

- An overview of revenues, receipts and funding by economic categories;
- An overview of costs and expenditures by economic categories;
- Special report on salaries and the number of employees;
- Specific data on current and capital transfers;
- Cross-classification of expenditures and budget expenditures by economic and functional classification;
- The register of transfers from the current reserves of the budget;
- Register of arrears;
- Summary income, receipts, expenditures, and expenses by economic categories;
- An overview of expenses, expenditure and allocated capital by sources of financing for development - investment projects;
- Report on the adequate use of the transfers.

The universities in B&H were a part of international project IPA *Reform of Higher Education in B&H 2012-2014*, where representatives of universities in cooperation with EU experts developed a computer program to track the cost per student. As the application of this program was on voluntary basis, it was never actually implemented in internal reporting systems as a mandatory part. Accordingly, HEIs in B&H developed the tool but they did not use it for internal reporting and decision-making process. In this most important part of actual implementation, this project failed. Internal reporting in public institutions of higher education in B&H is related to monitoring the financial plan realization and to monitoring the quality of teaching. Cost accounting is still not in the focus of internal reporting for HEIs even though there is a higher level of awareness that this will be necessary in the future.

### 3.2. Croatia

In Croatia, HEIs are divided into public and private entities. Public HEIs are registered as budgetary users, private ones are registered either as non-profit organization or companies. HEIs apply different normative framework for reporting purpose depending on their type. As it was mentioned at the beginning of this chapter, for the purpose of this paper only public HEIs will be analyzed.

Budget Act (Official Gazette of the Republic of Croatia No. 87/08) regulates the field of accounting and financial reporting (Chapter IX budgetary accounts) for public universities as budget users. The normative framework for structure and content of financial reports is defined by the Regulation on financial reporting in budgetary accounting (Official Gazette of the Republic of Croatia, 2011; Official Gazette of the Republic of Croatia 2015). Since public HEIs are budget users, they must prepare financial reports for external purposes using modified accrual basis and because of that financial reports have limited elements of basic financial reports since revenues are expressed using cash basis and expenses using accrual basis (Vašiček, 2007). External financial reports that are prescribed by the aforementioned normative framework are:

- Balance sheet
- The report on revenues and expenses, receipts and expenditures
- The report about changes in values and volumes of assets and liabilities
- Notes to the financial reports.

In addition to these annual financial reports, public HEIs also prepare monthly reports, e.g. report on obligations, quarterly reports on revenues and expenditures, inflows

and outflows, and the semi-annual notes. With regard to the cash flow reports, they are not stipulated in the normative framework and are therefore drawn up only optionally. Financial reports of public HEIs are based on the economic classification and contain information on the following accounting categories: revenues, expenditures, receipts and expenses, assets, liabilities and sources of ownership, recognized in accordance with the prescribed rules. Also, all the aforementioned financial reports, which are in accordance with the legal framework, are publicly available. The budgetary reports are prepared for the relevant ministries, while the Ministry of Finance reports on budget execution. Those reports on public HEIs are not publicly available and the data contained in these reports are available through the public publications of the relevant ministries, the Ministry of Finance and other government bodies, often as consolidated financial and statistical data.

The presented reporting system of HEIs in Croatia can be described as general and not adapted to the specific activities of higher education. However, for quality decision-making process in higher education it is necessary to assure additional information that should be contained in internal reports. Recent surveys have shown that internal reporting in Croatia is not sufficiently developed (Budimir, 2010; Dražić Lutitsky, 2011; Dragija, 2014). Although some reports are prepared for internal purposes, the quality of those reports is questionable because Croatian public HEIs neither apply accrual basis in accounting nor have implemented cost methodology for allocation of direct and indirect costs on services and programs they provide. Therefore, it is difficult to expect that the internal reporting and full costing will fully develop in the near future.

### 3.3. Slovenia

In Slovenia, HEIs can be established as entities of public or private sector. The public sector institutions of higher education are organized at universities with several members called faculties. The faculties are independent to a certain extent, while universities determine the core policy (like human resource, finance, etc.). The universities dispose with public (budget) funding and distribute resources at the universities according to the sharing formula. Obligation of external financial reporting is normatively determined by the Rules on the compilation of annual reports for the budget, budget users and other entities governed by public law (Higher Education Act, Official Gazette of the Republic of Slovenia, No. 32/12, 40/12, 57/12, 109/12, 85/14 and 75/16).

The normative framework of the accounting system of the Public Service Agency (*javni zavod* in Slovenian) in higher education sector is determined by the Accounting Law and several bylaws, like Rules on segmenting and measuring revenues and expenditure of legal entities governed by public law, Rules on the Single Chart of Accounts for the budget, budget users and other public entities, etc. The public HEIs are indirect budgetary users and are supposed to keep accounts on the accrual as well as the cash flow basis. The yearly financial report consists of the business and the accounting part. The accounting part is prepared by the chartered accountant, while the business part is the obligation of the management.

The business part provides precise information on operating issues of the indirect budgetary user, while the accounting part of the report consists of the:

- Balance sheet,
- The income and expenditure account and
- Notes to the financial reports.

The HEIs should prepare mandatory annexes to the income report, as well as report on financial receivables and investments, financing, etc. Mandatory annexes also contain information on: income and expenditure, by using the type of activity; income and expenditure, by using the cash flow principle; financial receivables and investments, by using the cash flow principle and financing, by using the cash flow principle. Notes to the financial reports contain important accounting information, revealing the methods of valuation, criteria, etc.

HEIs in Slovenia every year submit a report to the Agency of the Republic of Slovenia for Public Legal Records and Related Services to be publicly published. The reports are also forwarded to the Ministry of Education and Sport, while the Tax Authority receives the tax return for the resources earned on the market (e.g. rents, etc.). There are no normative requirements for the internal financial reporting and consequently they are left to the individual entity. The results of our research are a pioneering attempt to reveal the internal financial reporting practice at Slovenian HEIs.

## 4. OBSTACLES TO THE DEVELOPMENT OF EFFICIENT INTERNAL REPORTING SYSTEM

Despite the need to develop an efficient internal reporting systems based on full costing methodology, which was highlighted by the European University Association in its studies (2008, 2013), many countries still struggle to develop it in their own accounting systems. Therefore, in this chapter the authors will comparatively present the results of the empirical research conducted as a part of the project 8509 "Accounting and financial reporting reform as a means

for strengthening the development of efficient public sector financial management in Croatia<sup>41</sup> financed by the Croatian Science Foundation. In order to investigate whether it is necessary to improve the existing internal reporting system at HEIs in selected countries and implement cost accounting methodology as well as what the main obstacles to the aforementioned are, the authors addressed and tried to answer the following research questions:

**RQ1:** *Is it necessary to improve the existing internal reporting accounting system at HEIs in order to manage HEIs more efficiently?*

**RQ2:** *Is it necessary to implement full costing method that will allocate all direct and indirect cost to the final services or programs?*

**RQ3:** *What are the main obstacles to the development of efficient internal reporting system at HEIs in selected countries?*

### 4.1. Data and methods

The research methodology used in this paper is based on the survey conducted. The main aim of our research is to present the current opinion of accountants at HEIs in Bosnia and Herzegovina, Croatia and Slovenia on the aforementioned research questions. In order to gather the necessary information, a survey was conducted in 2015 and 2016 using questionnaires distributed to all public HEIs in selected countries. The questionnaires were sent by email in an online form and by post to the heads of accounting departments. The response rate was as follows: 35% (7 out of total 20 public HEIs) in Bosnia and Herzegovina (including the Federation of Bosnia and Herzegovina and the Republic of Srpska; Brčko District was not

included), 34.61% (36 out of total 104 public HEIs) in Croatia and 46% (23 out of 50 public HEIs) in Slovenia. As the sample size was small and the difference in the sample sizes of observed countries was large, only descriptive statistics for answering the set research questions was used.

Most of the questions included in the questionnaire were multiple choice questions, yes or no questions or answers on a five-point Likert scale, ranging from 1 to 5, where 1 indicates full disagreement and 5 indicates full agreement or in some cases 1 corresponds to the lowest degree and 5 to the highest.

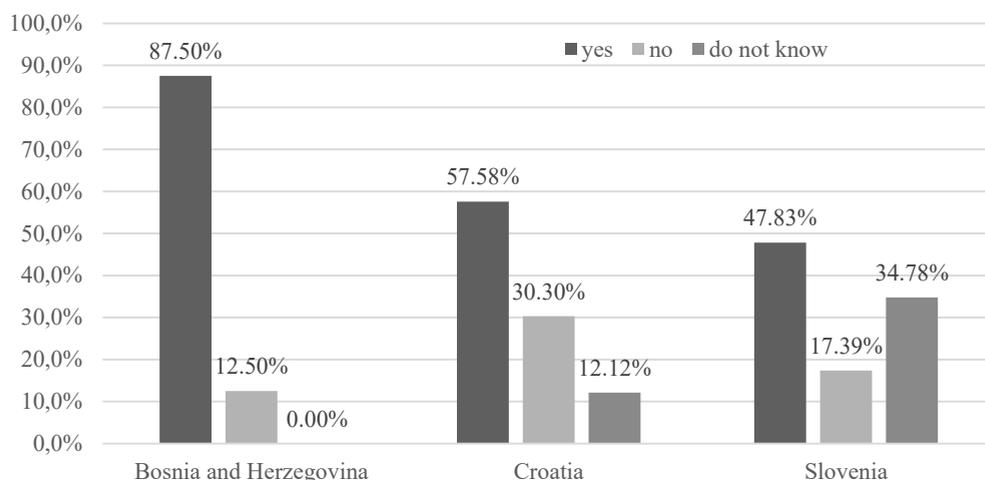
### 4.2. Research results and discussion

In chapter 3 of this paper, the authors analysed the existing accounting reporting systems at public HEIs in Bosnia and Herzegovina, Croatia and Slovenia and from this analysis it is evident that in addition to external reports HEIs also prepare some internal reports but they are not sufficient to manage HEIs efficiently. Therefore, the first research question focused on the necessity to improve the existing accounting systems of internal reporting at HEIs in order to manage them more efficiently. The direct question was phrased in order to answer the first research question: *Is it necessary to improve the existing internal reporting accounting system at HEIs in order to manage more efficiently?* From figure 1, it is obvious that there are practical differences in perception regarding this research question. The highest percentage of positive responses was received from Bosnia and Herzegovina and the lowest from Slovenia. In all selected countries, the affirmative perception regarding the need to improve the existing accounting system of internal reporting at HEIs dominates.

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1 Additional information about the project are available on the following website: <http://www.efzg.unizg.hr/default.aspx?id=21667>

Figure 1. Perception on the need to improve the existing internal reporting accounting systems at HEIs in order to manage HEIs more efficiently

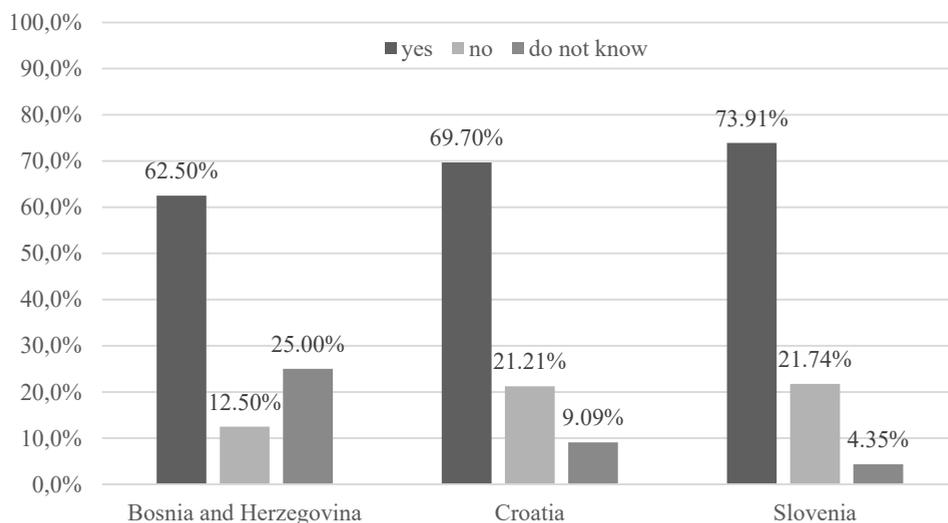


Source: Prepared by the authors.

The second research question investigates whether it is necessary to implement full costing method that will allocate all direct and indirect cost to the final services or programs. The benefits of full costing method in the context of more efficient decision-

making based on sound data was already mentioned in the literature review. However, according to Estermann and Claeys-Kulik (2013) the state of implementation of full costing in Europe is highly diverse. Therefore, it was interesting to find out the percep-

Figure 2. Perception on the need to implement the full costing method that will allocate all direct and indirect cost to the final services or programs



Source: Prepared by the authors

tion about the need to implement full costing method in selected countries. From figure 2, it is evident that in all countries there is a positive perception regarding the mentioned issue. The highest percentage was in Slovenia and the lowest in Bosnia and Herzegovina. It can be concluded that in general all observed countries are aware of the necessity to implement cost methodology that will track and allocate all direct and indirect cost to the final services and programs.

practical differences between the countries regarding the aforementioned obstacles. In Bosnia and Herzegovina, the highest average grade is given to the obstacle *management support* (M=4.40). In Croatia, the highest average grade is given to *human resources* (M=4.26). Surprisingly, in Slovenia the highest average grade is given to the *IT support* (M=4.36). In all observed countries, the obstacle *political and legislative support* has the lowest average grade. From these results,

*Table 2. Perceptions on the obstacles to the development of efficient internal reporting system at HEIs*

Obstacles	Country								
	BOSNIA AND HERZEGOVINA			CROATIA			SLOVENIA		
	M	SD	rank	M	SD	rank	M	SD	rank
Human resources	4.20	0.84	2	<b>4.26</b>	<b>1.00</b>	<b>1</b>	3.82	1.62	4
Financial resources	4.00	1.00	3	3.91	1.09	5	3.86	1.70	2
IT support	4.00	1.00	3	4.18	0.92	2	<b>4.36</b>	<b>0.90</b>	<b>1</b>
Duration and complexity of the process	4.20	0.84	2	4.00	0.89	4	3.82	1.33	4
Political and legislative support	3.60	1.14	4	3.68	1.08	6	3.14	1.93	5
Management Support	<b>4.40</b>	<b>0.89</b>	<b>1</b>	4.06	1.05	3	3.95	1.25	3
M – mean; SD – standard deviation									

*Source: Authors' calculation*

Despite numerous benefits of the full costing methodology, many institutions remain unable to fully identify their costs, due to different internal or/and external obstacles. Therefore, the third research question analyzed *the main obstacles to the development of efficient internal reporting system at HEIs* in Bosnia and Herzegovina, Croatia and Slovenia. There were six different obstacles that the respondents assessed on the Likert scale: human resources, financial resources, IT support, duration and complexity of the process, political and legislative support, and management support. From Table 1, it *can be seen* that there are

it is evident that in selected countries there are completely different barriers towards the development of efficient internal reporting system in higher education.

**5. CONCLUSION**

The first objective of the paper was to address reform processes regarding reporting systems at higher education institutions in selected countries: Bosnia and Herzegovina, Croatia and Slovenia, which was conducted by carrying out a comparative analysis of reporting systems of each country and by

conducting an empirical research. The authors have highlighted the differences in the applied accounting bases among countries that directly affect the content of the financial reports. It is obvious that accrual basis is applied only in Slovenia, whereas modified accrual basis is used in Bosnia and Herzegovina and Croatia. There are also differences in the set of basic financial reports. The balance sheet and the report on revenues and expenditures are prepared in all countries while only in Bosnia and Herzegovina is the report on financial flows and the report on capital expenditure and financing prepared. Finally, the report on changes in values and volumes of assets and liabilities is prepared only in Croatia.

The second objective of the paper was to highlight the most important obstacles to the development of efficient internal reporting system for HEIs. In order to meet a part of the first objective concerning internal reporting development process and the second objective, the authors have conducted an empirical research based on questionnaires sent to all public higher education institutions in Bosnia and Herzegovina, Croatia and Slovenia. The results of the conducted research have shown that there are significant differences in reporting systems of the observed countries.

In Bosnia and Herzegovina, respondents consider that *it is necessary to improve the existing accounting system of internal reporting at HEIs in order to manage more efficiently* (87.50%). The same findings in Croatia and Slovenia the opinions of HEIs are 57.58% and 47.83%, respectively). In all three countries, representatives of HEIs agree that *it is necessary to implement full costing method, allocating all direct and indirect cost to the final services or programs* (B&H - 50%, Croatia - 70%, Slovenia - 91%). In general, public HEIs, in all

observed countries, are ready to change their accounting systems and the respondents believe that it is necessary to implement the cost accounting methodology. However, it is obvious that there are major differences in obstacles to the development of efficient reporting systems. Each country should go through a unique development process to overcome these obstacles.

The limitation of this paper is that it only investigates public HEIs. In order to understand better the issues related to the internal reporting system it would be necessary to include more institutions in future researches and ensure better cooperation with institutions' management to fully implement the recommendations.

The research findings have shown that even though there is a positive perception regarding the need to improve the existing internal reporting system, there are significant differences in obstacles to the development of efficient internal reporting systems that differ among countries. Our main research hypothesis is, thus, confirmed. In future studies, focus will be placed on good practices of HEIs, which have already developed efficient internal reporting systems.

## ACKNOWLEDGMENT

This paper is a result of Croatian Science Foundation's funding of the project 8509 "*Accounting and financial reporting reform as a means for strengthening the development of efficient public sector financial management in Croatia*". Any opinions, findings, and conclusions or recommendations expressed in this material are those of the authors and do not necessarily reflect the views of Croatian Science Foundation.

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## PERSPEKTIVE I PREPREKE U REFORMI INTERNOG IZVJEŠTAVANJA NA INSTITUCIJAMA VISOKOG OBRAZOVANJA - SLUČAJ BOSNE I HERCEGOVINE, HRVATSKE I SLOVENIJE

### Sažetak

Institucije visokog obrazovanja prolaze kroz reformске procese, koje se razlikuju od države do države. Bez obzira na navedeno, osiguranje financijske održivosti ključan je izazov koji je zajednički institucijama visokog obrazovanja, s obzirom da samo institucije sa stabilnom financijskom strukturom mogu izvršiti svoje ciljeve i misiju u uvjetima ograničenih financijskih sredstava. Jedan od značajnih preduvjeta za osiguranje financijske stabilnosti je kvalitetan sustav izvještavanja, koji osigurava opsežne i detaljne informacije o svim aspektima djelovanja visokoškolske ustanove, a posebno o punim troškovima njenih aktivnosti. Stoga je cilj ovog rada dvojak.. S jedne strane, u njemu se raspravlja o proble-

mu reformskih procesa u odabranim državama (Bosna i Hercegovina, Hrvatska i Slovenija), s aspekta sustava izvještavanja. S druge strane, u radu se ukazuje na najznačajnije prepreke razvoju učinkovitih internih sustava izvještavanja. Empirijsko istraživanje provedeno je 2016. godine korištenjem anketne metode za prikupljanje podataka. Upitnici su distribuirani svim javnim institucijama visokog obrazovanja u Bosni i Hercegovini, Hrvatskoj i Sloveniji. Rezultati istraživanja ukazuju da, iako postoji pozitivna percepcija potrebe za unapređenjem internih sustava izvještavanja, postoje značajne nacionalne razlike u preprekama za njihov razvoj.

**Ključne riječi:** interno izvještavanje, institucije visokog obrazovanja, reforma, menadžment, zapreke