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USE OF MANAGEMENT REPORTS AT HIGHER EDUCATION INSTITUTIONS

CASE OF CROATIA

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3. Previous research of management reports at Croatian HEI‘s
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5. Concluding remarks

1. Introduction (1/2)

- Efficient managing of higher education institutions demands from management appliance of wide range **of managerial techniques and methods.**

- Two sets of reports:
  - **External financial reports;**
  - **Internal/management reports.**

- 3 types of higher education institutions in Croatia:
  - **Budgetary users,**
  - **Non-profit organizations,**
  - **Companies.**

1. Introduction (2/2)

Table: Normative framework of Higher education institutions in Croatia and set of external financial statements

Type of higher education institutions in Croatia		
Budgetary users (public HEI's)	**Non-profit organizations (private HEI's)**	**Companies (private HEI's)**
Regulation on financial reporting in budgetary accounting (Official Gazette, 2011)	Regulation on accounting of non-profit organizations (Official Gazette, 2008)	Accounting Act (Official Gazette, 2007)
External financial reports: • Balance sheet • Statement on revenues and expenses, receipts and expenditures • Statement about changes in values and volumes of assets and liabilities • Notes to financial statements	External financial reports: • Balance sheet • Statement on revenues and expenses • Notes to financial statements	External financial reports: • Balance sheet • Income statement • Cash flow statement • Statement on changes in equity • Notes to financial statement
Modified accrual basis of accouting	**Full accrual basis of accouting**	**Full accrual basis of accouting**

Source: Authors

2. Importance of management reports for HEI‘s

- *The methodological basis for the development of the **management report** is known and well developed in the profit sector and assumes application of instruments of **cost accounting and management accounting*** (Drury, 2008).

- Possible use of management reports at HEI‘s
  - **Decision making process about activities and programs;**
  - **Quality monitoring and control of all costs/ revenues over a specific period (variance between plans and actual amounts);**
  - **Cost reduction;**
  - **Price determination,**
  - **Program evaluation,**
  - **Performance measurement,**
  - **…**

3. Previous research of management reports at Croatian HEI's

- ***Dražić Lutilsky (2006, 159-229**) has conducted an empirical research that was focused on the application of cost accounting and management accounting in **the public higher education institutions** in the Republic of Croatia.*

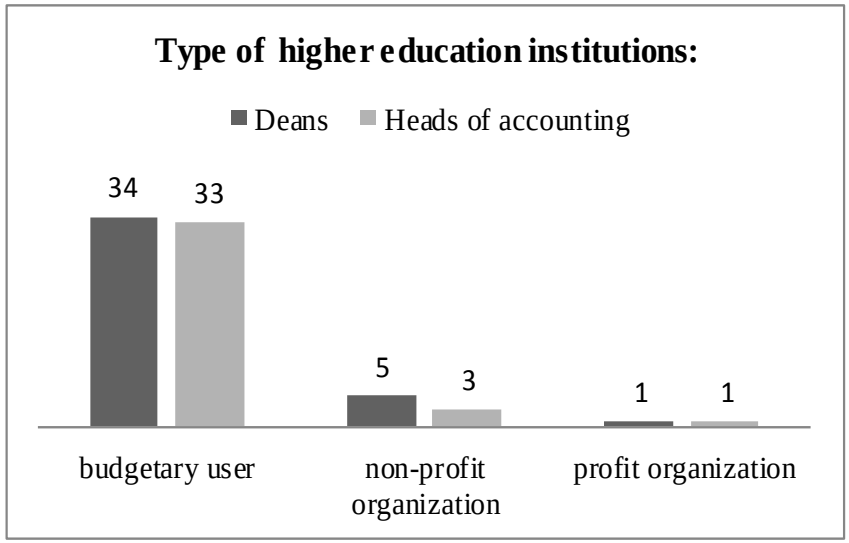
- **Budimir** (2011: 110-117) *has as part of a doctoral dissertation explored the use of **internal reports in the function of management of budgetary users** including public higher education institutions. Survey results of budgetary users in Croatia have shown that almost 80% of public managers considered that the information in the external financial reports is sufficient or generally sufficient for successful management.*

- ***Blažević (2012: 66-75)** has conducted research on the example of one polytechnic in Croatia. Blažević highlighted that the management reports should be a base for efficient management of assets, liabilities, costs and human resources.*

4. Empirical research of the usage of management reports at higher education institutions in Croatia

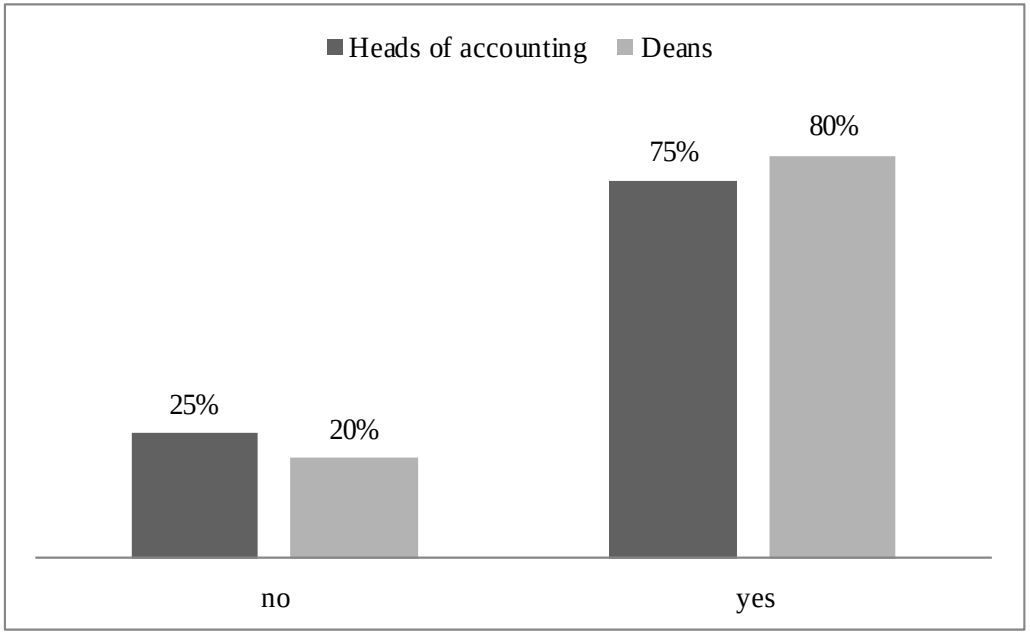
- Empirical research was conducted **in the year 2014 among the all higher education institutions in Croatia** (135) and questionnaire was aimed to Deans and Heads of accounting
  - responsive rate for Deans 29.63%;
  - responsive rate for Heads od accouting 27,41%.

- Figure 1: Surveyed HEI's according to the type of organization



4. Empirical research of the usage of management reports at higher education institutions in Croatia

- Figure 2: Surveyed HEIs according **usage of management reports in addition to external financial reports**



4. Empirical research of the usage of management reports at higher education institutions in Croatia

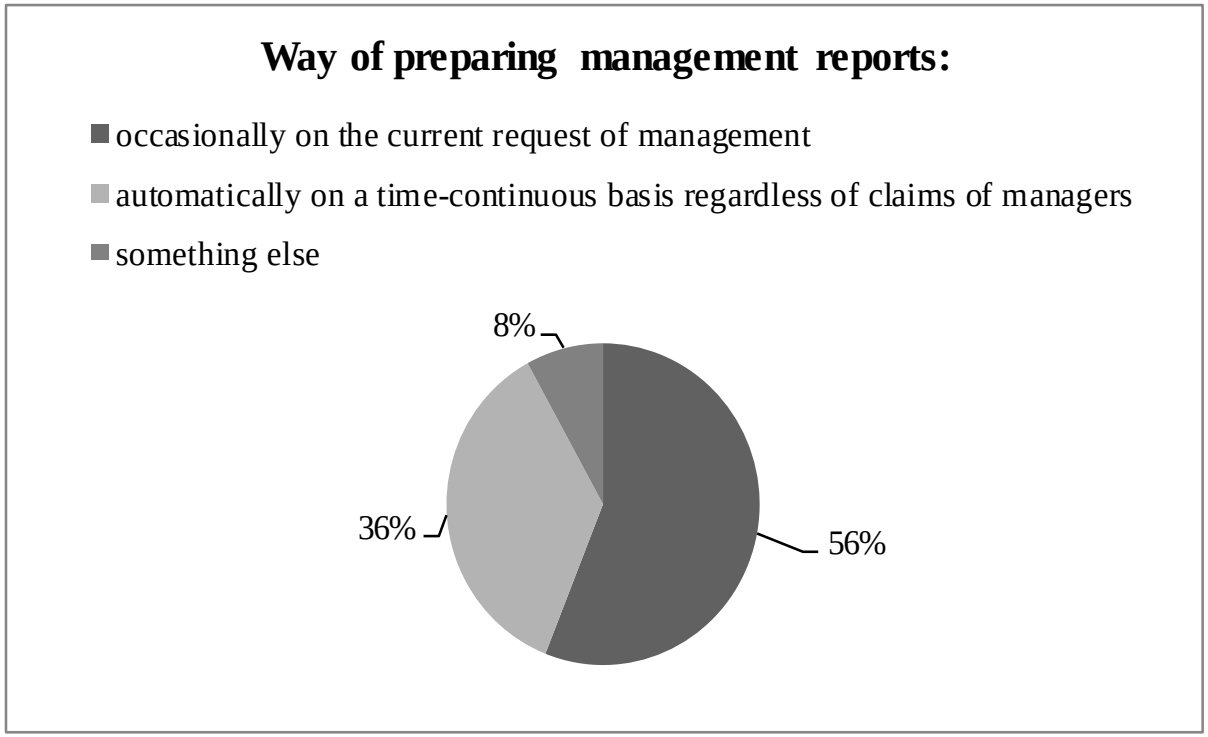
- Respondents in both samples that confirmed that they prepare/use management reports were asked to state which type of management reports they prepare among following management reports:
  - report about costs;
  - report about planed and realized costs,
  - report about revenues,
  - report about planed and realized revenues,
  - report about liabilities,
  - report about business results,
  - report about assets,
  - report about receipts and expenditures,
  - report about departments,
  - report about allocation of hours for teaching and non-teaching staff,
  - report about students
  - report about lecturers
  - report about performance indicators.

Most surveyed HEI's prepare this reports

Most surveyed HEI's **do not prepare** this reports

4. Empirical research of the usage of management reports at higher education institutions in Croatia

- Figure 3: Way of preparing management reports according to answers of heads of accounting



4. Empirical research of the usage of management reports at higher education institutions in Croatia

- We have tested following hypothesis by using one-tail z test about a population proportion for the year 2014:

  - ***H1: The existing accounting information system of the higher education institution in Croatia is focused primarily on meeting the legal requirements in terms of external reporting.***
    - **DEANS**: Thus the test hypotheses are: H_0... $p \leq 0.75$, H_1... $p > 0.75$. Conducted statistical test confirmed that assumption. In other words we reject the null hypothesis at significance level of 5% (test statistic = 1.826, p-value = 0.0339).
    - Respectively, we can accept the assumption that the percentage of managers who believe that the current accounting information system of the higher education institution focused primarily on meeting the legal requirements in terms of external reporting is higher than 75%
    - **HEADS OF ACCOUNTING:** Thus the test hypotheses are: H_0... $p \leq 0.75$, H_1... $p > 0.75$. Conducted statistical test confirmed that assumption. In other words we reject the null hypothesis at significance level of 5% (test statistic = 1.854, p-value = 0.0319).
    - Respectively, we can accept the assumption that the percentage of heads of accounting who believe that the current accounting information system of the higher education institution is focused primarily on meeting the legal requirements in terms of external reporting is higher than 75%.

4. Empirical research of the usage of management reports at higher education institutions in Croatia

- ***H2: The higher education institutions in the Republic of Croatia are not familiar with the trends in developed European higher education institutions regarding to the application of instruments of cost accounting.***
  - It is assumed that more than 60% of Deans is not familiar with the trends in developed European higher education institutions regarding to the application of instruments of cost accounting. Thus the test hypotheses are: H_0... $p \leq 0.60$, H_1... $p > 0.60$.
  - In other words we reject the null hypothesis at significance level of 10% (test statistic = 1.6103, p-value = 0.0537).
  - Respectively, we can accept the assumption that the percentage of managers that are not familiar with the trends in developed European higher education institutions regarding to the application of instruments of cost accounting is higher than 60%.

- ***H3: Management of Croatian HEI's think that is necessary to develop a comprehensive system of internal management reporting, which will be based on the application of the full costing method and the experiences of successful practices***
  - Thus the test hypotheses are: H_0... $p \leq 0.75$, H_1... $p > 0.75$. Conducted statistical test confirmed that assumption. In other words we reject the null hypothesis at significance level of 5% (test statistic = 1.6103, p-value = 0.0537).
  - We can accept the assumption that the percentage of managers that think that it is necessary to develop a comprehensive system of internal management reporting, which will be based on the application of the full costing method and the experiences of best practices is higher than 75%.

5. Concluding remarks

- In regards to the conducted research, the authors are ***recommending to implement accrual basis*** in public accounting on which full costing method can be implemented.

- ***Full costing model*** could also be provided as a separate tool in accounting information system which will allow tracking and recording of all occurred costs (e.g. depreciation) which are important for internal usage and decision making process for public management as well as for Ministries because they must demonstrate that benefits from their programs and activities which they attempt are appropriate to the costs.

- From the implementation of full costing method in higher education institutions and other subjects of the public sector it would be possible to develop ***qualitative and quantitative management report and to derive performance measurement indicators in order to manage efficiently, transparently and to achieve financial sustainability.***

- Questions???

- Thank you for your attention…