

# COST PLANNING AND CONTROL IN CROATIAN PUBLIC SECTOR<sup>1</sup>

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## ABSTRACT

To examine the state of managerial accounting use in Croatian public sector, the survey based on the questionnaire made was conducted in 2006 and 2011. The questionnaire was sent to 150 organizations and units in public sector and it consisted of 24 questions. The total of 123 units responded to the questionnaire in 2006, while 88 public sector units and organizations returned the answered questionnaire in 2011. In this paper the authors present empirical results of the research conducted. The results prove that cost management for purposes of cost planning and control in Croatian public sector is still undeveloped and still not sufficiently used in the process of determining budgetary spending. Also, the authors provide possible solutions for better usage of managerial accounting in Croatian public sector.

Cost planning and control in Croatian public sector



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# I. INTRODUCTION

Since the end of the 20<sup>th</sup> and the beginning of the 21<sup>st</sup> century, new public management has been the most emphasized reform in the set of public sector reforms. According to Barzelay (2001), new public management is the “movement” with the goal of enhancing efficiency in public sector, strengthening responsibilities of government units toward users and buyers of its services, decreasing public expenditures, and management responsibilities’ improvement and strengthening. Barzelay (2001) has written that the choice of instruments for achieving the above mentioned goals is rather similar and refers to commercializing government operations, establishing agencies (quasi corporations), outsourcing certain public sector activities and privatization, all of which change the substance and methods of work of government units and their management. The change refers to strengthening management responsibilities, the priority of measurement of input being replaced with the measurement and control of the output, improvements in methodology for success measurement, etc. (Hughes, O’Neill, 2001). According to Barzelay (2001), new public management becomes the area of political interventions inside the executive government. Further, until the scope, framework and content of government activities have not been determined, existing broad institutional rules and organizational routines used by government units for management, operations and supervision, are considered and described as public management.

Countries in transition have started to recognize the importance of management processes in public sector and to perform many public sector reform activities. According to Hughes, et al. (Hughes, O’Neill, 2001) key issues for achieving successful new public management are as following:

- managing the process of appointing the managers – responsibility of top managers is the most important one;
- development and appliance of explicit standards and performance indicators;
- viewing the control of output – results as important, not the processes;
- “breaking” government units and close monitoring of their operation, activities, and services they provide, in order to find out whether higher benefit in rendering services is achieved within or outside the public sector;
- introducing market competition into public sector – competition being key issue in lowering costs and enhancing better working standards;
- implementing managerial tools (techniques and skills) which are commonly used in private sector;
- greater discipline and more directly assigned responsibilities in using the resources (cutting direct costs, improving working discipline) – “to do more with less” approach.

Developed information system (with accounting holding the dominant position), is, among other things, the presumption for qualitative achievement of majority of the above mentioned processes. Appliance of number of cost and managerial accounting techniques and methods, and their integration into broader aspect of information technology and financial management must be put in place in order to manage public sector efficiently. Only after the above mentioned presumptions have been introduced, external and internal control of efficiency within government units shall be enabled.

## II. BUDGETARY ACCOUNTING FRAMEWORK IN CROATIA

Accounting information processes and financial reporting are of a key importance for managing the budget, achieving financial responsibility at all levels of public management, and for defining, approving and carrying out government decisions. Basic elements of accounting and financial reporting systems are set in relation toward information goals. In most countries, where the main purpose of the government accounting system is to monitor the budget execution, accounting system is set on a cash accounting basis with reporting being based primarily on receipts, expenditures and changes in cash inflows and outflows and cash equivalents. Current trends in accounting systems developments are going toward partial or complete introduction of accrual accounting which provides complete information on efficient and rational use of public resources, public expenditures, as well as the information needed for monitoring public management and its responsibilities.

Following the trends, at the beginning of 2002, Croatia commenced the budgetary accounting reform, having the Budget Law (Act)<sup>5</sup> determining regulatory framework for budgetary accounting. Main features of such reformed budgetary accounting system, based on the regulatory framework and the reform implementation level, are the following:

- obligatory adoption of budgetary accounting and financial reporting for budgets, budgetary users and out-of budgetary users;
- obligatory use of Budgetary Chart of Accounts;
- clearly defined concepts, principles and standards, clear and prescribed procedures and rules for systematic tracking of all transactions: revenues (receipts), expenses (expenditures), assets, liabilities and resources;
- Obligatory use of budgetary classifications in budgets preparation and execution, as well as in accounting and financial reporting. The classifications are: organizational, economical, functional, location and program;
- Budgetary accounting is based on International Public Sector Accounting Standards (IPSAS);
- Application of modified accrual basis of accounting;
- Application of internationally recognized and comparable analytical framework for financial and statistic reporting;
- Financial reports are comprehensive and complete and provide information on performance and financial position;
- Obligatory periodic and annual reporting, obligatory consolidation of semiannual and annually budget of Republic of Croatia.

Having commenced the reform in 2002, Croatian budgetary accounting system started the international trend toward the implementation of accrual basis accounting. The system possesses the infrastructure that may be used for further construction towards the full adoption of international public sector accounting standards (IPSAS).

Croatian budgetary accounting reform forms part of the overall public sector reform. Budgetary accounting reform's success depends on the success of other ongoing reforming processes, but is also the precondition for the success of other reforms. Budgetary accounting reform priority is further improvement of budgetary spending monitoring as one of the most

<sup>5</sup> The Budget Act, Croatian Official Gazette, No. 116/2001.

important budget component, important for preparation and for supervision of the budget, as well. Croatia has developed budgetary spending monitoring throughout payments from single Treasury account (Vašiček, 2004). Budgetary process which is among the closest ones to accounting is budgetary planning. New Budget Law (Act)<sup>6</sup> determines modern standards for preparation, planning and monitoring the budget. Program (project) budgeting and the analysis of program's performance (benefit cost analysis) as a part of that budgetary process are a technique for improving the whole process. Programmed Budget is introduced because of the importance of having the institutionalized and complete information as a prerequisite for better decisions making (Vašiček, 2004). Government units have to make a move away from budget preparation for programs and projects towards fulfillment of projects' goals and assuring projects' quality, as well as the move from current administrative (line) approach in planning and monitoring towards fulfillment of budgetary goals in accordance to types of expenditures. Also, budgetary accounting reform has made important influence on the development of Public Internal Financial Controls System (PIFCS)<sup>7</sup> and external State audit. (Vašiček, 2004; Parać, 2005.)

Modified accrual basis has been enforced in government accounting since January, 2002. All Government entities have been using modified accrual basis, yet the State Budget of Croatia has been prepared on cash basis. In relation to the appliance of full accrual, modified accrual accounting basis model in Croatia is marked with following adjustments (Vašiček, D., Mrša, J., Dragija, M., 2009):

- Revenues of public sector entities are recognized when the cash is received, therefore on cash basis.
- Expenses of current non-financial assets are recognized at the time of purchase, and not at the time of actual consumption.
- The costs of procurement of fixed asset of small value are not capitalized because they are entirely recognized as expense at the time of purchase.
- The costs of procurement of fixed asset are not capitalized and are not systematically apportioned as expenses on time or functional basis during the period of their useful life. Therefore, the annual amount of asset depreciation is not calculated but the cost of the asset becomes expense in a reporting period the asset is purchased in. This principle applies to the allowances that have been given in the process of procurement as well as to investments in progress, regardless of the fact that the process of procurement is not completed, or that the asset is not ready for use.
- Increase in assets during the procurement of fixed non-financial assets without the costs (capital received donations), is not recognized as revenue but it directly increases the sources of ownership (public capital).
- Spending fixed non-financial assets during the administration estimated life is recognized as the expense of the sources of ownership (public capital) using proportional basis of value adjustment.

<sup>6</sup> The Budget Act, Croatian Official Gazette, No. 87/2008.

<sup>7</sup> European Commission, based on experience of candidate countries, developed "Public Internal Financial Control System" (PIFCS) – Internal control system (SUK) Croatian language adjusted term; used often for assessing improvements in candidate country for fulfilling the EU accession criteria.

- Residual value of fixed non-financial asset that is sold or decommissioned is not reported as an expense, and this is due to the fact that the total expense was recognized at the time of purchase.
- Change in value and volume of assets and liabilities is not reflected in the financial result but directly reflects in the value of sources of the ownership (public capital).

Thus, defined and set budget accounting system provides a significantly expanded volume of information which is primarily seen through the available information (especially in information about obligations) and through the condition and changes in the value of assets and receivables. Available information is necessary to determine the financial position of the government unit. Reliable records on these obligations are found as extremely important at the time of budget execution and treasury actions, because it enables the exercise of money control in correlation with future liabilities, and the oversight of current liabilities enables monitoring liabilities' effect on cash flow projections in the Single Treasury Account (Vašiček, V., Dragija, M., Hladika, M., 2010). A high degree of normative framework is deemed as one of the most important features of government accounting system, both in Croatia and all over the world. Since the accounting framework in Croatia has been set up as a law – based system and since governmental activities have been financed through the Budget, the legislative framework regarding governmental accounting development was determined by the Budget Act and other additional set of regulations. Those additional regulations (decrees, instructions, and policies) define and analyze certain parts of the main Act more precisely and thus enable faster and easier qualitative adoption of regulated solutions (Roje G., Vašiček V., Vašiček D. 2008). The most important legislative documents that regulate the existing Croatian government accounting system are as follows (Roje, G. Vašiček, V., Hladika, M. 2009):

- The Budget Act (Croatian Official Gazette, No. 87/2008.),
- The Policy for determining budget users and managing the Registry of budget users (Croatian Official Gazette, No.80/2004.),
- The Policy for budgetary accounting and Chart of Accounts (Croatian Official Gazette, No. 27/2005, No 127/2007.),
- The Policy for financial reporting in budgetary accounting (Croatian Official Gazette, No. 27/2005, 2/2007.),
- The Policy on budget classification (Croatian Official Gazette, No. 94/2007.).

A complete set of basic financial statements that public sector entities should assemble, according to IPSAS 1, are (IPSAS 1 Presentation of Financial Statements):

- The statement of financial position
- The statement of financial performance
- The statement of change in net assets/equity
- The cash flow statement and
- Accounting policies and Notes.

Appropriate reporting system is defined in accordance with the settled accounting information system which is based on modified accrual basis. Entities that are obliged to prepare the basic financial statements are the state budget, budgets of local and regional governments and extra-budgetary users. A complete set of financial statements comprises (Vašiček, V., Dragija, M., Hladika, M., 2010):

- The balance sheet,
- The report on changes in assets' and liabilities' volume,
- The report on revenues, expenditures, cash receipts and expenses,
- The cash flow statement, and
- The notes.

Together with preparing the aforementioned financial statements, budget users compose additional financial statements. These are:

- The statement of expenditures according to functional classification,
- The statement of liabilities, and
- The statement of revenues and expenditures of budget users (Vašiček, V., Dragija, M., Hladika, M., 2010).

According to the above, it is clear that the basic financial statements in government accounting in the Republic of Croatia are only partially complied with the basic financial statements made according to IPSASs requirements. A main difference stands in the quality of presented information as a result of different accounting basis applied. The difference is also in the existence of additional financial statements (Vašiček, V., Dragija, M., Hladika, M., 2010). The necessity of strictly determining the coverage of the general government sector is particularly evident when it comes to determining the entities who are obliged to apply government accounting. Entities that are obliged to use government accounting are defined in The Budget Act<sup>8</sup>. Government accounting is obliged to be used by all the state budget users,<sup>9</sup> and by the users of local or regional budget and their budget users. Extra-budgetary users are obliged to use government accounting only in for financial reporting. For this purpose, the registry of budgetary users based on criteria that is consistent with the requirements of the international system of the financial statistics, was established in the Republic of Croatia (Vašiček, V., Dragija, M., Hladika, M., 2010). Provisions of IPSAS have been implemented as articles of regulations, laws and ordinances that regulate the area of government accounting appliance. There is no legal obligation for the use of IPSASs, but solutions that are recommended in IPSASs are being applied in Croatian government accounting practise. All participants in the budgetary process are obliged to apply the prescribed chart of accounts and recording schemes. The appliance of the uniform methodology allows for the identification of data and general government sector financial performance indicators (Vašiček, V., Dragija, M., Hladika, M., 2010).

<sup>8</sup> The Budget Act, Croatian Official Gazette, No. 87/2008, article 99.

<sup>9</sup> According to the Policy for determining budget users and managing the Registry of budget users (Croatian Official Gazette, No.80/2004.), it is prescribed that *budgetary units* are those entities: 1. whose founder is the government and/or local government, 2. whose income source is the government budget and/or local government budget in the amount of 50% or more, and 3. who are listed in the registry of budgetary units. *Extra-budgetary users* are those entities: 1. where government and/or local government have a decisive influence on the management, 2. where one of source of founding is a dedicated income, and 3. who are listed in the registry of budgetary users. At central government level, governing ministries and their budgetary beneficiaries are covered. Among extra-budgetary units of the Republic of Croatia (at central government level) count extra-budgetary funds and some of the corporations controlled by the government. Extra-budgetary entities at local government level are only county road administrations.

### III. POSSIBILITIES FOR MANAGERIAL ACCOUNTING IMPLEMENTATION IN CROATIAN PUBLIC SECTOR

#### A. The importance of managerial accounting and the areas of its application in the public sector

Contrary to private sector, whose performance is measured by the level of profit made, performance of individual government units and the whole public sector may be measured by level of satisfaction of general and common needs of individuals and the public. Performance has to be measured by segments and by results in each government unit. Also, each program and project has to be measured according to goal fulfillment. For long term sustainability of its activities and programs, public sector has to decrease costs and improve quality of its services. Without knowing the structure of each cost and different concepts of their valuation, decreasing costs would be “mission impossible”.

According to IFAC-PSC Study 12, besides the historical role of cost accounting which may be seen as determination of inventories value or other form of assets for financial accounting needs, cost accounting has several basic managerial functions:

- Budgeting,
- Cost control and cost decreasing;
- Determination of prices and remunerations;
- Measurement of performance;
- Program assessment;
- Different choices for economic decisions. (IFAC-PSC: Perspectives on Cost Accounting for Government, Study 12, 2000)

Costs information can be used in the following specific areas (IFAC-PSC: Perspectives on Cost Accounting for Government, Study 12, 2000):

- *Budgeting and cost control.* Information about program costs can be applied as the basis for cost prediction in the budget preparation process. When budgets are adopted and performed, the costs information can be used for the next year budget preparation.
- *Effects evaluation and program assessment.* The costs measurement is the constitute part of program effectiveness and efficiencies evaluation.
- *Determination of price, fees and remunerations.* The determination of prices which government units charge for providing services (e. g. passport issuance, company registration) is partly a political question, but the quality evaluation of full costs of a provided service is necessary for comparison and evaluation of different options in business policies. The determination of prices can be necessary because of internal performance evaluation.
- *Market research.* Market research requires the comparison of costs of goods and services provided by the government units with the same ones provided by the private sector.

It is obvious that accounting goals and tasks have been evolved. In its early phases managerial accounting has been considered as technique for cost allocation on cost objects and it was mainly considered as the “problem of accountants”. Today, managerial accounting in public sector is used for presenting the information on costs for the main purpose of fulfilling

managerial needs so that such information is used in management processes in public sector. Managerial accounting becomes viewed as a tool for the new public management (IFAC-PSC: Perspectives on Cost Accounting for Government, Study 12, 2000). Above mentioned areas of managerial accounting appliance are considered as benefits of using managerial accounting. However, managerial accounting is not present enough in practice of most of the countries. The differences in concepts of its use in public sector exist from country to country. It is rare that managerial accounting is being used in government units which render services for free. Insufficient use of managerial accounting in public sector is mainly due to the following:

- Certain services are free to all citizens and providing goods and services is a primary activity of government units;
- Many costs cannot be determined reliably, e.g. costs of natural resources;
- Criteria for assessment of some activities are missing even when costs are known;
- Government programs and projects are decided on political ground, costs are of a secondary importance;
- Budget uses cash accounting; the only and primary interest of the regulator is the control of budgetary resources, not occurred costs. (IFAC-PSC: Perspectives on Cost Accounting for Government, Study 12, 2000)

## B. Possibilities for managerial accounting implementation in Croatian public sector

Changes in complex systems, such as public sector, are always the result of the long term, complicated and demanding processes. Political issues have the influence on these changes. Frequent changes of government management structures are deemed as being a disadvantage for the continuous public sector reform processes. Republic of Croatia often misses political consensus on reforming processes. Ongoing processes are often stopped or changed without providing clear arguments for pro and cons. Our opinion is that some formal and informal rules have to be taken into account so that the direct relation between institutionally defined program and its result exists. Perfectly designed project (program or system) with all formal elements (laws, rules and procedures) may not be successfully implemented if some informal rules are not respected. If there is no changes in behavior of the politicians, top managers, advisers and other public sector employees and if informal rules are not visible enough, no real changes will take place at all. The administrative capability of government units is currently low, and public sector with low administrative capacity cannot take the burden of such changes. Enhancement of administrative capacity means introducing the responsibility, transparency (in disclosure), and participation of everybody responsible in the process.

Currently, main risks for successful reforms are as follows: missing management integrity, inadequate management requests for professional and competent staff, inadequate allocation of responsibilities and authority which results with poor management control, low ethical values, and missing managerial policies. Thus, cost and managerial accounting implementation into public sector has to be seen in the context of the above mentioned and discussed reforming processes. Nevertheless, issues such as political aspect, administrative



capacity, organizational capacity – capability for managing changes, cultural inheritance, etc., have to be taken into account as obstacles. Benefits of managerial accounting in public sector are numerous only if managerial accounting is implemented in all areas. Managerial accounting can be implemented in both cases, whether budget uses cash basis accounting principle or accrual accounting basis principle (Adhikari et al., 2008). In case of the accrual based budget, information about costs can be used for control purposes (planned vs. used), while in case of the cash based budget costing may be useful as additional information for budgetary resources' allocation. The fact is that information about costs is insufficiently used in the process of preparing the budget in Croatia. In fact, instructions for budget preparation process do not request or imply the usage of such cost information model. Cost information is used sporadically and on voluntary basis, without recommended and prescribed procedure.

Information on cost can be used for cost reduction and control purposes. Real costs are to be compared to programs' (activities') planned costs, standard costs, costs resulting from similar programs (activities), costs in a certain time horizon, etc. The goal of the comparison made is to determine the difference in costs and cost variances, to make revisions and take adequate actions.

Cost management for such purposes is undeveloped and of limited use when determining budgetary spending. Standard costing for same or similar services i.e. cost recognition up to determined amount for each particular service, is not enough present in Croatian budgetary units accounting practice.

Managerial accounting in public sector is necessary when government units must determine the price of their services. Pricing may be needed because costs are partly recovered through fees from final users. Pricing may be needed for internal calculation, too. Canada has a practice of "cost recovery" with initiative for government units to use procedures for "cost recovery" from the budget, which stimulates them to calculate and track all occurred costs for rendering services or goods (Roje, 2008). In Republic of Croatia price service determination in practice is more a political question and certain amounts of fees have more political and social, rather than economic characteristics.

Managerial accounting used for project evaluation helps in making decision about the authorization of project, project prolongation or cancelation, as well as project changes. Lack of data on project's cost makes deciding about the actual project even harder. Republic of Croatia accepted project planning which express costs primarily according to determined programs and program drivers, and only secondarily according to types of expenses. Programmed budgeting is concerned with activities' and projects' results. Problems of full implementation of planned programs are connected with the fact that several answers have to be provided for each program. Namely, these are: what the goal is, how much this program costs, which are the beneficiaries and how results shall be measured. Set future requests for program budgeting are different than the current ones. Yet, answers on asked questions have to be provided, which is not an easy task.

Measurement of government units operation may be connected with program evaluation which is done by government units (if program budgeting is existent). Measurement of operations may be seen as equivalent for profitability measurement in private sector. However, it is hard to define and evaluate the results. Rendering the services and quality may be measured in several ways: as measuring service price – cost of inputs for rendering services or

as measuring rendering of service – outputs of conducted service. Measurement of input or output value is simpler than measurement of results i.e. performance of rendering the service in terms of quality and satisfaction. For example, it is possible to calculate the cost of the output (i.e. cost of medical surgery), but it is not completely measurable how that output will influence the final result of the service (i.e. prolonged life, decreased cost of pain relievers, etc.).

On the basis of decisions on total cost of rendered service it is possible to make strategic decisions such as is it better to conduct service through public sector or to privatize public sector?

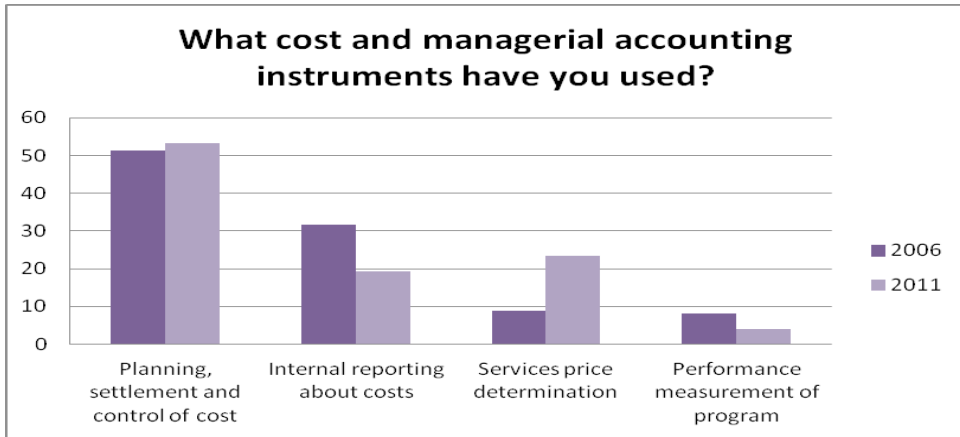
## IV. EMPIRICAL RESULTS ABOUT COST PLANNING AND CONTROL IN CROATIAN PUBLIC SECTOR

Public management can use different modified set of instruments of cost and managerial accounting with a purpose of gaining information needed for evaluation and performance assessment of individual programs. Increased demands for efficient and transparent work of public authority bodies and public management impose the need for new forms of reporting which further implies the usage of the set of managerial accounting instruments. Those set of instruments cannot be avoided in following public sector management process: budgeting, cost control and cost decrease, determination of prices and remunerations, performance measurement, program assessment, choices referring to economic decisions, taking actions to increase effectiveness and to raise quality of services by decreasing costs. The fact that unique framework for public sector performance measurement is not proscribed or defined is confirmed with the questionnaire results.

To examine the state of managerial accounting use in Croatian public sector, the survey based on the questionnaire made was conducted in 2006 and 2011. The questionnaire was sent to 150 organizations and units in public sector and it consisted of 24 questions. The total of 123 units responded to the questionnaire in 2006, while 88 public sector units and organizations returned the answered questionnaire in 2011. In 2006 the structure of organizations who responded to the questionnaire was as follows: 63% were budgetary users, 36% were users of local and regional budgets while 1% were non budgetary users. In 2011 the structure was rather similar: 62% were budgetary users, 38% were users of local and regional budgets while 1% was non budgetary users. In 2006, 7% of organizations who responded to the questionnaire were government entities, 22% were local government entities, 63% were institutions, and 8% others. In 2011 the structure was a slightly different, institutions yielded the largest percentage and there was a lower portion of local government entities.

## USED COST AND MANAGERIAL ACCOUNTING INSTRUMENTS

FIGURE 1



SOURCE: Author

Out of 123 units and organizations in 2006, 51,22% use cost planning, cost allocation and cost control, but only 8,13% use performance measurement and program assessment. In 2011 the percentage of performance measurement and program assessment is even lower, only 4%. Internal reporting about costs is lower in 2011 than in 2006, which is a surprising fact in research field because the reform in Croatian public sector has been trying to move forward as far as tracking and allocation of costs, as well as reporting about costs to the public management is concerned. Information about cost through internal reporting could be used to control costs and to make necessary reductions. Information on cost can be used for cost reduction and control purposes. Real costs are to be compared to programs' (activities') planned costs, standard costs, costs resulting from similar programs (activities), or to compare costs over time. Thus, valid and timely information on costs through appropriate reporting can contribute to:

- comparison of costs and possible benefits of certain programs and activities for which it is possible to establish useful and useless activity, based on what decisions can be made about the reduction or abolition of programs that are not longer deemed effective;
- comparison of costs and their changes over a given period of time, identification of causes for such costs behaviour and decisions to take various steps with a goal to improve efficiency;
- identifying and reducing excess of cost capacity;
- comparing cost with similar "benchmark" activities to find the causes of the differences in costs and to revise and improve the ongoing processes.

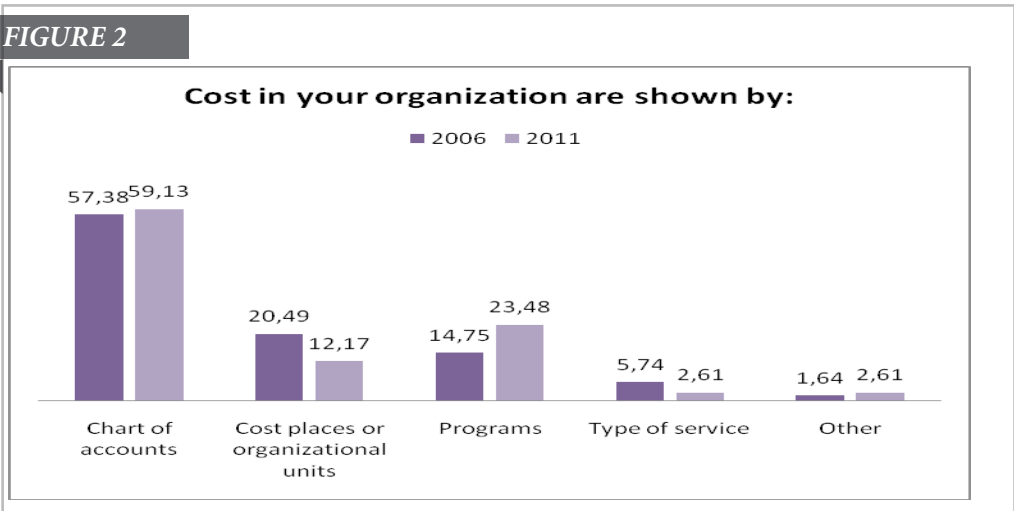
Empirical results confirm the theoretical knowledge on the subject and the fact that the use of cost and managerial accounting instruments is mostly represented in planning, settlement and cost control. The above is partly due to the fact that the area of cost planning and control is developed and regulated by law for purposes of budget planning and budget execution monitoring, and thus widely represented in all government units. However, compared to 2006,

the use of instruments of cost and managerial accounting for pricing services in organizations increased in 2011. A reduction in use of instruments is shown in the field of measuring and monitoring the success of the program. The reasons for the differences in responses of 2006 in relation to the 2011 could be partly due to the fact that the structure of the sample is different. When considering the structure of the institutions surveyed in the field, the greatest number of respondents comes from primary and secondary education and preschool education and they are using only the instruments for planning, settlement and cost control, pricing services and reporting on internal costs. However, they don't use instruments for measuring and monitoring the success of the program. Those instruments are mostly used by entities of local and regional governments.

The results of the research in 2006 year and 2011 show that the highest point on the representation of costs is in monitoring cost by natural types of costs classification. This is the expected result because of the classification being determined by the Budget Act and the cost information structured according to that classification is available for other processes too. In order to improve the planning process, calculation, allocation and cost control in the public sector, it is necessary to monitor costs not only by nature and place of origin, but also by types of programs and services. Some institutions have classification according to the programs, and some even accompanied costs by the type of funding or by functions.

SHOWN COST IN PUBLIC SECTOR INSTITUTIONS

FIGURE 2

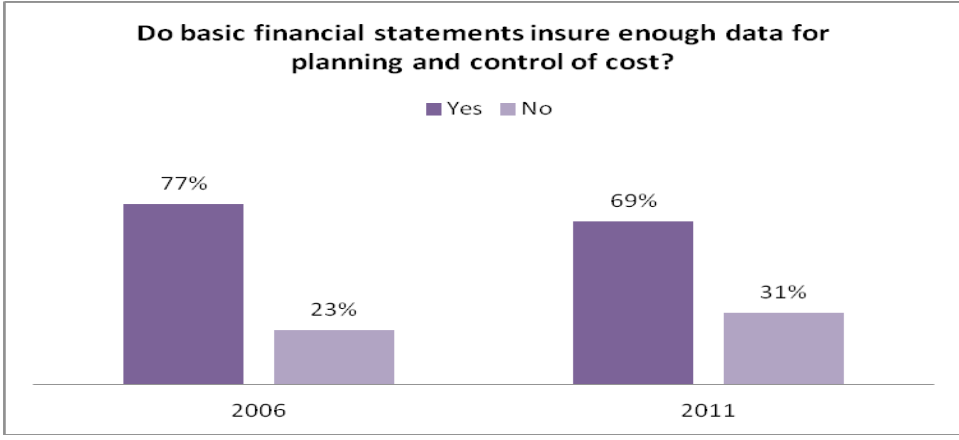


SOURCE: Author

No less important than the “production” of information, is its presentation. Presenting information about costs in the public sector is to improve the quality of governance and public management decisions. In doing so, public managers need to define the shape and form of internal reports, which provide cost information needed for effective management and decision making.

PLANNING AND CONTROL OF COST THROUGH FINANCIAL STATEMENTS

**FIGURE 3**

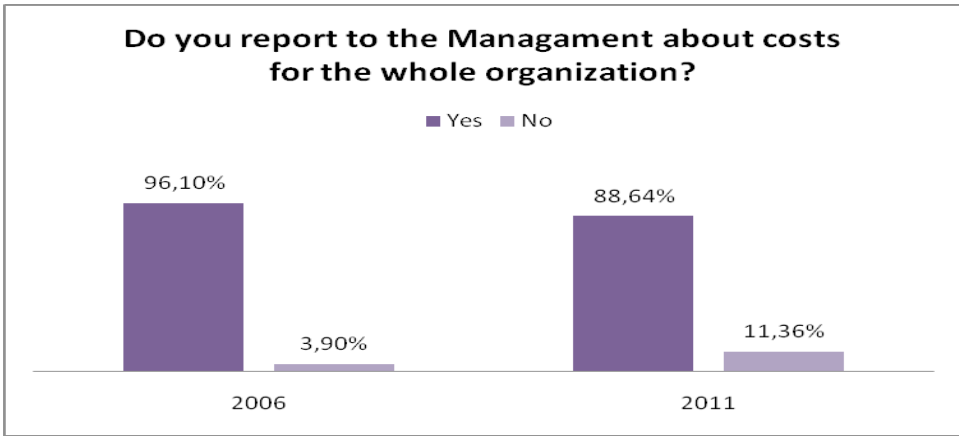


SOURCE: Author

The research showed that most of the public sector organizations in the Republic Croatia that report to the management about costs (expenditures) are doing so at the level of the organization as a whole.

REPORTING TO THE MANAGAMENT ABOUT COSTS

**FIGURE 4**



SOURCE: Author

Also, research in year 2006 showed that 54.87% of public sector organizations in Croatia expressed internal reporting about costs by nature, 20.35% by the programs, and 15.93% at places of origin or to organizational units. In 2011, 89% of respondents confirmed that the internal reports about costs are at the whole organization level, 52% had showed costs by nature, 16% by the programs, 24% by the places of origin or by organizational units, while

only 10% reported costs by the type of government service. Disclosed costs for planning, cost control methods and management reporting about costs shows a high concordance in costs. In terms of planning for program, information about costs of programs and activities are useful and important in the following situations:

- Preparation of budget (this does not anticipate costs incurred in past or future costs estimates);
- Program evaluations (the cost of programs is a factor in making policy decisions related to program authorization, modification and discontinuation);
- Cost control and reduction of costs (i.e. comparison of costs with known or assumed benefits of activities, identification of value-added and non-value-added activities and discontinuation of non-cost-effective activities; all these not being usual actions or practice for public entities in Croatia); and
- Setting prices and fees (information about costs is relevant even when goods and services are provided as a result of government policy decisions, such is the case in Croatia, or when prices and fees are set on the basis of market prices).

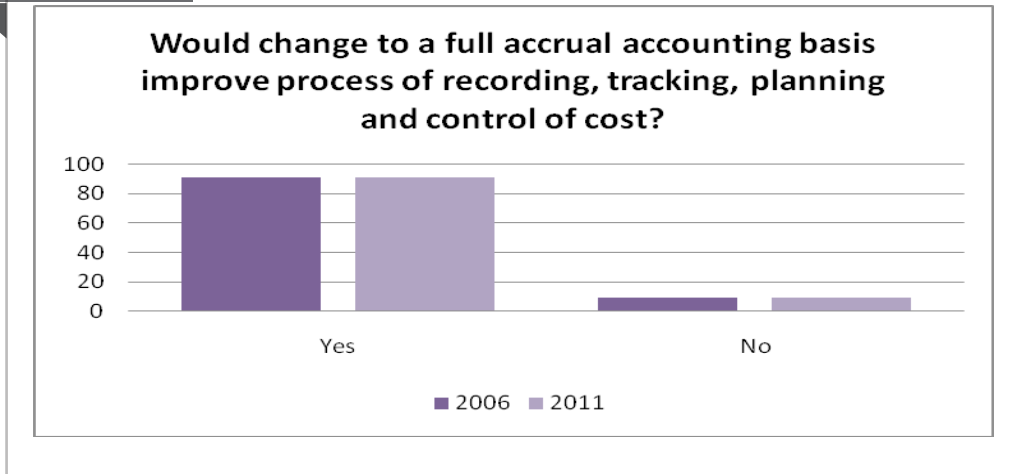
The result of combining costs with efficiency measures is the excellent evaluation process that can evaluate the following:

1. measurement of the different resources and costs used as inputs to provide services;
2. achievement of service as a measure of the degree in the provided services effect; and
3. relationship between invested and achieved in the process of service provision and in determining the unit cost or cost per unit of service.

The budget for programs is dealing with the expected results, activities and projects implementation. Requirements placed on developing the program budget are completely different from the previous holders of the budget, and they must provide answers to certain questions, such as: what the goal of the program is, what cost will be needed to achieve this goal, who are the beneficiaries of the program and how to measure the success of the program, which often is not easy. Use of cost accounting in the assessment program helps in deciding on authorization of the program, the continuation or termination of the program, and program amendments. The absence of data on costs sets making choices between the competing programs difficult. Performance measurement instruments' development assumes introducing cost accounting and managerial accounting instruments on the basis of developed database systems to define appropriate indicators for the specific activities of organizations in public sector. In a situation in which the instruments of cost and managerial accounting are poorly represented, development of performance measurement indicators cannot be expected.

Implementation of accruals should solve all those problems. By changing to accruals all governmental units shall be able to choose various methods for cost planning, cost allocation and cost control. In fact, 91% of respondents in both years of study agreed that the shift to the full accrual accounting would contribute to the improvement of planning, accounting and cost control.

## INFLUENCE OF FULL ACCRUAL ACCOUNTING BASIS ON RECORDING, TRACKING, PLANNING AND CONTROL OF COST

**FIGURE 5**

SOURCE: Author

## V. POSSIBLE SOLUTIONS FOR BETTER USAGE OF MANAGERIAL ACCOUNTING IN CROATIAN PUBLIC SECTOR

Information on costs plays a significant role in the management of a specific subject in both the profit and the public sector. Cost information can be used by public sector entities as an information basis for decision making (i.e. decisions on service prices, creation of new programs, new directions for a specific program, the introduction of new services, etc). Cost and managerial accounting instruments, methods, techniques and procedures can be adapted and used in public sector entities for the purpose of generating and reporting about costs for the needs of management structures. Preparation of internal reports, cost planning and control in a manner adapted to control the structures of public sector entities contribute significantly to processes aimed to improving governance in public sector. Planning and control of costs can be displayed in the modified master budget in terms of internal reporting, but also in other forms of non-standardized financial statements. Coverage costs method in the internal reporting needs to be in function of providing information for managers at different hierarchical levels, in the process of making economic and non-business decisions. Therefore, the internal reports should allow for adaption of internal users specific requirements, depending on whether they use cost information in the system of planning, performing (calculation) or control. Cost should serve as the basis for preparing and interpreting the accounting information, which is further required and needed to do the following:

- Clearly define the current and periodic information requirements of internal users at different hierarchical decision making levels, which make influence on the structure of the costs;
- Make true assessment of the personnel and technical capabilities of accounting services to meet the constant and periodic information requirements of users, while respecting the economics principles;
- Define the organizational requirements for meeting the real requirements of the selected systems and calculation methods for the current reporting on relevant cost categories, according to the methodology of determining the partial results;
- Ensure costs comparability of the similar activities at the internal, national and international level. Cost information is helpful for planning purposes and cost control is necessary to define the basic types of costs, and to set up cost system identification, data collection, monitoring, recording, classifying and analyzing, which is the integral part of accounting and the overall information system, supported by the computer technology.

Having considered the processes in public sector and the nature of the programs, we opt for Activity-Based Method as our recommendation for cost allocation. The method for cost allocation could be implemented if full accrual basis is used (this would assure that the basis for external an internal reporting is the same). In case the modified accrual basis is used, a separate model for cost tracking, allocation and internal reporting is to be set up. Hence, since very high percentage of governmental units are mostly completely financed from the state or local budgets, the government or managers of those governmental units could use price determination of services based on true data given by the cost allocation methods like Activity Based Costing method. This method allocates all occurred cost based on activities or perhaps on equivalent, which is program in Croatian public sector. Such method could enable the government to charge prices on services provided based on occurred costs. Implementation of accrual accounting and cost control into the governmental units would enable the performance measurements and program efficiency evaluation to be made on actual relevant data, and the decision making process will be based on relevant data, accordingly. Different modern methods for managing costs result in significantly different information about the costs. Based on that, the process of decision making in public sector and decision made on costs could vary. It is, therefore, very important to implement the right cost allocation method. Creating and accurately using the cost information, provided by using the set of the cost and managerial accounting instruments, would increase the quality of accounting information as the basis for public management decision making and for the supervision of public management activities. In addition, this would directly affect the service providing effectiveness and efficiency, gratifying the general and basic need.

However, every reform contains obstacles and risks. Managerial accounting may improve efficiency and assure for better management, but it is also connected with certain risks referring to its implementation. According to Dražić Lutilsky et al. (Dražić Lutilsky, Vašiček, 2007) when the goal is to successfully implement managerial accounting in public sector one has to take into account the following questions:

- Is there a strategy and are the goals determined? Have feasibility studies and different expert studies been made?



- Are all levels of management and users familiar with goals, purpose and methods of implementation of managerial accounting?
- Are all the areas of implementation defined (e.g. will the cost reports be used for budget preparation)?
- Has reengineering (redesign) of business process been done? Cost studies on the basis of programs and activities form part of the reengineering process.
- Have the needed information on costs, chosen concepts and costing methods been defined?
- Are instructions for users (manuals and studies) made available? Are the users educated for using managerial accounting?
- Are cost reports defined, are users of cost reports (managers) familiar with their content and can they be efficiently used?
- Has managerial accounting integration into financial accounting, as well as integration of cost systems among government units been ensured?

There are number of important questions and issues that must be taken into consideration when implementing managerial accounting into public sector, so the above mentioned list should not be viewed as a complete one. If “preparatory” work is not made good enough, soon the need for interventions into newly established system will emerged, which shall gather additional cost and problems for users (constant changes, loss of information etc.) (Dražić Lutilsky, Vašiček, 2007). It is also important to establish internal financial control in order to achieve external control. Public internal financial control system (PIFCS) is a tool that the management structure should use to respond to the above requirements to support the budget reforms. To ensure this, it is important that the management structure is able to understand the internal financial control system and to use it for the purpose for which it is intended. A system established under Public Internal Financial Control Act (NN 141/06) has not yet been fully exploited for the purposes they were intended to, and often represents as a “supplement” to existing management systems. In this context, “new” development strategy of PIFC for 2009-2011 has been brought (the third strategy so far). In order to set the system, up to now the strategy has been developed as a tool of the management structure that should provide responsible, transparent and successful management of budget funds.

The need for a new strategy of development of PIFC in this period stems from the budgetary reforms initiated by strategy improvement and modernization process in the State treasury 2007 - 2011 and the new Budget Law (Official Gazette 87/08). The strategy envisages that in further developing of financial management and control system the following needs to be improved:

- the awareness of financial management as an integral part of management processes and systems that permeates the entire organization;
- organizational prerequisites for the development of financial management and control, including the coordinating role of the existing finance directorates / sectors / departments and other authority levels, accepting responsibility for the realization of set objectives and for managing the budget resources needed for their implementation;

- financial management and control of the budget cycle (planning, programming, financial plan, monitoring implementation, accounting records, internal reporting systems for financial management);
- accounting systems as the basis of quality financial information systems for financial management;
- the risk management process;
- models for assessing the financial management and control quality.

Development of financial management and control processes in the budget cycle (planning, programming, financial plan, accounting and reporting) forms part of budgetary reforms that go in the direction of: development planning and programming phases of the budget cycle, placing greater emphasis on the achievement of goals and results for the budget users, and introduction of some new approaches to budget management. It further requires the linking of financial and strategic plans, development of program planning by defining program objectives, performance indicators development and monitoring system implementation. It will therefore be important to strengthen financial management and control processes that are essential for sound management of budgetary resources, and to include the planning, programming, financial plan, implementation of financial plan, including contracting and procurement, monitoring of financial plans and systems of internal reporting. It should be noted, most of the users have not described these processes in their budget preparation books or business processes maps and that most of the budget users have not made internal procedures to govern the budget unit. Such processes should be made to ensure the development of procedures and job descriptions, define the powers and responsibilities of each participant and develop preliminary and subsequent control. This would further provide an audit trail for the monitoring of the management of budgetary resources from the planning stage (expressing the need for budgetary resources) to the stages of funds implementation and monitoring of budgetary funds invested (achieved objectives and results achieved). Rules on Budget Accounting and Chart (Official Gazette 114/2010) and Rules on Financial Reporting in the budgetary accounting (Official Gazette, 32/2011) adopted under the Budget Law (Official Gazette 87/08) regulates the accounting budget. In accordance with the Law, the established accounting systems for budget users are primarily in the function of financial accounting, and are used for external reporting. Financial accounting function is to provide a record of business events occurred, control whether the implementation of the budget in line with budgeted levels, and whether the payments previously approved by an authorized person, are made.

The development of accounting systems for internal reporting and for financial management purposes ought to include development of cost and managerial accounting. Development of the budgetary system in the manner of linking the goals, plans and budgetary resources requires the development of accounting records and reporting systems that track the links between planning documents and budget resources needed in both the planning phase and implementation phase. This involves the development of records associated with the connection between the procurement plan and financial plan, records of contracted obligations, etc., which so far under budget users has not been sufficiently developed.

Development program planning also requires further development of accounting records and financial reporting system to ensure the necessary information for the program

management, which includes information on program costs sum, types of costs, the place of cost information needed to track the set of indicators, and similar. Options for the development of cost accounting and managerial accounting will primarily be analyzed in the institutions involved in implementation of the PHARE 2006 project “Improvement of the budgetary process.” Experience gained in the pilot institutions will be used for the development of accounting systems with other budget users. Development of cost accounting and managerial accounting should serve as a basis for developing sound financial and information systems for budget users. Measures that need to be taken are as follows:

- Analysis of accounting systems based on the analysis of existing accounting records and reporting systems (i.e. what accounting reports are to be made and who their users are) in the pilot institutions involved in implementation of the PHARE 2006 project “Improvement of the budgetary process”.
- Identification of additional accounting records and reports should be established; deputy director of the Finance Director and other administration and chief sectors / departments and the heads of the pilot institutions should be identified. This would serve to identify possible problems in the use of accounting reports.
- Creating an Action Plan for the development of accounting systems based on the analysis made by the Finance Director.
- Central Harmonization Unit shall set the guidelines for the development of cost and managerial accounting, based on experience gained in the development of cost and managerial accounting in the pilot institutions.

## VI. CONCLUSION

Public sector reforms’ success depends on how successful public sector management performance is. Key changes in public sector management reform refer to the introduction of accrual basis accounting and management based on results, which is possible to be achieved only by improving the accounting system, mainly through further development of cost accounting and financial reporting. Results of such changes are long term and broad, ensuring development based on gathering knowledge and taking responsibilities. Efficient governance of governmental units demands endorsement of numerous cost and managerial accounting techniques and methods as well as their integration in wider aspect of informatics technologies and financial governance.

The internal and external control of efficiency and effectiveness is possible only if numerous techniques and methods of cost and managerial accounting in processes of public sector and governmental units are introduced and applied. The analysis of data provided by financial, cost and managerial accounting in public sector governance processes shows that costs information have not been used on a sufficient level. Requirements for Republic of Croatia in terms of adjustments to the EU legislation and standards intrude the completion of the commenced public administration reform. Changes in complex systems, such as public sector, are always the result of the long term, complicated and demanding processes. Political

issues have the influence on these changes. Frequent changes of government management structures are deemed as being a disadvantage for the continuous public sector reform processes. Republic of Croatia often misses political consensus on reforming processes. Ongoing processes are often stopped or changed without providing clear arguments for pro and cons. Our opinion is that some formal and informal rules have to be taken into account so that the direct relation between institutionally defined program and its result exists. Perfectly designed project (program or system) with all formal elements (laws, rules and procedures) may not be successfully implemented if some informal rules are not respected.

The question of implementing cost and managerial accounting as public management tools should be considered as one of the most significant public administration reform processes in Republic of Croatia. Currently, main risks for successful reforms are as follows: missing management integrity, inadequate management requests for professional and competent staff, inadequate allocation of responsibilities and authority which results with poor management control, low ethical values, and missing managerial policies. Thus, cost and managerial accounting implementation into public sector has to be seen in the context of the above mentioned and discussed reforming processes. Nevertheless, issues such as political aspect, administrative capacity, organizational capacity – capability for managing changes, cultural inheritance, etc., have to be taken into account as obstacles.

This paper points out the objectives and the purpose of internal reporting through accounting perspective. It also highlights the importance of cost planning and control. Further on it addresses the importance of understanding the existing differences in data that are presented through a variety of reports (external and internal reporting) with the aim of transparency statement on budgetary spending. The authors deem necessary to follow the trends of approaching the same methodological basis for external and internal reporting of accounting and budgetary and statistical purposes, because it would lead to more simple and more transparent statement on budgetary spending.

Also, this paper points out the need for internal financial control system development, especially in the context of the new public management requirements. Areas are presented using cost accounting and emphasized interdependence of cost accounting with financial accounting. In conclusion, we can say that the development of the internal reporting system should be viewed in the context of guidelines provided in IPSASs, greater understanding of the connection between internal and external accounting requirements, and awareness of the need for unified methodological basis in preparing the information for internal and external users.

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## PLANIRANJE I KONTROLA TROŠKOVA U HRVATSKOM JAVNOM SEKTORU

### SAŽETAK

*Kako bi se istražilo do koje se mjere u hrvatskom javnom sektoru koristi upravljačko računovodstvo, 2006. i 2011. je provedena anketa. 2006. je na upitnik odgovorilo ukupno 123 ispitanika dok je 2011. upitnik popunilo 88 jedinica i organizacija iz javnog sektora.*

*U ovom radu autori prezentiraju empirijske rezultate provedenog istraživanja. Rezultati dokazuju da je upravljanje troškovima u svrhu planiranja i kontrole troškova u hrvatskom javnom sektoru još uvijek nedovoljno razvijeno i nedovoljno korišteno u procesu određivanja proračunske potrošnje. Isto tako, autori daju moguća rješenja za bolje korištenje upravljačkog računovodstva u hrvatskom javnom sektoru.*

**Ključne riječi:** *upravljačko računovodstvo, planiranje, kontrola troškova, javni sektor, Hrvatska*