ACCOUNTING AS INFORMATIONAL BASIS FOR PUBLIC SECTOR MANAGERIAL DECISIONMAKING

RAČUNOVODSTVO U FUNKCIJI MENEDŽERSKOG ODLUČIVANJA U JAVNOM SEKTORU

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Abstract: *Managerial accounting cannot exist without drawing its informational basis from the financial accounting. The information provided by the general ledger and the financial statements are crucial for the correctness of the managerial decision-making, in private but also in public sector. Managerial decision-making is based on perspective analysis of information drawn from financial accounting and on prospective budgeting analysis. For the public sector reforms to be successful, a full managerial accounting implementation is necessary. The paper's goal is to analyse the appropriateness of the present financial accounting presentation formats to the needs of the managerial accounting.*

Key words: *public health, accounting, basis of accounting*

Sažetak: *Menedžersko računovodstvo ne može postojati bez informacijske podloge financijskog računovodstva. Informacije iz glavne knjige i financijskih izvještaja su presudne za ispravnost menedžerskog odlučivanja kako u privatnom tako i u javnom sektoru. Menedžersko odlučivanje se zasniva na analizi prošlih i stvaranju procjena za budžetiranje budućih događaja. Za uspješnu reformu javnog sektora potrebna je puna provedba menadžerskog računovodstva. Cilj rada je analiza primjerenosti formata financijskog računovodstva potrebama menadžerskog računovodstva.*

Ključne riječi: *javno zdravstvo, računovodstvo, računovodstvene osnove*

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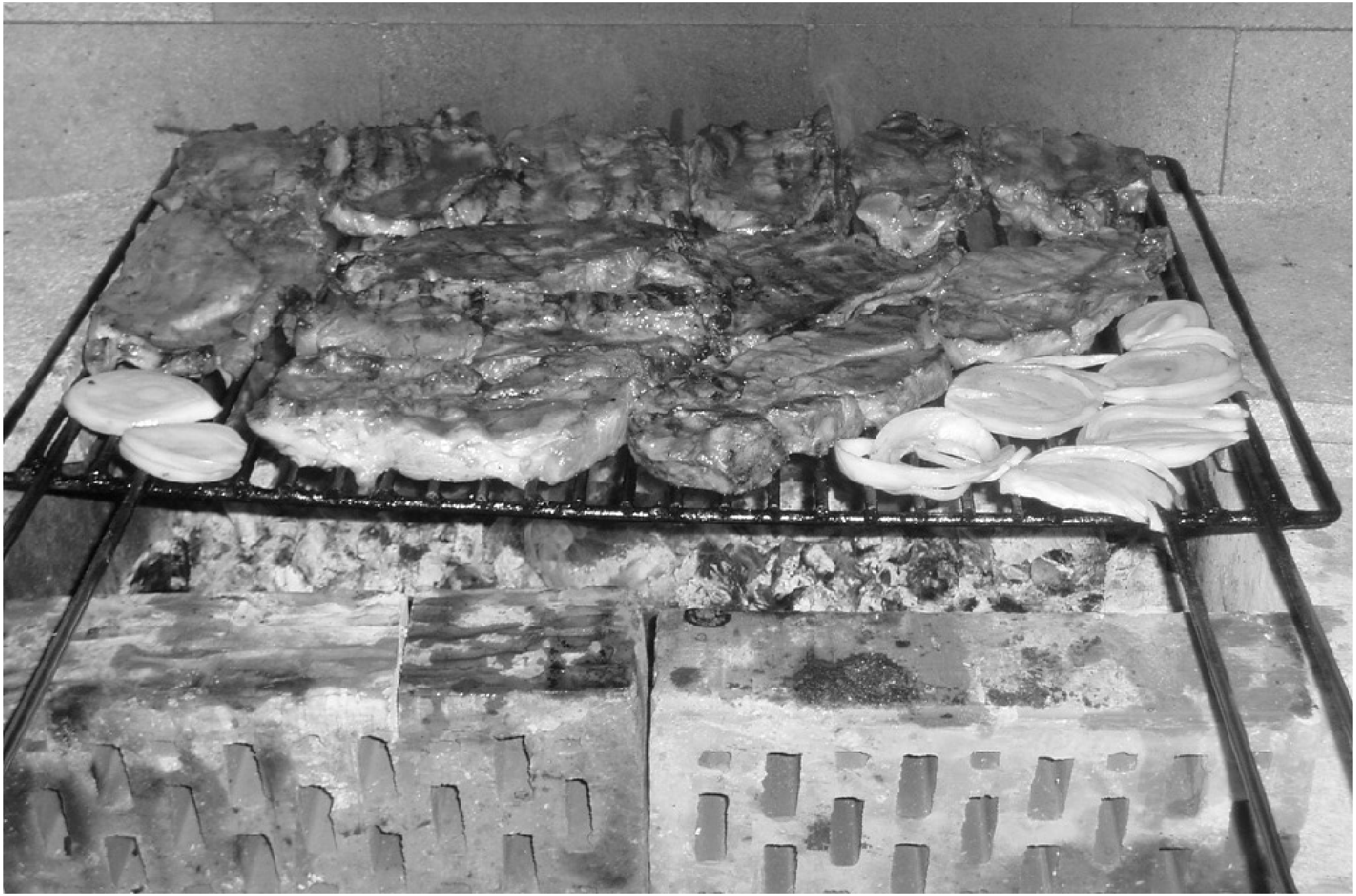

Photo 189. Slavonian grill / Slavonski roštilj

1. Introduction

The public sector accounting reform is part of broader public sector reforms, and is primarily an external reporting reform. Nevertheless, it is as well a reform of the internal reporting as it is encouraging the development of instruments of managerial accounting and harmonises internal and external accounts. The main objective of the reform is focused on achieving unique and transparent information base for public management decision-making. A comprehensive financial accounting information infrastructure is a prerequisite for the reform success and accounting information is the most important resources during the process. The paper's goal is to analyse the development of appropriate models of managerial accounting, cost accounting, and in particular the of effective management actions, regardless of whether they are in a private or public sector. Due to the numerous peculiarities and diversity of the public sector in relation to the entrepreneurial sphere it is necessary to explore ways in which cost accounting and management accounting can be implemented in the accounting system of budgetary units. The public sector management faces similar challenges to the private sector.

2. The Transition and Public Management

The public management, also commonly known as public administration, has the responsibility for the successful performance of the basic state functions. Managers are professional executives who perform managerial functions of: planning, organisation, leadership, and controlling. They have a formal authority over the organization which they manage. Functional and institutional complexity of the public sector implies a very complex system of governance. The impossibility of using only economic criteria in determining the goals and measurement of results, with a strong political component resulted in underdevelopment, unemployment and slow economic growth. Inefficient public sector has become a limiting factor to the overall development, particularly in the context of economic integration processes. The transition function of the public sector is characterized by marked deficiencies and limitations, some of them are:

1. steady increase in public expenditures with growing scarcity of funds;
2. lack of transparency in public spending;
3. discretionary and non-transparent rules and procedures of public administration;
4. underdevelopment of the system of rewards and sanctions; resulting in
5. inefficient public administration and financial management.

Unlike the entrepreneurial sector, where success has various indicators, the public sector performance should be measured by the degree of satisfaction of general and common public needs of individuals, businesses, and the community as a whole. This degree of satisfaction needs to include the qualitative and quantitative effects of output, i.e. its efficiency and the influence of these effects on outcomes i.e. its effectiveness in relation to the available and consumed resources. At least five main types of analysis are known in the public sector decision-making in respect to the costs of a project, as a means of systematic and analytical process of input and output comparison during the evaluation of a project's desirability:

1. Cost minimisation analysis;
2. Cost-efficiency analysis
3. Cost-effectiveness analysis;
4. Cost-utility; and
5. Cost-benefit analysis.

These types of analyses are not going to be entered into much detail as there is plenty of welfare economics literature dealing with them. It shall only be noted that the main principle is the satisfaction of the welfare improvement criteria described by Pareto, improved by Kaldor-Hicks, challenged by Scitovsky and concluded by Samuelson. [1]

To be able to conduct such analyses, not only financial input and output indicators need to be available to the decision-makers. These should be supplemented by comprehensive cash-basis and accrual-basis information. The financial result of operations and the measurement of financial performance indicators is just one of the important components of an integrated information and performance evaluation system of public management. Using market valuation as the criterion of assessment of the public management effectiveness is limited due to the restricted market role in the supply of non-pure private merit goods where its supply is beneficial due to the positive balance of social over private benefits in their supply. Market prices do not reflect the social marginal costs and benefits in case of externalities or there are no prices whatsoever where there are no markets. In this case, some sort of shadow prices would have been a solution if its exact calculation could be possible. [2] The lack of standard indicators and methods of analysis presents a problem in assessing the effectiveness and efficiency of the public sector, and thus the effectiveness of public management. Overall, the problems in the analysis of public sector goods and their supply are:

1. Recognition problems – What are the merit goods to be provided by the public sector and what are the demerit goods whose production/consumption should be hampered? It is as much a normative question as it is an economic one.
2. Valuation problems – How do we measure their aggregate supply, demand, costs and benefits? These are some of the questions of a prospective social cost-benefit analysis which the public sector managerial accounting capital budgeting should answer. [3]

3. The Role of Management Accounting in the Application of the New Public Management

New Public Management is an attempt to reform and modernise the public sector by using managerial methods from the private sector and through more market orientation of the public sector leading to greater cost effectiveness of its services, without having negative side effects on other objectives and considerations, such as long-run sustainability. The used managerial tools are cost accounting and managerial accounting.

New public management is a process that supports the following objectives:
1. to improve the cost-effectiveness and cost-efficiency in the public sector;
2. to strengthen the accountability of budget users;
3. to reduce the public expenditure, and
4. to increase the liability of the public management to the user.

The concept particularly emphasizes the importance of financial management in the public sector. The introduction of market principles, i.e. economic laws and rules of good management in the public sector, requires a redefinition of the role of public management. Administrative capacity in transitional governments is generally low. Strengthening the administrative capacity means the introduction of accountability, transparency and participation. The issue of implementation of management accounting and managerial accounting tools should therefore be considered as one of the major goals in conducting reforms in public administration. Nevertheless, the public sector managerial accounting cannot simply be translated from the private sector. Goals, methods and risks are different. The public sector deals with public goods, common goods and sometimes with club goods and pure private goods in case of (de-)merit goods. The development of management accounting should focus on perspective analysis (i.e. on the analysis of the results of past events) such as: monitoring and assessment of costs according to function and nature, their calculation methods, their allocation, and the monitoring of their behaviour. Management accounting should also focus on prospective analysis (i.e. on future-oriented areas) such as: the assessment and valuation of future costs and benefits by any measure, capital budgeting with appropriate methods, expenditure planning, and program control. [4]

4. Cost Accounting in the Public Sector

The common reasons for insufficient use of cost accounting in the public administration stems from following facts:
1. Services are provided free of charge as part of basic state functions.
2. Compensation cannot be reliably calculated because some of the inputs have not been paid for or expended (for example, the use of natural resources).
3. Criteria for assessment and evaluation of an activity are not easy to grasp.
4. Programs, projects and activities are often a matter of political decisions.
5. State budgets operate under the monetary principle and not under the accrual accounting principle.
6. Control over budgetary resources and public funds have political priority.

Notwithstanding the above reasons, the increasing restrictions on available resources and growing debts, on one hand, and increasing public needs on the other, force public management to reduce costs and increase its effectiveness. This goal cannot be met without the introduction of appropriate cost accounting and managerial accounting tools.

Determining the appropriate output costs of government programs in general is more difficult than determining the product costs of services in the private sector. Thus, legislators and executive managers provide information relevant to decision making,

and show the effects of the implementation of previously adopted decisions. Of course, such information enables the public to comprehensively identify and evaluate the results of government programs. Cost management systems can be divided into traditional cost accounting systems, and modern cost accounting systems. Traditional cost accounting systems, respond to external financial reporting requirements. But such traditional methods of cost allocation provide very little information. Modern systems are characterized by target costing activities and were developed primarily by managers' need to provide accurate information about the product and services' profitability that is necessary to determine the optimal production program. Selected methods of cost accounting affect the measurement results of operations as well as information about external and internal financial statements.
The modern methods of cost management are: [5]

1. Activity-based costing;
2. Target costing;
3. Life-cycle costing;
4. Quality costing;
5. Eco-costing;
6. Throughput accounting, Yield management;
7. Economic value added;
8. Balanced scorecard.

The application of a specific costing system depends on the business process, the level of business development and accounting system development. It must ensure quality and complete reporting of results at all hierarchical levels of management taking into account the management information requirements. Below are the attributes of some methods and benefits of their use in monitoring costs and results in the public sector. The Activity Based Costing method (ABC) proved to be a very effective instrument of product profitability assessment of production units. It started its application in determining the objectives of the costs of certain public sector services. The procedure of its application is identical to the one of the production unit, provided that is adapted to specific national units. Management accounting based on the ABC method – the Activity Based Management (ABM) is an approach that deleted the functional boundaries of departments and institutions and placed the emphasis on the functions and processes as public sector activities. It is a step forward in changing the focus from inputs and resources to processes and results, and thus corresponds with other reform processes of the public sector. [6] Unlike traditional cost accounting which is used mainly as a base, for a schedule of costs the ABC method uses multiple keys for the allocation of costs. Costs are identified and classified into certain groups or categories ("cost pool") that are then classified through activities over the keys to the deployment costs. In the second phase of calculation, the activity costs are allocated to their holders i.e. to the holders of these activities using the specified keys.
The ABC method has several advantages over traditional methods:

1. it accurately determines the costs by the type of service,
2. it minimizes the possibility of cost shifting from unprofitable to profitable services,

3. it prices the services more precisely,
4. provides a better basis for decision–making, and
5. it can reduce costs by reducing overhead costs, and not by classic "cost–cutting".

The ABC method provides the information relevant to the management. It is this information that is necessary to track and measure costs, to understand their creation, and to try to get them under control and to reduce them. In some cases, it is adequate to use the method of target costing. The question "How much will the product or service cost" is replaced by the question "How much should a product or service cost?"

The target costing method determines the costs of products as a basis for achieving the desired profit per unit with a hypothetical purchase price. If the deviation is significant, the business process is redesigned. The method can, in government units, when the price of services rendered externally, is defined and limited to a certain level, limit their costs, and reduce the target level that will enable the provision of services.

The target costing method seeks to manage costs by designing them in advance, and not by their elimination after the implementation is already in progress.

Target costing is based on several principles: [7]

1. Reference market prices – the basis for determining allowable cost levels;
2. Focusing on customers – the value of products for clients must be greater than their cost of production or the costs of the provision of their services;
3. Focus on design – the process of cost control has been integrated into the stages of product designing from the beginning;
4. Involvement of all parts of the organization – multidisciplinary teams from all organisational departments are responsible for the creation of a new product or service;
5. Involvement of all members of the value chain – in the process of determining prices and costs of products and services all the stakeholders should be involved: the suppliers, service providers, and clients;
6. The orientation on product life cycle costs – should take into account all the costs within the entire product lifecycle from its introduction to the exit.

The basic objective is an earlier identification of costs within product process design and implementation. For existing processes, the emphasis is on the identification of all activities, and to the fullest extent possible, the elimination of activities with no added value. Insufficient use of cost accounting and management accounting in the public sector is reflected in the quality of decisions made by public sector managers. It is therefore necessary to define the methodological basis for the preparation of internal reports on the success of government units. Existing well-known instruments, methods and procedures of cost accounting and management accounting should be adapted to specific needs of public sector organizations. To meet these requirements, it is necessary to define the basic types of expenses, set up the system of monitoring, recording, and analysis, which is an integral part of the accounting–informational system: internal and external reporting. The application of cost accounting and managerial accounting in planning processes is possible where the budget is implemented on accrual and cash basis. If the budget is adopted on an accrual basis, expenses are to be used for control purposes. If the budget is adopted on the cash basis, costing can help as additional information in the allocation of budgetary resources. Costs information may be used for their control and necessary reductions. It is possible to compare the costs generated on multiple criteria: projected costs, standard costs, opportunity costs (of similar programs). The aim is to establish cost differences, review them and take appropriate action. Costs are often a crucial factor in the authorization, modification or termination of certain programs. This information allows the full implementation of "cost–benefit analysis" to improve the efficient allocation of resources between competing government programs. In doing so, each government should take into account the collateral costs of the program, as well as their own costs to be incurred. Finally, accounting costs and expenses have an irreplaceable role in the adoption of decisions on the economic choice, or the acceptance or rejection of a proposed capital project, the performance of activities, privatization of some state segments, etc.

5. Implementation of Economic and Financial Analysis as Support to Managerial Decision-Making

In addition to the previously marked modern methods of cost accounting and management accounting, the application, as noted in the aforementioned examples, it is considered appropriate for monitoring the activities of the public sector, development of internal and external accounting harmonized with financial accounting, public sector should be seen as an assumption Development economic and financial analysis.
In this sense, the state reformed accounting; product information basis enables the application of traditional and modern methods and systems of indicators of financial analysis. The variant of using the concept of accrual accounting in financial accounting and cost accounting and management accounting provide data for all elements of financial statements as the basis for determining the financial indicators.
The calculation of financial indicators is placed in relationship with others, whereby a group of classic financial indicators is used:

1. Liquidity ratios (liquidity ratios) - measures the ability of companies to meet its outstanding short-term obligations.
2. Indicators of indebtedness (leverage ratios) - measures how much a company is financed from foreign sources.
3. Indicators of activity (activity ratios) - measures how efficiently a company uses its assets.
4. Indicators of economy (economy ratios) - measures the relationship of income and expenditure, respectively, show how much revenue is generated per unit of expenditure.
5. The indicators of profitability (profitability ratios) - Measures return on invested capital.
6. Investment Indicators (investment ratios) - measures the performance of investments in ordinary shares.

These indicators should be compared to certain standard sizes, such as the movement of certain indicators over time, the planned indicators for the analyzed period, indicators at the level of groups, etc. All of the above indicators are normally used in the directly productive (profit) sector, while the situation in the public sector is somewhat different. Methods of financial analysis used in the profit sector cannot be fully implemented in the public sector, as it is necessary to define the criteria of analysis adapted to the definition, structure and purpose of the public sector. The obligation of reporting on the success of government units in the transition countries is not regulated and there is no defined system of performance indicators (performance indicators) that would be the basis for government unit evaluation. Evaluation may be external (conducted by the competent body) or internal (self-evaluation). To assess the effectiveness of the public sector, it is necessary to answer the following questions:

1. Are the services user–targeted?
2. Are public sector units designed so as to provide better service in the future?
3. Is management successful?
4. Are the resources used in a manner to provide best value for money?

6. Conclusion

The governmental accounting reform is part of a wider reform process in the public sector. It is a development of cost accounting and management accounting instruments. The accounting reform creates conditions for convergence of internal and external accounts in order to achieve a uniform and transparent information base for decision-making. For a long-term sustainability of its activities, the public administration must increase its cost-effectiveness by any measure. It is expected from the cost accounting and management accounting to become a management tool of modern public management. Due to the numerous peculiarities and diversity of the public sector in relation to the private sector, it is necessary to explore ways in which the cost accounting and management accounting can be implemented in the accounting system of budgetary units. The functions and activities of public management focus on maximizing the effects of the principle of minimizing costs and thereby reduce the budgetary burden. The implementation of cost accounting and management accounting as a tool of public management should be considered as one of the most important reforms in public administration. There are a number of functions, where the public administration can use the management and cost accounting tools, such as: budgeting, control and reduction of costs, fee pricing, assessment of operations, evaluation of programs and program choice, and generally, pricing of rates and compensations for its goods and services. Cost accounting enables the measurement of business efficiency in the public sector. Observed costs are correlated with the amount and quality of services that can be obtained from specific activities. The development of internally-oriented accounting is required within the context of connecting internal and external accounting, ie, internal and external financial reporting. The needs and requirements of internal reports in the process of the new public management impose further requirements in the accounting

data processing for the development of internal reporting to be methodologically aligned with the external reporting as well as the operational means using the same database to create reports according to internal and external users.
Concluding, the development of public sector indicators is necessary to achieve full management responsibility for the results of governmental activities and responsibility for the quality of services provided.

7. References

[1] Mishan, E. J. & Quah, E. (2007). *Cost Benefit Analysis, 5th Ed.*, Routledge, ISBN 978-0-415-34991-8, London & New York.
[2] Stiglitz, J. E. (2000). *Economics of the Public Sector, 3rd Ed.* W. W. Norton & Co., ISBN 0-393-96651-8, New York.
[3] Vašiček, V. (2006). Stanje i pravci primjene računovodstva troškova u javnom sektoru, *RIF-ova Riznica*, Vol. 4/06, HZRIFD, Zagreb, p. 23.
[4] Barret, P. (2004). Financial Management in the Public Sector – How Accrual Accounting and Budgeting enhances Governance and Accountability, *CPA Forum: Challenge of change: Driving governance and accountability*, Singapore, p. 4.
[5] Peršić, M. &T Janković, S. (2006). *Menadžersko računovodstvo hotela*, HZRiF, Zagreb, p. 356.
[6] Kaplan, R.S & Cooper, R. (1998). Cost and Effect – using integrated cost systems to drive profitability and performance, President and Fellows of Harvard College, Boston.
[7] Tautrim, J.: Target costing, *Dostupno na:* www.target-costing.com. *Pristup:* 22-03-2010

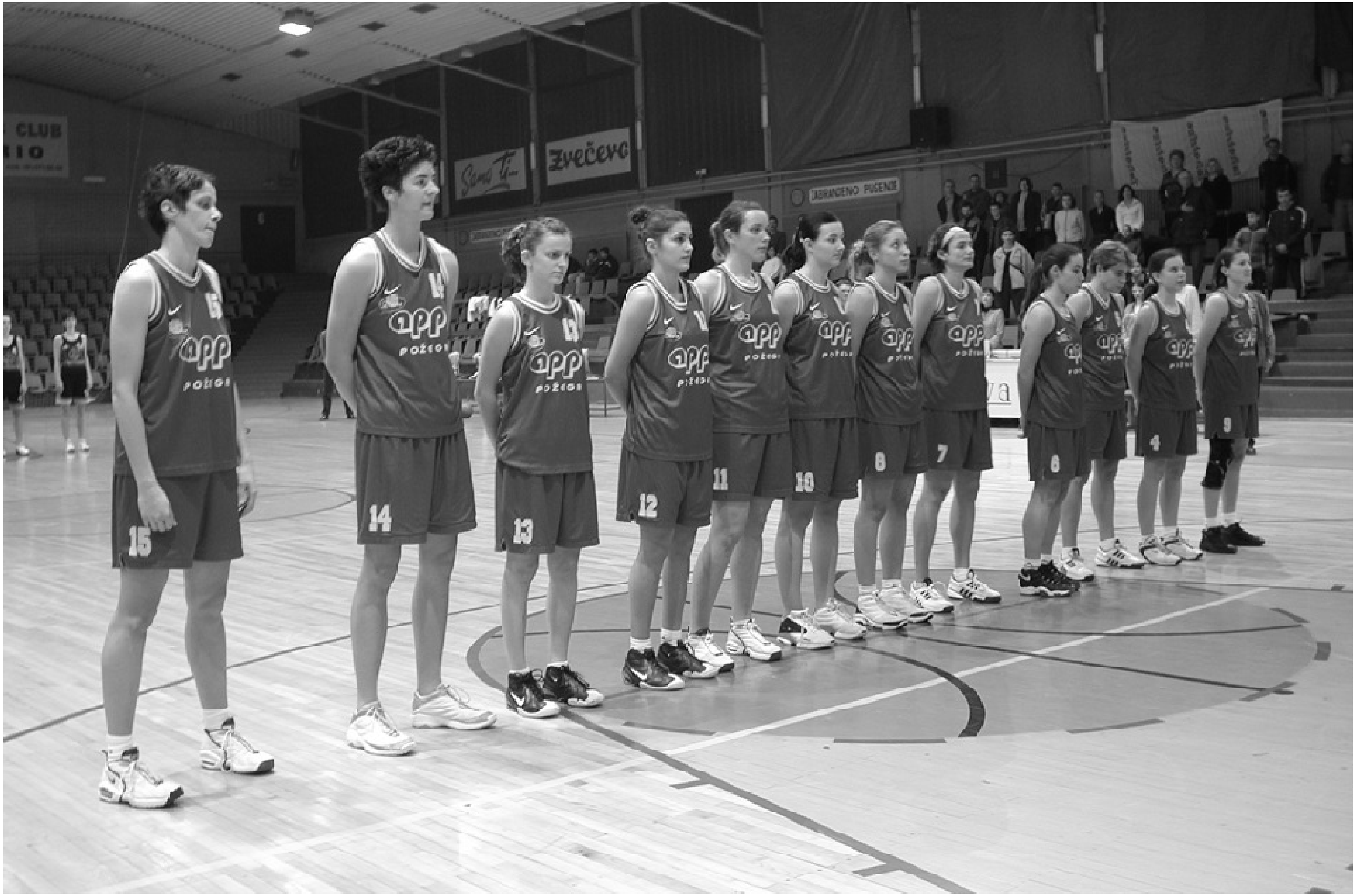

Photo 190. Basketball in Grabrik hall / Košarka u Grabrik dvorani