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## ACCRUAL ACCOUNTING AND FINANCIAL MANAGEMENT IN THE PUBLIC SECTOR IN DEVELOPING COUNTRIES

Računovodstvo zasnovano na obračunskoj osnovi i  
finansijsko upravljanje u javnom sektoru u zemljama u  
razvoju

### Abstract

The objective of this paper is to show that a successful implementation of accounting represents infrastructural support for successful management therefore its content and structure should be more closely monitored in the function of increasing the effectiveness of the financial management, and not just in the function of execution of the objectives in the budget. The paper indicates that the essence of the reform of the accounting system and financial reporting by public sector entities is the use of the concepts and principles on which the financial reporting by private sector entities is based, or the transition to the financial reporting based on accrual accounting. Public sector managers who often do not see themselves as managers who manage available resources, but rather as managers who pursue a policy of some of the specialized public sector functions, need instead to be fully engaged in the financial management and control.

**Keywords:** *financial management, public sector, accrual accounting, accountability, developing countries.*

### Sažetak

Cilj ovog rada je da pokaže da uspešna implementacija računovodstva predstavlja infrastrukturnu podršku za uspešno upravljanje; stoga bi sam sadržaj i strukturu računovodstva trebalo pažljivije pratiti u funkciji povećanja efikasnosti finansijskog upravljanja, a ne samo u funkciji izvršenja ciljeva u budžetu. U radu se ukazuje da je suština reforme računovodstvenog sistema i finansijskog izveštavanja preduzeća u javnom sektoru upotreba koncepata i principa na kojima se zasniva finansijsko izveštavanje preduzeća iz privatnog sektora ili prelazak na finansijsko izveštavanje koje se zasniva na obračunskoj osnovi. Menadžeri javnog sektora koji često ne vide sebe kao menadžere koji upravljaju raspoloživim resursima, već kao menadžere koji vode politiku nekih od specijalizovanih funkcija javnog sektora, treba umesto toga da se u potpunosti angažuju u finansijskom upravljanju i kontroli.

**Cljučne reči:** *finansijski menadžment, javni sektor, obračunsko računovodstvo, odgovornost, zemlje u razvoju.*

## Introduction

Around the globe there is an increasing focus on improving public financial management and reporting, in many countries, both the developed and developing. Developing countries and emerging economies are making important achievements in strengthening public financial management and governance.

In developing countries, public sector activities are marked by pronounced deficiencies and limitations. The most commonly observed are:

- a steady increase in public expenditure with a growing lack of funding for their financing,
- insufficient transparency of public spending,
- vague and non-transparent procedures of behaviour and defined responsibility of public authorities,
- an undeveloped system of values,
- inefficient public administration and financial management.

The public sector landscape is rapidly changing with an increasing emphasis on fiscal management and discipline, prioritization of expenditure and value for money. As a result it is even more important that international donors, governments, national and local institutions, including regulators and professional accountancy bodies, work together in partnership to achieve long-lasting improvements, transparency and accountability in public financial management [1].

The public sector is responsible for bringing together large amounts of resources to achieve a range of public goods. This responsibility comes with considerable complexity and expectation.

Financial management is an important tool that helps the public sector take care of money in a systematic, efficient, transparent, and legitimate way. Public sector financial management has three cornerstones [5]:

- Resource allocation (getting money),
- Controlled delivery (spending money),
- Accountability (reporting on money).

## Public sector management framework

Successful execution of basic state functions presupposes customer-oriented, efficient and transparent management

of its public interest operations and acceptance of public management's responsibility for achieving the expected high level of efficiency.

Unlike the entrepreneurial sector, whose success is measured by the amount of realized profit, performance of the public sector, individually and as a whole, is primarily measured by the degree of satisfaction of the general and common needs of individuals and the community in its entirety.

The degree of satisfaction of general and common needs is measured by the value and quality of output and by the impact of the outcome on the set goals and the social community in relation to available and spent resources.

The economic criteria of public sector entities generally include the indicators of economics, efficiency and effectiveness, and purpose. Economics means minimizing the necessary costs for achieving a certain level of income. In order to give an estimation of cost-effectiveness as an audit criterion, the ratio of costing and revenue is taken into account, and the purpose is to determine the maximum possible impact and the most favourable possible relationship between the total costs (money, labour and things) and the benefits that they want to achieve [2].

Efficiency deals with measuring the scope of achieving goals and the relationship between the planned and realized impact of an activity and can be defined as an instrument for improved program management, to increase accountability and better decision-making by providing feedback on outcomes and outputs of existing policies and programmes. For example, if the policy goal is to reduce unemployment, what needs to be proven is whether the reduction in the number of the unemployed identified is the result of the entity's activity, or the result of a general improvement in economic opportunities that the entity does not have any impact on. Third criteria, effectiveness and purpose, implies an assessment about the optimum execution of tasks by a government entity.

Using indicators that include input-output comparisons bears the risk of being incomplete, wrong definition of output or input distorts information about the performance of the state and its units. Other outputs can sometimes be too complex for coverage and they need to be valorised [11].

In the performance of some segments of the individual functions of the public sector it is possible to individualize the consumption of public goods or public services. As such, it is possible to clearly define the cases, with the recognition of the cost centre and cost carrier. This creates the preconditions for applying a variety of techniques and cost management methods applied by entrepreneurs.

Starting from the thesis that implementation of accounting represents infrastructural support for successful management, its content and the structure should be more closely monitored in the function of increasing the effectiveness of the financial management and evaluation of public management, not just in the function of execution of the objectives of the budget.

## Public sector reform

The development and reform of the public sector actually move towards the same goal, and that is better management of public resources, while simultaneously reducing public expenditures, which at the same time should result in a better satisfaction of public needs. Good governance is linked to the development of the country that is being illustrated most often through the increase in gross domestic product [9].

The development of public sector management, i.e., new public management, is reduced to improving governance in the public sector. The fundamental characteristic of the concept of the new public management is to encourage more efficient management in order to achieve better business results [3]. A new management culture within the process of the new public management emphasizes importance of citizenship and responsibility of public management for the results achieved. The process also suggests structural and organizational changes that will contribute to a decentralized control through various possibilities of using the market mechanism in certain segments of the public sector. New public management, in addition, has the task of improving accessibility to the political authorities with the aim of raising the level of their effectiveness. Public sector reform means improving the efficiency and effectiveness in the public sector, strengthening the accountability of budget users towards

users or customers of services or programmes, increasing benefits by reducing public expenditure, strengthening the management of state units with increased accountability.

In particular, the importance of financial management is emphasized in the public sector. The introduction of market principles, i.e., economic legality and rules of good governance in the public sector, also requires the redefinition of the role of public management. The role of public management implies acceptance of the responsibility for organized and effective action in the area of resource management and business, and control functions are more focused on maximizing the effects of limited resource management and achieving the set goals with the principle of minimizing costs and reducing budgetary burdens [3].

## Accountability in the public sector

This special concept of public sector responsibility that has a very broad meaning implies the obligation of an individual or organization to account for their activities, to accept responsibility for these activities and to disclose the results of these activities in a transparent manner. It also implies liability for money or other entrusted property.

The application of this concept includes three elements:

- Taking into account that the public believes that the job for which someone is responsible will be done
- Providing detailed information on performed activities and achieved results
- Acceptance of responsibility for the results.

The basic characteristics of this concept are:

- Delegating authorizations and resources to an individual or organization
- Making an account for the effects and results for whose accomplishment someone is responsible
- Request to report on results, compliance with regulations and procedures, and on the efficiency of the activity
- An assessment of the implementation of this concept by the state auditor.

Financial management is an important instrument in applying the concept of invoicing. Effective financial

management is the most important requirement for the establishment and implementation of the concept of invoicing.

Public sector organizations prepare reports for many different users:

- Citizens
- The media
- Interested social groups
- Legislative bodies and boards of directors
- Monitoring institutions
- Government institutions
- Individual and institutional donors

### Beneficiaries of performance reports and financial results

Effective implementation of the concept of accountability ensures transparency of the functioning of public sector organizations and strengthens their credibility. The broadest public and each of the aforementioned beneficiaries are convinced that public funds are spent legally and that the public interest in this domain is sufficiently protected. Establishing a liability mechanism is useful and represents also an important factor in the performance of public sector organizations.

Unfortunately, public sector organizations are exposed to various risks from the environment in which they operate, so constant improvement of responsibility and control is the best way to reduce harmful effects. The costs of introducing and maintaining control mechanisms should be appropriate to those risks.

### The principal characteristics of accountability relationships in the public sector

Assignment of authority, power and resources: This is the downward delegation of duties to an individual or organization. This can be by law, by policy, by way of formal delegation matrices or by the completion of an organizational work plan, budget distribution and performance contracts. It can also be implicit or indirect, such as using formal position descriptions to describe duties that have delegations of authority in them and a

statement of expected duties to be performed and, possibly, outcome expectations.

Accountability for performance and results: This is the yin and yang of the above. In accepting the authority, power and resources, the individual or organization also takes on the responsibility to perform the work and account for the results.

Assignment of duties: In assigning duties formally, the granting authority also provides clear direction, legislative or regulatory guidance, resources consistent with the expectation.

Requirement to report: The necessity to report in a formal way, often prescribed by the granting authority deals with three elements:

- Results achieved
- Compliance to legal and procedural requirements
- Efficiency

Judgment exercised: At some level, be it within the organization and with the public at large, public sector accountability involves the right of the granting authority to make judgments about how the accountability has been exercised and act on that judgment. In the ultimate test in a democracy such as ours, that may mean the downfall or re-election of a government. In more mundane terms, it may be a clean bill of health for a financial statement by a legislative auditor [5].

Financial management, because of its systematic reporting character, is an important tool of accountability. Financial reports contain information in a prescribed and, at times, legislated format. They also indicate how the individual or organization has provided good management and stewardship of funds. They can provide information on the results achieved, although only in limited ways [5].

### Public sector accounting reform

Public sector accounting reform according to its usefulness in the process of decision-making is an important component of the implementation of the concept of the new public management. Reforms of the accounting information system within this concept are directed towards the standardization of accounting rules and procedures for financial reporting, which facilitates the convergence of

public sector accounting and accounting of the for-profit sector. It can be said that in the majority of developed countries the process of implementing a set of reforms called the new public management is at the end, and you can already see the effects of the reforms implemented. This primarily relates to the successfully implemented reform of the public sector accounting information system. Implementation of the concept of occurrence of events and the development of cost and managerial accounting in the public sector and the budgetary system have set up an information basis for the development of modern public management. The OECD applies the concept of the occurrence of events or variants of the concept of the occurrence of events in the accounting and financial reporting of the state unit and / or budget, or is in the process of its retention [13].

### Accrual and cash basis accounting

Accrual accounting is based on the principle of causality. It implies recognition (recording) of income in accounting records when they are “earned” and the recognition of expenses when goods or services are “used” to generate income. The purpose is to measure the results of the activities achieved during the accounting period.

The cash basis accounting is based on a fact that revenues are recognized when money is received, and expenses when payment is made. This accounting principle measures the amounts of money received and paid during the accounting period, so the results of the activities achieved in that period cannot be measured.

Cash accounting requires the record of inflows and outflows of cash. Conversely, accrual accounting requires revenue to be recognized in the period in which economic benefits can be measured reliably [8]. Likewise, expenses are recognized when the consumption of goods is capable of reliable measurement [7]. There are several reasons why the move to accrual accounting was inevitable. Firstly, accrual accounting offers the benefits of improved accountability and improved resource management [4]. This claim has been supported by evidence suggesting that the cash system provides inadequate information for the full

costing of operations. Accrual accounting, on the other hand, is said to improve decision-making by providing information on the full cost of operations and the resources used to deliver services to the public [4]. This is increasingly important for those business units which are commercializing to enable them to recover the cost of products and services. Finally, accrual accounting gives governments the opportunity to minimize their costs through cost identification [6].

Limitations identified from the adoption of accrual accounting include the fact that it can lead to the misallocation of resources and an inadequate disclosure of the size of assets and liabilities. This reduces the organization’s ability to account for the full cost of programmes due to fluctuations in costs [8].

The introduction of accrual accounting has many implications, including the preparation of accrual financial reports, the operation of government entities according to the accrual management systems, the preparation of whole-of-government financial reporting and preparation of accrual-based budgets [6], [12], [14].

### Advantages and disadvantages of the accrual accounting and the cash basis accounting

#### Accrual accounting

- It is much more complex than cash basis accounting, since two important accounts are introduced into accounting: customer receivables and liabilities towards suppliers,
- It provides better financial management because it provides a more complete picture of the financial position of the organization,
- Provides a better overview of costs that are not limited to one year.

#### Cash basis accounting

- Easy and easy to understand,
- It does not provide a complete picture of the financial position of an organization, and therefore provides limited financial management options.

Cash basis accounting is now used in many countries, but, at the international level, one can observe a tendency of gradual transition to the accrual basis.

This contributes to the need to improve financial management in public sector organizations, so that the results of programmes implemented by these organizations are observed for a longer period than one year.

In the public sector, a modified accrual basis is also used. A modified accrual basis accounting can be considered as a partial application of the accrual basis accounting.

The application of the accrual accounting is a condition for the improvement of financial management in public sector organizations.

There is a strong tendency in government to focus on how much cash is needed in a public sector budget. This has led to the dependence on the approval of cash expenditures, otherwise known as appropriations. Appropriations are generally made for a one-year period, with some exceptions for capital projects. With the accrual system, the full costing is better displayed and not restricted to a single year.

The restriction of budgetary approvals to one year at a time can distort or fail to reveal the true overall cost over time of a particular programme or purchase. Cash accounting satisfies the annual budget-based interests of legislators and is simple in its presentation, but has a number of serious drawbacks, including [5]:

- Failure to accurately represent the amount of resource usage. For instance, a large capital acquisition will distort expenditure upward in the first year, but the usage of that asset will not be recognized in the following years.
- Failure to take account of future commitments, guarantees, or other contingent liabilities. A liability will not be recognized until the cash is paid to settle the debt.
- Concentration on cash payments alone, sometimes resulting in an unnoticed deterioration in fixed assets.

Financial information produced by accrual accounting allow evaluation of total assets by an entity controlling and evaluating the expediency of usage of these assets, performance evaluation, financial position and cash flows of the entity and making decisions about future ways of providing services and their financing. Due to these facts, public sector reforms are, as a rule, followed by public sector accounting reforms, which in essence constitute a

transition from cash accounting to accounting based on the accrual method.

An accounting system based on a cash basis and an accounting system based on an accrual basis are extremes between which there are a number of systems that represent more or less different modifications of one or the other.

In principle, there are two basic modifications of the cash accounting system. One type of modification is an extension of the period in which cash payments and payments are recognized as billing and payments of the observed reporting period in relation to its calendar ending. Such modification is allowed only on the condition that the causes of the occurrence of these cash collections and payments of the transactions or events occurred in the observed reporting period. This modification actually extends the focus of accounting from cash to current financial assets. Another type of modification of the cash basis is the requirement to disclose specific additional positions that are characteristic of the accrual basis. The number of possible variations of these basic modifications and their combinations, or the number of different accounting systems based on a modified cash basis, is virtually unlimited.

Modifications to the accounting system based on an accrual basis are also numerous and more or less different from each other, but all of them are essentially reduced to: non-recognition of certain (specific) positions of assets and liabilities, resulting in the inability to recognize certain income and expenditure positions, or the use of different bases for the recognition of the elements of the financial statements, or the use of an accrual basis for the recognition of assets, liabilities and some expenses, and cash or modified cash bases for the recognition of revenues and some expenses. When it comes to the first type of modification, in practice the most frequently encountered is the situation in which either the entire permanent asset or its individual parts (such as infrastructure objects and assets that make the cultural and historical heritage of the community concerned) are not recognized. The non-recognition of all or part of the permanent assets produces effect not only on the structure and content of the Financial Statement Report, but also on the structure and content of the Financial Performance Report. Namely, when applying

such a modified accrual basis, the acquisition value of non-recognized assets is recognized as an expense in the period of its acquisition, which, among other things, prevents the recognition of depreciation costs in the periods of use of assets, and at the time of their possible sale it requires recognition of the total sales value as a gain on sales. In principle, in the reporting models for different types of modified accounting bases, the same financial statements as in the reporting model for the accrual basis are prepared and presented, except that in the case of non-recognition of a significant part of the assets, the name of the Financial Performance Report is Income and Expenditure Report.

### **Factors and effects of contemporary public sector reforms and public sector accounting**

Characteristics of the entities involved in the public sector are: financing from public revenues and public interest functions. Modern countries through their regulatory, economic and redistributive functions transfer funds, measured by billions of money units, from private to public sector, with the aim of improving their social and economic characteristics. The public sector is entrusted with assets acquired by generations, which are expected to have effects on the well-being and well-being of the next generations. Due to the volume and value of the entrusted property and due to the fact that inefficiency, or poor investment decisions in the public sector have far-reaching consequences on the state of the nation as a whole, taxpayers or citizens have the right to the availability of information in which the public sector as a whole and its individual parts express public responsibility(s) for the performance achieved and the ways in which public resources are used. This task is realized by public sector entities through their accounting system, i.e., by preparing and presenting financial statements. In a small number of surveys, the analysis of the role and influence of the state on the development of accounting practice and profession are carried out. They used the critical approach in most cases, and mainly dealt with the development of an accounting profession organization, while the development of accounting practice was almost completely ignored. The common characteristic of both types of research is their

conception of the assumptions of a hegemonic concept that structures that have political leadership or hegemony determine the type of dominant outcomes of most of the activities in one society and therefore the accounting system in the public sector.

The beginning of the period of economic neoliberal hegemony, which continues to exist today, is placed by most authors in the field of accounting history in the period when the energy crisis produced an economic crisis in most of the developed countries whose main characteristic was stagflation, and economic stagnation. These developments have led to increased demands for economic support of the state to the “troubled” private sector, on the one hand, and strengthening its role in maintaining the achieved level of social well-being with other parties, on the other hand. However, many economists, including the most prominent Milton Friedman, have seen this active role of the state as the main cause of stagflation and have advocated that its activities are limited solely to ensuring a stable supply of money. Discussions about the role of the state in economic life, which lasted during the 70s, 80s and 90s of the last century, in addition to monetarism, have also resulted in the concept of rational expectations, the theory of real business cycles, and neo-xenianism. The crisis has also strongly affected the public sector, which has led to stagnation and declining public spending and increasingly loud requests for its reform. Reforms have also been triggered by a wave of innovations in public sector accounting, which in this period continues to develop the application of private sector-specific management techniques (but now targeted, first and foremost, at the efficiency of public expenditure) and again focuses on financial reporting.

### **Factors of contemporary public sector reforms**

Public sector reform and public sector accounting reform are one of the rare common features of almost all countries in the world. The main drivers of all reform processes in the public sector, although they differ from one another, depending on whether they are developed industrialized countries, developing countries, or countries that have until recently been behind the “iron curtain” (countries

in transition) come from the four spheres: 1) political, 2) social, 3) economic and 4) institutional [10].

- 1) In the countries that were in the process of transition in the 1980s and 1990s, the initiators of reform processes from the political sphere initiated a change in relations between the state and its citizens. Transformation of this relationship inevitably implied the implementation of changes in the then applied way of managing parts and the whole of the public sector, the establishment of democratic institutions and the development of a civil society related to them. The political drivers of reform in developing countries are the result of pressure from citizens on the state, that is, of their expectations that the state finds a way to encourage and speed up economic development in order to reach the level of developed economies. However, despite the fact that both the countries in transition and the developing countries aimed at reaching the level of economic development of developed countries, this does not mean that the governments of developed countries were not exposed to the reform pressure underlying the political one. The main source of this pressure is the increasingly intense economic globalization that, in addition to the obvious economic benefits to these countries, has also brought about a multiple increase in the risk of terrorism. Activities aimed at improving the prevention of terrorist attacks, as part of the national defence system, have caused a significant increase in budget expenditures for these purposes. Governments of developed market economies have thus faced the problem of simultaneously responding to the opposite demands of their citizens: on the one hand ensure a high level of not only national security but also other public services, and on the other hand reduce the size of the public sector and the amount of expenditure associated with it. However, political stimulus to public sector reform, regardless of the described different conditionality, has a common characteristic in all countries - re-examining the role of the state in society.
- 2) In developing countries, the fundamental problem in the social sphere was the establishment of a society on the principles of equal rights for all citizens. In the transition countries, the process of re-establishing civil society institutions and promoting its core values was being played. Population in developed countries was exposed to increasing restrictions and challenges that made it difficult, if not even impossible, to preserve the attained level of living standard. The common characteristic for all countries was the exposure of their inhabitants and economies to the ever-growing demands of the Third Industrial Revolution - the Information Revolution.
- 3) On the economic scene in the 70s and 90s of the last century, a whole series of economic crises has developed, and they have continued to have far-reaching economic, social and political consequences. The series started with the First and Second Oil Crisis. Changes in the prices of the oil importing countries could not be financed without the significant use of budget funds, which resulted in extremely high budget deficits. The consequences of the Second Oil Crisis - a sharp decline in economic growth rates, the growth of inflation rates and a drastic rise in interest rates - in developed and developing countries, led to the 1982 Global Crisis. On the one hand, developing countries were - debtors - who could not service their external debt, and on the other hand developed countries - creditors - who could not collect their claims. Given the intensity and long-term effects of this crisis, the International Monetary Fund, the World Bank, the Paris and London Club have been intensively involved in its resolution. The beginning of the next crisis was precisely dated - October 19, 1987 - Black Monday, when all the major world stock exchanges, starting from Hong Kong to New York, collapsed within a day. Among economists, there is no consensus on what caused such a catastrophic fall in stock prices in such a short time, and many believe that the work was a black swan effect. However, it is likely

that the causes of crash could be found among widespread phenomena and events. The most significant widespread phenomena are:

- a. stock exchanges around the world were increasingly intensively traded with derivative financial instruments without the synchronization of trends in this segment of the market with movements on the part of the market in which equity instruments were traded - shares,
  - b. Computer trading has become the dominant mode of trade of large investment corporations and funds, and
  - c. Growth of return on investment in long-term bonds made them more attractive in relation to shares.
- 4) The fourth group of factors that triggered reform processes in the public sector of different countries makes changes in the institutional sphere [10].

Within the European Union, supranational structures were formed that take over the prerogatives that until then were in the exclusive jurisdiction of sovereign states, of which it is of particular importance for this work to define the state's economic policy and to evaluate its performances.

The most important international organizations - the United Nations, the World Bank, the International Monetary Fund, the Inter-American Development Bank, the World Trade Organization and the International Bank for Reconstruction and Development - are increasingly dominant in defining and shaping the world community in economic and political terms.

A large number of national and international non-governmental organizations have been formed, whose attitudes have become extremely important in all political and social events.

### Research methodology

The authors conducted a survey on a sample of professional accountants and managers of public sector entities. A segmentation of both groups of subjects is based on whether the respondent had professional experience in private sector entities or not.

Answers to questions in the survey were compared using the Pearson's chi-square independence test which checks whether there is a link between the experience in the private sector and the answers to the questions asked in the survey. The test consists of comparing the number of recorded responses with the expected values that we will receive in the case the answers do not depend on the experience of the respondent.

The key research assumption was:

Accounting and internal reporting in the public sector is performed on an accrual basis.

Financial management in the public sector is efficient if represented with integrated framework involving all managers' expertise, resources, and control.

### Results of quantitative analysis of survey data which examined the views of professional accountants

A segmentation of a sample of professional accountants has been performed on a group of professional accountants who previously had professional experience in private sector entities and those without such an experience.

The question in the survey was "Does the institution in which you work use accrual basis for the internal reporting of the accounting records?"

The results of the assessment of the application of accounting records on an accrual basis performed by accountants with and without previous professional experience in private sector entities are given in Table 1.

**Table 1: Number of responses (and percent of participation within the group) to the question about using accrual basis in the institution**

	Yes	No	Total
Accountants with previous experience	9 (5.04%)	47 (94.96%)	56 (100%)
Accountants without previous experience	9 (6.12%)	59 (93.88%)	68 (100%)
Total	18	106	124

Source: Authors' calculations.

Within this question, there was a section in which respondents were asked, if the answer to the question is "yes", to indicate in which types of records or reports the provisions were applied. Of the 18 respondents who

responded in this way, only 6 satisfied this requirement and provided an explanation that this option is used to record liabilities to suppliers, customer receivables and value added tax.

By the Pearson's chi-square independence test we checked if there is or there is not a significant relationship between the answers of accountants and their previous experience in the private sector. The value of chi-square statistic is  $\chi^2(1,124)=0,199$  and the significance of the test is  $p=0,655$ , so we cannot reject null hypothesis that the number of answers of accountants with previous experience is equal to the number of answers of accountants without previous experience.

Based on these results, it is possible to conclude that most professional accountants claim that in public sector entities the possibility of using accrual accounting for internal reporting purposes is not used.

The next question that was asked was "Do you think that the accounting system in your institution provides information that enables real - essential control of the efficiency and effectiveness of the use of public/budget funds?", and the following answers were obtained.

The results of evaluating an entity's accounting system in terms of its ability to provide essential control of the efficiency and effectiveness of the use of budgetary resources by an accountant with and without previous professional experience in private sector entities are given in Table 2.

**Table 2: Number of responses (and percent of participation within the group) to the question about ability of accrual basis method to provide essential control of the efficiency and effectiveness**

	Yes	No	Total
Accountants with previous experience	39 (69.64%)	17 (30.36%)	56 (100%)
Accountants without previous experience	55 (80.8%)	13 (19.1%)	68 (100%)
Total	94	30	124

Source: Authors' calculations.

69.64% of accountants with previous professional experience in private sector entities believe that the accounting system in the entity in which the employee is employed produces data that allow for essential control of the efficiency and effectiveness of budget funds, and 80.8%

of accountants with no previous professional experience in private sector entities share the previously stated position.

Independence of answers was again tested by the Pearson's chi-square test. In the case of this question, the value of chi-square statistic is  $\chi^2(1,124)=2.115$  and the significance of the test is  $p=0.146$ . So, same as in the case of the first question, because the p-value is greater than the significant level of 0.05, we cannot reject null hypothesis that the number of answers of accountants with and without previous experience is equal.

It can be concluded that most professional accountants, independently of previous experience, agree with the view that cash accounting is an adequate means of controlling the spending of the allocated funds

For the question "Which of the following statements describe you best?", there were five possible statements offered:

- 1) I know that there is accounting based on an accrual basis, but only at the level of information.
- 2) I am familiar very superficially with the differences between cash basis and accrual accounting.
- 3) For the application of accrual basis accounting, I would need further professional training.
- 4) The differences between cash basis and accrual accounting are fully known to me.
- 5) I am competent to apply accrual basis accounting.

The results of self-evaluation of professional competence performed by accountants with and without previous professional experience in private sector entities are given in Table 3.

**Table 3: Self-evaluation of professional competence performed by accountants**

	1	2	3	4	5	Total
Accountants with previous experience	5 (8.9%)	8 (14.4%)	12 (21.4%)	20 (35.7%)	11 (19.6%)	56 (100%)
Accountants without previous experience	10 (14.7%)	8 (11.8%)	23 (33.8%)	21 (30.9%)	6 (8.8%)	68 (100%)
Total	15	16	35	41	17	124

Source: Authors' calculations.

Out of a total of 124 respondents, 19.6 or 8.8% said they thought they were competent to apply accounting based on an accrual basis. This attitude is more pronounced

in accountants with previous professional experience in private sector entities, which confirmed the starting assumption of the sample segmentation.

On the basis of the obtained results, it can be concluded that when transferring to financial reporting based on accrual accounting, approximately 28.2% of accountants employed in public sector entities would need to receive additional education in the area of accounting and financial reporting based on an accrual basis.

Based on the conducted survey, we can draw the following conclusions:

- accountants show dissatisfaction with the current way of regulating the field of accounting and accounting system, and indirectly it can be concluded that there is readiness for changes in this area and
- if the state decides that the accounting and financial reporting of public sector entities will be settled in accordance with accounting requirements on an accrual basis, they will have to find adequate resources to carry out, in an organized manner, activities aimed at professional development of accountants and to face the costs of these activities.

### Results of quantitative analysis of survey data which examined the views of managers of public sector entities

Between these two categories of managers, i.e., the ones with previous professional experience in private sector entities, and those without such experience, there are significant differences in relation to their knowledge of the accounting system-based characteristics and their professional competence in this regard.

The answers to the question *“Does the institution in which you work use accrual basis for the internal reporting of the accounting records?”* provided the following results:

- of the 10 managers with professional experience in the private sector 4 gave a negative, and 6 a positive response and
- of the 15 managers without professional experience in the private sector, 10 gave a negative, and 5 a positive response.

Within this question, there is a section in which the respondents were asked, if the answer to the asked question is “yes”, to indicate in which types of records or reports the provisions applied: of the 11 managers who answered “yes” (6 of them with previous professional experience in private sector entities), only 5 met this requirement and provided an explanation that this option is used to record obligations towards employees.

Like in the case of accountants, the Pearson’s chi-square test was also conducted. But since the condition requiring that there be more than 5 responses in all fields was not satisfied, the Fischer’s exact probability test was applied. The p-value obtained in that way is  $p=0.241$ , so the answers given by managers do not depend on their experience in the private sector.

Based on these results, it is possible to conclude that in most public sector entities, the possibility of using accrual accounting for internal reporting purposes is not used.

This behaviour of management can be explained in two ways:

- 1) Managers do not have the motive to behave differently because their performance (performance) is measured exclusively by the degree of compliance of the realized cash inflows and cash outflows of the entities with their budget or the financial plan envisaged sizes.
- 2) Insufficient professional skills of managers prevent them from using the information produced by such an accrual basis accounting system, and consequently, it is not applied in the entities in which the employees are employed.

### Conclusion

Public companies are a special category of companies, owned by the state and local governments. Economic growth and social stability can only be provided by a transparent government. Developing new practices and procedures for the management of the public sector is one of the conditions that would make a government accountable. Launching an understandable set of international accounting standards in the public sector, which would allow for comparisons

between different governments in different parts of the world, is one of the possible approaches.

Contemporary public sector reforms in various countries in the world were caused by factors that promote the political, social, economic and institutional spheres. Different strategies have been used to implement the reforms with the common characteristic of the goal - improving the efficiency, effectiveness and transparency of public sector entities' activities. Public sector entities, traditionally applied cash basis accounting that cannot meet the information requirements, due to which modern public sector reforms are accompanied by reforms in its accounting system and financial reporting.

The essence of the reform of the accounting system and financial reporting of the public sector entities is the use of the concepts and principles on which the financial reporting of the private sector entities is based, or the transition to financial reporting based on accrual accounting. The financial statements of public sector entities should be prepared and presented in accordance with accounting requirements based on an accrual basis.

Financial management and control require the engagement of all managers. Public sector managers often do not see themselves as managers who manage available resources, but rather as managers who pursue a policy of some of the specialized public sector functions.

The often resulting tensions between financial and operational managers are normal and even useful if they contribute to solving the problems at work. In practice, all managers should be involved in financial management and control.

Between the two categories of managers - the one with previous professional experience in private sector entities, and the other without such an experience - there are significant differences in relation to their knowledge of the accounting system-based characteristics and their professional competence in this regard.

It is necessary to develop the internal capacity to assess risks that may affect the realization of the objectives of key institutions, and according to the judgment, define and incorporate control activities in all business processes in order to minimize irregularities and ensure the integrity of business processes. Increasing accountability for an

efficient and effective, and appropriate use of public funds is the main objective in the public sector. Integrated activities should be directed towards achieving this goal by strengthening managerial accountability of managers for the legitimate and purposeful use of public funds.

This paper adds to the literature on financial management and public accounting with empirical research and data analysis from the performed survey. The survey was conducted on a sample in a single country, therefore it could be difficult for generalization of the results, but it can be used for benchmarking with similar single-country surveys, or as a support tool for multi-country research studies to generate broader results on public accounting and financial management.

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