

## DEVELOPMENT OF PERFORMANCE AUDIT IN PUBLIC SECTOR

**Dalia Daujotaitė<sup>1</sup>, Irena Mačerinskienė<sup>2</sup>**

<sup>1</sup>*Department of Finance and Taxations, Mykolas Romeris University, Ateities str. 20,  
LT-08303 Vilnius, Lithuania, e-mail: dalidauj@takas.lt*

<sup>2</sup>*Department of Banking and Investments, Mykolas Romeris University, Ateities str. 20,  
LT-08303 Vilnius, Lithuania, e-mail: irenamacerinskiene@yahoo.com*

**Abstract.** Performance auditing is an area new enough in the history of auditing. Its growth parallels the evolution of politics and public administration from one-dimensional focus on control of inputs (resource) towards broader attention to accountability for outputs and outcomes. The causal relation between management's reforms and the developments in performance auditing may theoretically go in two directions: reform causes new audit practices or new audit practices cause the reform. Empirically, the relationship is mainly one directional: management reforms trigger an adoption of audit practices. On the audit side, new public management has influenced development of the audit. This evolution of auditing represents both: a means by which audit can continue to be relevant and a move towards fulfilling accountability role in governance. The research of the paper authors deals with performance auditing development including the relationship performance management and performance audit models. The use of logic models can help the audit to identify and set out the relationship between the socio-economic needs, to be addressed by the intervention and its objectives, inputs, processes, outputs and outcomes, which include results and impacts.

**Keywords:** audit, accountability, economy, efficiency, effectiveness, inputs, outputs, results.

### 1. Introduction

The first point to rise is one of terminology differences. Different terms are used in various parts of the world. Reference is frequently made to "value for money audit (VFM)" and "performance audit" in relation to examinations of the use of resources by public sector organisations. Although performance audit can sometimes be interpreted as extending beyond clear VFM issues (to include, for example, quality and technical matters), and the terms are used interchangeably by many auditors. In this article we shall use the formal term "performance audit", which has been adopted by the International Organisation of Supreme Audit Institutions (INTOSAI) Auditing Standards [1].

Performance audit is considered to be one of the most effective means for improving performance and governance. Improvement systems model allows for a wide concept of effectiveness auditing, the application of theory to practice is a frequent object of scientific research, often a topic of scientific discussions.

The problems of performance audit development are analysed by large number of researchers (Pollitt et al [2]; Pollitt and Summa [3]; OECD [4]; Barzelay [5]; McCrae and Vada [6]; Funnell and Cooper [7];

Guthrie and Parker [8]; Dittenhofer [9]; Waring, Morgan [10]; etc.). These problems are also analysed by Lithuanian scientists (Mackevičius, [11]; Puškorius, [12]; Lakis [13]; etc.).

The scientific problem persists in current models' provision that does not fit current practical needs. There are not enough investigated the reasons, which would enable the proper accomplishment of the set of objectives composed of objectives proved by our research.

The goal of this research is to develop the performance audit system model. The object of the research is the performance audit. Methods of systematic analysis, logics and synthesis were used in this research.

On the level of integrated objectives it is composed as follows: to assess the performance of auditing models by identifying their advantages and disadvantages, to evaluate the possibilities of applying system-oriented audit in auditing practice. To attain these goals, the results of studies in audit, management and administration, law, and other fields were analysed. In theoretical aspects of the development of performance auditing models there were analysed various studies and literature, and especially standards and guidelines for performance auditing based on

INTOSAI's Auditing Standards and practical experience, both their comparison and synthesis.

After the review of audit models structures potentiality, it was offered to use requirements regarding methods. They should be applied in public sector.

## 2. Defining the performance audit

Audit initially created as an accounting oriented function has been transformed into management oriented profession. Nowadays performance audit is an independent profession, which is playing a significant role in the management of organizations and states' policy.

Scope of performance audit functions and roles has changed and developed year by year. More or less plausible claims can be made for the performance audit - like activities back to the 1960s or even considerably earlier [4]. Performance audit, as a large scale of self-consciously distinct practice, dates mainly since the late 1970s [3]. Especially, it was widely spread in the 1980s due to number of factors: (1) the scope of government activities has expanded multiple. From simple function of law and order as well as administration of justice, most of the governments are now committed to play active role in socio-economic development. This has greatly increased the size of public expenditure; (2) there are competing claims for resource allocation. The scarcity of resources demands a more rational and informed decision-making on public expenditure. There is an urge for receiving full value from the money being spent; (3) the development of democratic institutions, the consciousness of the public and its representatives has also increased. There is a growing demand for the accountability of those who manage public resources; (4) the need to manage civil liability risk; (5) the opportunities to increase efficiency gains through improved internal management systems, etc. [4, 5,14].

Thus, as governments' programs continue to grow in stature, public sector auditing has evolved and extended its scope beyond mere financial or compliance audits to the auditing of performance to support policy makers in their oversight role.

Performance audit has been variously defined. INTOSAI's Auditing Standards state the following: "Performance auditing is concerned with the audit of economy, efficiency and effectiveness and embraces: (a) audit of the economy of administrative activities in accordance with sound administrative principles and practices, and management policies; (b) audit of the efficiency of utilization of human, financial and other resources, including examination of information systems, performance measures and monitoring arrangements, and procedures followed by audited entities for remedying identified deficiencies; and (c) audit of the effectiveness of performance in relation to achievement of the objectiveness of the audited entity, and audit of the actual impact of activities compared with the intended impact" [1].

In scientific literature performance audit is variously defined too, for example, Waring and Morgan defines the performance audit as follows: "Performance auditing is a systematic, objective assessment of the accomplishments or processes of a government program or activity for the purpose of determining its effectiveness, economy, or efficiency" [10].

This determination, along with recommendations for improvement, is reported to managers, ministers, and legislators, who are responsible for enacting the recommendations or ensuring accountability for corrective action. Hence, performance auditing is an important tool that makes conditions to improve accountable and help to create responsive governance of public resources.

What is the government accountability? Michel argues that every system of public accountability should embrace the following basic elements: every act or action is done openly according to law and prudent judgment; every actor is responsible for his or her action; every act is documented and reported publicly; every act or action is subject to independent, professional, non-partisan audit review and public report of results; where the review shows that purposeful error has been made, prompt corrective action, including punishment where appropriate, is taken [15].

Thus, the aim of the performance audit is to evaluate audited entity's performance and management in terms of economy, efficiency and effectiveness and to provide recommendations on how to improve the performance of the said entity.

## 3. Models of the performance management and performance audit

Various management models are presented in scientific literature, for example, Effective governance model (Epstein) [16, 17], Government accountability system; Public services model, (Morgan and Waring) [10], etc. In this article we analyze common tools for public managers and public performance auditors and scrutinize program logic model.

Performance auditing works with the same performance management concepts used by program managers and their principals to plan, monitor, and evaluate how public resources are used to achieve public policy objectives. The concepts of inputs, processes, outputs, outcomes, and impact, as well as their correlation with the above goals of economy, efficiency and effectiveness, are common tools for public managers and public performance auditors' is alike [10] (Fig 1).

In essence, efficiency indicates how well an organization uses its resources to produce goods and services. Thus, it focuses on resources (inputs), goods and services (outputs), and the rate (productivity) at which inputs is used to produce or deliver the outputs. Output dimensions include quantity and quality. Outputs are delivered to external or internal clients within

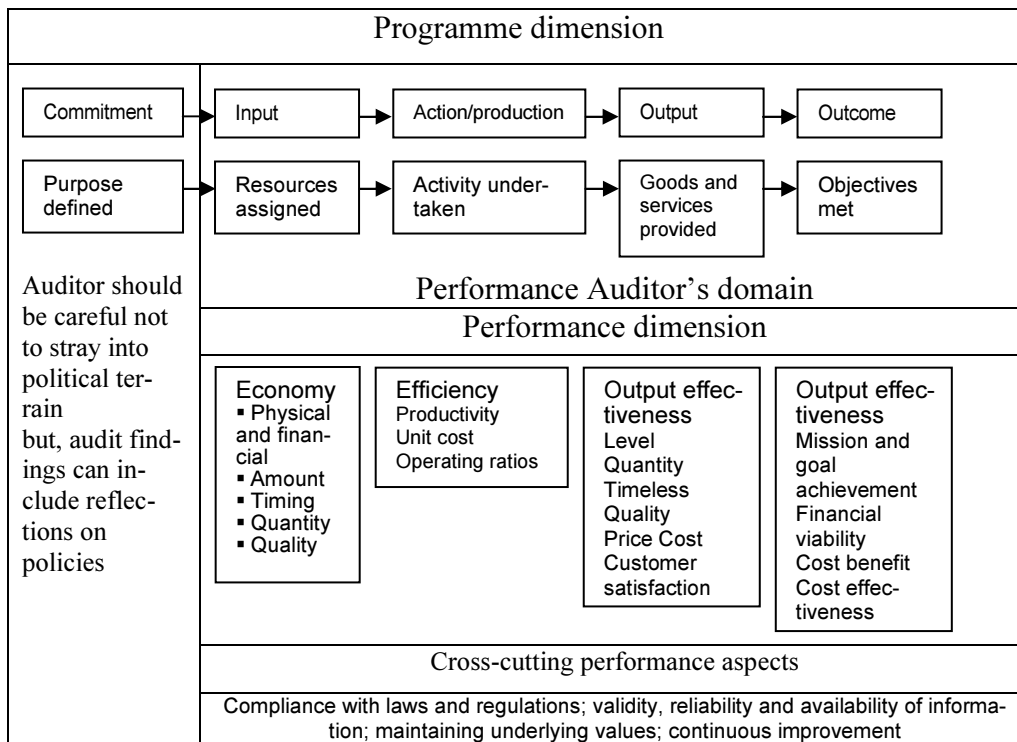


Fig 1. Input Output chain [10]

parameters relating to level of service. Quantity refers to the amount, volume, or number of outputs produced. Quality refers to various attributes and characteristics of outputs such as reliability, accuracy, timeliness, service courtesy, safety, and comfort [18].

However, as performance auditing represents an evaluation of public performance management processes, it uses an additional set of concepts that describe its component processes and outputs. Key to this language is the concept of audit finding and its component elements [10].

Thus, the fundamental component of the performance audit is the *audit finding*. An audit finding is made up of standard elements, including criteria, conditions, effects, and causes. The structure of an audit finding is determined by its audit objective (the key query that needs answering) and the model on which the audit is constructed using these elements.

*Criteria* represent the ideal against which actual performance will be measured. They can include expectations, standards, rules, policies, benchmarks, program goals, or average performance in similar programs or institutions. In designing fieldwork methods, auditors design data collection and analysis procedures to meet the audit objectives [19]. Criteria can be established by benchmarking to comparable programs, eliciting customer expectations or demands, determining the program intent, identifying internally established targets, comparing individual comparable units within the same organization, locating industry or sector standards, comparing to historical trends, identifying optimal or average performance achieved in a trend, comparing working time to actual elapsed

time, or comparing an intervention group's performance to that of a control group.

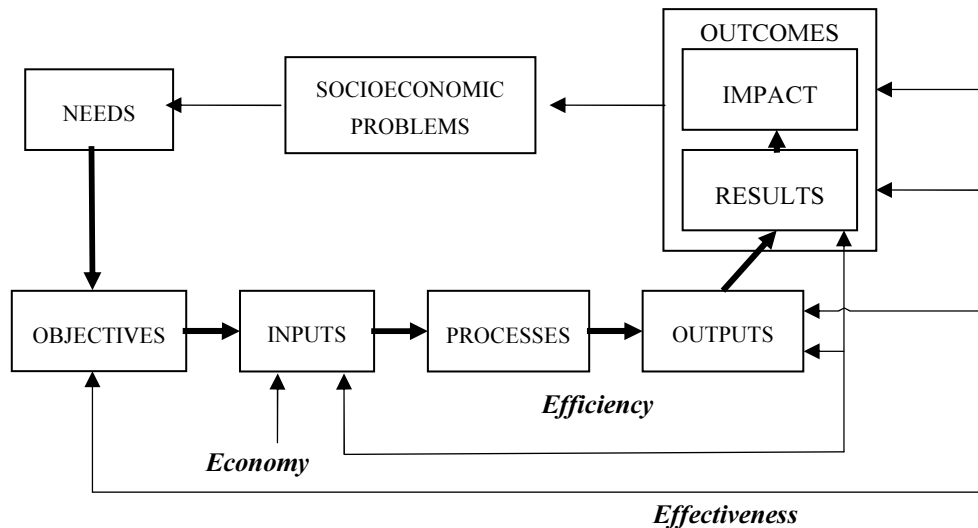
As depicted in figure 1 of the model, program inputs such as personnel, equipment, or money flow through processes such as program operations to produce service outputs. If the service works as designed, outputs should lead to desired results for the people or communities served, some of which may be seen sooner and be a reasonably direct result of the service. In a broad sense, this model can help auditors analyze programs and community issues for performance audits and program evaluations.

Finally, regardless of its nature (policy, project programme, measure), a public *intervention* can be analysed as a set of financial, organisational and human resources mobilised to achieve, in a given period of time, an objective or set of objectives, with the aim of solving or overcoming a problem of difficulty affecting targeted groups. The use of logic models can help the audit to identify and set out the relationship between the socio-economic needs to be addressed by the intervention and its *objectives, inputs, processes, outputs, and outcomes*, which include *results* (Fig 2).

Theoretically, it should be possible for performance audits to scrutinize all components and relationships in such models by focusing on the 3 Es economy, efficiency and effectiveness [20].

#### 4. Performance audit approach

Performance audits can combine the following approaches (Table 1) with a different emphasis to be put on one or the other depending on the specific circumstances.



Source: made by the authors after European Court of Auditors performance audit manual [20]

Fig 2. The programme logic model

Table 1. Performance audit approach

Approach	Focus
Performance directly	Inputs, outputs, results and impacts
Auditing control systems	Adequacy of policies and procedures implemented by managers for promoting, monitoring and evaluating performance

Source: made by the authors after European Court of Auditors performance audit manual [20]

*Performance directly approach* focuses directly on the performance achieved and concentrates on *inputs, outputs, results and impacts*, the assumption being that, if the performance achieved is satisfactory, there is a little risk of serious problems being present in the design or implementation of activity or control systems [20]. Such audits may, for example, assess whether the adopted policies have been suitably implemented and whether they have achieved the intended objectives or whether there are undesirable financial and economic consequences of policy decisions taken.

Examining performance directly can be appropriate where there are *suitable criteria* to measure quantity, quality and cost of inputs, outputs, results and impacts. Where performance achieved is found to be unsatisfactory, the activity and control systems are then examined to the extent necessary to identify the related causes.

*Auditing control systems approach* is designed to determine whether the audited entities have designed and implemented management and monitoring systems so as to optimise economy, efficiency and effectiveness within the given constraints [20]. The audit work will involve analysing, reviewing and testing the key components of such systems. The examination will often consider whether chosen measures are consistent with the policy objectives, and whether

the latter have been translated into operational plans containing operational objectives, the achievement of which is subsequently measured.

This approach will also consider whether systems in place produce relevant, reliable and timely *information* on the development of financial, human and other resources (inputs), the carrying out of activities (processes) and the delivery of the outputs, which should be compared with the operational objectives by way of performance indicators. It will examine whether, when discrepancies arise, timely and appropriate *remedial action* is taken to adjust the operational plan, the deployment of resources and/or the carrying out activities. This approach will often involve an examination of the *evaluation* system and information in order to assess their quality and, when considered to be satisfactory and relevant to the audit objectives, to use evaluation findings, conclusions and recommendations as audit evidence.

### 5. Performance audit risks to financial management

Despite the multiplicity of methods by which various organizations conduct performance audits, we will show auditing converge around the concept of the three E's - economy, efficiency, and effectiveness and it's relate.

General risks of *economy* can include, see Table 2.

*Efficiency* is one of the most complicated complex objectives of performance auditing. Efficiency is a relative concept. It is measured by comparing achieved productivity with a desired norm, target or standard. Output quantity and quality achieved and the level of service provided are also compared to targets or standards to determine to what extent they may have caused changes in efficiency. Efficiency is improved when more outputs of a given quality are

produced with the same or fewer resource inputs, or when the same amount of output is produced with fewer resources. It is displayed in Fig 1, how economy, efficiency and effectiveness are interrelated.

**Table 2.** Audit risk related to economy

Objectives of economy	The general risks to sound financial management	Issues to be addressed in audit
Keeping the costs low to achieve given objectives	<ul style="list-style-type: none"> <li>– <i>waste</i> (i.e. using resources which are not necessary for the achievement of the desired outputs or results);</li> <li>– <i>overpaying</i> (i.e. obtaining resources which could have been obtained at a lower cost);</li> <li>– <i>gold-plating</i> (i.e. paying for a higher quality of input than that required to achieve the desired outputs or results).</li> </ul>	<ul style="list-style-type: none"> <li>– whether the audited entity acquires the appropriate type, quality and amount of resources at the minimum cost;</li> <li>– whether the audited entity manages its resources with a view minimizing overall outlay;</li> <li>– whether intervention could have been designed or implemented in another way which would have resulted in lower costs.</li> </ul>

Source: made by the authors after European Court of Auditors performance audit manual [20]

Efficiency derives from the relationship between resource inputs and outputs, the concepts of efficiency and economy are inextricably linked. Economic acquisition of resources contributes to efficiency by minimizing the cost of inputs used.

A key part of the survey is to look for symptoms of possible efficiency or inefficiency. The following could help identify potential efficiency issues:

- reasonableness of the information on efficiency achievement reported within and by the organization (volume of output, quality and service levels, utilization of staff, equipment or facilities, or unit cost of outputs);
- client complaints about any aspect of service;
- trends in resource levels compared with workload over the past few years;
- appropriateness of the organizational structure to avoid duplication of functions, unnecessary layers of management, and useless overhead functions;
- work backlog, absenteeism, overtime, and contracted service;
- opportunities to improve efficiency, such as use of computers and other technology;
- reasonableness of resource use (e.g., material, energy) [18].

General risks in this area can include, see Table 3.

**Table 3.** Audit risk related to efficiency

Objectives of efficiency	The general risks to sound financial management	Issues to be addressed in audit
Making the most of available resources to maximize productivity	<ul style="list-style-type: none"> <li>– <i>leakages</i> (resources used do not lead to the desired outputs);</li> <li>– <i>non-optimal input/output ratios</i> ( low labour efficiency ratios);</li> <li>– <i>slow implementation of the intervention</i>;</li> <li>– <i>failure to identify and control externalities</i></li> </ul>	<ul style="list-style-type: none"> <li>– whether outputs or results have been produced cost-effectively;</li> <li>– whether there are any avoidable bottlenecks or unnecessary overlapping.</li> </ul>

Source: made by the authors after European Court of Auditors performance audit manual [20]

It may consider: (1) outputs. When audit objective of efficiency considers outputs, it is often needed to examine the processes by which an organization transforms inputs into outputs. The assessment can involve the calculation of unit cost of outputs produced or labour efficiency ratios (e.g. number of subsidy applications processed per day) and their comparison with accepted criteria, which can be derived from similar organizations, previous periods or standards which the audited entity has explicitly adopted (2) and / or results. When audit objective of efficiency encompasses results, *economic tools* are generally necessary to assess the ability or potential of audited entity, operation or programme to achieve certain results at a given cost. As an example, cost-effectiveness analysis can be used to relate the net effects of intervention to the financial inputs needed to produce those effects; the judgment criteria might be, for example, the cost per unit of result produced, which is then compared to that of other interventions chosen as benchmark. Depending on the audit approach, the auditors will either examine the reliability of the analysis performed by the audited body or carry out such analysis themselves.

*Effectiveness* questions overlap with and extend beyond efficiency into program effects and impacts (outcomes). Efficiency is closely linked to effectiveness because it is an important factor in determining the least-cost method of achieving desired outcomes [1].

Issues of effectiveness arise when an entity or intervention does not produce the expected outputs, results or impacts. General risks in this area can include, see Table 4.

Thus, the audit of effectiveness will therefore concentrate on outputs, results or impacts.

**Table 4.** Audit risk related to effectiveness

Objectives of effectiveness	The general risks to sound financial management	Issues to be addressed in audit
Achieving the stipulated aims or objectives, whether operational (outputs), immediate (results), intermediate or global (impacts)	<p>– <i>faulty policy design</i> (inadequate assessment of needs, unclear or incoherent objectives, inadequate means of intervention or impracticability of implementation);</p> <p>– <i>management failures</i> (objectives not being met, management not prioritizing the achievement of objectives)</p>	<p>– operational objectives: the audit assesses extent to which the intended <i>outputs</i> have been produced and normally involve the examination of the operations internal;</p> <p>– immediate objectives: the audit assesses whether the intervention had clear and positive results for direct addressees at the end of their participation and normally involves examining monitoring information produced by the implementing organizations;</p> <p>– intermediate and global objectives: the examination extends beyond the boundaries of the audited entity and seeks to measure the impacts of the public intervention.</p>

Source: made by the authors after European Court of Auditors performance audit manual [20]

Assessing *impact* is difficult. There can be considerable difficulty involved in assessing the impact of intervention, i.e. the extent to which the global and even intermediate objectives of this intervention have been achieved. The difficulty arises because the objectives are usually expressed in such *broad terms* that they cannot be associated with measurable indicators.

A more feasible audit objective will often be to assess the *outputs or results* of an intervention, i.e. the extent to which operational or immediate objectives have been achieved. Provided that the objectives are "SMART" – specific, measurable, achievable, relevant and timely, and that their achievement is monitored by performance indicators, this is likely to provide a clear and suitable reference basis for assessing effectiveness [9, 20].

Thus, auditors should identify potential risks to achieving economy, efficiency and effectiveness and thereby develop audit questions. Each concept is basi-

cally of equal importance and where the specific priority lies will be decided on a case-by-case basis.

Auditors are encouraged to consider effectiveness as an element of the analysis whenever possible.

### 6. Developing system-oriented auditing

Provide a theoretical framework for effectiveness auditing is significant and would help performance auditors in their efforts to analyze and evaluate the implementation and effectiveness of government interventions. Our research shows that it considers the approach in performance auditing, which is the so-called goal-means (aims and methods) model to set the best ways to take right directions in development effectiveness auditing, a well – reasoned composition of such a complex objective is as follows: to define the forming a combination of the goal-means model, their advantages and disadvantages, to evaluate the possibilities of applying system-oriented audit in auditing practice [19, 21, 22].

In order to accomplish such an objective it is suggested to use the methods based on principles that are applied in accomplishing other objectives of performance auditing. For example, input - output model [10, 17].

Methods are based on the ideas and concepts from “system theory”, where government undertakings or programs are seen as systems of interacting and functional interdependent elements. Regulations, resources, government bodies etc. are all examples of elements which constitute a system of this type of a government undertaking. The focus is on the effectiveness of the systems themselves. The principle of complex analysis and evaluation is considered as to analysing and evaluating the Standards and guidelines for performance auditing [22].

When we were still trying to reason the methodological approaches, we specified the basic component of the research object (goal-means) for implementation in practice.

Structural elements defined by **system-model** are as follows: production, administration, structural design, the environment [19].

1) *Production* is the core of the system-model. In all production of services, production and consumption occur simultaneously. Thus, clients, staff, working methods and resources are all part of the production system.

2) *Administration* – the second component in the model. The function of the administrative systems – to allocate resources, to plan and implement activities, to monitor and evaluate progress etc. – basically aims on making it easier to coordinate and control the operations of government undertakings. The administrative systems should contribute to effective implementation of the undertakings.

3) *Structural design* forms another framework (around the production and administrative systems). The societal undertaking and the concomitant political

goals are not the only matters that parliaments and governments decide upon. Other important issues are the structure of the executive organization, budget frameworks and regulations that direct operations in production systems.

4) *The environment.* Finally, it must be noted that forces in the environment have a bearing on the way a societal undertaking is implemented. Therefore, the complete system model is (Fig 3):

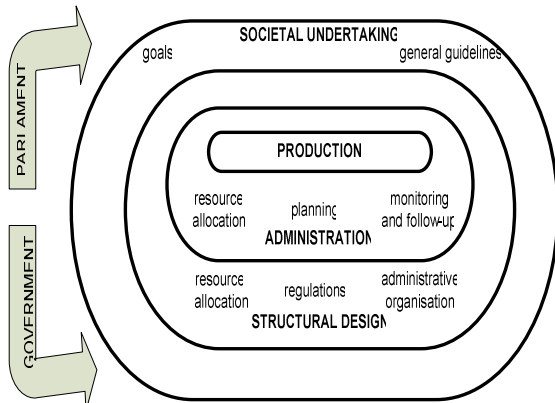


Fig 3. System model of performance audit [19]

On the basis of the agency’s experience of the systems approach gained in concrete projects, three requirements regarding methods can be discerned:

1. In system-oriented auditing, the operations in a certain area of society are the point of departure. This is expressed by allowing a particular undertaking to form the basis of both the study and the final assessment.
2. In system-oriented auditing, the scope of the analysis is defined in terms of the ‘system’ that is formed by the undertaking itself and the forces/actors that affect the realization of this undertaking.
3. In system – oriented auditing, data on outcome are always included in the basis for analyses and assessments [19].

**7. Development of performance audit in practice**

Our research and the vast amount of literature suggests that performance audit is an advanced management tool that is becoming more and more sophisticated in order to accommodate needs of different communities and levels of government over services ranging from public safety and public works to economic development.

The present study argues that the development of performance auditing in Lithuania has been influenced by the demand of performance auditing for the changing functions/activities of the government, policy makers, managements, and the users of the information of the government entities. The development of performance audit in the National Audit Office of Lithuania (NAOL), the Lithuanian SAI, was mainly forced by different government’s policies changes such as New Public Management, evaluation of econ-

omy, efficiency of the government resources and effectiveness of government programs.

The NAOL mission of public audit is to help the nation manage and use property, funds and other resources wisely thus assisting the Seimas (Parliament) in execution of parliamentary control, promoting progress in public sector and supervising the implementing of the state budget and whether the public property is managed and used lawfully.

The report on a 2002 – 2006 peer review of NAOL, show, that scope of performance audit functions and roles has increased year by years (see Fig 4).

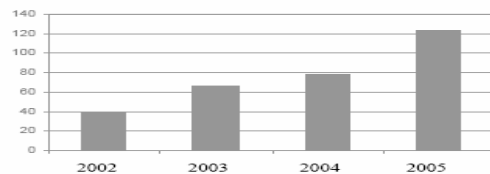


Fig 4. Comparison of coverage of Performance Audit in 2002-2005 (number of auditees) [23]

On an average the NAOL carries out about 40 performance audits per year (systems audits, public revenue audits, audits of separate institutions, implementation of state budget programmes, evaluations of information systems, etc.).

Audit topics reflect topical issues, which are of public sector, for example, evaluation of public health care, organization of the pupils’ free catering, progress of the land reform, management of the state-owned land, development of business environment, modernization of the transport infrastructure, etc. It includes all significant areas as follows: State Property, Health Care, Crime and Justice, Transport and Communication, Environment Protection, Financial Policy, Information System, Culture and Sport, Social Protection, Science and Studies, Internal Affairs, Public Administration, the use of the European Union Funds, etc. (see Fig 5).

Performance audit reports provide an independent assessment of an area of public sector activity and seek to improve resource management and add value to an agency through recommendations on improving operations and procedures. Table 5 shows the NAOL achieved intended results.

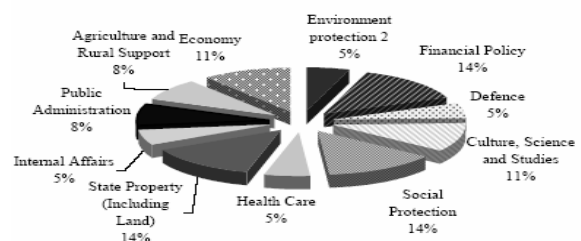


Fig 5. The structure of PA by areas [23]

**Table 5.** Comparison of results achieved for the Performance Audit

Assessment criterion	2005/ 2006 planned	2005/2006 achieved
<b>For effect:</b> Progress on improve the performance of the audited entities.	Yes	Yes
<b>For result:</b> 1. Part (%) of recommendations implemented fully or partially	90/81	92/84
<b>For product:</b> 1. Number of public performance audit projects implemented per auditor	0,64/0,64	0,67/0,67

Source: NAOL annual reports 2005, 2006 [23]

Audited entities are responsible for implementation of audit recommendations (hereinafter – recommendations) and for removal of identified shortcomings. In the process or implementation of recommendations the NAOL performs the follow-up function. Major part of audit recommendations is being implemented after auditees are informed about them.

If public institutions or other audited entities do not take appropriate measures in order to remove shortcomings and implement recommendations, public institution, to which the auditee is subordinate to, is informed about it.

If shortcomings are not removed even after that (as well as in cases when significant recommendations submitted during the audit), the National Audit Office turns to the Committee on Audit of the Seimas (Parliament) which according to its regulations seeks to apply parliamentary measures and help the Supreme Audit Institution – the National Audit Office – in establishing public audit impact on the State and the public and ensure that recommendations of the NAOL would be fully implemented.

Thus, performance audits undertaken by the Office provide an independent assurance to Parliament and the community that funds appropriated for particular activities are spent wisely and in accordance with Parliament's expectations. Performance audits reinforce the accountability of Ministers and public sector managers for their performance, as well as recognising and advising Parliament of management initiatives and achievements.

## 8. Conclusions

Given recommendations for development performance auditing in public sector are based on theoretical research of the performance audit concepts and models. Theoretical and empirical research of the performance audit concepts and models has brought to the following conclusions:

The aim of the performance audit is to evaluate an audited entity's performance and management in

terms of economy, efficiency and effectiveness and to provide recommendations on how to improve the performance of the said entity.

The concepts of inputs, processes, outputs, outcomes, and impact, as well as their interface with the above-mentioned goals of economy, efficiency, and effectiveness, are common tools for public managers and public performance auditors alike.

Performance audits can combine the performance directly and auditing control systems approaches with a different emphasis to be put on one or the other depending on the specific circumstances.

Auditors should identify potential risks to achieving economy, efficiency and effectiveness and thereby develop audit questions. Each concept is basically of equal importance and where the specific priority lies will be decided on a case-by-case basis.

Auditors are encouraged to consider effectiveness as an element of the analysis whenever possible.

In system-oriented auditing, the operations in a certain area of society are the point of departure. This is expressed by allowing a particular undertaking to form the basis of both the study and the final assessment.

In system-oriented auditing, the scope of the analysis is defined in terms of the 'system' that is formed by the undertaking itself and the forces/actors that affect the realization of this undertaking.

In system-oriented auditing, data on outcome are always included in the basis for analyses and assessments.

Performance audit is an advanced management tool that is becoming more and more sophisticated in order to accommodate needs of different communities and levels of government over services ranging from public safety and public works to economic development.

## References

1. Auditing Standards. Auditing Standards Committee International Organization of Supreme Audit Institutions, October 1995, p. 33, 103 – 141.
2. POLLITT, CH.; GIRRE, X.; LONSDALE, J.; MUL, R.; SUMMA, H.; WAERNESS, M. Performance audit and public management in five countries and Public management reform: a comparative analysis. Oxford University Press, 1999. 248 p.
3. POLLITT, CH.; SUMMA, H. Performance audit and public management reform. University of Vermont, 1997. 206 p.
4. Performance auditing and the modernisation of government. Paris: OECD 2, 1996, p. 5– 15
5. BARZELAY, M. Central Audit Institutions and Performance Auditing: A Comparative Analysis of Organizational Strategies in the OECD. *An International Journal of Policy, Administration and Institutions, Governance*, Vol 10, No 3, 1997, p. 235– 260.
6. MCCRAE, M.; VADA, H. Performance audit scope and the independence of the Australian Commonwealth auditor-general. *Journal of Financial Accountability & Management*, Vol 13, No 3, 1997, p. 203– 223.



7. FUNNELL, W.; COOPER, K. Public Sector Accounting and Accountability in Australia. Sydney: UNSW Press, 1998. 328 p.
8. GUTHRIE, J.; PARKER, L. A quarter of a century of performance auditing in the Australian Federal public sector: a malleable masque. *Journal "Abacus" of Accounting, Finance and Business Studies*, Vol 35, No 3, 1999, p. 302–332.
9. DITTENHOFER, M. Performance auditing in governments. *Managerial Auditing Journal*, Vol 16, No 8, 2001, p. 438 – 442.
10. WARING, C.; MORGAN, S. Performance Accountability and Combating Corruption. Washington, D.C: The World Bank, 2007. 448 p.
11. MACKEVIČIUS, J. Auditing: theory, practice, future (Auditas: teorija, praktika, perspektyvos). Vilnius: Lietuvos mokslas, 2001. 827 p. (in Lithuanian).
12. PUŠKORIUS, S. Performance audit. (Veiklos auditas). Vilnius: MRU, 2004. 352 p. (in Lithuanian).
13. LAKIS, V. Auditing system: problems and development. (Audito sistema: raida ir problemos). Vilnius: Vilniaus universiteto leidykla, 2007. 386 p. (in Lithuanian).
14. BRIGNALL, S.; MODELL, S. An institutional perspective on performance measurement and management in the "new public sector". *Management Accounting Research*, Vol 11, No 3, 2000, p. 281–306.
15. MICHEL, J. Need for Accountability to Sustain Democracy. Florida, 1991. 111 p.
16. EPSTEIN, J.; OLSEN, R. T. Managing for outcomes: lessons learned by state and local government. *The Public Manager Journal*, Vol 25, No 5, 1992, p. 513–519.
17. KUO-TSAI LIOU. Handbook of public management practice and reform. USA, Orlando: CRC press, 2001. 848 p.
18. Auditing of Efficiency. Office of the Auditor General of Canada, 1995, p. 3–7.
19. Standards and guidelines for performance auditing based on INTOSAI's Auditing Standards and practical experience. Stockholm, July 2004, p. 9 – 23, 137 – 142.
20. Performance audit manual. European Court of Auditors, 2007, chapter 2, p. 14 – 23 [Electronic resource] – Read 20 November 2007 – <http://eca.europa.eu/portal/audit>
21. Government auditing standards (the "Yellow Book"). Comptroller General of the United States, July 2007 revision, chapter 7, p. 122 – 156 [Electronic resource] – Read 28 November 2007 <http://www.gao.gov/govaud/>
22. Handbook in performance auditing: Theory and practice. The Swedish National Audit Office, 1999, p. 21 – 48
23. Annual report. National audit office of Lithuania [Electronic resource] – Read 12 December, 2007 – <http://www.vkontrole.lt/en>