

An Examination of Performance Audit Principles in Public Sector Audit: An Interpretive Study in Bangladesh

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Abstract

This paper aims to assess the principles of performance auditing (PA) in the public sector of Bangladesh. The PA is conducted by the supreme audit institution of the country, the Comptroller and Auditor General (OCAG). To attain the objective this study analyses all the performance auditing (PA) reports published by the OCAG. There are 19 published PA reports. The PA report has been classified into several principles, including the 3Es as suggested by the International Organization of Supreme Audit Institutions (INTOSAI). The level of compliance has been integrated into the classification scheme of the PA reports. The contents analysis demonstrates that *Effectiveness* has been addressed in the highest number of reports whereas *Efficiency* has not been addressed in any reports. The extended classifications (beyond 3Es) have been reflected in the PA reports rarely. In addition, compliance issues have been presented weakly in the reports. The findings have been analyzed in line with the contemporary studies in public sector auditing. Public sector auditing has been studied merely in developing countries. This study will contribute to this aspect. Moreover, the future potential research avenue has been explored in this study. The limitation of this study is confined in the number of reports which is 19. Therefore, these limited available data and the uniqueness of the developing country defy the generalization of the findings but can contribute to the PA research in developing countries.

Keywords: *Performance audit; Public sector; Report classification; Principles; Contents analysis; Bangladesh*



1. Introduction

Studies on public sector auditing including performance auditing have been increasing at an accelerated rate recently (Ferry, Redcliffe and Steccolini, 2022; Rana et al., 2022; Parker et al., 2019). Recent incidents like COVID-19, climate change, war and economic crises explore the paramount of such audits (Ferry, Redcliffe and Steccolini, 2022; Cordery and Hay, 2022). At the same time, the institutionalization of public sector audits and performance audit has been investigated in the context of developing countries (Sumiyana et al., 2023). Scholars concluded that social and institutional settings shaped the formalization and codification of performance audit (Parker et al., 2021). It has been noticed that the number of PA in developing countries is significantly low (Rana et al., 2022). The objective of this study is to explore the principles of performance audit in an emerging economy, Bangladesh. The study warrants future research in performance auditing in the country as well.

PA has been defined in various ways. Though there are variations in definition, it is common that PA will assess the performance of an entity whether tools may vary. National audit offices of countries across the world as well as the Supreme audit institution have defined the PA in various ways also. Whatever be, it is accepted that activities and results are the concern of performance auditing rather than reports or accounts (INTOSAI, 2019). INTOSAI (2019) asserts that performance audits contribute to transparency and accountability.

Following the opinions of the scholars and National audit offices of countries across the world, the contents of PA have changed over the years. Some scholars see PA in the evaluation of the economy and efficiency of an entity's operation (see Hatherly and Parker, 1988), while others deny setting a boundary in the assessment of performance (see Parker et al., 2019). The International Organization of Supreme Audit Institutions (INTOSAI) also has issued the guidelines for the contents along with the principles of PA.

In many countries, the rise of PA has been observed as parallel to the new public management (NPM) (Leeuw, 1996; Parker et al. 2019). Scholars argued that there are similarities between the NPM and PA and consequently, one can work with others. Previous studies discussed the implementation and outcome of NPM in developing countries and often criticized NPM considering the contexts of the developing countries (Rajib et al., 2019; Manning, 2001; Knox and Sharipova, 2023). Many scholars have seen the end of NPM in developing countries and urged for alternatives though alternatives have not been portrayed clearly (Knox and Sharipova, 2023). Therefore, the appeal of NPM has not been ceased which addresses the issues of good governance, transparency and reduction of corruption. It is highly important to reveal the diffusion pattern of NPM like any other mechanism propagated by the international financial institutions and donor agencies in the developing country (Ferlie, 2017). Therefore, exploring the PA practices can contribute to revealing the scenario of the public sector in a developing country.

Practices of PA depend on institutional settings and social and political contexts. Therefore, still there are scopes to reveal the diffusion of PA in the context of a country and identify the

gap between the origins and practices in developing countries (Rana et al., 2022). A very limited number of researches have been seen in Asia on public sector auditing.

Therefore, this study aims to assess the PA reports published by the Comptroller and Auditor General (OCAG) of Bangladesh. The study classifies the PA reports by investigating the contents and interpreting the scenario. The standard of implemented principles has been defined from the International Standards of Supreme Audit Institutions (ISSAIs) of INTOSAI and contemporary scholarly writings.

This study is organized as follows. First, it discusses the literature review. Second, it presents the research methods. Third, an empirical analysis has been done with discussion and finally, conclusions of the study have been drawn.

2. Literature Review

The concept of government auditing is very old. The practice of PA emerged in the 20th century. It obtains the mandate in different years in different countries (e.g., 1921 in the USA) (Lonsdale et al., 2011). Over the century, PA evolved and taken new forms. Consequently, researches on PA have been enriched and have multiple dimensions.

Specially, over the last five decades we have seen the variation of research on performance auditing. The key features, principles, criteria, contents, institutionalization, contexts and outcomes in performance auditing have been seen as the focusing issues of the research on performance auditing (Rana et al., 2022; Bringselius, 2018; Gronlund, Svardsten and Ohman, 2011; Tellima and Henk, 2010; Leeuw, 1996). PA has been investigated in many countries including both in developed and developing countries. However, it seems that compared to developing countries a rich amount of researches has been undertaken in the developed countries.

In the contexts of developed countries, many researches has been undertaken to investigate the initiation of PA, its contents, criteria of PA and the changes of PA over time.

Guthrie and Parker (1999) investigated performance auditing in the Australian federal public sector. They find that performance auditing is a malleable social construct rather than an absolute performance assessment technique. Various groups contribute to the development of criteria for performance auditing. Individual, organizational, institutional, socio-political and socio-economic issues influence and influenced by performance auditing technology. It should be stated that the performance of the public sector is multidimensional and ambiguous which is assessed on the basis of organizational settings, political, social and cultural contexts.

Performance is multidimensional in the public sector and its measurement and evaluation is critical (Garengo and Sardi, 2021; Putu, Jan van Helden and Tillema, 2007). In developing countries, very often it is difficult to gather information on the performance of the public sector. Weak institution capacity, corruption and even practices hamper the information flow to measure performance (see Putu, Jan van Helden and Tillema, 2007).

It is even found that PA is different among the developed countries. In Western European Economics, Pollitt (2003) found that predominant audit criteria and practices vary among

Finland, France, The Netherlands, the United Kingdom and Sweden. The strategic option of PA in developed countries (see Jeppesen et al., 2017) and the impact of PA on public administration (see Johnsen et al., 2019) has been studied. However, it is found that very few studies have been undertaken in the developing countries.

Traditionally, PA focuses on the economy, efficiency and effectiveness of organizational and internal activities. These are often terms as three elements of PA or 3Es (Power, 1997). **The International Standards of Supreme Audit Institutions (ISSAI) published by INTOSAI indicate the 3Es for the performance auditing.** As per the ISSAI 300, Economy, Efficiency and Effectiveness are the premises of performance auditing. Previous researches have addressed the issues of *economy*, *efficiency*, and *effectiveness* from various dimensions (see Rana et al., 2022). *The economy* emphasizes minimizing the costs of resources. Maintaining timeliness, appropriate quantity and quality at the best price can minimize the cost of resources. *Efficiency* is related to the output and the amount of input that has been used. Efficiency emphasizes maximizing the output by using the available resources regarding timeliness, quantity and quality. *Effectiveness* concerns the objective and attaining the intended results.

Several scholars have investigated the PA based on basic contents (e.g., Guthrie and Parker, 1999). Guthrie and Parker (1999) used the 3 basic elements- Economy, Efficiency and Effectiveness to identify the focus of the PA reports. In contrast, some contemporary studies have tried to extend the focus and have added and proposed new dimensions (e.g., Bringselius 2018).

Gronlund et al. (2011) state that focusing on only 3Es is not usual. In reality, the government or the agencies of the government may be mandated to focus on some alternative issues. Drawing on evidence from the Swedish National Audit Office (SNAO), they use five (5) more elements to identify the PA audit focus. They are 1) systems, 2) administration, 3) Goal-Related, 4) policy and 5) empirical assessment. Therefore, they assess the PA on eight (8) classification schemes. The extended classifications are discussed below.

Extended Classification of PA Report

System: To explain the *systems*, scholars explain and differentiate the *systems* from the substance (core) activities of the organization. Though substance (core) activities are vital in an organization, supporting systems and control activities often influence the substance. Therefore, supporting systems and control activities (as systems) have been studied in PA research by many scholars (see Gronlund et al., 2011; Gendron et al., 2007). INTOSAI also acknowledge the importance of supporting systems and control activities (Gronlund et al., 2011).

Administration: Administrative activities like reporting between parliaments, government and central agencies of government or government units can be identified as administrative audit (Gronlund et al., 2011). Examination of these reports/information has been identified as an important task by many scholars (e.g., Power, 2007).

Goal-Related: Though there are complicated and controversial issues in measuring the goal of the public sector, the goal is emphasized in the public sector audit, even by INTOSAI (Gronlund

et al., 2011). It is not denied that the goal is ambiguous and often contradictory in the public sector. However, scholars state that whether the goal is clear, unambiguous and not contradictory at different levels of a public organization or not can be assessed through an audit (Gronlund et al., 2011; Gendron et al., 2007).

Policy audit: Political programmes assessment has been identified as a policy audit. Instead of a large-scale policy of the government, state auditors can investigate the success of policy among government agencies. Scholars have argued for and presented the evidence of policy audit (e.g., Dittenhofer, 2001; Lonsdale, 2008).

Empirical assessment: For comparing the performance of similar organizations, another PA audit named empirical is addressed by several scholars (e.g., Bowerman, 1996; Gronlund et al., 2011). To identify the best practices and empirical PA has been argued.

The tendency of discussion beyond the 3Es has been seen in the last 20 years (Pollitt et al., 1999; Vikkelso, 2007; Bringselius 2018). It is found that the PA of a country may focus on only one component or more than one together. In Denmark, the attempt of auditors to assess the performance in the criteria of efficiency is seen (Skaerbaek, 2009). A combined focus on the economy and efficiency is seen in some countries, e.g., Australia (see Guthrie and Parker, 1999), the United Kingdom (see Lonsdale et al., 2011), Canada (see Radcliffe, 1998) and others.

3. Research Method

This study adopts qualitative research methods. Previous studies show that the qualitative research method is the most accredited in PA research (Rana et al., 2022). A significant number of studies have employed content analyses of archival data to understand the scenario of PA (e.g., Gronlund, Svardsten and Ohman, 2011; Ahonen and Koljonen, 2020).

In this study, we adopted the approach followed by Gronlund, Svardsten and Ohman (2011). We followed the classification scheme developed by Gronlund, Svardsten and Ohman (2011) for the performance audit. It should be noted that there are conflicts on whether compliance issues should be reported in the performance audit. Where some scholars show compliance issues along with the performance audit, many scholars keep compliance issues separate from the performance audit (Behn, 2001; Sharma, 2007). However, some previous studies found the practices of PA where compliance issues have been presented. Therefore we have considered the issues of compliance like Gronlund, Svardsten and Ohman (2011) as some PA reports of Bangladesh specifically mentioned the compliance. Therefore, 24 possible classifications have been addressed in the classification scheme.

It is very difficult to classify several documents in developed categories when it is undertaken in different institutions. It should be remembered that quantification is necessary to explain a subject and it very often depends on personal judgment (Porter, 1995). Therefore, several careful steps have been taken at the time of collecting data from the documents and at the time of analyzing the data as well. We followed the following steps.

First, we discuss the issues of content analysis pattern of the audit with the researchers who have knowledge of this issue. *Second*, we classify all the audit reports (published from 2003 to 2021, a total of 19 PA reports) based on our mentioned categories. Following the approach of Gronlund, Svardsten and Ohman (2011), we have tried to classify the reports in one category as the dominating, then if possible keeping others as complementary. *Third*, we talked to the staff of the Office of the Comptroller and Auditors of Bangladesh (OCAG) to know their opinion about our classification and validation of our findings. Finally, we completed the audit reports classification.

Degree of Compliance	Economy (1)	Efficiency (2)	Effectiveness (3)	System (4)	Administration (5)	Goal-Related (6)	Policy (7)	Empirically (8)
No degree	1.0	2.0	3.0	4.0	5.0	6.0	7.0	8.0
Some degree	1.1	2.1	3.1	4.1	5.1	6.1	7.1	8.1
Strong degree	1.2	2.2	3.2	4.2	5.2	6.2	7.2	8.2

Source: Gronlund, Svardsten & Ohman (2011)

Table I: The Classification Scheme

4. Empirical Analysis and Findings

4.1 PA Reports in Bangladesh

There are 17 audit directorates in Bangladesh. Among the 17 directorates, 7 directorates are disclosing the performance audit. As per the Office of Comptroller and Auditor General of Bangladesh (OCAG), the following directorates have disclosed the performance audit reports.

Name of Audit Directorate	Number of Reports
Works Audit Directorate (WAD)	4
Transport Audit Directorate (TAD)	6
Agriculture and Environment Audit Directorate (AEAD)	2
IT & Public Services Audit Directorate (IPSA)	3

Postal, Telecommunication, Science and Technology Audit Directorate (PTSTA)	2
Foreign Aided Projects Audit Directorate (FAPA)	1
Commercial Audit Directorate (CAD)	1
Total	19

Source: Authors' compilation from the website of the OCAG

Table II: Performance Audit Reports of Audit Directorate

4.2 Principles/classification of the Report

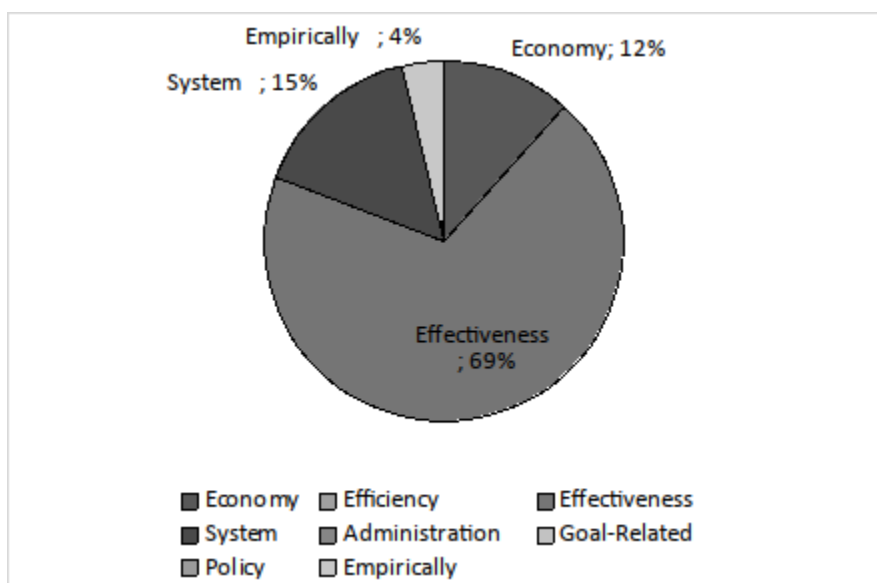
In the literature review, it has been mentioned that traditional types of PA focus on the economy, efficiency and effectiveness. However, because of the complex reality, extended types of audit reports are seen in different countries. Therefore following the previous studies and experimental investigation of PA reports we classify the reports to understand the principles of PA reporting by the Office of the Comptroller and Auditor General of Bangladesh (OCAG).

Our findings have been summarized in Figure I. Figure I shows that most of the PA reports take *Effectiveness* as the prime concern of the public projects. 69% of the total reports concern has been found on the Effectiveness of public sector undertakings. Some examples of PA reports that take *Effectiveness* as the principles have been presented below.

In Works Audit Directorate (WAD), PA report on 2005-07 focuses on the effectiveness of the projects. PA assesses the performance of 6 projects taken by the Water Development Board of Bangladesh. PA finds that in most cases, the projects fail to achieve the target. The spurs that are built under the projects to control the flow of water, fail because of poor design and poor construction. In PA reports several recommendations have been addressed as well. Similarly, another PA report in WAD (2007-08) on the embankments' performances measures whether the embankment project was effective or not against the flood. The report also questions the effectiveness of embankment regarding *compliance* with the Water Development Act and other related acts of the country. This report significantly focuses on the *compliance* issues along with the performance audit. PA assessment has been conducted on relatively longer periods also. For example; a PA report in WAD (2016-17) assesses the performances of ecological environmental resilience of a project over two years. The report assesses the effectiveness of the project to preserve the ecological environment. It finds that the projects failed to preserve the ecological environment.

Following the *Effectiveness*, the *System* has been addressed in the second highest number of PA reports as the audit principles. The analysis finds that 15% of reports take the System as the prime concern of the investigation of the public sector undertakings.

Figure I: PA reports classification based on principles of focus



It should be noted that *the system* has been highlighted along with one of the 3Es- the basic principles of PA. For example, in a PA assessment on road maintenance from 2005-06 to 2006-07 (transport audit directorate) an economy-centric focus is found. In the PA report auditors address the high spending on road maintenance which will ultimately hamper the objective of road and transportation development authority. This report also questions the bidding procedure (*system*) for allocating the maintenance work. It has been mentioned without following the required procedure (open bidding), works have been allocated among the very few conductors by violating the law (required participants in a bid).

12% of PA reports address *the Economy* as the main principle. For example; in the transport audit directorate, PA assesses the overall performance of the Ministry of Transportation for the years 2003-4 to 2005-06 in a PA report published in 2010. In the report, along with the effectiveness of various projects, the economic aspects of the projects have been highlighted. The report highlighted the issues of spending more money (*economy*) than the estimated money for the projects. At the end of the report, the response from the auditee has been highlighted where it has been mentioned that the auditee did not respond against the questions of the PA report.

Only 4% of PA reports address the performance empirically. In the transport audit directorate, PA assessment on Ministry of Shipping (2005-06 to 2009-10) assesses the performance of two sea ports of Bangladesh. This report highlighted the effectiveness of sea ports. However, it compares the performance of the sea ports of Bangladesh with the best practices by presenting the performance of some other countries. Therefore, along with the *effectiveness* it assesses the PA *empirically*.

Our analysis has not found any report related to the efficiency, administration, goal-related and policy-oriented audit. We have tried to understand the compliance issues in the PA reports. The findings are presented in Figure II.

Figure II: Compliance issues in PA reports

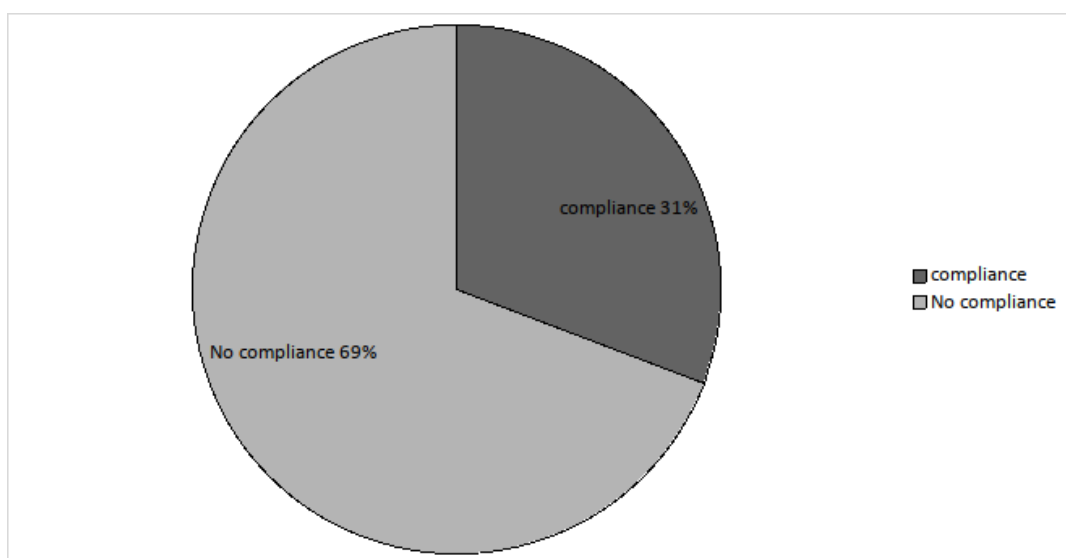


Figure II finds that 31% of PA reports address the issues of compliance. For example; in the IT & Public Services Audit Directorate (IPSA), the PA on the Food Ministry assess whether the ministry has the organizational structure to monitor and control the food safety and effectiveness of the existing law in this aspect. The PA finds that the organizational structure is very poor in ensuring the monitoring and control of food safety. Moreover, the existing law is not being implemented.

About 69% of the report has not incorporated compliance issues in the PA reports. It has to be noted that there are controversial opinions among scholars on whether compliance issues should be incorporated into the PA report or not. The OCAG attempted to operate compliance audit separately recently.

5. Discussion

In previous studies, it is found that research from developing countries on PA is relatively low in number (see Rana et al., 2022). Considering the situation, scholars argued for more research on public sector auditing including PA in the contexts of developing countries (e.g., Hay, 2017; Hay and Cordery, 2018).

Though 3Es have been argued traditionally as the principles of PA, over the years we have witnessed variations in practices across the world. Scholars mention that the variations may appear because of various reasons (Gronlund et al., 2011). One is state auditors may address the new demand of their activities. Another is the transformation of resources into output. Transformation of input to output is not simple and involves critical activities and public issues. Therefore, the situation may demand alternative assessment rather than traditional 3Es which are critical to assessing the complex reality (Gronlund et al., 2011). Consequently, auditors attempted to assess *System, administration, Goal-related, policy, empirical* and other performance.

This study contributes the PA policy of a developing country to the literature of PA. The study finds that most of the PA reports address *effectiveness* where *efficiency* is barely addressed. The extended policies have been addressed weakly as well where the study finds no PA on the *administration, goal-related* and *policy* assessment. The findings have opened the avenue for future research.

Many scholars have seen PA as an instrumental practice that presents the value of public money within the broad context of New Public Management (NPM) (Funnell, 2011; Johnsen, 2019; Radcliffe, 2012). As NPM has been presented as a controversial issue now, PA can contribute to the public sector performance. Leeuw (1996) highlighted three issues that bring the PA and NPM together. 1) NPM and PA have similar goals. 2) Implementing NPM has a risk of unintended consequences. Therefore, auditing can help to an extent. And 3) Implementing NPM may happen from mimetic isomorphism and can suffer to bring positive changes due to variation in contexts. It should be noted that there is a debate against generalizing the public management systems in developed and developing countries (Hood, 1991). However, the necessity of innovation and capability of managing the uncertain situation has always been identified as important factors by scholars for both the developed and developing countries (Carstensen, Sørensen & Torfing, 2023). Therefore, PA can help to unravel the differences in contexts and help to implement the NPM appropriately. Therefore, the findings of this study can present the scenario of NPM from the context of some specific performance of some public institutions.

It is required that the organization produce the documents required for public sector auditing. PA can address the basic principles and other extended principles when the organizations have the resources to produce the required information. Therefore, proper arrangement of the organization is required (Power, 1994).

As has been mentioned, very few studies have been conducted on PA in developing countries (Irawan and McIntyre Mills (2016); Fan, 2012). Some recent studies of PA question the implementation of PA considering the context. Sumiyana et al. (2023) investigate the auditors' independence in Indonesia in performance auditing. Through Gramsci's theory of hegemony,

Sumiyana et al. (2023) investigate the auditor's independence. Therefore, they address the political and societal contexts of performance auditing in Indonesia. Loke et al. (2016) investigate the perception of the public sector auditors in Malaysian public sector entities. It is found that auditors believe that through the effectiveness elements of PA, they can contribute to the policy decisions of the state. Moreover, they believed that PA ensures accountability. However, they claim that a lack of cooperation and commitment from an auditee may make their job critical and challenging.

The findings of this study bring the question of Sumaiyana et al. (2023) and Loke et al. (2016) in front of the policy developers of Bangladesh as well. Performance audits can focus on the contexts which are required to ensure the principles. Contexts include the governance, impact of regulatory agencies, management practices and others related to the delivery of timely and quality services. Therefore, the findings; especially the low report on efficiency and others ultimately highlight the requirement of investigation of the contexts.

6. Conclusions

The principles of performance auditing can reflect the context of audited institutions. Therefore, analysis of PA can provide an important insight into the public institution of a country. This study is aimed to assess the principles of performance auditing in Bangladesh. The study finds that among the basic principles, *effectiveness* has received the focus in most of the PA reports. *Economy* has been rarely addressed whereas *efficiency* has not been addressed at all. The study further finds that extended principles have been addressed poorly as well in the PA reports. The variation of PA reporting is diverse across the world. However, the potential insights have been interpreted in this study. The PA reports can address the principles like *efficiency* when the organizations have enough capability to produce the information related to efficiency.

Still, there is no research on PA in Bangladesh. Future research can be undertaken on various issues of PA. The institutionalization of PA can be investigated in Bangladesh in future. It has been found that research in PA lacks the theoretical frameworks. Therefore, in the future theoretical lens can be used to investigate PA practices in Bangladesh. Auditor's independence is a great concern in PA. Auditor's independence is based on several resources like law related to audit and companies, professional regulations, audit practices and education about civics and the practice of democracy. Therefore, based on this study both the researcher and practitioner can contribute in future. In developing countries, the support of the required resources to ensure the auditor's independence can be investigated. In Bangladesh, the resources can be investigated as well.

References

- Ahonen, P., & Koljonen, J. (2020). The contents of the National Audit Office of Finland performance audits, 2001–2016: An interpretive study with computational content analysis. *Journal of Public Budgeting, Accounting & Financial Management*, 32(1), 49-66. <https://doi.org/10.1108/JPBAFM-11-2018-0138>

- Behn, R. (2001). *Rethinking Democratic Accountability*. Brookings, Washington, DC.
- Bringselius, L. (2018). Efficiency, economy and effectiveness—but what about ethics? Supreme audit institutions at a critical juncture. *Public Money & Management*, 38(2), 105-110. <https://doi.org/10.1080/09540962.2018.1407137>
- Bowman, M. (1996). *Accounting and Performance Measurement: Issues in the Private and Public Sectors*. London: Paul Chapman Publishing Ltd.
- Carstensen, M. B., Sørensen, E., & Torfing, J. (2023). Why we need bricoleurs to foster robust governance solutions in turbulent times. *Public Administration*, 101(1), 36-52. <https://doi.org/10.1111/padm.12857>
- Cordery, C. J., & Hay, D. C. (2022). Public sector audit in uncertain times. *Financial accountability & management*, 38(3), 426-446. <https://doi.org/10.1111/faam.12299>
- Dittenhofer, M. (2001). Performance auditing in governments. *Managerial Auditing Journal*, 16(8), 438-442. <https://doi.org/10.1108/02686900110403136>
- Fan, H. (2012). Government performance auditing demand research based on the neo-institutional economics. *China Finance Review International*, 2(2), 100-120. <https://doi.org/10.1108/20441391211215806>
- Ferlie, E. (2017). The new public management and public management studies. In *Oxford Research Encyclopedia of Business and Management*.
- Ferry, L., Radcliffe, V. S., & Steccolini, I. (2022). The future of public audit. *Financial Accountability & Management*, 38(3), 325-336. <https://doi.org/10.1111/faam.12339>
- Funnell, W. (2011). Keeping secrets? Or what government performance auditors might not need to know. *Critical Perspectives on Accounting*, 22(7), 714-721. <https://doi.org/10.1016/j.cpa.2010.02.007>
- Garengo, P., & Sardi, A. (2021). Performance measurement and management in the public sector: state of the art and research opportunities. *International Journal of Productivity and Performance Management*, 70(7), 1629-1654. <https://doi.org/10.1108/IJPPM-03-2020-0102>

- Gendron, Y., Cooper, D. J., & Townley, B. (2007). The construction of auditing expertise in measuring government performance. *Accounting, organizations and society*, 32(1-2), 101-129. <https://doi.org/10.1016/j.aos.2006.03.005>
- Grönlund, A., Svärdesten, F., & Öhman, P. (2011). Value for money and the rule of law: the (new) performance audit in Sweden. *International Journal of Public Sector Management*, 24(2), 107-121. <https://doi.org/10.1108/09513551111109026>
- Guthrie, J. E., & Parker, L. D. (1999). A quarter of a century of performance auditing in the Australian federal public sector: A malleable masque. *Abacus*, 35(3), 302-332. <https://doi.org/10.1111/1467-6281.00048>
- Hay, D. (2017). Opportunities for auditing research: back to our interdisciplinary roots. *Meditari Accountancy Research*, 25(3), 336-350. <https://doi.org/10.1108/MEDAR-04-2017-0137>
- Hay, D., & Corderly, C. (2018). The value of public sector audit: Literature and history. *Journal of Accounting Literature*, 40(1), 1-15. <https://doi.org/10.1016/j.acclit.2017.11.001>
- Hood, C. (1991). A public management for all seasons?. *Public administration*, 69(1), 3-19. <https://doi.org/10.1111/j.1467-9299.1991.tb00779.x>
- Irawan, A. B., & McIntyre-Mills, J. (2016). Application of critical systems thinking to performance auditing practice at the Indonesian Supreme Audit Institution: issues and challenges. *Systems Research and Behavioral Science*, 33(1), 24-44. <https://doi.org/10.1002/sres.2325>
- INTOSAI (2019). ISSAI 300. Performance Audit Principles.
- Jeppesen, K. K., Carrington, T., Catasús, B., Johnsen, Å., Reichborn-Kjennerud, K., & Vakkuri, J. (2017). The strategic options of supreme audit institutions: The case of four Nordic countries. *Financial Accountability & Management*, 33(2), 146-170. <https://doi.org/10.1111/faam.12118>
- Johnsen, Å., Reichborn-Kjennerud, K., Carrington, T., Jeppesen, K. K., Taro, K., & Vakkuri, J. (2019). Supreme audit institutions in a high-impact context: A comparative analysis of performance audit in four Nordic countries. *Financial Accountability & Management*, 35(2), 158-181. <https://doi.org/10.1111/faam.12188>

- Knox, C., & Sharipova, D. (2023). Public sector reforms in developing countries: A preliminary review. *Public Administration and Development*, 43(5), 368-380. <https://doi.org/10.1002/pad.2030>
- Leeuw, F. L. (1996). Performance auditing, new public management and performance improvement: questions and answers. *Accounting, Auditing & Accountability Journal*, 9(2), 92-102. <https://doi.org/10.1108/09513579610116385>
- Loke, C. H., Ismail, S., & Hamid, F. A. (2016). The perception of public sector auditors on performance audit in Malaysia: an exploratory study. *Asian Review of Accounting*, 24(1), 90-104. <https://doi.org/10.1108/ARA-12-2013-0082>
- Lonsdale, J. (2008). Balancing Independence and Responsiveness: A Practitioner Perspective on the Relationships Shaping Performance Audit. *Evaluation*, 14(2), 227-248. <https://doi.org/10.1177/1356389007087541>
- Lonsdale, J., Wilkins, P., & Ling, T. (Eds.). (2011). *Performance auditing: Contributing to accountability in democratic government*. Edward Elgar Publishing.
- Manning, N. (2001). The legacy of the New Public Management in developing countries. *International Review of Administrative Sciences*, 67(2), 297-312. <https://doi.org/10.1177/0020852301672009>
- Parker, L. D., Jacobs, K., & Schmitz, J. (2019). New public management and the rise of public sector performance audit: Evidence from the Australian case. *Accounting, Auditing & Accountability Journal*, 32(1), 280-306. <https://doi.org/10.1108/AAAJ-06-2017-2964>
- Parker, L. D., Schmitz, J., & Jacobs, K. (2021). Auditor and auditee engagement with public sector performance audit: An institutional logics perspective. *Financial Accountability & Management*, 37(2), 142-162. <https://doi.org/10.1111/faam.12243>
- Pollitt, C. (2003). Performance audit in Western Europe: trends and choices. *Critical perspectives on accounting*, 14(1-2), 157-170. <https://doi.org/10.1006/cpac.2002.0521>
- Pollitt, C., Girre, X., Lonsdale, J., Mul, R., Summa, H., & Waerness, M. (1999). *Performance or compliance? Performance audit and public management in five countries*. Oxford University Press. <https://doi.org/10.1093/acprof:oso/9780198296003.001.0001>
- Porter, T.M. (1995). *Trust in Numbers*. Princeton University Press, Princeton, NJ.

- Power, M. (1997). *The audit society: Rituals of verification*. OUP Oxford
- Power, M. (2007). *Organizing Uncertainty: Designing a World of Risk Management*. Oxford University Press, Oxford.
- Putu S, N., Jan van Helden, G., & Tillema, S. (2007). Public sector performance measurement in developing countries: A literature review and research agenda. *Journal of Accounting & Organizational Change*, 3(3), 192-208. <https://doi.org/10.1108/18325910710820265>
- Radcliffe, V. S. (1998). Efficiency audit: An assembly of rationalities and programmes. *Accounting, organizations and Society*, 23(4), 377-410. [https://doi.org/10.1016/S0361-3682\(97\)00020-2](https://doi.org/10.1016/S0361-3682(97)00020-2)
- Radcliffe, V. S. (2012). The election of auditors in government: A study of politics and the professional. *Accounting and the Public Interest*, 12(1), 38-61. <https://doi.org/10.2308/apin-10269>
- Rajib, S. U., Adhikari, P., Hoque, M., & Akter, M. (2019). Institutionalisation of the cash basis international public sector accounting standard in the central government of Bangladesh: an example of delay and resistance. *Journal of Accounting in Emerging Economies*, 9(1), 28-50. <https://doi.org/10.1108/JAEE-10-2017-0096>
- Sharma, N. (2007). Interactions and interrogations: negotiating and performing value for money reports. *Financial accountability & management*, 23(3), 289-311. <https://doi.org/10.1111/j.1468-0408.2007.00430.x>
- Skærbæk, P. (2009). Public sector auditor identities in making efficiency auditable: The National Audit Office of Denmark as independent auditor and modernizer. *Accounting, Organizations and Society*, 34(8), 971-987. <https://doi.org/10.1016/j.aos.2009.01.001>
- Sumiyana, S., Hendrian, H., Jayasinghe, K., & Wijethilaka, C. (2023). Public sector performance auditing in a political hegemony: A case study of Indonesia. *Financial accountability & management*, 39(4), 691-714. <https://doi.org/10.1111/faam.12296>
- Vikkelsø, S. (2007). In between curing and counting: performative effects of experiments with healthcare information infrastructure. *Financial Accountability & Management*, 23(3), 269-288. <https://doi.org/10.1111/j.1468-0408.2007.00429.x>

- Rana, T., Steccolini, I., Bracci, E., & Mihret, D. G. (2022). Performance auditing in the public sector: A systematic literature review and future research avenues. *Financial Accountability & Management*, 38(3), 337-359. <https://doi.org/10.1111/faam.12312>
- Tillema, S., & ter Bogt, H. J. (2010). Performance auditing: improving the quality of political and democratic processes?. *Critical Perspectives on Accounting*, 21(8), 754-769. <https://doi.org/10.1016/j.cpa.2010.06.001>

Appendix 1. Classification of PA Reports

Audit Directorate	Economy (1)	Efficiency (2)	Effectiveness (3)	System (4)	Administration (5)	Goal-Related (6)	Policy (7)	Empirically (8)
<i>Water Audit Directorate (WAD)</i>								
2005-07 (6 Projects)			3.0					
2007-08 (22 Projects)	1.2		3.2					
2016-17 (1 Project for 2 years)			3.1					
2017-2018 (6 districts)			3.1					
<i>Transport Audit Directorate (TAD)</i>								
2003 (computerized wagon systems)			3.0					
2005-06 (1 road, 17 bridge, 3 years)			3.1					
2003-2004 (1 port)			3.0					
2003-04 to 2005-06 (overall)	1.2		3.0					
2005-06 to 2006-07 (overall on road maintenance)	1.0			4.0				
2005-06 to 2009-10 (Ministry of Shipping)			3.0					8.0
<i>Agriculture and Environment Audit Directorate (AEAD)</i>								
2006-07 (Ministry of Environment and Forest)			3.0					
2016-17 (Ministry of Water Resources)			3.0					
<i>IT & Public Services Audit Directorate (IPSA)</i>								
Health Service Division			3.2					
Food Ministry			3.0	4.0				
Ministry of Shipping (2010-2014)			3.0					
<i>Postal, Telecommunication, Science and Technology Audit Directorate (PTSTA)</i>								
Postal and Telecommunication Division (2015)			3.0	4.0				
Postal and Telecommunication Division (2017-18)			3.0					
<i>Foreign Aided Projects Audit Directorate (FAPA)</i>								
Climate Resilient Project (2021)			3.1					
<i>Commercial Audit Directorate (CAD)</i>								
Ministry of Industries (2008-09)			3.0	4.0				
<i>Water Audit Directorate (WAD)</i>								
2005-07 (6 Projects)			3.0					
2007-08 (22 Projects)	1.2		3.2					
2016-17 (1 Project for 2 years)			3.1					

2017-2018 (6 districts)	3.1		
<i>Transport Audit Directorate (TAD)</i>			
2003 (computerized wagon systems)	3.0		
2005-06 (1 road, 17 bridge, 3 years)	3.1		
2003-2004 (1 port)	3.0		
2003-04 to 2005-06 (overall)	1.2	3.0	
2005-06 to 2006-07 (overall on road maintenance)	1.0	4.0	
2005-06 to 2009-10 (Ministry of Shipping)	3.0		8.0
<i>Agriculture and Environment Audit Directorate (AEAD)</i>			
2006-07 (Ministry of Environment and Forest)	3.0		
2016-17 (Ministry of Water Resources)	3.0		
<i>IT & Public Services Audit Directorate (IPSA)</i>			
Health Service Division	3.2		
Food Ministry	3.0	4.0	
Ministry of Shipping (2010-2014)	3.0		
<i>Postal, Telecommunication, Science and Technology Audit Directorate (PTSTA)</i>			
Postal and Telecommunication Division (2015)	3.0	4.0	
Postal and Telecommunication Division (2017-18)	3.0		
<i>Foreign Aided Projects Audit Directorate (FAPA)</i>			
Climate Resilient Project (2021)	3.1		
<i>Commercial Audit Directorate (CAD)</i>			
Ministry of Industries (2008-09)	3.0	4.0	

Source: Authors' own compilation/assessment (reports published from 2003 to 2021)