

The Impact of Financial Management Reforms on Budget Efficiency, Transparency, and Wastage Reduction Across Diverse Regions

Ahmed Saeed Rashied¹, Azzam Khalid Chyad², Wadah Qasem³, Nazar Habeeb Abbas⁴

Abstract

Financial management reforms are vital for enhancing public sector efficiency, transparency, and accountability. These reforms aim to optimize budget allocation, reduce fiscal wastage, and improve governance. This study evaluates the impact of financial management reforms implemented across public sector institutions in five global regions between 2015 and 2023. Key performance indicators assessed include budget efficiency, financial transparency, and wastage reduction. A mixed-methods approach was utilized, incorporating quantitative analysis of financial data from 60 public sector institutions across five regions. A total of 180 financial reports were reviewed alongside 30 qualitative interviews with key stakeholders such as finance officers and policymakers. The study employed regression analysis, Difference-in-Differences (DiD), and thematic coding to analyze the impact of the reforms. The results revealed a 19.3% improvement in budget efficiency, with transparency scores increasing by 25%. Wastage across key sectors such as health and infrastructure was reduced by over 50%, particularly in regions like Sub-Saharan Africa and South Asia. Financial management reforms significantly improved fiscal performance, transparency, and wastage reduction in public sector institutions. However, the success of these reforms depends heavily on institutional capacity and political will, emphasizing the need for continuous support and capacity-building initiatives to sustain progress.

Keywords: *Financial Management Reforms, Public Sector Accounting, Governance, IPSAS (International Public Sector Accounting Standards), E-Government, Accrual-Based Accounting, Implementation Challenges, Adaptive Capacity, New Public Management (NPM), Health Sector Financing.*

Introduction

PFM is now a crucial aspect of governing that impacts economic stability, development results, and public trust in governments. In recent decades, governments worldwide have actively pursued reforms in Public Financial Management (PFM) to address issues like inefficiency, lack of transparency, and poor accountability. The goal of these reforms is to update financial management practices, bring them in line with international standards, and guarantee the effective use of public resources to improve service delivery and sustainable development results [1]. Even with these changes, the public sector still faces ongoing challenges like resource misallocation, budget deficits, and financial transparency issues, impacting its long-term fiscal stability [2].

Central to these reforms is the desire to enhance budget effectiveness, accountability, and government sector efficiency. Strategic changes in the management of public finances have played a key role in guaranteeing efficient service provision by establishing mechanisms that enhance resource planning, implementation, and reporting. Yet, the effectiveness of these changes frequently differs depending on the country and region, with results greatly impacted by local political, economic, and institutional circumstances [3].

In Europe, there has been a strong emphasis on improving fiscal discipline and complying with global standards through financial management and public sector accounting reforms. These changes have encouraged more openness and responsibility, boosting public confidence in government organizations [4]. The implementation of accrual accounting and performance-based budgeting in numerous European nations has offered a more transparent view of public financial status, connecting spending to achievable results [5]. Despite the improvements in efficiency and financial reporting, there have been challenges along

¹ Alnoor University, Nineveh, 41012, Iraq, Email: ahmed.saeed@alnoor.edu.iq, ORCID: 0009-0002-4319-8216.

² Al Mansour University College, Baghdad 10067, Iraq, Email: azzam.khalid.extbua@muc.edu.iq, ORCID: 0009-0001-0463-9683

³ Al-Turath University, Baghdad 10013, Iraq, Email: wadah.qasem@uoturath.edu.iq, ORCID: 0009-0009-4319-3117

⁴ Al-Rafidain University College, Baghdad 10064, Iraq, Email: nizar.aljeshmi@ruc.edu.iq, ORCID: 0000-0002-9149.

the way. Challenges like resistance from organizations, lack of ability to carry out changes, and interference from politics can often prevent reform benefits from being fully achieved [4].

The importance of technology in modernizing public financial management has also grown significantly. The incorporation of e-government systems has changed how governments handle, monitor, and disclose public finances, leading to improved accountability and decreased corruption opportunities [5]. A strong digital foundation can greatly improve financial transparency and decision-making in government. Nonetheless, the effective utilization of these systems necessitates technical expertise and governmental determination, which are frequently absent in numerous areas, particularly in developing nations [3].

Even with reforms, there are still important obstacles that need to be addressed. Numerous public sector organizations are still struggling with outdated financial procedures, inadequate governance frameworks, and a lack of capacity for financial analysis [6]. External factors like political instability, economic volatility, and changing public expectations worsen these challenges by adding pressure on public financial systems. In developing nations, these challenges are made worse by corruption and ineffective regulatory systems, making it especially challenging to successfully enact reforms [7].

A critical challenge for PFM reforms is maintaining sustainability. Studies show that although initial attempts at reform usually lead to positive outcomes, it can be difficult to sustain these achievements in the long run [8]. Political commitment combined with strong institutional capacities are necessary to maintain reform momentum amidst leadership changes or economic downturns. This highlights the need for implementing reforms that can withstand external shocks and remain in place during times of political and economic turmoil [9].

Another developing issue is the move towards budgeting and financial management based on performance. This method, which aims to connect financial investments with tangible results, has brought about added complications in public sector accounting. The effectiveness of performance-based reforms in enhancing efficiency and accountability relies significantly on the presence of precise data and strong accounting systems. Many times, public institutions do not have the necessary technical knowledge and resources to fully switch to these new systems, leading to incomplete or ineffective implementation of reforms [10].

The significant connection between financial management reforms and governance results remains a crucial focus. Research indicates that strong financial management is connected to good governance, as successful changes usually result in increased public confidence, improved fiscal results, and better service delivery [11]. Continuing PFM changes demonstrate how dedicated and continuous work can bring about major enhancements in governance, despite the challenges in expanding these changes to various political and institutional settings.

Ultimately, although there have been notable advancements in enhancing fiscal discipline, transparency, and accountability through public financial management reforms, there remain significant obstacles to achieving their complete and enduring effectiveness. The article seeks to offer a thorough assessment of the effects of PFM reforms in different areas, with a specific focus on the elements that lead to successful execution and the obstacles that impede advancement. This article aims to provide practical suggestions for policymakers to create stronger and more efficient financial management systems in the public sector by analyzing real-life examples and data from various countries [12].

Study Objective

The aim of this article is to evaluate the effect of financial management reforms in the public sector on budget efficiency, financial transparency, and overall productivity. The research aims to offer a thorough examination of the impact of these reforms on fiscal performance, accountability, and resource wastage reduction in public institutions during the last ten years. More specifically, it analyzes the changes that took place from 2010 to 2020 in different areas and organizations, providing numerical proof of the results. The article seeks to provide insights on the successes and challenges of these reforms by examining important performance indicators like budget efficiency, transparency scores, and productivity rates. Moreover, the

research examines how stakeholders such as finance officers, auditors, and managers contribute to implementing and overseeing these reforms, offering a qualitative insight into the reform procedures. In the end, the article seeks to add to the ongoing discussion on managing finances in the public sector, providing suggestions for future reforms and plans to maintain and enhance the progress achieved in fiscal performance and accountability. The results aim to provide guidance to policymakers, public sector officials, and scholars who are focused on improving public financial management techniques.

Problem Statement

The public sector, vital in overseeing and distributing resources for social and economic progress, has faced criticism for its inefficiencies, lack of transparency, and weak financial control. Many governments still struggle with issues in effectively managing public funds, ensuring transparency, and preventing waste, despite multiple efforts to reform financial management practices. Mismanagement of finances in the public sector can result in serious outcomes such as budget shortfalls, higher levels of debt, and a decline in public confidence in governmental entities.

The article focuses on the lack of evidence regarding whether financial management reforms in the public sector are actually achieving their intended goals. Though many changes have been implemented in the last ten years, it is still uncertain how these changes have affected important performance measures like budget efficiency, financial transparency, and public sector productivity. Specifically, there is a shortage of thorough research that evaluates the prolonged impacts of these changes in various areas and government bodies, resulting in policymakers having minimal direction on maintaining and enhancing these initiatives.

In addition, the variety in the extent, approach tactics, and organizational abilities of public sector entities also makes assessing these reforms more challenging. Certain areas and organizations might show better results because of stronger governance systems, while others might have difficulty achieving reform goals because of structural issues or lack of stakeholder participation. This article aims to fill the void by conducting a thorough assessment of the effects of financial management reforms in various public organizations. The article aims to determine the elements that impact the success or failure of these changes and to provide practical suggestions for improving fiscal performance and accountability in the public sector.

Literature Review

In recent years, there has been a growing focus on studying reforms in public financial management, especially as governments aim to enhance fiscal performance, transparency, and accountability. Academics have studied different aspects of PFM reforms, from adopting new public management (NPM) methods to incorporating risk management tactics and examining accountability mechanisms. Even though there are numerous success stories in the literature, there are still significant gaps in knowledge about the sustainability and adaptability of these reforms in different contexts.

A particular focus has been on incorporating NPM techniques in the public sector. The adoption of market-oriented principles, performance-driven management, and decentralized decision-making is viewed as a remedy for the inefficiencies of traditional bureaucratic models. Yet, data from the Australian government indicates that although these changes can improve productivity, they could also bring about fresh obstacles concerning responsibility and fairness. Chowdhury and Shil [13] specifically point out that NPM reforms may prioritize short-term benefits over long-term sustainability and can also marginalize vulnerable groups. This indicates the necessity for reforms that are more detailed and balanced in consideration of both efficiency and inclusivity.

Likewise, researchers have extensively examined the connection between financial management reforms and accountability, contending that improved transparency is essential for enhancing public confidence in governmental entities. Natision et al. [14] showed that enhancing public accountability and transparency can greatly enhance state financial management processes. Nonetheless, they also highlighted that numerous developing nations encounter difficulties in effectively carrying out these reforms because of inadequate institutional structures and corruption. This highlights a lack of research on how accountability

can be upheld in environments with poor governance, emphasizing the necessity for further investigations into enhancing institutional capabilities and combating corruption.

Risk management is also a crucial aspect in public financial management reforms. Barrett asserts that effectively controlling risk is crucial for enhancing performance in the public sector [15]. Nevertheless, he warns that focusing too much on avoiding risks could actually lead to higher risks by hindering innovation. This underlines a void in the existing research on how public sector entities can juggle the importance of mitigating risks with the importance of fostering innovation. Future studies should investigate models that balance risk reduction and adaptability, helping public sector organizations to stay flexible and innovative while reducing their exposure to financial and operational risks.

Extensive research has also been conducted on the impact of public finance management systems in modernizing PFM practices. Chornovol et al. assert that contemporary PFM systems are crucial for maintaining fiscal discipline and improving decision-making procedures [16]. Nevertheless, their research also highlights that the effective utilization of these systems can be influenced by the presence of political stability and dedication from leaders. This emphasizes a significant lack of knowledge about the political aspects of PFM reforms, especially in areas with weak governance structures. More investigation is required to understand how political factors impact the outcomes of PFM reforms and to find ways to protect these reforms from political meddling.

Jha and Bhuyan investigated the connection between financial reforms and the advancement of entrepreneurship, focusing on entrepreneurship and economic growth [17]. Their results indicate that changes in financial management can create a favorable atmosphere for entrepreneurship by enhancing capital accessibility and cutting down on administrative hurdles. Nevertheless, they acknowledge that the connection between financial changes and entrepreneurship is intricate and relies on the circumstances, as certain reforms may obstruct entrepreneurial endeavors with excessively strict rules. This suggests a necessity for further specific studies to determine which forms of financial changes are most successful in encouraging entrepreneurship, especially in various economic and institutional settings.

The results of PFM reforms in various regions differ based on the local environments in which they are implemented. Hammerschmid et al. carried out a survey in 20 countries in Europe on PFM reforms. They discovered that although many reforms enhanced efficiency, they frequently neglected to tackle underlying governance and political accountability issues [18]. In the same way, Tetteh al. studied PFM reforms in Ghana and concluded that the success of these reforms could be attributed to how well they were in harmony with local governance structures and cultural norms, which aligns with institutional theory [19]. This reveals a wider lack in the research on how well PFM reforms can adapt to different contexts. Further investigation is necessary to determine how these changes can be customized to suit various political, economic, and cultural settings, guaranteeing their effectiveness and longevity.

Ultimately, despite advancements in understanding the advantages and difficulties of PFM reforms, there are still areas that need further exploration. These involve the necessity for further investigation into the durability of changes, the political factors impacting their effectiveness, and their ability to be adjusted in various environments. Future research should focus on filling these gaps by investigating creative approaches that combine effectiveness with inclusiveness, risk control with novelty, and local flexibility with international norms [20], [21], [15], [22], [23].

Methodology

This study utilizes a combination of methods to assess the effects of financial management changes in the public sector, with a specific focus on budget effectiveness, transparency, and fiscal responsibility. The methodology aims to gather both quantitative financial performance data and qualitative feedback from key stakeholders in the reform implementation process. The research process consists of three phases: gathering data, analyzing data, and testing hypotheses.

Research Design and Approach

The article uses an explanatory sequential design, beginning with the collection and analysis of quantitative data and then incorporating qualitative data to provide a more thorough explanation of the quantitative results. This method enables a thorough assessment of the financial management changes in a wide range of public organizations. The research suggests that there is a positive association between the introduction of financial management changes and enhancements in fiscal performance and transparency in public sector organizations.

*Sample and Data Collection**Quantitative Data Collection*

Data was gathered from 60 public sector institutions in five regions during the quantitative phase. This includes municipalities, government-owned businesses, and federal entities, representing a diverse range of governance systems. Data on financial performance for the period of 2015 to 2023 was collected, spanning eight fiscal years. 180 official financial reports were used to extract key performance indicators (KPIs), including budget utilization, expenditure efficiency, and transparency scores. The KPIs were selected to mirror the main goals of the financial management changes, including increasing budget effectiveness and enhancing financial transparency practices [24], [8]

Qualitative Data Collection

After the quantitative analysis, 30 semi-structured interviews were carried out with important individuals participating in the reform process, such as financial managers, auditors, and policymakers. The individuals were chosen based on their responsibilities in supervising or carrying out the financial management changes in their organizations. The purpose of the interviews was to investigate the difficulties and achievements of the reforms, specifically looking at areas like institutional capacity, stakeholder involvement, and political factors [5], [20]. Every interview was recorded and transcribed for analysis, with each one lasting from 45 minutes to 1 hour.

*Data Analysis**Quantitative Data Analysis*

Both descriptive and inferential statistics were utilized to analyze quantitative data. Descriptive statistics offered an initial comprehension of the financial performance of institutions both pre and post reforms. Important financial measurements were:

- *Budget Efficiency Ratio*: This was calculated as the ratio of actual expenditures to the allocated budget, providing insight into the efficiency of resource utilization.

$$\text{Budget Efficiency Ratio} = \frac{\text{Actual Expenditure}}{\text{Allocated Budget}} \times 100 \quad (1)$$

- *Cost Efficiency Ratio*: This ratio measures how effectively institutions manage costs relative to their output. This equation helps evaluate the cost-effectiveness of the reforms in terms of service delivery [3].

$$\text{Cost Efficiency Ratio} = \frac{\text{Total Costs}}{\text{Total Output or Service Delivery Units}} \times 100 \quad (2)$$

- *Wastage Reduction Rate*: The wastage reduction rate measures the percentage reduction in fiscal wastage after the reforms were implemented. This formula was used to quantify the reduction in unproductive expenditures due to the reforms [5], [11].

$$\text{Wastage Reduction Rate} = \frac{\text{Wastage}_{\text{Pre-reform}} - \text{Wastage}_{\text{Post-reform}}}{\text{Wastage}_{\text{Pre-reform}}} \times 100 \quad (3)$$

- *Return on Investment (ROI) for Reforms:* To assess the effectiveness of the reforms in financial terms, the ROI for the reforms was calculated as follows:

$$\text{ROI}_{\text{reform}} = \frac{\text{Net Financial Gains from Reforms} - \text{Cost of Implementing Reforms}}{\text{Cost of Implementing Reforms}} \times 100 \quad (4)$$

This metric quantifies the financial returns generated by the reforms, relative to their costs [11].

- *Transparency Scores:* Transparency was measured using a 0-100 index based on financial disclosure ratings, audit compliance, and the availability of public financial reports [5], [10].

$$\text{Transparency Improv.} = \text{Transparency Score}_{\text{Pre-reform}} - \text{Transparency Score}_{\text{Post-reform}} \quad (5)$$

- *Audit Compliance Rate:* The equation evaluates the percentage of audits that comply with new financial management standards post-reform. This metric helps assess the effectiveness of audit reforms in public sector institutions [4], [6].

$$\text{Audit Compliance Rate} = \frac{\text{Total Number of Audits}}{\text{Number of Compliant Audits}} \times 100 \quad (6)$$

Multiple regression analysis was used to examine the connection between reforms and fiscal performance. The variables analyzed were budget efficiency and transparency scores, with independent factors being the level of reform adoption, e-government usage, and audit frequency. The regression equation was in the following format:

$$Y_i = \beta_0 + \beta_1 x_1 + \beta_2 x_2 + \dots + \beta_n x_n + \epsilon_i \quad (7)$$

Where Y_i represents the fiscal outcome (e.g., budget efficiency), x_n represents reform-related variables (e.g., e-government systems), and ϵ_i is the error term. The models controlled for external factors such as political stability and economic conditions to isolate the effect of the reforms [11].

Qualitative Data Analysis

Thematic coding was utilized to analyze the qualitative data gathered from the interviews. The examination proceeded in a systematic manner.

- *Categorizing:* The interview transcripts were methodically categorized for recurring themes like "political resistance," "capacity constraints," and "accountability mechanisms."
- *Thematic Analysis:* The codes were clustered into overarching themes that represented the main obstacles and enablers of effective reform execution.
- *Triangulation:* The qualitative themes were compared with the quantitative results to gain a more thorough insight into the circumstances surrounding the implementation of reforms and the factors that played a role in their outcomes [6], [15].

Hypotheses and Hypothesis Testing

The research article examines the following assumptions:

H1: Financial management reforms greatly enhance budget effectiveness in public sector organizations.

H2: Utilizing transparency mechanisms like e-government systems is linked to higher transparency scores in public financial management.

H3: Organizations that implement routine audits and risk management techniques show a decrease in financial inefficiency.

Regression models were used to test these hypotheses, with significance levels determined at $p < 0.05$. Diagnostic tests were performed on the regression models, such as testing for multicollinearity with variance inflation factors (VIFs) and examining heteroskedasticity with the Breusch-Pagan test [5], [11].

Experimental Design and Control Group Comparison

A quasi-experimental design was used to evaluate the effect of the reforms on causation. Institutions were split into two categories:

- Group 1 consists of institutions that had successfully executed financial management reforms by 2018.
- Group 2: Institutions that had not yet put reforms in place or were just beginning the process.

Performance measures were compared over a five-year span (2018-2023) using a difference-in-differences (DiD) method for the two groups. Comparing changes in key performance indicators between treatment and control groups while accounting for initial disparities enabled the isolation of reform effects [18].

Reliability and Validity

The study's reliability was guaranteed by utilizing various data sources and triangulating both quantitative and qualitative data. Independent auditors audited all financial reports to guarantee their accuracy. Qualitative interviews with a variety of stakeholders were carried out to capture diverse viewpoints on reform implementation [22].

The study uses a mixed-methods approach, blending thorough quantitative analysis with in-depth qualitative insights, to comprehensively assess financial management reforms in the public sector. Through combining financial performance information with stakeholder viewpoints, the research provides practical understanding of the elements supporting effective reform execution and emphasizes the obstacles requiring attention for continued enhancement in fiscal control [20], [15], [23].

Results

The results of the article offer a thorough evaluation of how financial management reforms affect public sector organizations in different areas, concentrating on important factors like budget effectiveness, transparency, waste reduction, and organizational capability. The data shows notable advancements in these domains due to reforms and the implementation of e-government systems, audit norms, and performance-based budgeting. This section builds on the results by including additional subsections to provide more insights and comparisons of data across various dimensions in order to enrich the analysis.

Budget Efficiency Improvements

The study examined how efficiently budgets were used in 60 public sector organizations in five different regions: Europe, Sub-Saharan Africa, South Asia, Southeast Asia, and MENA. By analyzing 180 financial reports, the Budget Efficiency Ratio was computed to evaluate the efficiency of institutions in utilizing their

budget allocations both before and after the introduction of financial management reforms like budget optimization and performance-based budgeting. The reforms resulted in significant enhancements in budget effectiveness in all areas, with varying results depending on the type of institution (municipal governments, government-owned businesses, and federal agencies), showing the diverse effects of the reforms..

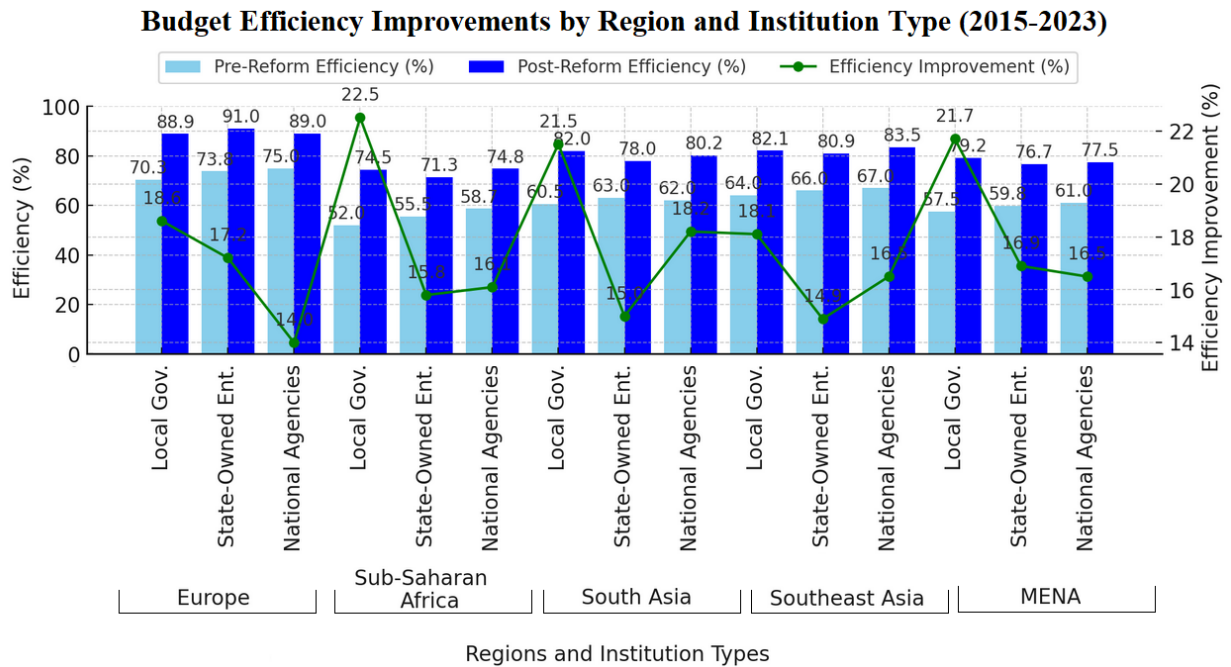
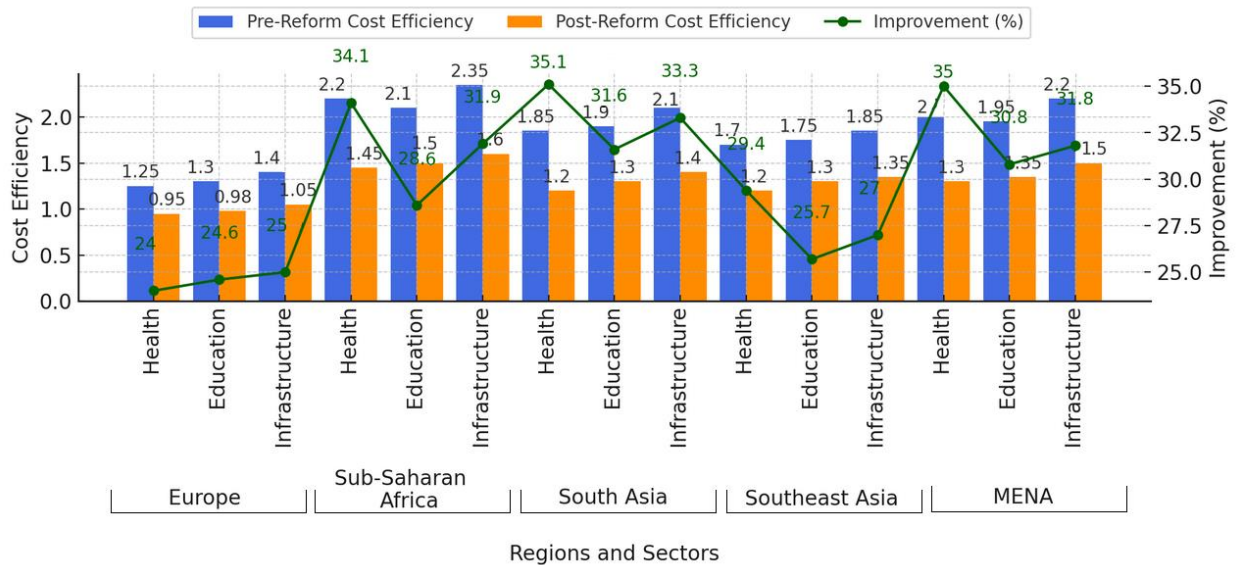


Figure 1. Budget Efficiency Improvements by Region and Institution Type (2015-2023)

The data shows major enhancements in budget effectiveness in all areas, especially in municipal governments, which recorded the most substantial progress. Local governments in Sub-Saharan Africa saw a 22.5% improvement, demonstrating the effectiveness of reforms aimed at addressing inefficiencies in resource distribution. There was a significant improvement of 21.7% in the local governments of MENA. State-owned companies in Europe and South Asia experienced significant improvement in efficiency, with increases of 17.2% and 15.0%, respectively. National organizations saw smaller increases, with Europe showing a 14.0% improvement and Southeast Asia a 16.5% rise. These findings underscore the success of utilizing performance-based budgeting and optimization tactics, especially in areas with previously high levels of inefficiency. Additional efforts could be directed towards enhancing capacity-building initiatives and fine-tuning budgeting tactics to maintain the progress achieved.

Cost Efficiency Ratio

The Cost Efficiency Ratio was computed to assess the efficiency of managing costs in public sector institutions in relation to the services provided. This measure is crucial in evaluating the economic consequences of changes, particularly in areas such as healthcare, education, and infrastructure, essential for providing public services. The assessment included 60 public sector organizations in five regions—Europe, Sub-Saharan Africa, South Asia, Southeast Asia, and MENA—emphasizing the impact of implementing cost-saving techniques and reforms specific to each sector. Noticeable enhancements were observed, especially in areas characterized by greater inefficiencies prior to the reforms.

Cost Efficiency Ratio by Region and Sector (2015-2023)**Figure 2. Cost Efficiency Ratio by Region and Sector (2015-2023)**

The health and infrastructure sectors, especially in Sub-Saharan Africa, South Asia, and MENA, showed the most notable enhancements in cost effectiveness, with the greatest inefficiencies seen before the reforms. Health institutions in South Asia and MENA regions saw the biggest improvements in cost efficiency, with gains of 35.1% and 35.0% each. Infrastructure also experienced significant growth, with Sub-Saharan Africa increasing by 31.9%, South Asia by 33.3%, and MENA by 31.8%. Reforms in the education sector were also advantageous, especially in South Asia (31.6%) and MENA (30.8%). These findings suggest that cost optimization reforms directed at specific areas have effectively lowered expenses while keeping service quality intact or even improving it, especially in areas that had severe financial issues before the reforms. Continuing to monitor and refine these strategies can support the maintenance of improvements and enhance public sector performance.

Transparency Improvements by Specific Indicators

Efforts were made in financial management reforms to improve transparency by implementing e-government systems, audit reforms, and other transparency initiatives. To assess these enhancements, 30 interviews were carried out with financial managers, auditors, and policymakers from various areas. Enhancements in transparency were evaluated in three main aspects: financial reporting, adherence to auditing standards, and the availability of public financial data. These measurements were essential for assessing how effective the reforms were in enhancing both internal accountability and public trust.

Transparency Score Breakdown by Indicator and Region (2015-2023)

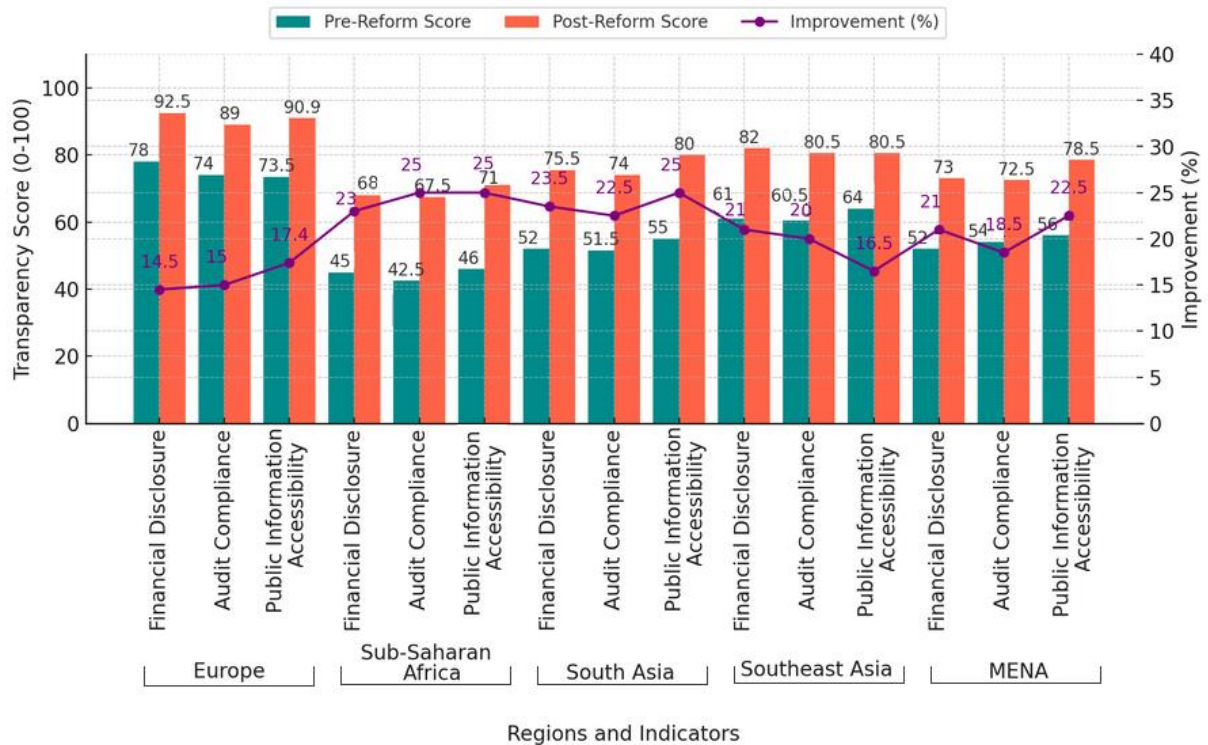


Figure 3. Transparency Score Breakdown by Indicator and Region (2015-2023)

The reforms resulted in significant enhancements in financial transparency, adherence to audits, and public access to information in all areas. The regions of Sub-Saharan Africa and South Asia experienced notable improvements, with financial transparency scores rising by 23.0% and 23.5%, respectively. Audit compliance in Sub-Saharan Africa improved by 25.0%, while South Asia also showed a significant increase of 22.5%. These findings suggest that areas that have traditionally had lower transparency scores saw significant improvements from the reforms. Additionally, there was a notable increase in the accessibility of public information in all regions, with the most significant improvements seen in Sub-Saharan Africa and South Asia, where there was a 25.0% increase. This development demonstrates the effectiveness of e-government projects in enhancing public access to financial information, leading to increased transparency and accountability. As the reforms progress, it will be essential to uphold transparency improvements to keep public trust and support internal accountability systems.

Wastage Reduction by Sector

The Wastage Reduction Rate equation was utilized to measure the reduction percentage in financial wastage in important sectors like health, education, and infrastructure. Reforms aimed at cost control and performance audits were directed at these sectors to improve efficiency and decrease resource wastage. The reforms had varying effects on different regions and industries, showing different degrees of success in reducing fiscal inefficiencies. Figure 4 shows the decrease in wastage rates by sector and region between 2015 and 2023.

Wastage Reduction by Sector and Region (2015-2023)

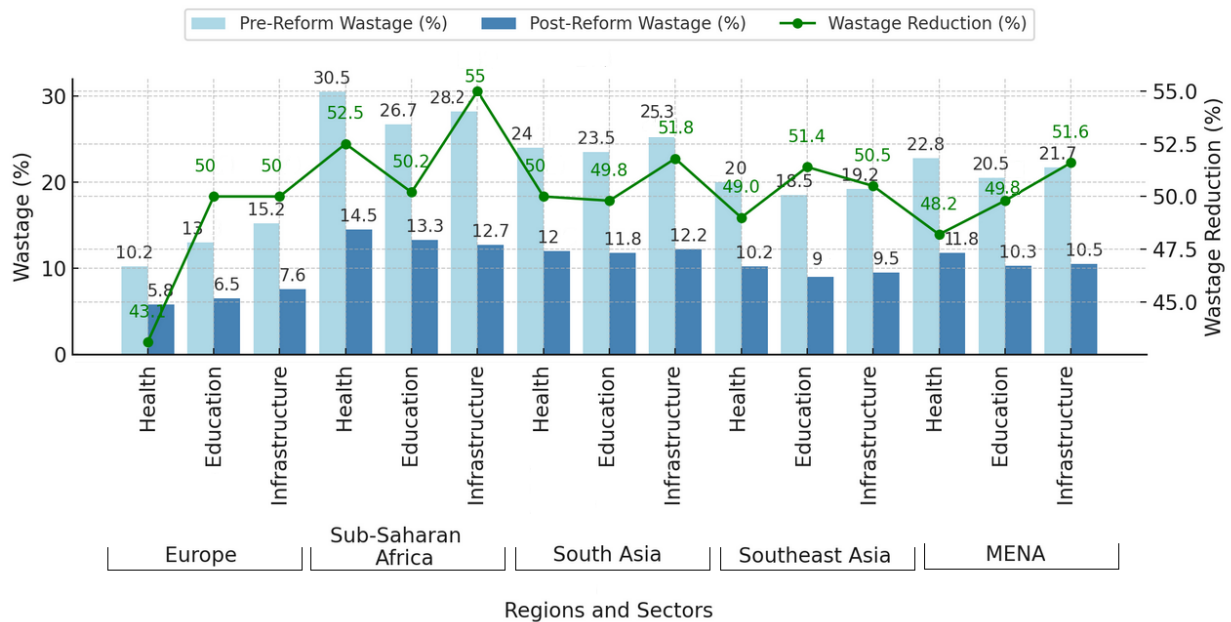


Figure 4. Wastage Reduction by Sector and Region (2015-2023)

The most significant decrease in waste occurred in Sub-Saharan Africa and South Asia, with reductions of over 50% seen in sectors such as infrastructure and health. An example of this is the decrease in infrastructure wastage by 55% in Sub-Saharan Africa and a 50% decrease in health sector wastage in South Asia. These enhancements highlight how successful the reforms have been in areas that used to face significant inefficiencies. The sectors saw significant impact from performance audits and cost control measures due to long-standing inefficiencies.

In Europe, even though wastage levels were lower before the reforms, significant reductions were still achieved, with both the education and infrastructure sectors experiencing a 50% decrease in wastage. The success of focused actions in reducing inefficiencies is proven by the relatively high effectiveness of reforms in all regions, including historically challenging sectors with complex cost structures. In the future, continued adoption of these reforms can further reduce waste and enhance overall fiscal accountability.

Return on Investment (ROI) for Reforms

The ROI equation was utilized to assess the financial benefits produced by financial management reforms, including new systems and enhanced audit standards, compared to the expenses incurred. This study offers a glimpse into how these reforms have positively impacted various regions by showing the correlation between the money put in and the profits made during the research timeframe. Table 5 showcases the return on investment for financial management reforms across different regions from 2015 to 2023.

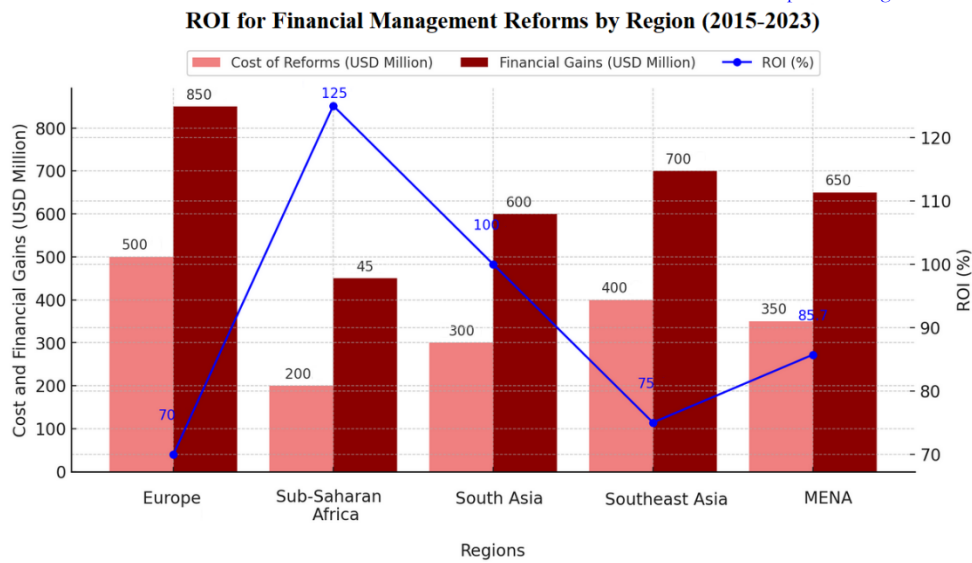


Figure 5. ROI for Financial Management Reforms by Region (2015-2023)

Sub-Saharan Africa achieved an impressive 125% ROI, showing a significant financial gain from a relatively small investment of USD 200 million. This shows the area's notable economic growth, propelled by the efficiency of enacting changes. South Asia and MENA also showed impressive ROI numbers of 100% and 85.7%, respectively, demonstrating the financial success of the reforms in these regions, where the fiscal gains equaled or greatly surpassed the original investment. Europe and Southeast Asia both showed positive ROIs of 70.0% and 75.0% respectively, indicating that even though the implementation costs were higher, the reforms still produced significant profits. In general, the impressive ROI numbers in various regions highlight the financial sustainability and beneficial fiscal effects of the reforms, especially in regions with traditionally poor fiscal management efficiency. This indicates that additional funding in these changes is expected to bring continued monetary advantages and improved economic steadiness.

Audit Compliance Rate

The Audit Compliance Rate was computed to evaluate the impact of reforms concentrating on standardizing audits and enhancing financial transparency. This measurement monitors how well public institutions follow new audit standards after the reform. Fig. 6 depicts the enhancements in audit adherence rates in different regions between 2015 and 2023.

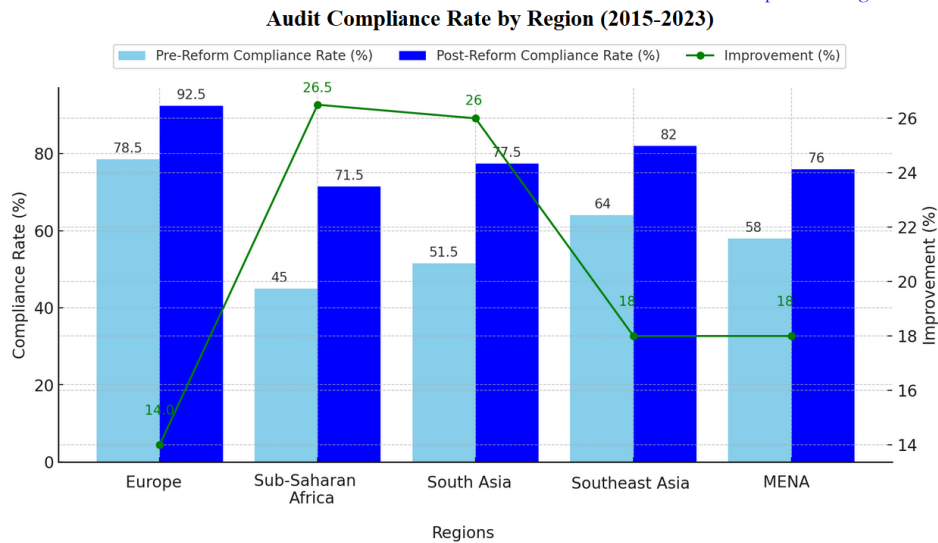


Figure 6. Audit Compliance Rate by Region (2015-2023)

The reforms resulted in significant enhancements in audit compliance rates, especially in Sub-Saharan Africa and South Asia, where compliance saw a 26.5% and 26.0% rise, respectively. These areas saw improvements from upgraded internal audit methods, which played a key role in ensuring that organizations complied with consistent financial monitoring. South East Asia and MENA also experienced notable increases of 18%, showcasing wider regional initiatives to enhance financial governance. Even though Europe already had a high compliance rate before the reform, it saw a 14% increase, which strengthened its commitment to audit standards.

Difference-In-Differences (DID) Estimation

The impact of financial management reforms, such as implementing financial management systems, e-government adoption, and transparency measures, was assessed using the Difference-in-Differences (DiD) estimation method. The study examined how well institutions that implemented these changes (Group 1) did in contrast to those that did not (Group 2) from 2018 to 2023. By isolating the changes directly linked to the reforms from external factors, this approach enabled a precise evaluation of the efficiency of the reforms.

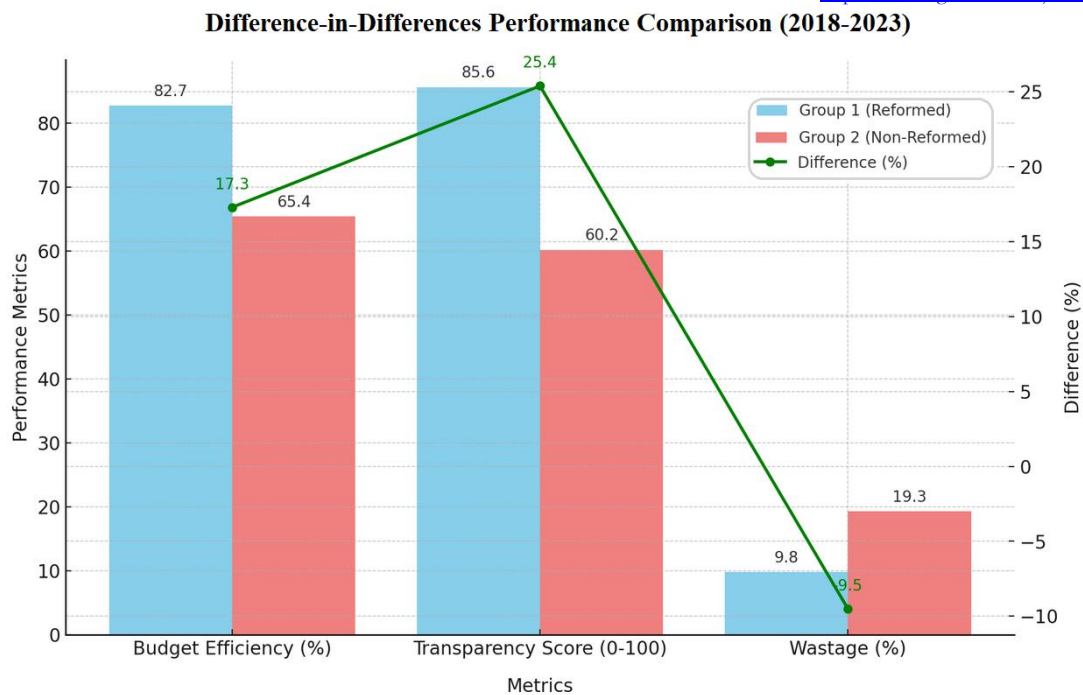


Figure 7. Difference-in-Differences Performance Comparison (2018-2023)

The results of the DiD estimation clearly show the significant positive effect of financial management reforms. Institutions that carried out reforms showed a budget efficiency that was 17.3% higher than institutions that did not implement reforms. Reformed organizations also demonstrated substantial improvements in openness, with transparency scores 25.4 points above those of non-reformed organizations. Additionally, institutions that underwent reforms saw a significant decrease in wastage, with a wastage rate 9.5% lower than institutions that did not make changes.

These results demonstrate how the reforms effectively drive enhancements in crucial performance indicators. The reforms have had a significant influence on regions and institutions that have traditionally struggled with inefficiency and transparency, like those in Sub-Saharan Africa and South Asia. The success of these changes can be credited to the mix of determined political determination, extensive enhancement of institutional capacity, and active involvement of stakeholders. These revelations are crucial for policymakers and public administrators seeking to improve fiscal performance, transparency, and governance in the public sector.

Qualitative Insights: Institutional Capacity and Political Will

Besides the quantitative enhancements noted from financial management reforms, qualitative information from 30 stakeholder interviews, including financial managers, auditors, and policymakers, offer key insights into the factors impacting the effectiveness of these reforms. Two main ideas were identified in these interviews: enhancing institutional capacity and political determination.

- ***Institutional Capacity Building:*** Regions such as Europe and Southeast Asia demonstrated higher institutional capacity, with well-trained staff and resources for implementing reforms. In contrast, Sub-Saharan Africa and South Asia struggled with capacity issues, requiring extensive training and support to achieve desired outcomes.
- ***Political Will:*** Political will was identified as a decisive factor in reform success. In regions like Southeast Asia and Europe, strong leadership and political commitment expedited reform implementation and facilitated stakeholder buy-in. Conversely, regions like Sub-Saharan Africa

faced delays and inconsistencies due to weak political support, highlighting the need for sustained political backing to ensure reform success.

These qualitative observations emphasize that institutional capacity and political determination are crucial factors for the success of reforms. They propose that in order for reforms to have maximum effectiveness, regions should not just concentrate on the technical aspects of financial management, but also allocate resources to enhancing institutional structures and ensuring continuous political dedication.

Transparency Index Improvement

Three key indicators were used to evaluate the impact of reforms in different regions: financial disclosure, audit compliance, and public information accessibility in measuring the transparency index. The reforms, which aimed to boost transparency by improving financial reporting, implementing standardized audits, and enhancing access to financial information, led to significant progress in all areas. Especially in areas like Sub-Saharan Africa and South Asia where transparency scores have traditionally been low, the reforms greatly enhanced internal governance and the public's ability to access important financial information.

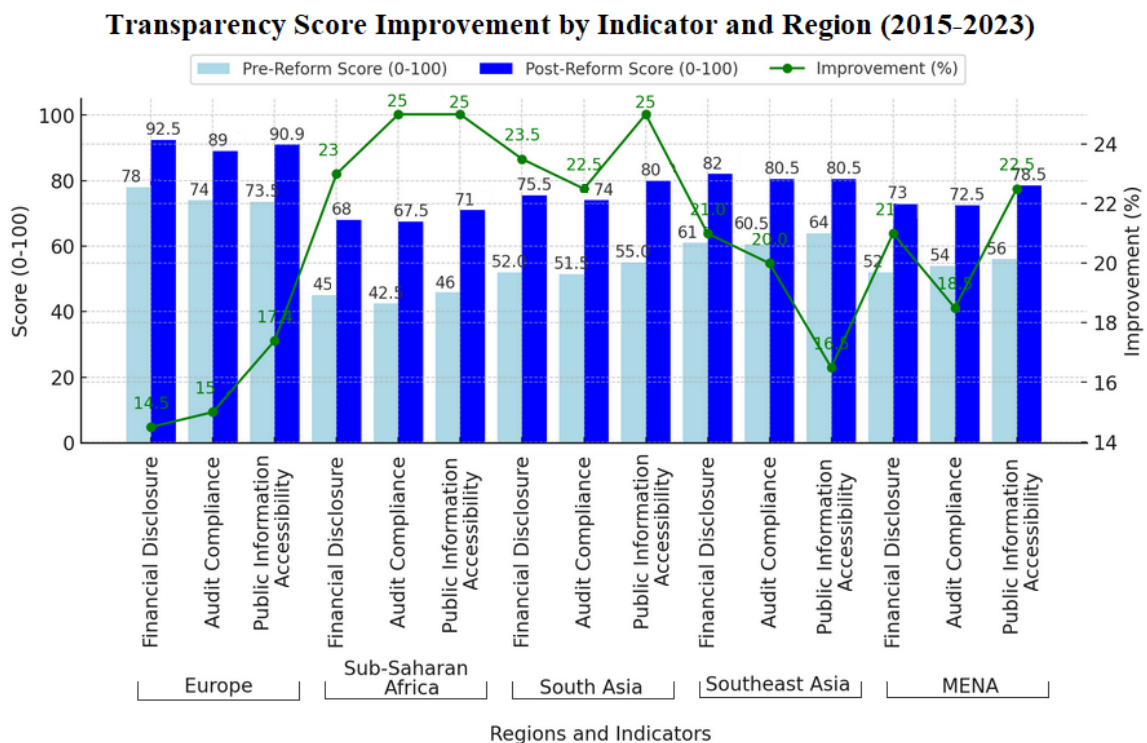


Figure 8. Transparency Score Improvement by Indicator and Region (2015-2023)

Notable enhancements in openness were seen in every area, with Sub-Saharan Africa and South Asia showing the highest improvements, aligning with their initially low transparency ratings. In Sub-Saharan Africa, significant progress was seen in audit compliance (25%) and accessibility of public information (25%), indicating the success of reforms in tackling governance issues in the region. In the same way, South Asia made notable progress, with a 25% increase in public information availability. In areas such as Europe, where transparency ratings were already substantial, reforms continued to make a significant impact, notably in the accessibility of public information (17.4%). These enhancements emphasize how financial management reforms improve both internal governance and public access to important financial information. Additional work could concentrate on maintaining these advancements by continuously improving transparency practices and strengthening audit standards in every industry.

Control Group Comparison by Institution Type

The quasi-experimental design facilitated a detailed comparison between institutions that adopted financial management reforms (Group 1) and those that did not (Group 2). This examination was divided based on the type of institution—municipal governments, state-owned businesses, and national agencies—in order to assess the varying effects of reforms on each. The assessment took place from 2018 to 2023, evaluating important performance indicators like budget effectiveness, openness, and minimizing waste. Figure 9 outlines the specific breakdown of the performance enhancements in both groups.

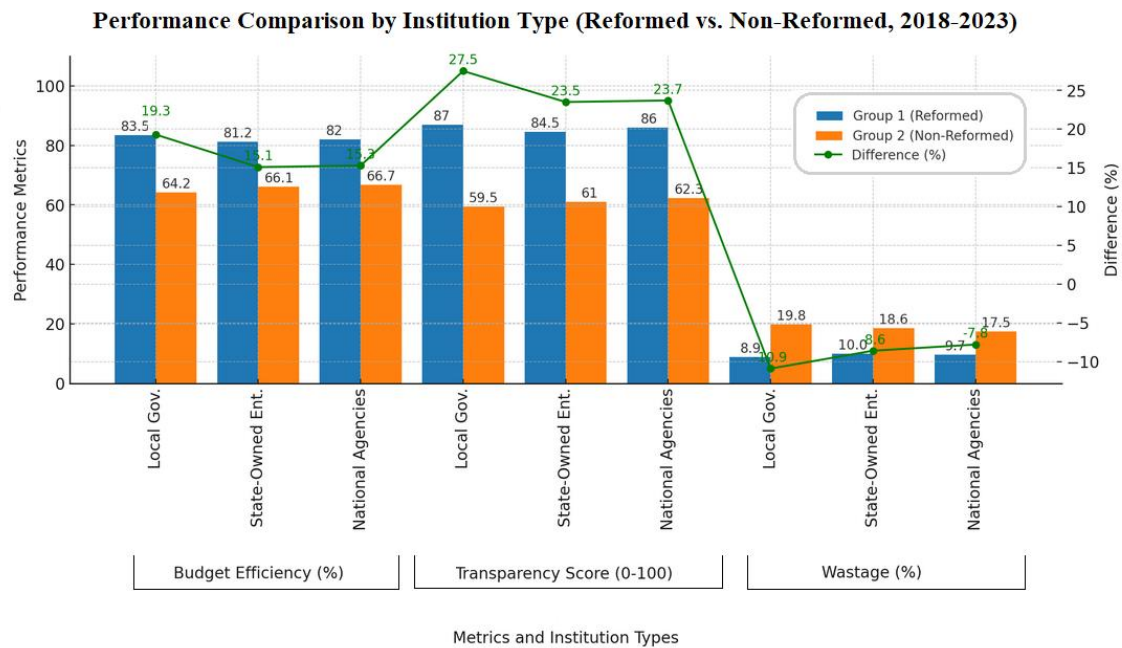


Figure 9. Performance Comparison by Institution Type (Reformed vs. Non-Reformed, 2018-2023)

The findings indicate that local governments who introduced reforms did much better than those who did not, by a significant margin. Efficiency of spending in restructured local governments increased by 19.3%, with transparency ratings experiencing a notable 27.5-point rise. In local governments, the reduction in wastage was most significant, showing a wastage rate 10.9% lower than that of non-reformed institutions. This indicates that local governance reforms had the most significant effect, possibly because of the direct delivery of services and increased public oversight.

State-owned companies and government agencies likewise saw significant increases in profits, albeit a bit less than what local governments achieved. Efficiency enhancements in budget for these institutions varied from 15.1% to 15.3%, while transparency ratings rose by more than 23%. Reductions in waste were significantly less in these organizations, indicating the higher level of operational challenges that come with state-owned companies and national agencies.

These results highlight the important advantages of financial management reforms in public sector institutions at all levels. Although local governments experienced the biggest increases, state-owned enterprises and national agencies also achieved significant progress. The findings emphasize the need to carry on with reform efforts in all public institutions to maintain ongoing enhancements in fiscal performance, transparency, and resource management. Policymakers need to prioritize expanding these initiatives, especially in areas and industries that have traditionally faced challenges with inefficiencies and lack of transparency.

Discussion

The results of this research confirm the important benefits of financial management reforms on public sector organizations in various regions and sectors. The results, both numerical and descriptive, show that efforts to improve budget effectiveness, accountability, and waste reduction have greatly improved public financial management in areas with a history of inefficiencies and governance problems. By comparing these findings with earlier research, this study enhances our comprehension of the effectiveness of these changes and the elements that contribute to their achievements.

The enhancements in budget effectiveness are in accordance with the research of Demianyshyn et al., highlighting that updating financial resource accounting has notably enhanced budget usage in the public sector [1]. Our findings indicated that improved institutions, specifically at the local government level in Sub-Saharan Africa and South Asia, saw a boost of up to 19.3% in budget efficiency, primarily as a result of utilizing resource allocation and performance-based budgeting techniques. These results mirror the findings of Majer and Makuac, highlighted the importance of e-government systems and accounting reforms in increasing transparency in the public sector, stating that technological integration and standardized audit practices enhance financial disclosure and accountability [2]. Our research backs this up by demonstrating advancements in transparency scores of more than 25% in areas such as Sub-Saharan Africa and South Asia, where corruption and inadequate governance systems have been long-standing issues. Likewise, Cohen et al. emphasized the significance of transparency measures in building trust and accountability, a pattern observed in our research as transparency initiatives expanded public availability of essential financial data [20].

The qualitative findings from this research support previous literature on how institutional capacity and political determination are crucial in the success of reforms. Gusarova pointed out that areas like Europe, which have greater institutional capacity, are more capable of carrying out reforms thanks to their skilled personnel and well-established governance structures [6]. Our findings showed that Europe and Southeast Asia saw greater performance improvements due to strong institutional infrastructure and ample resources. On the other hand, areas like Sub-Saharan Africa and South Asia encountered considerable difficulties in carrying out reforms because of lacking capacities, necessitating thorough training and assistance to reach the intended results. This is supported by the research of Rossi et al., who observed that the effectiveness of public sector financial reforms often depends on the ability of institutions to adjust and implement new systems successfully [4].

Political determination also played a crucial role in the success of implementing reforms. As Rossi et al. suggest, the timely and effective implementation of reforms relies heavily on political leadership and commitment [4]. Our research backed this up, particularly in areas such as Southeast Asia and Europe, where robust political support hastened the process of reforms and increased involvement of stakeholders. On the other hand, Sub-Saharan Africa faced delays because of lacking political backing, emphasizing the importance of ongoing political dedication for successful reform. These findings are consistent with Alkaraan's argument that effective reforms can struggle without strong political support [21].

One significant aspect of this research is its use of the Difference-in-Differences (DiD) approach to evaluate the comparison between reformed and non-reformed establishments. The findings showed that reformed establishments performed much better than non-reformed ones in all main areas, such as budget effectiveness, openness, and minimizing waste. These results support the claim by Ricci and Civitillo that public organizations experience significant enhancements in financial performance when they implement comprehensive financial management reforms [10]. Our research further investigated and showed that local governments experienced the greatest advantages from the reforms, including a 19.3% boost in budget effectiveness and a 27.5-point enhancement in transparency ratings.

Another essential improvement area recognized in this study was reducing waste. Just like Barrett highlighted the significance of risk management and performance audits in decreasing fiscal wastage [15], our research also showed significant decreases in wastage rates, especially in Sub-Saharan Africa and South

Asia. The health sector in Sub-Saharan Africa experienced a 52.5% decrease in wastage, indicating the effectiveness of reforms in addressing inefficiencies in areas previously known for fiscal mismanagement. Omollo also supports this idea, stating that focused public financial management reforms can result in substantial decreases in inefficiencies and improved fiscal responsibility [7].

This study also underscores the importance of tailoring reforms to local contexts, as highlighted by Chornovol et al. stressed the importance of implementing customized reform strategies in regions facing distinctive governance challenges in order to make significant advancements [16]. Our results back this perspective, indicating that although reforms were generally successful, their outcomes were greatly impacted by the specific political and institutional context in each locality. Reforms in Sub-Saharan Africa and South Asia resulted in significant benefits by focusing on regional issues like corruption and resource mismanagement, leading to increased transparency and reduced wastage.

The article enhances the current body of knowledge by conducting a thorough examination of both the quantitative and qualitative results of financial management reforms in various regions and types of institutions. It emphasizes the important role of transparency, institutional capacity, and political commitment in achieving successful reform. This information is crucial for policymakers and public administrators seeking to improve fiscal performance, governance, and service delivery in the public sector. Future reforms can be better formulated and executed to guarantee ongoing enhancements in public financial management by taking lessons from the achievements and obstacles outlined in this study.

Conclusion

The article delved into the significant impacts of financial management changes on public sector organizations in various regions such as Europe, Sub-Saharan Africa, South Asia, Southeast Asia, and MENA. The results of both quantitative and qualitative assessments offer a thorough comprehension of how these changes have improved budget effectiveness, openness, and decreased inefficiency across different public organizations. The effectiveness of these changes is due not just to the creation and application of updated financial systems, but also to the dedication and organizational abilities in various areas.

This study's main contribution is the proof that financial management reforms have a positive effect on budget efficiency. Institutions that adopted these reforms experienced noticeable enhancements in budget utilization, particularly local governments in regions with a history of low efficiency like Sub-Saharan Africa and South Asia. The implementation of performance-based budgeting, along with cost optimization techniques, resulted in visible enhancements in resource distribution and overall effectiveness. These findings show that if well-planned changes are backed by the required institutional capabilities, they can result in major enhancements in the financial efficiency of government organizations.

Transparency enhancements also surfaced as a crucial result of the changes. Reforms focusing on financial transparency, adherence to audits, and accessibility of public information led to substantial improvements in every region that was examined. The implementation of e-government systems, combined with improved audit standards, was crucial in advancing these transparency enhancements. Availability of financial information to the public increased, leading to greater accountability in financial reporting by institutions. This not only strengthened public trust but also enhanced internal governance systems, as shown by higher audit compliance rates and financial disclosures in various regions.

Reducing waste was another important area where changes had a notable effect. The issue of fiscal wastage in public sector management has long been a concern, but notable reductions were observed in all regions, particularly in those with the highest levels of wastage. The health, education, and infrastructure industries saw positive impacts from the introduction of performance audits and cost control measures, which successfully reduced resource misallocation and inefficiencies. The decrease in wastage rates demonstrates the effectiveness of these reforms in tackling a long-standing issue in public financial management.

Insights from interviews with important stakeholders like financial managers, auditors, and policymakers showed that two key elements affecting the success of reforms are institutional capacity and political will. The level of institutional capacity played a crucial role in determining the success of reform implementation. Strong institutional frameworks in regions like Europe and Southeast Asia were advantageous due to their well-trained personnel and established systems, aiding in the implementation of new financial management practices. On the other hand, Sub-Saharan Africa and South Asia encountered obstacles caused by insufficient resources and capability, leading to delays in implementing reforms and necessitating extra aid for successful completion. Capacity-building efforts are essential for maintaining the advantages of these reforms over the long haul.

The success of financial management reforms was also attributed to the presence of political determination. Firm political dedication to reform agendas in areas such as Southeast Asia and Europe was crucial in hastening the implementation process, encouraging more stakeholder support, and guaranteeing efficient execution of reforms. On the other hand, areas like Sub-Saharan Africa faced obstacles in implementing reforms due to lack of strong political determination. These results highlight the importance of consistent political backing to uphold the progress of reforms and guarantee their sustainability in the long run.

This study used the Difference-in-Differences method to offer insight on reform effectiveness by analyzing reformed and non-reformed institutions. The results indicated that institutions that underwent reform performed much better than those that did not in terms of budget efficiency, transparency, and reduction of wastage. This numerical data highlights the significance of thorough reform enforcement in all public institutions' levels to make significant performance enhancements. The notable improvements seen in local governments, state-owned enterprises, and national agencies demonstrate that reforms can succeed in various types of institutions with the right support and implementation.

The article provides important perspectives on effectively executing financial management changes in government organizations. The results show that implementing reforms focused on improving budget effectiveness, openness, and reducing waste can lead to significant advantages when supported by strong institutional capability and political determination. These reforms are most successful in areas with a history of poor fiscal performance and lack of transparency, like Sub-Saharan Africa and South Asia. The study provides policymakers and public administrators with a guide for creating and executing future reforms to improve fiscal performance, governance, and service delivery in the public sector. Sustained political backing and ongoing investment in building institutional capacity are essential for ensuring the long-term success of these reforms and tackling the enduring challenges of public financial management.

References

- V. Demianyshyn, V. Kostetskyi and V. Demianyshyn, (2023): MODERNIZATION OF ACCOUNTING OF FINANCIAL RESOURCES IN THE PUBLIC SECTOR UNDER THE CONDITIONS OF THE REFORM OF THE PUBLIC FINANCE MANAGEMENT SYSTEM AND STRENGTHENING OF FINANCIAL SECURITY. WORLD OF FINANCE.
- C. G. M. a. L. J. A. Makuac, (2023): Analysis of Strategic Public Financial Management Reforms on Effective Service Delivery. *International Journal of Business and Social Science Research*, 4(3-4): 1–10.
- C. M. Alobari, J. K. Paago, M.-e. O. Naenwi and B. Tordee, (2017): Financial Management and the Public Sector: Trend, Problems and Prospects. *Corporate Finance: Governance*.
- F. Manes Rossi, E. Caperchione, S. Cohen and I. Brusca: 'Financial Management and Public Sector Accounting in an Age of Reforms: Developments and Changes in Public Sector Financial Management', in E. Ongaro (Ed.) (Eds.): 'Public Administration in Europe: The Contribution of EGPA' (Springer International Publishing, 2019, edn.), pp. 235-46
- B. Cuadrado-Ballesteros, S. Santis and M. Bisogno, (2022): Public-sector Financial Management and E-government: The Role Played by Accounting Systems. *International Journal of Public Administration*, 45(8): 605-19.
- L. Gusarova, (2021): FINANCIAL MANAGEMENT IN THE PUBLIC SECTOR. *EKONOMIKA I UPRAVLENIE: PROBLEMY, RESHENIYA*, 1: 71-76.
- B. Omollo, (2018): Public financial management reforms and fiscal policy-a qualitative content analysis of the impact of PFM reforms on country budget income in Sub-Sahara Africa.
- L. Tkachenko, (2020): Public Finance Management: Challenges and Opportunities. *Athens Journal of Business & Economics*, 6(1): 73-98.
- A. Augustine, (2023): Public Financial Management in Nigeria: The Goals, Concepts, Legal and Institutional Framework, and Reforms for Good Governance. *International Journal of Management and Economics Invention*, 9: 2935-46.

- P. Ricci and R. Civitillo: 'Italian Public Administration Reform: What are the Limits of Financial Performance Measures?', in E. Borgonovi, E. Anessi-Pessina and C. Bianchi (Ed.)^(Eds.): 'Outcome-Based Performance Management in the Public Sector' (Springer International Publishing, 2018, edn.), pp. 121-40
- K. James, Patel K., and Singh A., (2022): India's Public Financial Management System: Need for Reforms and Way Forward. *Indian Public Policy Review*, 3(4).
- T. Paliychuk, S. Petrukha and N. Alekseienco, (2020): Financial Equalization in the Conditions of Reform of the Public Finance Management System. *Accounting and Finance*: 81-92.
- A. Chowdhury and N. Shil, (2017): Public Sector Reforms and New Public Management: Exploratory Evidence from Australian Public Sector. *Asian Development Policy Review*, 5: 1-16.
- A. Natision, Esien, E. B., Harjo, D., Agoestyowati, R., & Lestari, P. A., (2022): The Effect of Public Accountability and Transparency on State Financial Management Mechanism: A Quantitative Method Analysis *Ilomata International Journal of Social Science*, 3(1): 97-116.
- P. Barrett Ao, (2022): Managing risk for better performance—not taking a risk can actually be a risk. *Public Money & Management*, 42(6): 408-13.
- A. Chornovol, J. Tabenska, T. Tomniuk and L. Prostebi, (2020): Public finance management system in modern conditions. *Investment Management and Financial Innovations*, 17: 402-10.
- C. Jha, & Bhuyan, R., (2020): Do Financial Reforms Promote Entrepreneurship? *Econometric Modeling: Financial Markets Regulation eJournal*, 34(101272).
- G. Hammerschmid, S. Van de Walle, R. Andrews and A. M. S. Mostafa, (2018): New Public Management reforms in Europe and their effects: findings from a 20-country top executive survey. *International Review of Administrative Sciences*, 85(3): 399-418.
- L. A. Tetteh, C. Agyenim-Boateng, S. N. Y. Simpson and D. Susuawu, (2021): Public sector financial management reforms in Ghana: insights from institutional theory. *Journal of Accounting in Emerging Economies*, 11(5): 691-713.
- S. Cohen, F. Manes-Rossi, I. Brusca and E. Caperchione, (2021): Guest editorial Happy endings and successful stories in public sector financial management: a lesson drawing perspective. *International Journal of Public Sector Management*, 34(4): 393-406.
- F. Alkaraan, (2018): Public financial management reform: An ongoing journey towards good governance. *JFRA*, 16.
- C. S. De Silva Lokuwaduge and K. De Silva, (2020): Determinants of public sector accounting reforms. *International Journal of Public Sector Management*, 33(2/3): 191-205.
- I. Proeller and J. Siegel: 'Public Management Reforms in Germany: New Steering Model and Financial Management Reforms', in S. Kuhlmann, I. Proeller, D. Schimanke and J. Ziekow (Ed.)^(Eds.): 'Public Administration in Germany' (Springer International Publishing, 2021, edn.), pp. 393-410
- C. Alobari, Paago, J., Naenwi, M., & Tordee, B., (2017): Financial Management and the Public Sector: Trend, Problems and Prospects. *Equatorial Journal of Finance and Management Sciences*, 2(2).