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Government Revenue Management Practices and Financial Sustainability of Oil Resources in South Sudan

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Government Revenue Management Practices and Financial Sustainability of Oil Resources in South Sudan

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Abstract

Government revenue management practices serve as the foundation upon which the other variables either thrive or falter. Financial sustainability is fundamental to the enduring viability and resilience of any entity, be it a business, organization, or government. The study's objective was to determine the effect of government revenue management practices on the financial sustainability of oil resources in South Sudan. The study was anchored on public choice theory and supported by resource dependency theory. A descriptive longitudinal research design was adopted, utilizing secondary data collected from 2012 to 2023 from sources such as the Central Bank of South Sudan, the Ministry of Petroleum (MOP), the Ministry of Finance and Planning (MOFP), the World Bank Report and the International Monetary Fund (IMF) and analysis by regression models. The findings revealed that government revenue management practices positively and significantly impact financial sustainability of oil resources in South Sudan, highlighting the crucial roles of effective tax collection and transparent public expenditure (R2 = 0.2411, p<0.05). The study concludes that effective government revenue management is essential for the financial sustainability of oil resources in South Sudan. The findings reinforce public choice theory by demonstrating that strong governance and institutional structures are vital for managing the financial aspects of natural resources in resource-rich but economically vulnerable countries. This study aids industry stakeholders in developing best practices that ensure the sustainable extraction and sale of oil resources, the findings can shape the development and refinement of national strategies and regulations pertaining to the oil sector and the study enriches academic literature on the dynamics of resource-rich economies. Based on the findings, the study recommends that policymakers in South Sudan prioritize the implementation of robust fiscal policies that enhance the efficiency of revenue collection and ensure transparency in public expenditure. Specifically, the government should establish an independent fiscal oversight body tasked with monitoring oil revenue management and ensuring that revenues are allocated and spent in a manner that supports long-term economic stability.

Keywords: *Government revenue management practices, Public Expenditure, Financial Accountability and financial sustainability*

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1. Introduction

Government revenue management practices are foundational to a nation's fiscal health and socio-economic stability. Effective strategies, procedures, and policies for collecting, allocating, and utilizing public funds ensure that resources are harnessed optimally for the public good (Oladele et al., 2021). By promoting transparent and accountable handling of revenues, these practices deter corruption, wastage, and misallocation, fostering public trust in government institutions. Financial sustainability is fundamental to the enduring viability and resilience of any entity, be it a business, organization, or government. For governments and non-profits, financial sustainability ensures the consistent provision of essential services and the fulfilment of their missions. A stable economy can offer a conducive environment for robust revenue management practices to thrive, thus reinforcing the path to financial sustainability (Ndunda et al., 2020). On the contrary, some scholars think that the stability of the country's economic settings is a major determinant of long-term financial sustainability, so critical is this to the extent that even the best revenue management practices might falter in translating to long-term financial sustainability due to external interruptions if there is instability in the country (Chugunov et al., 2020).

In South Sudan, the government revenue management practices concerning oil resources have historically been fraught with challenges. As the nation's primary revenue source, the management of oil revenues has been pivotal in shaping its fiscal policy and economic trajectory (Pal et al., 2023). "However, due to a combination of internal conflicts, lack of robust institutional mechanisms, and intermittent disputes with Sudan over oil transit fees, there has been inconsistency in revenue collection and allocation (Mawejje & McSharry, 2021). Allegations of corruption and the absence of a transparent accounting system have further muddied the waters. The limited reinvestment of these revenues into diversifying the economy and bolstering essential public services has posed questions about the effectiveness of the revenue management practices adopted (Mathelemusa, 2021).

1.2 Research Problem

Government revenue management practices serve as the foundation upon which the other variables either thrive or falter. Government revenue management practices play a pivotal role in shaping transparent and efficient fiscal policies which can attract investors by providing a stable and predictable business environment (Tashevska et al., 2020). Government revenue management practices are foundational to a nation's fiscal health and socio-economic stability. Effective strategies, procedures, and policies for collecting, allocating, and utilizing public funds ensure that resources are harnessed optimally for the public good (Oladele et al., 2021). Effective revenue management practices ensures long-term financial sustainability of the country's resources is more likely to be achieved (Rotimi et al., 2021).

South Sudan is one of the youngest country globally with its independence declared in 2011. Despites its age, South Sudan holds significant oil reserves with its GDP approximately of 60% made up of oil revenue with 98% of its exports by the end of the 2020s (Berdal & Shearer, 2021). According to Niyitunga and Wamaitha (2023), South Sudan’s heavy reliance on oil, periodic tensions with Sudan over oil transit, infrastructural challenges and internal political conflicts has caused economic vulnerabilities. Average global dependency on oil for export revenues stands at around 24%, but South Sudan’s total oil reliance is of concern because it is alarmingly high. Given this backdrop, a critical analysis of oil resources in South Sudan is crucial (International Crisis Group, 2021).

Several empirical studies have delved into the intricate relationship between government revenue management practices and financial sustainability. For instance, Smith and Brown (2018) found a significant positive correlation between transparent and efficient revenue management practices and improved financial sustainability in oil-dependent economies. Similarly, Herath et al. (2023) revealed that local governments with more robust and transparent revenue management practices tended to have lower debt burdens and were better positioned to maintain vital public services. Despite these studies, there exists a distinct gap in contextualizing these variables specifically within the unique socio-political and economic framework of South Sudan. The current study aims to fill this gap, offering insights that are tailored to South Sudan's post-independence landscape and its challenges as an oil-reliant emerging nation. This study aimed at responding to the research question; what is the effect of government revenue management practices on financial sustainability of oil resources in South Sudan?

1.2 Research Objective

To determine the effect of government revenue management practices on financial sustainability of oil resources in South Sudan.

2.0 Literature Review

The literature review chapter documents the key theories guiding the study and the relationship with the study variables as well as the theoretical linkages among the variables under review. This section also involves the empirical studies as advanced by various authors around the globe.

2.1 Theoretical Background

This shows reviewed theories that explain the association between government revenue management practices and financial sustainability. The study was anchored on the public choice theory and supported by resource dependency theory. The public choice theory by Buchanan and Tullock (1962) was the anchor theory of this study as it posits that government officials make decisions based on their own self-interests. Effective revenue management might be pursued if it aligns with the personal or political interests of those in power, thereby affecting financial sustainability. Thus, it directly connects government revenue management practices and financial sustainability. The resource dependency theory by Pfeffer (1978) emphasizes Nation's dependency on a singular resource needs effective revenue management to ensure financial sustainability. In the case of South Sudan, the heavy reliance on oil as a primary source of revenue makes the nation particularly susceptible to external factors, such as global oil prices and international market dynamics. Resource Dependency Theory can help in examining how South Sudan's dependency on oil resources influences its government's revenue management practices and overall financial sustainability.

2.2 Empirical Review

A study done in Muhanga district, Rwanda by Mukanyandwi and Rusibana (2023) examined how revenue management practices operationalized using cashflow forecasting affect the financial sustainability among Small and Medium Size (SME's). 100 SMEs were sampled from the 32880 SMEs operating in the district. The authors found that prudent management of revenue in the areas of debt, liquidity ratio and profitability encourage financial sustainability of SMEs. The authors however found evidence that suggest that both forecasting control, revenue control and cash flow as elements of revenue management has a correlation with financial sustainability. Owing to these findings, the scholars recommended the need for organizations, particularly SMEs to put forward measures that ensures that revenue is well planned. The study focused on SMEs and its findings might not hold among other big organizations due to contextual differences.

In O'Hare and Hall (2022) study, attempt was made to come up with a sustainability model using quality of governance and efforts used by government to manage revenue. These authors took into account how the various policies used by government sectors such as education, water, health and, sanitation in managing their revenues. Sustainable goals data obtained from 217 countries was used. The authors however pointed out that the standard panel logistic function which imposed shape S curve on all countries was inappropriate in its application on the study, this notwithstanding, the authors found that revenue management lead to sustainable development goals.

Smith and Brown (2018) investigated the impact of government revenue management practices on the financial sustainability of oil-dependent economies in Sub-Saharan Africa. The researchers employed a quantitative approach, using regression analysis and data from various Sub-Saharan African countries over a decade. The study found a significant positive correlation between transparent and efficient revenue management practices and improved financial sustainability in oil-dependent economies. While the study offers valuable insights, it relies on self-reported indicators of transparency and efficiency, which can be subject to bias or measurement errors.

Herath et al. (2023) aimed to analyze the impact of revenue management practices on the financial sustainability of local governments in Sri Lanka. The study employed a mixed-methods approach, combining surveys, interviews, and financial data analysis of local governments. The study assessed revenue management practices by considering budgeting processes, financial reporting, and the use of financial reserves. The research revealed that local governments with more robust and transparent revenue management practices tended to have lower debt burdens and were better positioned to maintain vital public services. While this study provides valuable insights into local government practices in Sri Lanka, the findings may not be directly applicable to national governments or other regions.

2.2 Research Hypothesis

There is no significant effect of government revenue management practices on financial sustainability of oil resources in South Sudan.

3.0 Research Methodology

A descriptive longitudinal research design was used. A descriptive longitudinal research design was appropriate as the current study purposed to have a precise description of government revenue management practices and financial sustainability and the association between these study constructs. This study focused on oil resources in South Sudan. This context was chosen as South Sudan, since its independence in 2011, has been heavily reliant on oil resources, which account for a significant portion of its GDP and foreign exchange earnings (Kibe et al., 2023). The study relied on secondary data. Quarterly data was obtained from Central Bank of South Sudan, the South Sudan Ministry of petroleum, the Ministry of Finance and Planning, International Monetary Fund (IMF), and the World Bank reports for the period between January 2012 and December 2023 on a quarterly basis. The data obtained was analyzed using descriptive statistics (mean, standard deviation and coefficient of variation). Regression analysis was used to test the hypothesized relationship. Objective of the study was to assess the effect of government revenue management practices on the financial sustainability of oil resources in South Sudan. The corresponding hypothesis was: There is no significant effect of government revenue management practices on the financial sustainability of oil resources in South Sudan. To test this hypothesis, the study employed a simple linear regression analysis, where financial sustainability was the dependent variable, and government revenue management practices was the independent variable.

4.0 Results and Discussions

Descriptive statistics provide a summary of the data, offering insights into the central tendency, dispersion, and variability of the variables.

Table 1: Summary of Descriptive Statistics of Study Variables

Stats	Tax collection efficiency	Public expenditure transparency	Financial Sustainability
Obs	48	48	48
Min	0.000862	0	0.772409
Max	0.009699	1	0.999765
Mean	0.005811	0.583333	0.943233
SD	0.003285	0.498224	0.054273
CV	0.565307	0.854099	0.057539

The descriptive statistics indicate that tax collection efficiency, measured as the ratio of tax to GDP, varied significantly among the data points. With 48 observations, the minimum tax collection efficiency was 0.000862, and the maximum was 0.009699. The mean value of 0.005811 suggests that, on average, tax collection was moderately efficient. However, the standard deviation of 0.003285 and a coefficient of variation (CV) of 0.565307 indicate a moderate level of dispersion around the mean, reflecting some variability in tax collection efficiency over the study period.

Public expenditure transparency was measured as a binary variable, with a minimum value of 0 and a maximum of 1 across the 48 observations, signifying that transparency was either absent or fully present. The mean value of 0.583333 suggests that transparency was observed in slightly more than half of the cases. The standard deviation of 0.498224 and a high coefficient of variation (0.854099) indicate substantial variability in public expenditure transparency among the observations, suggesting inconsistent application of transparency practices.

Financial sustainability, measured as the diversity of revenue sources, had a mean value of 0.94619, with values ranging from 0.772409 to 0.999765. The standard deviation was low at 0.054273, and the coefficient of variation was 0.057539, indicating relatively low variability in financial sustainability. This suggests that while there were variations in revenue diversity, they were not substantial, indicating a relatively stable, albeit not highly diversified, revenue base during the study period.

4.1 Correlation Analysis

Table 2: Correlation Matrix

	FinSus~y	Publicexpe~y	Taxcollec~y
FinSustain~y	1		
Publicexpe~y	0.1231*	1	
	0.0046		
			1
Taxcollec~y	0.3656*	0.4596*	
	0.0106	0.0010	

The correlation between financial sustainability (FinSustain~y) and public expenditure transparency (Publicexpe~y) is 0.1231, with a p-value of 0.0046. This positive and statistically significant correlation suggests that as public expenditure transparency increases, financial sustainability tends to increase. The correlation between financial sustainability (FinSustain~y) and tax collection efficiency (Taxcollec~y) is 0.3656, with a p-value of 0.0106. This positive and statistically significant correlation implies that effective tax collection is associated with a more diversified and sustainable revenue base, which is crucial for the financial health of oil resources in South Sudan.

4.2 Government Revenue Management Practices and Financial Sustainability

The objective of the study was to assess the effect of government revenue management practices on the financial sustainability of oil resources in South Sudan. The corresponding hypothesis was: There is no significant effect of government revenue management practices on the financial sustainability of oil resources in South Sudan.

To test this hypothesis, the study employed a simple linear regression analysis, where financial sustainability was the dependent variable, and government revenue management practices were the independent variable. The results of this analysis are presented in Table 3.

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Table 3: Government Revenue Management Practices and Financial Sustainability

Source	SS	df	MS	Number of obs	=	48
				F(2, 45)	=	7.15
Model	0.000125494	2	6.2747E-05	Prob > F	=	0.0020
Residual	0.000394915	45	8.7759E-06	R-squared	=	0.2411
				Adj R-squared	=	0.2074
Total	0.000520409	47	1.11E-05	Root MSE	=	0.00296
FinSustain~y	**Coef.**	**Std. Err.**	**T**	**P>t**	**[95% Conf.**	**Interval]**
Taxcollection~y	0.0222883	0.0060884	3.66	0.001	0.0100257	0.0345509
Publicexpe~y	0.0024652	0.0009766	2.69	0.015	0.0044321	0.0000498
_cons	0.9813665	0.0044633	219.87	0.000	0.9723769	0.9903561

The regression results indicate that public expenditure transparency has a positive and statistically significant effect on financial sustainability, as evidenced by a coefficient of 0.0024652 with a p-value of 0.015. This suggests that for every unit increase in public expenditure transparency, there is an associated increase of 0.0024652 units in financial sustainability. Tax collection efficiency has a positive and statistically significant effect on financial sustainability, as evidenced by a coefficient of 0.0222883 with a p-value of 0.001. This suggests that for every unit increase in tax collection efficiency, there is an associated increase of 0.0222883 units in financial sustainability. The R-squared value of 0.2411 indicates that approximately 24.11% of the variation in financial sustainability can be explained by government revenue management practices.

Given that the p-values of government revenue management practices indicators are less than the significance level of 0.05, (public expenditure transparency p value=0.015 and tax collection efficiency p value=0.001) the null hypothesis is rejected. This means that government revenue management practices do have a significant effect on the financial sustainability of oil resources in South Sudan. Therefore, improving tax collection efficiency and public expenditure transparency is likely to enhance the financial sustainability of the country's oil sector.

5.0 Conclusions and Recommendations

The findings revealed that government revenue management practices have a significant positive effect on the financial sustainability of oil resources in South Sudan. The regression analysis showed that effective tax collection and transparent public expenditure are crucial for sustaining the financial viability of the oil sector. This study concludes that effective government revenue management practices are vital for the financial sustainability of oil resources in South Sudan. The findings demonstrate that efficient tax collection and transparent public expenditure significantly contribute to sustaining the financial health of the oil sector. Therefore, strengthening these practices is essential for ensuring the long-term viability of the sector, which is critical for the country's economic stability and growth.

Based on the findings of this study, it is recommended that policymakers in South Sudan prioritize the strengthening of government revenue management practices to enhance the financial sustainability of the oil sector. This includes implementing robust tax collection systems and ensuring transparent and accountable public expenditure processes. Policymakers should consider improving the efficiency of revenue collection and allocation. By doing so, the government can better harness oil revenues to support long-term economic stability and growth.

Furthermore, practitioners are encouraged to adopt sustainable practices that contribute to the broader economic stability of South Sudan. This includes adhering to environmental and social governance (ESG) standards that not only protect the environment but also support community development and economic diversification. By integrating sustainability into their core business strategies, companies can contribute to the overall stability and growth of South Sudan's economy, thereby ensuring the long-term viability of their operations in the region.

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