## PUBLIC SECTOR GOVERNANCE AS A TOOL TO ENHANCE THE PRODUCTIVITY OF GOVERNMENT SPENDING: AN INTERNATIONAL COMPARATIVE STUDY

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Abstract: This study examines the impact of public sector governance on government spending productivity. It also discusses the importance of government unit governance procedures in reducing corruption and improving the productive efficiency of the state's general budget. This research adopts a comparative analysis approach using secondary data from a time series from 2012 to 2022. The results show that governance procedures for public sector units through reforming the administrative systems of various state institutions are positively related to the levels of productivity of the state's government spending. The results show that implementing the necessary reforms to public sector governance, such as encouraging decentralization in the decision-making process and private sector participation, will achieve greater efficiency, transparency, and accountability in providing social and infrastructure services. The results also reveal that administrative and financial corruption involves the pursuit of political, economic, and legal gains, which can increase transaction costs, reduce the quality of project implementation, and lead to social problems. This research adds value to the literature by examining how public sector governance systems might improve the efficacy of government expenditure and promote global public sector management reform. The study empowers policymakers to identify barriers to economic growth and minimize the misallocation of public resources by formulating economic plans that optimize the use of public monies. The application of comparative analysis amplifies the efficacy of the examination, rendering the outcomes particularly advantageous for public sector entities seeking to optimize expenditure across various economic sectors.

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### Introduction

Economic growth is a crucial objective for economic policymakers since it increases national output, enhancing overall quality of life and new employment possibilities. Furthermore, decreasing poverty rates in the nation is crucial since expanding economies result in increased production and consumption, creating more job opportunities and higher income levels, ultimately reducing poverty. Economic growth indicates the effectiveness of national development strategies and is strongly correlated with enhancing individuals' quality of life and economic prosperity (Kumaat et al., 2020). Economic growth is intricately connected to a nation's capacity to augment the production of products and services, along with advancements in the quantity, quality, and methodologies used in their production. Government expenditure is essential for attaining economic expansion and societal welfare. There are varying perspectives on the correlation between government expenditure and economic development, with some highlighting the significance of economic growth as the main factor influencing higher public spending (Onifade et al., 2020). Simultaneously, some individuals believe that government expenditure is the principal instrument for guaranteeing economic expansion in every nation worldwide (Arawomo and Adeove, 2020).

Furthermore, government expenditure guarantees human development and wellbeing beyond just economic expansion. Public expenditure is crucial for attaining economic and social objectives, including growth, stability, equity, and economic efficiency. It is a governmental instrument used to administer public finances and fulfill the overall requirements of the populace. Public expenditure has the potential to invigorate and maintain the economy, foster economic growth and fairness in the allocation of income, and rectify market imbalances. It serves as a crucial political instrument for organizing and guiding the financial resources required for the operations and responsibilities of the government. Public investment expenditures favor economic growth and may encourage private investment spending (Hamad et al., 2022). Nevertheless, the impact of public expenditure relies on variables such as efficiency, sufficiency, and efficacy, with suitable administration and oversight procedures. Public sector units are challenged to achieve more substantial outcomes despite limited resources in today's ever-changing environment (Naamati Schneider, 2020). Economic efficiency may be attained by adeptly managing and making intelligent economic decisions that bolster economic development. Through the implementation of strong governance frameworks, public sector entities may make

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well-informed choices that prioritize allocating resources to areas that will substantially influence individuals' well-being (Almagtome et al., 2020).

Hence, economic policymakers must thoroughly understand government activity goals, budgetary restrictions, and performance measurements to do this. Public sector units that are managed efficiently may strategically deploy their finances, ensuring that all allocated monies are spent in a way that contributes to attaining intended goals. Furthermore, it enables effective surveillance and assessment of programs, facilitating ongoing development and refinement of resources. Furthermore, adopting strong governance principles fosters transparency, responsibility, and confidence, which are crucial for guaranteeing public sector entities' efficient and effective functioning. Governance frameworks bolster stakeholder and public confidence by establishing transparent lines of responsibility and robust ethical criteria. Efficiency in the administration of public sector units encompasses not only the goal of delivering public services with minimal resource use but also the objective of attaining more significant outcomes. It involves optimizing the use of existing resources to get desired outcomes. Public sector administration is essential for ensuring that government expenditure is productive (AL-Jawahry et al., 2022). It establishes a structure for making logical decisions and ensures accountability and openness in handling public funds. Our study assumes that implementing effective governance practices can improve the allocation of resources, enhance service delivery, and build trust with citizens in public sector units. This, in turn, leads to increased productivity and government spending on these units. Therefore, this paper aims to explore the impact of public sector governance on the productivity of government spending.

### **Literature Review**

Expenditure productivity pertains to the capacity of public sector organizations to attain targeted outcomes and optimize the value of the resources used (Monastiriotis and Zilic, 2020). It optimizes existing financial and human resources to provide topnotch economic services and initiatives (Lau et al., 2017). The efficacy of government expenditure extends beyond cost reduction in government operations; it also pertains to how this expenditure is allocated. The goal is to guarantee that government expenditure has a concrete and measurable effect while using the available financial resources effectively. Enhancing the efficacy of government expenditure is a crucial objective for economic policymakers, as it may improve public service provision and attain economic development for the nation (Purwanto and Utami, 2023). Categorizing government expenditure as productive or nonproductive is essential for developing economic policies and achieving economic progress. Various categories of government productive spending have distinct impacts on economic development. Nevertheless, the findings obtained from economic research investigating the correlation between productive and unproductive government expenditure and economic growth could not provide definitive conclusions about their link (Chu et al., 2020). While numerous studies

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analyze the influence of levels of productive and non-productive government spending, expressed as a percentage of GDP, on economic growth, only a few researchers have attempted to verify the relationship between changes in the level of productivity of government spending and the level of productivity-economic growth in the country. Previous research on government expenditure productivity and governance indices have shown inconsistent findings, particularly when comparing affluent nations to developing nations. Hence, the primary objective of this research is to examine the correlation between global governance indicators, which serve as a metric for assessing the governance of public sector entities, and the efficiency of government expenditure as reflected in the country's gross domestic product. The study will primarily compare 40 countries categorized into four income classifications based on the World Bank's classification system: high-income, uppermiddle-income, below-middle-income, and low-income countries. The comparison will be based on six global governance indicators: voice and accountability, political stability, government effectiveness, quality of legislation, rule of law, and control of corruption. To accomplish this objective, the research assumes a statistically significant correlation exists between the governance of public sector units and the productivity of government expenditure. According to the literature, the voting and accountability index is essential for improving the efficiency of government expenditure. Joseph (2012) indicates that voters reward political parties for allocating funds toward disaster relief efforts but not for their investments in catastrophe preparation. Similarly, Hussain, Mahmood, Iqbal, Mustafa, and Furqan (2021) demonstrate that government expenditure's effectiveness is influenced by transparency, per capita expenditures, the racial segregation index, and geographical distance. Akuntabilitas and Negara (2022) indicate that the government's acquisition of social infrastructure, guided by equitable governance, may significantly improve production levels. These results highlight the intricate connection between voting patterns, accountability measures, and the overall impact of government expenditure on productivity and public welfare outcomes. Thus,

# *H1: There is a significant relationship between voting and accountability index and productivity of government spending.*

The expected link between the political stability index and government spending productivity is significant for economic development. Political instability can impede economic progress, while corruption may inhibit economic growth and undermine the administration's capability (Tiganasu et al., 2022). In the same context, Ismihan and Ozkan (2005) indicate that strong governance leads to government efficacy and regulatory quality and favors the increase of labor and total factor productivity. In addition, Scartascini and Tommasi (2010) reveal that technical skill is positively connected with policies supporting laissez-faire and political institutions encouraging policy stability, showing that trust in stable policies boosts economic performance. Hence, a politically stable environment, efficient administration, and productivity-oriented policies may bolster the effectiveness of government expenditure, fostering economic development. Thus,

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# H2: There is a significant relationship between the political stability index and the productivity of government spending.

The correlation between the government efficiency index and the effectiveness of government expenditure is seen as a crucial factor in the decision-making process across several domains. Research suggests that taxes have a detrimental impact on the efficiency of government performance. Both direct and indirect taxes, together with social security payments, have a negative effect on expenditure efficiency (Afonso et al., 2021). Alfada (2019) stated that fiscal decentralization can potentially improve the efficiency of government expenditure in infrastructure sectors. While education and health are positively affected, the social protection sector may see a decline in efficiency (Ehikioya and Omankhanlen, 2021). Furthermore, there is a negative correlation between public spending efficiency, expenditure levels, and the ratio of public-to-private funding. On the other hand, there is a positive correlation between public spending efficiency and indices of governance quality, such as regulatory quality. At the same time, there is a negative correlation with the impression of corruption (Herrera and Ouedraogo, 2018). The results emphasize the intricate relationship between taxation, fiscal decentralization, and governance quality influencing government efficiency and spending productivity. Thus,

H3: There is a significant relationship between the government efficiency index and the productivity of government spending.

There are complex relationships between the legislative quality index and government expenditure productivity. Malhotra (2008) shows that government effectiveness has a beneficial impact on both labor productivity growth and total factor productivity growth in Asian countries. Garayeva and Tahirova (2016) Indicate that the quality of legislative institutions, such as their level of professionalism, does not automatically result in increased government expenditure. This is because nations with high levels of government spending may choose professional structures to handle their tasks efficiently. Furthermore, the efficacy of government expenditure in wealthy nations is heavily influenced by the quality of institutions, but in undeveloped countries, access to financial markets has greater significance (Rollnik-Sadowska and Dąbrowska, 2018). Fazekas and Czibik (2021) emphasize the intricate relationship between the quality of legislation, the efficacy of government, and the productivity of public expenditure. Thus,

*H4: There is a significant relationship between the legislative quality index and the productivity of government spending.* 

Studies suggest a positive correlation between the rule of law index and the productivity of government expenditure, indicating that the rule of law benefits production. Within this framework, Jaffe et al. (2021) demonstrate that advancements in the rule of law increase agricultural expenditures' effectiveness. Furthermore, Tran et al. (2016) highlight the correlation between the level of productivity in nations and corruption measures, which are associated with indices of social infrastructure such as the rule of law and government performance. Moreover, a thorough examination of data across different nations by Jaffe et al.

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(2021) demonstrates a robust correlation between the rule of law and academic progress and socioeconomic health measures like GDP and infant mortality rates. Conversely, it is stressed that enhancing the rule of law is especially crucial for the economic development of Central and Eastern European nations and the former Soviet Union. This is because a clear correlation between the rule of law and economic growth has been established in these regions. Thus,

H5: There is a significant relationship between the rule of law index and the productivity of government spending.

The control of the corruption index and government expenditure productivity are of utmost importance. Lim et al. (2011) Show that better anti-corruption index scores are strongly and inversely linked to the volatility of government expenditure. This suggests that corrupt practices may result in unpredictable changes in economic regulations and considerable fluctuations in spending. Pradhan et al. (2022) stated that the primary elements contributing to controlling corruption in less developed nations are modern information and communication technology (ICT) infrastructure and efficient government expenditure. This finding underlines the significance of these aspects in effectively managing corrupt activities. In addition, the study by Ogun (2018) examined the impact of corruption on productivity development. It emphasized the long-term connections between corruption, government expenditure, and productivity growth and demonstrated that spending is crucial in implementing sustainable growth strategies. Thus,

*H6: There is a significant relationship between control of the corruption index and productivity of government spending.* 

### **Research Methodology and Data**

Based on the Globe Bank categorization, the research sample consists of 40 nations from across the globe, equally divided into four income groups (high-income, uppermiddle-income, below-middle-income, and low-income countries). The research encompasses financial data over 12 years, from 2011 to 2022. It includes 480 observations, which are country-year observations sourced from the World Bank database. The primary data source used in this research is the World Bank database. Table 1 displays the nations in the study sample, categorized based on their income level.

High-income	Upper-middle-	Lower middle-	Low-income countries
countries	income	income countries	
	countries		
Australia	Armenia	Algeria	Burkina Faso
Austria	Azerbaijan	Egypt	Burundi
Bahrain	Belarus	Honduras	Democratic Republic of Congo
Canada	Brazil	India	Ethiopia
Italy	Iraq	Jordan	Gambia
Kuwait	Libya	Morocco	Liberia
Oman	Malaysia	Sri Lanka	Madagascar
Poland	Russia	Uzbekistan	Mali
Qatar	South Africa	Vietnam	Sudan
United	Türkiye	Zambia	Syria
Kingdom			

The World Bank's global governance indicators will assess how well governance is implemented in public sector entities. Governance indicators are a collection of quantitative metrics and criteria used to assess governance performance and determine its impact on economic variables (Handoyo, 2023).

Global governance indicators are a collection of metrics used to evaluate the standard of governance in various nations. These indicators have been created by institutions such as the World Bank. These rankings are determined by considering several aspects, such as voice and accountability, political stability, government performance, quality of legislation, rule of law, and control of corruption (Misi Lopes et al., 2023). The purpose of these indicators is to thoroughly evaluate the country's governance environment and its influence on economic growth, foreign investment, and social development (Salih et al., 2022). Examining these indicators enables policymakers and scholars to comprehend the merits and drawbacks of governance systems and pinpoint potential areas for improvement. Government expenditure efficiency will be assessed using the nation's yearly gross domestic product index. Table 2 provides an overview of the primary factors examined in this research and the corresponding indicators used to assess them.

Variables	Abbreviation	Definition	Source	
Public Sector Go	vernance	The World Bank (Global	The World	
		Governance metrics) uses six	Bank	
		metrics to quantify the degree of		
		governance in public sector		
		entities.		
Voice and		This metric assesses the caliber of	The World	
Accountability	VACC	services the government provides,	Bank	
	VACC	the degree of autonomy in its		
		functioning, the efficacy of		

**Table 2. Description of Research Variables** 

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		policies and their execution, and	
		the government's trustworthiness	
		in endorsing these policies.	
Political Stability	PSTA	Political Stability and Absence of Violence/Terrorism is a metric that assesses the probability of political instability and acts of violence driven by political motives, such as terrorism.	The World Bank
Government Effectiveness	GEFF	The government can create and execute efficient policies and structures that enable and encourage growth in the private sector.	The World Bank
Regulatory Quality	REGQ	The metric assesses the government's capacity to create and execute effective policies and regulations that facilitate and encourage growth in the private sector.	The World Bank
Rule of Law	RLAW	The rule of law is contingent upon people's trust and adherence to society's structures. These elements include the efficacy of contract enforcement, the safeguarding of property rights, the efficiency of law enforcement authorities, the impartiality of the court system, and the probability of criminal activities and acts of violence.	The World Bank
Control of Corruption	CCRP	The degree to which public power can curtail different forms of corruption and curb the control exerted by elites and people with vested interests in government agencies within the state.	The World Bank
Government spending productivity			
Gross Domestic Production	GDP	The efficacy of government expenditure is gauged by the nation's yearly gross domestic product.	(Chu, Hölscher, and McCarthy, 2020)

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Table 3 presents the statistical measures that describe the data used in the investigation.

	Ν	Minimum	Maximum	Mean	Std. Deviation
VACC	480	1.00	97.00	35.1333	27.42869
PSTA	480	.00	96.00	34.3604	25.22900
GEFF	480	1.00	97.00	43.1063	26.97566
REGQ	480	.00	100.00	43.2000	27.88692
RLAW	480	1.00	99.00	42.9417	28.03369
CCRP	480	.00	96.00	41.5250	26.41525
GDP	480	1229461721	3416645826053	480624097820	778665436639
Valid N	480				
(listwise)					

Fable	3.	Des	crin	tive	Sta	tistio	
ant	J.	DUS	τıμ	u v c	Dia	usu	

This paper seeks to examine the impact of governance in public sector units on the productivity of government expenditure using a series of analytical procedures. The initial task involves examining the governance indicators of public sector units within the selected study sample from 2011 to 2022. This will be done by conducting a comparative analysis of the governance indicators of public sector units, using the six global government indicators established by the World Bank in 1996. The analysis will be based on the four income levels specified in the current study. These nations may be classified into high-income, upper-middle-income, lower-middle-income, and low-income categories based on their income level. The next step involves examining the causal connection, if any, between public sector units' governance indicators and government spending's productivity. Additionally, it aims to determine the direction of the relationship between public sector units and government spending productivity, as measured by gross domestic product indicators.

### **Research Results**

It is necessary to assume that the data is normal so that various statistical methods and tests can be used. A few assessments may be performed to examine the assumption of normalcy. In this setting, we use the following methods to determine whether our sample is normally distributed:

- Skewness
- Kurtosis

The Kurtosis and Skewness of a distribution are two measurements that may be used to characterize the shape of any distribution. Skewness of a distribution is a measurement of how symmetric it is. Usually, a normal distribution is used to illustrate the contrast. Under the assumption that the form of the distribution is standard, the skewness value will be equal to zero. The value of the skewness parameter is positive when the form of the distribution is positively skewed. The

skewness value is negative when the shape of the distribution is skewed in a negative direction.

On the other hand, Kurtosis is a statistical metric that allows one to determine if a distribution is flat compared to a normal distribution. When the number is positive, it suggests that the distribution is relatively peaked, whereas when the value is negative, it shows that the distribution is generally flat. If the distribution shape is strictly average, the value of the kurtosis statistic will include 0. The kurtosis number, on the other hand, may be considered favorable if the distribution is precisely tapered. On the other hand, if the form of the distribution is flat, the flatness value will be negative—the allowable values for skewness and kurtosis range from +1 to -1 (Binz et al., 2013). The results of the torsion and kurtosis tests are shown in Table 4 below.

Statistics							
	Ν	Ske	wness	Kurtosis			
	Statistic	Statistic	Std. Error	Statistic	Std. Error		
VACC	480	0.955	.111	-0.160	.222		
PSTA	480	0.555	.111	-0.652	.222		
GEFF	480	0.127	.111	-0.891	.222		
REGQ	480	0.273	.111	-0.917	.222		
RLAW	480	0.314	.111	-0.866	.222		
CCRP	480	0.362	.111	-0.613	.222		
GDP	480	0.868	.111	0.323	.222		
Valid N	480						
(listwise)	400						

	Table 4.	Skewness	and	Kurtosis	Test
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The results show that the distributions in all study variables have positive skewness: Voice and accountability Value (VACC) (0.955), Political Stability (PSTA) (0.555), Government Effectiveness (GEFF) (0.127), Legislative Quality REGQ (0.273), Rule of Law RLAW. (0.314), Control of corruption CCRP (0.362), GDP (0.868) fall within the acceptable value of  $\pm 1$ .

The results in Table 4 also show that the kurtosis statistics for all distributions fall within the acceptable value of  $\pm$  1. The voice and accountability value (VACC) (-0.160), political stability (PSTA) (-0.652), and government effectiveness (GEFF) were (-0.891), Quality of Legislation REGQ (-0.917), Rule of Law RLAW (-0.866), Control of corruption CCRP (-0.613), GDP (0.323). In summary, the skewness and kurtosis results show that the distributions of all variables are normally distributed. Accordingly, the Pearson correlation coefficient will be used, which is suitable for samples with normal distributions, instead of the Spearman correlation coefficient for samples that do not have a normal distribution.

## Correlation analysis

Table 5 displays the results of a study that examined the association between global governance indicators and government expenditure productivity using the Pearson correlation coefficient.

		VACC	PSTA	GEFF	REGQ	RLAW	CCRP	GDP
	Pearson	1	.629**	.660**	.731**	.697**	.735**	.631**
VACC	Correlation							
VACC	Sig. (2-tailed)		.000	.000	.000	.000	.000	.000
	Ν	480	480	480	480	480	480	480
	Pearson	.629**	1	.759**	.762**	.767**	.797**	.299**
DCTA	Correlation							
FSIA	Sig. (2-tailed)	.000		.000	.000	.000	.000	.000
	Ν	480	480	480	480	480	480	480
	Pearson	$.660^{**}$	.759**	1	.928**	.925**	.912**	.519**
GEEE	Correlation							
OLIT	Sig. (2-tailed)	.000	.000		.000	.000	.000	.000
	N	480	480	480	480	480	480	480
	Pearson	.731**	.762**	.928**	1	.924**	.907**	.484**
REGO	Correlation							
KLUQ	Sig. (2-tailed)	.000	.000	.000		.000	.000	.000
	N	480	480	480	480	480	480	480
	Pearson	.697**	.767**	.925**	.924**	1	.940**	.439**
<b>DI AW</b>	Correlation							
KLA W	Sig. (2-tailed)	.000	.000	.000	.000		.000	.000
	N	480	480	480	480	480	480	480
	Pearson	.735**	.797**	.912**	.907**	.940**	1	.450**
CCRP	Correlation							
	Sig. (2-tailed)	.000	.000	.000	.000	.000		.000
	N	480	480	480	480	480	480	480
	Pearson	.631**	.299**	.519**	.484**	.439**	.450**	1
GDP	Correlation							
UDI	Sig. (2-tailed)	.000	.000	.000	.000	.000	.000	
	Ν	480	480	480	480	480	480	480

Table 5.	Pearson	correlation	coefficient	results

Note: \*\*. Correlation is significant at the 0.01 level (2-tailed).

The results of the basic correlation test indicate the following link between the research variables:

- The results of H1 indicate a strong and statistically significant correlation between the voting and accountability index and the gross domestic product (GDP) of the nations included in the sample. The correlation coefficient (r) was 0.631, which indicates a positive link. The p-value was less than 0.01, indicating that the relationship is statistically significant at a 1% significance level. The

involvement of community people in voting and decision-making, together with their power to hold decision-makers responsible, will improve the efficiency of government expenditure and vice versa.

- The results of H2 indicate a strong and statistically significant correlation between the political stability index and the gross domestic product (GDP) of the nations included in the sample. The correlation coefficient (r) was 0.299, which indicates a positive link. The significance threshold was 1%, and the p-value was less than 0.01. Political stability is a crucial factor that directly impacts the effectiveness of government expenditure, as measured by the gross domestic product, and vice versa. High growth rates may positively impact the development of infrastructure projects as long as resources are used efficiently. This can improve society's well-being and contribute to a politically stable environment.
- The findings of H3 demonstrate a robust and significant correlation between the government efficiency index and the gross domestic product (GDP) of the countries included in the sample. The correlation between these variables was statistically significant at a significant level of 1%, with a correlation coefficient of 0.519 and a p-value less than 0.01. More specifically, enhancing the quality of services provided will directly contribute to stimulating economic growth and increasing the effectiveness of government spending, and vice versa.
- The findings of H4 demonstrate a robust and significant correlation between the legislative quality index and the gross domestic product of the countries included in the sample. This connection exhibited statistical significance at a significance level of 1%. The correlation coefficient (r) was 0.484, showing a positive association. Furthermore, the p-value was below 0.01, providing further evidence for the importance of the association. The research indicates that when governments can establish and implement sufficient laws and regulations that promote the private sector, it may result in higher levels of productivity and efficiency in government expenditure and vice versa.
- The findings of H5 demonstrate a robust and statistically significant association between the rule of law index and the gross domestic product of the countries analyzed in the sample. The correlation coefficient (r) was 0.439, indicating a favorable relationship. The significance level was established at 1%, and the pvalue was found to be less than 0.01. Enhancing adherence to the law and upholding state sovereignty will benefit the effectiveness of government spending and conversely.
- The findings of H6 demonstrate a robust and statistically significant relationship between the control of corruption index and the gross domestic product of the countries included in the sample. The correlation coefficient (r) was 0.450, showing a favorable relationship. The significance level was set at 1%, and the p-value was found to be less than 0.01. Corruption has a lasting impact by reducing local and foreign savings and investment and wasting public funds. As a result, it impairs the efficiency of government spending and vice versa.



## The Impact analysis

To measure the impact of governance indicators of public sector units on the productivity of government spending, the following regression model was formulated:

GDP t= B0 + B1 VACC t - B2 PSTA t + B3 GEFF t + B4 REGQ t - B5 RLAW t + B6 CCRP t + U t

Whereas:

GDP = Gross Domestic Product as an indicator to measure the productivity of government spending

VACC = Voice and Accountability

PSTA = political stability

GEFF = Government Effectiveness

REGQ = Legislative Quality

RLAW =the rule of law

CCRP = control of corruption

B = parameters

t = time

U = random error/random variable

Table 6 shows the results of the analysis of variance between the variables for the indicators indicating the relationship.

#### Table 6. Summary of the Analysis of the Variance Model

Model	R	R Square	Adjusted R Square	Std. Error of the			
				Estimate			
1	.726ª	.527	.521	538.63768			

Note: a. Predictors: (Constant), CCRP, VACC, PSTA, REGQ, GEFF, RLAW

#### Table 7. Impact of Public Sector Governance on Government Expenditure Productivity ANOVA<sup>a</sup>

			ОТА			
Model		Sum of Squares	df	Mean Square	F	Sig.
	Regression	153195627.789	6	25532604.631	88.004	.000 <sup>b</sup>
1	Residual	137231749.578	473	290130.549		
	Total	290427377.367	479			

Note: a. Dependent Variable: GDP

b. Predictors: (Constant), CCRP, VACC, PSTA, REGQ, GEFF, RLAW

# Table 8. Multiple Regression Model Coefficients

Coefficients

Model		Unstandardized Coefficients		Standardized	t	Sig.
				Coefficients		
		В	Std. Error	Beta		
1	(Constant)	-210.647	47.241		-4.459	.000
	VACC	20.885	1.395	.736	14.966	.000

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	PSTA	-9.332	1.642	302	-5.682	.000
	GEFF	28.620	2.900	.991	9.870	.000
	REGQ	-6.070	2.842	217	-2.136	.033
	RLAW	-8.295	3.089	299	-2.686	.007
	CCRP	-8.118	3.168	275	-2.562	.011

Note: a. Dependent Variable: GDP

The results of the multiple regression model test indicate that the governance of public sector units, characterized by its six dimensions, significantly affects the productivity of government spending. This impact is statistically significant, with a p-value of 0.001. The independent variable, which pertains to the management of public sector units, accounts for 53% of the variability in the dependent variable, indicating government expenditure efficiency. The coefficient of determination value, denoted as R2, is 0.527.

### Discussion

Despite its significance, public sector management encounters several problems and hurdles that hinder the government's efficacy in accomplishing its objectives and improving the economic welfare of society. The barriers and problems in this context include corruption, bureaucracy, limited transparency, and inadequate accountability systems across different national administrative tiers. Financial and administrative corruption erodes trust in public sector entities, squandering resources and diminishing the effectiveness of government organizations. Furthermore, bureaucracy may impede the decision-making process, impede the implementation of government development projects, and limit innovative efforts. More openness and accountability must ensure public confidence in the administration. The study examines the correlation between the government effectiveness index and the productivity of government spending. The findings indicate a significant positive relationship between public sector governance indicators and the productivity of government spending measured by GDP. The positive relationship between public sector governance and government spending productivity is essential for achieving economic growth and well-being in society. These results are consistent with many previous studies, including Noja et al. (2021), which indicate that good governance positively affects the effectiveness of public sector spending, leading to enhanced economic prosperity. Also, Mumuni and Njong (2023) indicate that effective governance can improve the performance of government agencies even in tightbudget environments, ultimately leading to enhanced productivity. Furthermore, the results are consistent with those of Dharmayuni and Khairuddin (2023), who show that using information and communications technology (ICT) in public sector management can significantly enhance service delivery and overall productivity when combined with sound governance principles. The results are also consistent with Adiele (2017), who states that public spending impacts industrial productivity through governance factors such as transparency, accountability, and appropriate

resource allocation. This highlights the importance of governance in maximizing the benefits of government spending on economic sectors. The findings of this research have significant implications for public sector organizations, economic policymakers, and society. The results highlight the crucial significance of enhancing government spending choices in public sector organizations to mitigate instances of public finance abuses, particularly those associated with adherence to governance norms. For future investigations, this study emphasizes the need for more research to examine the correlation between public sector governance and the effectiveness of government expenditure. Future studies should explore distinct facets of a nation's cultural framework to comprehend better its influence on adherence to governance norms and its effect on a nation's economic progress.

#### Conclusion

This research demonstrates that corruption has the potential to decrease factor productivity and impact the extent to which government spending affects factor productivity. This signifies the need to intensify endeavors in countering financial and administrative corruption by implementing effective governance protocols and enforcing the rule of law for all individuals. To achieve more efficiency, openness, and accountability in delivering social and infrastructural services, it is crucial to implement the essential changes in public sector governance. This may be done by promoting decentralization in decision-making and encouraging private-sector engagement. Administrative and financial corruption refers to the deliberate actions to achieve political, economic, and legal advantages. These actions may lead to higher transaction costs, negative impacts on project implementation, worse quality of project execution, and societal issues. On the other hand, when corruption levels are low, it might indicate a recognition of local governments, strict compliance with rules and instructions, and a decrease in the desire for political advantage. The governance procedures of public sector entities are crucial in ensuring the integrity and openness of economic transactions conducted via regular administrative processes. Efficient public sector governance is crucial for the seamless operation of government institutions and for delivering top-notch services to residents. Governments may improve their efficacy, legitimacy, and public support by embracing fundamental principles such as openness, accountability, stakeholder involvement, effective decision-making, leadership, ethical conduct, trust-building, and monitoring and evaluation. While a complete transition to public sector unit governance systems may provide hurdles, these obstacles may be surmounted via collaborative efforts, strong political will, and a steadfast commitment to upholding the rule of law. By pursuing efficient governance in the public sector, governments may construct affluent and equitable societies that fulfill the requirements and ambitions of their population. Governments must prioritize combating corruption, simplifying bureaucratic procedures, promoting transparency, and reinforcing measures for accountability. Furthermore, governments must allocate resources towards developing skills and capabilities, cultivate an environment that encourages

new ideas and creativity, and use technology to improve productivity and achieve desired outcomes.

#### References

- Adiele, G., (2017). Improving productivity in the public sector through e-governance programmes. In Covenant University Conference on E-governance in Nigeria, 234-248.
- Afonso, A., Jalles, J. T. and Venâncio, A., (2021). Taxation and public spending efficiency: An international comparison. *Comparative Economic Studies*, *63*, 356-383.
- Akuntabilitas, T. K. D. and Negara, K., (2022). The Effect of Accountability on the Efficiency of Local Government Expenditures. Jurnal Tata Kelola Dan Akuntabilitas Keuangan Negara, 8(2), 177-198.
- AL-Jawahry, B., Mahdi, M., Al-Fatlawi, Q. and Almagtome, A., (2022). The impact of ipsas adoption on sustainable tourism development: a cross country analysis. *Polish Journal of Management Studies*, 25(2), 36-55.
- Alfada, A., (2019). Fiscal decentralization and government expenditure efficiency in Indonesia: a Malmquist Productivity Index. *Expert Journal of Economics*, 7(1), 45-57.
- Almagtome, A. H., Al-Yasiri, A. J., Ali, R. S., Kadhim, H. L. and Heider, N. B., (2020). Circular economy initiatives through energy accounting and sustainable energy performance under integrated reporting framework. *International Journal of Mathematical, Engineering and Management Sciences*, 5(6), 1032-1045.
- Arawomo, O., Adeoye, T., (2020). Public spending and economic growth: The role of institutional quality. *International Journal of Accounting Research*, 5(2), 61-76.
- Binz, C., Hair Jr, J. F., Pieper, T. M. and Baldauf, A., (2013). Exploring the effect of distinct family firm reputation on consumers' preferences. *Journal of Family Business Strategy*, 4(1), 3-11.
- Chu, T. T., Hölscher, J. and McCarthy, D., (2020). The impact of productive and nonproductive government expenditure on economic growth: an empirical analysis in highincome versus low-to middle-income economies. *Empirical Economics*, 58, 2403-2430.
- Ehikioya, B. I., Omankhanlen, A. E., (2021). Impact of public debt on economic growth: Evidence from Nigeria. *Montenegrin Journal of Economics*, 17(1), 97-109.
- Fazekas, M., Czibik, Á., (2021). Measuring regional quality of government: the public spending quality index based on government contracting data. *Regional Studies*, 55(8), 1459-1472.
- Garayeva, A., Tahirova, G., (2016). Government spending effectiveness and the quality of fiscal institutions (Vol. 1605): Central Bank of the Republic of Azerbaijan.
- Hamad, K. M., Zaidan, H., Al-Majma'i, K. and kamil Abdullah, M., (2022). The Impact of Public Spending (Expenditures) on Economic Growth in Iraq for the Period 2004-2019. *Journal of Business and Management Studies*, 4(2), 483-491.
- Handoyo, S., (2023). Worldwide governance indicators: Cross country data set 2012–2022. *Data in Brief*, *51*, 1-11.
- Herrera, S., Ouedraogo, A., (2018). Efficiency of public spending in education, health, and infrastructure: An international benchmarking exercise. World Bank Policy Research Working Paper, (8586), 1-91.

2024 Vol.29 No.2

Hussain, T., Mahmood, H., Iqbal, A., Mustafa, G. and Furqan, M., (2021). Fiscal Policy Cyclicality, Governance, and Quality of Institutions Nexus in Ireland. *Montenegrin Journal of Economics*, 17(3), 111-119.

- Ismihan, M., Ozkan, F. G., (2005). Political instability, public investment and macroeconomic performance. *Economics Bulletin*, 5(2), 1-12.
- Jaffe, K., Martinez, E., Soarez, A. C., Contreras, J. G., Correa, J. C. and Canova, A., (2021). Relation between Constitutions, Socioeconomics and The Rule of Law: a quantitative thermodynamic approach. arXiv preprint arXiv, 2108.02094, 1-16.
- Joseph, T., (2012). Effects of Public Expenditure on Industrial Sector Productivity in Nigeria/Effets Des Dépenses Publiques Sur La Productivité Du Secteur Industrielau Nigeria. Canadian Social Science, 8(1), 204-214.
- Kumaat, R. J., Rotinsulu, D. C. and Rumate, V. A., (2020). Analysis of Income Inequality and Its Effect on Poverty Through Economic Growth (Case of Talaud Islands District). In 6th Annual International Conference on Management Research (AICMaR 2019).
- Lau, E., Lonti, Z. and Schultz, R., (2017). Challenges in the measurement of public sector productivity in OECD countries. *International Productivity Monitor*, 32(180-5C), 180-195.
- Lim, E.-S., Hwang, J.-Y. and Song, I.-S., (2011). Corruption and Government Expenditure Volatility. *Journal of the Korea Academia-Industrial Cooperation Society*, 12(1), 188-194.
- Malhotra, N., (2008). Disentangling the relationship between legislative professionalism and government spending. *Legislative Studies Quarterly*, 33(3), 387-414.
- Misi Lopes, L. E., Packham, N. and Walther, U., (2023). The effect of governance quality on future economic growth: an analysis and comparison of emerging market and developed economies. SN Business and Economics, 3(6), 108-118.
- Monastiriotis, V., Zilic, I., (2020). The economic effects of political disintegration: Lessons from Serbia and Montenegro. *European Journal of Political Economy*, 65, 1-34.
- Mumuni, S., Njong, A. M., (2023). Public sector spending, governance, and economic growth in Sub-Saharan Africa. *Journal of Economics and Management*, 45(1), 147-181.
- Naamati Schneider, L., (2020). Strategic management as adaptation to changes in the ecosystems of public hospitals in Israel. *Israel Journal of Health Policy Research*, 9.
- Noja, G. G., Cristea, M., Thalassinos, E. and Kadłubek, M., (2021). Interlinkages between government resources management, environmental support, and good public governance. Advanced Insights from the European Union. *Resources*, 10(5), 41.
- Ogun, O., (2018). Corruption and growth: The productivity growth nexus. *The Singapore Economic Review*, 63(05), 1227-1244.
- Onifade, S. T., Çevik, S., Erdoğan, S., Asongu, S. and Bekun, F. V., (2020). An empirical retrospect of the impacts of government expenditures on economic growth: new evidence from the Nigerian economy. *Journal of Economic Structures*, 9(1), 1-13.
- Pradhan, R. P., Nair, M. S., Arvin, M. B. and Ali, M. S. B., (2022). Intertemporal Linkages between Government Expenditure and Corruption in a Digital Economy: A Panel Granger Causality Framework. In *Digitalization and Economic Development* (pp. 1-27): Routledge.
- Purwanto, M. J., Utami, S., (2023). Government Expenditure Efficiency on Human Development in The Underdeveloped Regions. *Efficient: Indonesian Journal of Development Economics*, 6(1), 60-72.

- Rollnik-Sadowska, E., Dąbrowska, E., (2018). Cluster analysis of effectiveness of labour market policy in the European Union. *Oeconomia Copernicana*, 9(1), 143-158.
- Salih, S. A., Qader, Z. H. and Ahmed, Y. A., (2022). The Reality of Governance Indicators and their Impact on Economic Growth in Iraq for the Period (1996–2020). *TANMIAT AL-RAFIDAIN*, 41(136), 347-372.
- Scartascini, C., Tommasi, M., (2010). The Politics of Productivity. Inter-American Development Bank (IDB). The Age of Productivity. Transforming Economies from the Bottom Up. Development in the Americas report. Washington, DC, United States: IDB and Palgrave-Macmillan.
- Tiganasu, R., Pascariu, G. and Lupu, D., (2022). Competitiveness, fiscal policy and corruption: evidence from Central and Eastern European countries. *Oeconomia Copernicana*, *13*(3), 667-698.
- Tran, T. Q., Huong, V. V., Doan, T. T. and Tran, D.-H., (2016). Corruption, provincial institutions and manufacturing firm productivity: New evidence from a transitional economy. *Estudios de Economía*, 43(2), 199-215.

## ZARZĄDZANIE SEKTOREM PUBLICZNYM JAKO NARZĘDZIE ZWIĘKSZAJĄCE PRODUKTYWNOŚĆ WYDATKÓW RZĄDOWYCH: MIĘDZYNARODOWE STUDIUM PORÓWNAWCZE

Streszczenie: W niniejszym badaniu zbadano wpływ zarządzania sektorem publicznym na produktywność wydatków rządowych. Omówiono również znaczenie procedur zarządzania jednostkami rządowymi w ograniczaniu korupcji i poprawie wydajności produkcyjnej ogólnego budżetu państwa. W niniejszym opracowaniu przyjęto podejście analizy porównawczej przy użyciu danych wtórnych z szeregu czasowego od 2012 do 2022 r. Wyniki pokazują, że procedury zarządzania jednostkami sektora publicznego poprzez reformę systemów administracyjnych różnych instytucji państwowych są pozytywnie powiązane z poziomami produktywności wydatków rządowych państwa. Wyniki pokazują, że wdrożenie niezbędnych reform zarządzania sektorem publicznym, takich jak zachęcanie do decentralizacji w procesie podejmowania decyzji i udziału sektora prywatnego, zapewni większą wydajność, przejrzystość i rozliczalność w świadczeniu usług społecznych i infrastrukturalnych. Wyniki ujawniają również, że korupcja administracyjna i finansowa wiąże się z dążeniem do korzyści politycznych, ekonomicznych i prawnych, co może zwiększyć koszty transakcyjne, obniżyć jakość realizacji projektów i prowadzić do problemów społecznych. W niniejszym opracowaniu badania wnoszą wartość do literatury, ukazując, w jaki sposób systemy zarządzania sektorem publicznym mogą poprawić skuteczność wydatków rządowych i promować globalną reformę zarządzania sektorem publicznym. Badanie umożliwia decydentom identyfikację barier wzrostu gospodarczego i minimalizację niewłaściwej alokacji zasobów publicznych poprzez formułowanie planów gospodarczych, które optymalizują wykorzystanie pieniędzy publicznych. Zastosowanie analizy porównawczej wzmacnia skuteczność badania, czyniąc wyniki szczególnie korzystnymi dla podmiotów sektora publicznego, które dążą do optymalizacji wydatków w różnych sektorach gospodarki.

Slowa kluczowe: zarządzanie sektorem publicznym, wydatki rządowe, wydatki publiczne, produktywność wydatków rządowych