



Governance Quality and Economic Growth in Nepal: Trends, Challenges, and Opportunities

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ABSTRACT

This research investigates the relationship between governance quality and economic growth in Nepal. It analyzes the trends, challenges, and opportunities of the status of governance and economic growth. Utilizing time-series data from 1996 to 2023 and employing the Autoregressive Distributed Lag (ARDL) model to assess the impact of governance quality on Nepal's real GDP. The governance quality is proxied by the average value of governance quality and corruption control measured from the Kaufmann Indicator from the Global Governance Database. The study further displays that there is a significant positive correlation between governance quality and long-term economic growth. However, governance effectiveness and corruption control don't have a noticeable impact on the economic progress of the country. Further, improving the quality of governance contributes to increasing the efficiency of capital expenditure and accelerates economic growth. The finding suggests that the government of Nepal should focus on enlarging fiscal space, improving allocative efficiency, controlling fiscal bleeding and fiduciary risks, promoting private sector investment, and addressing labor market challenges to harness higher sustained economic growth. The policy insights of this analysis shed light on the quality of governance required for Nepal to sustain and achieve broader economic growth.

Keywords: Governance Quality, Economic Growth, Nepal.

1. INTRODUCTION

Economic development signifies the positive advancement of economic indicators, which is crucial for a nation's prosperity. It is primarily assessed through the gross domestic product (GDP). GDP represents the total value of goods and services produced over a particular period, often the fiscal year. Furthermore, economic growth is measured by GDP per capita, employment rates, industrial output, investment levels, interest rates, export-import ratios, productivity, and infrastructure development, among other key factors. The primary goal of economic growth in developing nations such as Nepal is to improve living standards and reduce poverty.

Economic growth is crucial for eliminating poverty and reducing inequalities by generating jobs, increasing income levels, and providing access to essential needs for people (Duflo & Banerjee, 2011). Effective government expenditure is crucial to fiscal policies that drive economic growth; when utilized wisely, it enhances growth outcomes and creates broader opportunities and choices for society, promoting equality and inclusion for all (Stiglitz, 2016). Consequently, it is viewed as a fundamental and sustainable contributor to every aspect of society, including the lives of the poor, marginalized, and disadvantaged groups. Economic growth enhances human capabilities by improving individual lives and economic freedoms (Pressman & Summerfield, 2008). Furthermore, it is a continuous process, with capability development stemming from advancements in education, health, and income. Moving beyond a sole focus on GDP, emphasis should be

given to the significance of economic freedom and human well-being, the equitable distribution of growth benefits, and its impacts (Miletzki & Broten, 2017).

Economic growth generally replicates the economy's productive capacity and development level. Economic growth is not only a subject of capital, technology, and labor; it also affects culture, beliefs, institutions, and values deeply rooted in society (Joel, 2016). Moreover, reliable commitment mechanisms backed by robust governance are crucial in controlling corruption and promoting long-term economic growth (North & Weingast, 1989). Inclusive institutions for sustained economic growth protect citizens' rights and properties and sustain economic progress (Robinson & Acemoglu, 2012).

The quality of governance is one of the most crucial prerequisites for a country's economic development and prosperity. Sustainable economic growth requires a strong government, policy stability, and capital formation, as well as enhanced production, productivity, market access, and innovation. Governance quality includes political stability, voice and accountability, the rule of law, government effectiveness, control of corruption, and regulatory quality.

Nepal has experienced a prolonged political transition, faces policy instability, and is affected by frequent government changes, all of which hinder economic growth, public service delivery, and the overall development process. This study aims to examine the relationship between governance quality and economic growth in Nepal. It explores the specific dimensions of governance reform that influence economic growth and opportunities. The findings of this study reveal an empirical link between governance quality and economic growth in Nepal, which can inform better policy decisions and governance reform.

2. Literature Review

2.1 Theoretical Frameworks

Good governance is a concept of less but better governance, and the role of government should be steering rather than rowing in the economy. It also acts as a mechanism that directs society toward its desired national goals. The relationship between governance quality and economic growth has prompted significant academic and policy discussions. Economic growth is often regarded as every nation's primary objective. Open government emphasizes transparency, innovation, partnership, and the use of technology to improve governmental effectiveness, thereby promoting better growth performance. The following are some theoretical foundations of governance.

2.1.1 Systems Theory

This theory fundamentally reveals the governance mechanism. From the beginning of human society, governance has been a complex phenomenon with multisectoral interconnections among various institutions and stakeholders. Governance is not limited to the government. It covers the public sector, private sector, civil society, and international actors.

This theoretical perspective believes that state activity operations are based on a comprehensive framework of political leadership, administrative machinery, well-defined procedures and laws, and state policies for anticipating the people's rights, choices, and voices, combating corruption, analyzing governance challenges, and addressing the unintended consequences of policy formulation and implementation in the country (Subrt, 2019).

2.1.2 Neo-Institutionalism Theory

This theory emphasizes the importance of effective institutions and capable, credible, and effective public sector leadership for promoting good governance and sustainable economic growth. It also emphasizes the importance of robust institutions, permanent structures, formal and informal rules and regulations, as well as actionable plans and programs.

The new governance techniques have explored and highlighted the importance of transforming government institutions and actions in recent years. They emphasize direct government provision and indirect forms of

government machinery, such as grants, contracting out, partnerships, and regulations, to solve the complexities in the government bureaucracy (Salamon, 2000).

2.1.3 Public Choice Theory

This theory emerged in the mid-20th century to measure the gap between the political economy and the people's expectations. Governance is related to democracy, human rights, the rule of law, accountability, participation, responsibility, and responsiveness to citizens. The commitment to democratic and accountable governance systems prioritizes the importance of people's rights, choices, and voices.

It highlights the importance of economic principles in shaping political behavior in a society where individuals strive to maximize their self-interest. The government should supply only pure public goods, whereas the market does the best for the needs of the citizens. Government incentives can help address market failures and imperfections in the economy (Buchanan & Tullock, 2003).

2.1.4 Theory of Citizen Engagement

The theory of citizen engagement emphasizes the importance of citizen participation in policy, institutions, decision-making processes, programs, measuring outcomes, and evaluating governance. This involvement deepens democracy, improves the quality of governance, and fosters ownership of people's sentiments. It serves as a tool for collaborative and inclusive governance. People's active participation in governance activities consistently shapes effective public policy and helps address social problems permanently. True democracy is the meaningful participation of people in governance (Habermas, 2018).

2.1.2.5 Global Governance Theory

This theory emphasizes that poverty in any part of the world hinders prosperity everywhere. It highlights the significance of international organizations, such as the UN, and their associated structures. The interconnected problems include climate change, cross-border crime, drug trafficking, terrorism, anti-money laundering, human trafficking, corruption, and cybercrime globally.

These problems emerged from globalization, the massive destruction of human values, and the rule of nature. Global governance tries to collaborate to solve the global problems we face in a common manner through international organizations and the pursuit of greater democracy and inclusivity in global governance processes (Woodward, 2006).

2.2 Empirical Evidence

Persson and Tabellini (2002) discussed the impact of governance on economic growth in their book *Political Economics: Explaining Economic Policy*. Politics shapes the policies that promote the people's prosperity, thereby strengthening the political and administrative institutions. Furthermore, the book illustrates how political institutions allocate power and values, profoundly impacting the country's economic performance. This book is helpful to those policymakers and scholars involved in enlarging economic policy choices through good governance.

Aidt et al. (2008) explained that governance has a significant impact on economic growth in developing countries. They further articulated that political transition, lack of accountability, transparency, corruption, and weak governance significantly hinder economic growth in developing economies. It could be used to analyze the development policies, impact of governance, economic growth, and human development.

Kaufmann et al. (2010) examined the relationship between governance reform and economic growth, a topic of ongoing discussion among scholars regarding policy reform and institutional development in developing countries. A significant correlation exists between good governance, democracy, and economic growth in developing countries. The World Governance Indicators (WGI) assess the following capabilities: Voice and Accountability, Political Stability and Capability, Government Effectiveness, Regulatory Quality, Rule of Law, and Control of Corruption. It articulates the general assumption of governability across the countries and around the globe for the valuable database to policymakers, students, and the people at large.

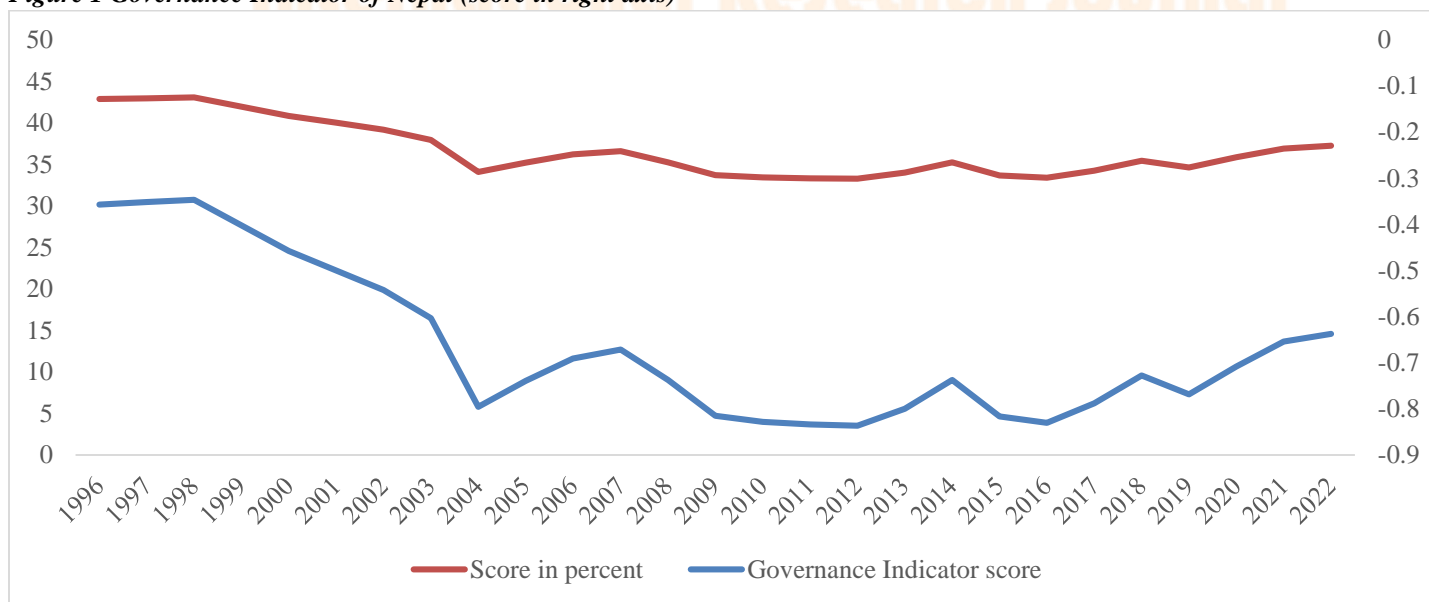
3. Governance Indicator and Economic growth trend in Nepal

Sections 1 and 2 elaborate on the introduction and theoretical background of governance and economic growth. The average economic growth rate in Nepal over the past 30 years has been 4.34%. This represents a 4.08 percent increase over the last 20 years and a 4.37 percent increase in the previous decade. Over the last 20 years, the tax revenue-to-GDP ratio has increased significantly, from 8.80% to 21.60% (MOF, 2023). In 2022, the government of Nepal generated a total revenue of Rs. 996 billion and incurred a total expenditure of Rs. 1,196 billion, resulting in a budget deficit of Rs. 200 billion (FCGO, 2022). The disaggregation of recurrent and capital expenditures was Rs. 961 billion and Rs. 216 billion, respectively, with the financial payment of Rs. 118 billion.

Governance indicators display the combined average of governance effectiveness and corruption control from the Kaufmann Indicator, specifically the Global Governance Database, published by the World Bank since 1996. Nepal scored 42.86 percent in 1996 and 37.25 percent in 2022, indicating a significant decline despite some improvements in recent years. This study utilizes the World Bank's Worldwide Governance Indicators (WGI) dataset, which provides an overview of governance status across six key dimensions. Government effectiveness reflects the service quality and independence of public services from political pressures. Regulatory Quality assesses the government's ability to formulate and implement sound policies and regulations. Rule of Law encompasses legal and property rights, addressing crime and violence, and contract enforcement. The Control of Corruption category encompasses the misuse of public power for private gain, as well as corruption and the elite capture of the state. In this study, the average score of Nepal in government effectiveness and corruption control from 1996 to 2022 is employed as the proxy variable for the Governance Indicator.

Figure 1 presents the governance indicator score and percentage, illustrating the average figures for governance effectiveness and corruption control derived from the Kaufmann Indicator, specifically the Global Governance Database, as measured and published by the World Bank in 1996. In 1996, Nepal scored 42.86 percent, a significant decline that was followed by gradual improvement in recent years. The average score for governance effectiveness and corruption control in 2022 was only 37.25 percent.

Figure 1 Governance Indicator of Nepal (score in right axis)



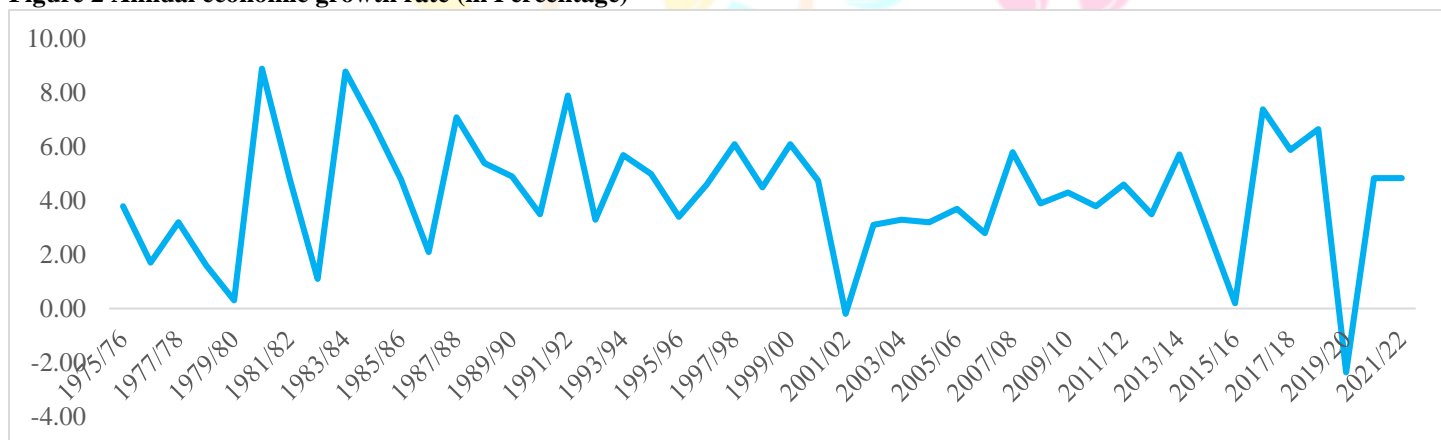
Source: The researcher's calculation.

Economic growth typically reflects a country's economic richness and the well-being of its people during a specific period. In 2022, Nepal's total GDP was Rs. 493,370 million Nepalese rupees, and its per capita GDP

was approximately \$1,336. The research indicates that Nepal's average annual economic growth over the past 30, 20, and 10 years is 4.34%, 4.08%, and 4.37%, respectively (WB, 2022). The highest growth was witnessed between 1981 and 1985, with substantial expansion and promising opportunities. In contrast, the lowest growth occurred from 1976 to 1980, marked by economic stagnation and significant challenges. This underscores the need for Nepal to maintain and accelerate its economic growth trajectory, aligning aspirations with actionable strategies to enhance prosperity and resilience.

Nepal's economic growth rate during the study period highlighted significant fluctuations. In most fiscal years, the growth rate was lower than the average for the considered period, reflecting the pace of economic growth and development. Since the 1980s, Nepal has adopted liberalization policies with support from the IMF and the World Bank through the Structural Adjustment Program (SAP), which has significantly accelerated economic growth. However, this growth has not been sustainable due to the political turmoil stemming from a decade-long armed conflict that began in 2006, which has profoundly disrupted various aspects of development. Following this political upheaval, two major shocks occurred simultaneously: the 2015 earthquake and the COVID-19 pandemic, which hindered the pace of development and economic activity.

Figure 2 Annual economic growth rate (in Percentage)



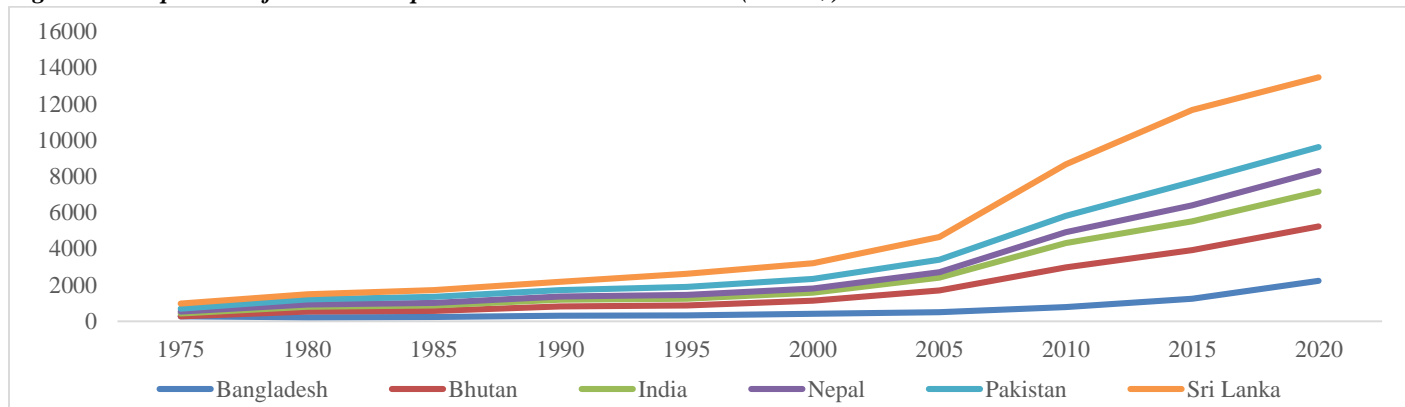
Source: Various issues of the economic survey, Ministry of Finance, Government of Nepal

Figure 2 explains the annual growth rate of GDP per capita from 1975 to 2021, which further shows the five-year and three-year moving averages of the GDP per capita growth rate. It shows an upward trend with continuous fluctuation during the observed period. Nepal's average per capita GDP growth rate was 1.8 percent from 1965 to 2014 (Rasaily & Paudel, 2019). It reveals that Nepal remains the least developed country in South Asia. In different economies, trade, energy use, capital, labor, human resource development, and foreign direct investment (FDI) have had a significantly positive impact on economic growth in the long run (Rahman & Alam, 2021). Remittance has been a vital means of survival for the Nepalese economy for the past two decades. It further illustrates Nepal's slow economic growth, soaring recurrent expenditure, and inconsistent and low capital expenditure capacity. Nepal has experienced stagnant and declining economic growth since the first planned economic development strategy was implemented six decades ago. The average annual GDP growth rate over the last 30 years has been only 4.3 percent, and just 4 percent over the last 20 years. Nepal's economic development efforts over the past 50 years have shown mixed results due to ongoing transitions, political instability, ineffective policies, and regional biases, which require fundamental structural changes (Devkota, 2007).

Figure 3 illustrates the comparison among South Asian economies, which had nearly identical statuses in 1975. However, in recent years, significant improvements have occurred in Sri Lanka and Bhutan over these five decades. India and Bangladesh have also seen notable increases in GDP per capita, while Nepal has not met its expected progress. This stagnation is due to political instability, armed conflict, a devastating earthquake, and the COVID-19 pandemic. Nepal has been grappling with extreme poverty and underdevelopment compared to its South Asian neighbors. Additionally, Nepal's inequality situation is striking, with a Gini coefficient of

around 30 percent. The income share ratio between the wealthiest 10 percent and the poorest 40 percent is nearly 1.5, reflecting a significant disparity within the region's countries (Salgado et al., 2022). The multidimensional poverty index in Nepal in 2023 is 17.40 percent, with an absolute poverty rate of 15.30 percent. Furthermore, the significant population has low purchasing power to manage their daily needs, and 50 percent of people live below the poverty line of \$3.20 per day.

Figure 3 Comparison of GDP Per capita in South Asian countries (in US \$)

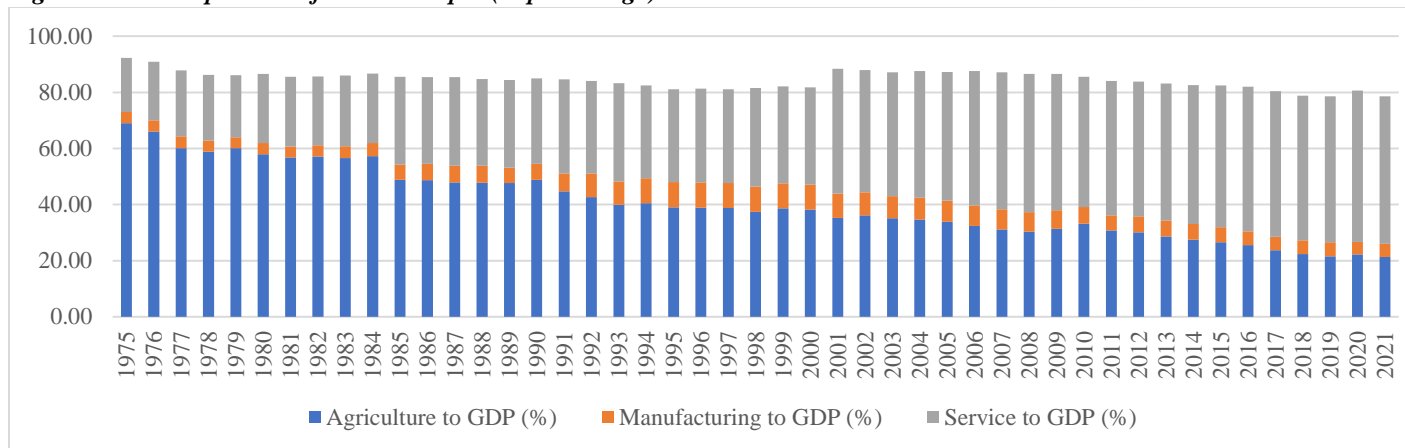


Source: The calculation is based on the World Bank database

Adopting the liberalization policy in the 1990s did not contribute to Nepal's development of the manufacturing sector; in contrast, it weakened industrial development (Shrestha, 2010). However, global economic development has shown that it is almost impossible to develop the nation without developing the industrial sector. Heavy imports and a deepening trade deficit characterize Nepal's gloomy economy.

Nepal has around one-third of the world's population and two giant economies. We must be linked in the value chain of India and China for economic development. However, Nepal lacks an effective, robust, and investment-friendly industrial policy to accelerate economic growth in line with industrial development. Labor issues and unrest during political conflicts are additional challenges for the economy. The major obstacles for the Nepalese economy include the failure of the manufacturing and agriculture sectors to utilize the young population for employment, which has led to a reliance on foreign employment. Furthermore, the increasing remittances sent by labor have fueled Nepal's economy, which is driven by imports and services, resulting in widespread unemployment.

Figure 4 The composition of GDP in Nepal (in percentage)



Source: The calculation is based on the World Bank database

4. Research Methodology

In this study, the Solow-Swan economic growth model is developed, which posits that production is a function of capital, labor, and savings, and has been employed to analyze the impact of governance quality on economic growth. It demonstrates that the significant determinants of economic growth are production factors, including capital, technology, and the labor force (Solow, 1956). This article adopts the Cub-Duggles production-based Solow–Swan growth model, a well-known neoclassical economic growth model, to identify the relationship between government quality and economic growth in Nepal. This research model has taken the variables governance indicators, economic growth, private investment, and the population of working age as used in Paudel (2023).

4.1 Models, variables and data source

Economic growth is the sum of the economy's overall production. GDP, the totality of investment, consumption, government expenditures, human capital, etc., theoretically denotes it.

Model 1: Impact of Governance Quality on Economic Growth

In developing economies like Nepal, Governance quality is vital for economic growth. Therefore, the third objective of this research is to examine the impact of governance on the real GDP growth rate, which serves as a proxy indicator of economic growth. The following model is employed to carry out the effect of the governance on the economic growth of Nepal;

$$LGDP_t = \beta + \beta_1 GI_t + \beta_2 LBD_t + \beta_3 CPI_t + \varepsilon_t \dots \dots \dots (1)$$

where LGDP is the log form of real gross domestic product, GI denotes the governance indicator, LBD represents the log form of the budget deficit, and CPI is the consumer price index; the constant term (β), the coefficient of the independent variable ($\beta_1 \dots \dots \dots$), and the error term (ε_t) and t is the yearly time period.

Model 2: Impact of Total Government Expenditure on Economic Growth

Government expenditure is a prerequisite for better growth performance in developing economies. The following model is applied to carry out the effect of governance and total government expenditure on the economic growth of Nepal;

$$LGDP_t = \beta + \beta_1 GI_t + \beta_2 LGE_t + \beta_3 POP_t + \varepsilon_t \dots \dots \dots (2)$$

where LGDP is the log form of real gross domestic product, GI denotes the governance indicator, LGE represents the log form of total government expenditure, POP is the active age population percent of 15 to 64 year-olds, constant term (β), coefficient of independent variable ($\beta_1 \dots \dots \dots$), error term (ε_t), and t is the yearly period.

Model 3: Impact of Consumer Price Index on Economic Growth

This model identifies the impact of total government expenditure and consumer price index on the real GDP growth rate, the proxy indicator of economic growth. The following model is employed to carry out the effect of the government expenditure and consumer price index on the economic growth of Nepal;

$$LGDP_t = \beta + \beta_1 LGE_t + \beta_2 CPI_t + \beta_3 POP_t + \varepsilon_t \dots \dots \dots (3)$$

where LGDP is the log form of real gross domestic product, LGE represents the log form of total government expenditure, CPI is the consumer price index, POP for the active age population percent of 15 to 64 age, the constant term (β), coefficient of the independent variable ($\beta_1 \dots \dots \dots$), error term (ε_t), and t is the yearly period.

Model 4: Impact of Budget Deficit on Economic Growth

The budget deficit is a crucial variable for economic growth in developing countries like Nepal. Therefore, this model finds the impact of budget deficit on the real GDP growth rate, the proxy indicator of economic growth. The following model is employed to carry out the effect;

$$LGDP_t = \beta + \beta_1 GI_t + \beta_2 LBD_t + \beta_3 POP_t + \varepsilon_t \dots \dots \dots (4)$$

where LGDP is the log form of actual gross domestic product, GI is the governance indicator, LBD is the log form of the budget deficit, and POP is for the economically active population, the constant term (β), coefficient of the independent variable ($\beta_1 \dots \dots \dots$), error term (ε_t), and t represents the year in the study periods.

This study utilized secondary time series data compiled from national and international sources, including the Ministry of Finance, Nepal Rastra Bank, the Central Bureau of Statistics, the World Bank, and the International Monetary Fund. Annual time series data on the models from 1975 to 2022 were analyzed to investigate the econometric models, excluding the governance indicators published in 1996. All data series underwent testing to eliminate potential spurious relationships and were cleaned before commencing the econometric analysis.

Before starting the econometric tools, the unit root tests of Dickey–Fuller (DF) and Phillip Parron (PP) test, augmented Dickey–Fuller (ADF), Lag length selection, Bound test of co-integration, and other necessary diagnostic tests are conducted. All these tests are constant with the model used in this article.

4.2 Econometric

The ARDL model has been used to identify the short-run and long-run relationships to determine the impact of governance quality on economic growth. The autoregressive distributed lag (ADRL) is a tool for identifying these relationships. This method is helpful in econometrics as it is a substantial measure of correcting misspecified error terms (Asteriou & Hall, 2011).

$$LGDP_t = \beta_0 + \beta_1 LGDP_{t-1} + \dots + \beta_p LGDP_{t-p} + \alpha_0 GI_t + \alpha_1 GI_{t-1} \dots + \alpha_p GI_{t-p} + \dots + \varphi_0 LBD_t + \varphi_1 LBD_{t-1} \dots + \varphi_p LBD_{t-p} + \dots + \partial_0 CPI_t + \partial_1 CPI_{t-1} + \dots + \partial_p CPI_{t-p} + \dots + \varepsilon_t \dots \dots \dots (5)$$

where,

LGDP= Log form of Gross Domestic Product

GI= Governance Indicator (in percent)

LBD = Log form of budget deficit

$\beta_0 + \beta_1 LGDP_{t-1} + \dots + \beta_p LGDP_{t-p}$ = Autoregressive form

$\alpha_0 GI_t + \alpha_1 GI_{t-1} \dots + \alpha_p GI_{t-p}$ = Distributed lags

ε_t = Disturbance term

To find out the association between budget deficit and economic growth, the ARDL method has been applied as follows;

$$\Delta LGDP_t = \beta + \beta_1 LGDP_{t-1} + \beta_2 GI_{t-1} + \beta_3 LBD_{t-1} + \beta_4 POP_{t-1} + \sum_{i=1}^{27} \gamma_i \Delta LGDP_{t-i} + \sum_{i=1}^{27} \delta_i \Delta GI_{t-i} + \sum_{i=1}^{27} \theta_i \Delta LBD_{t-i} + \sum_{i=1}^{27} \varphi_i \Delta POP_{t-i} + \varepsilon_t \dots \dots \dots (6)$$

Equation (6) shows the dynamism of the ARDL model of the basic equation. In this model, the per capita real GDP growth (LGDP) is the dependent variable applied as a proxy indicator of economic growth. The independent variables are governance indicators (GI), log forms of budget deficit (LBD), and percentage of active population (POP). The governance indicator is the average value of the Kaufmann Indicator (GI) of governance effectiveness and corruption control measures. Government expenditures and budget deficits are analyzed using various equations, which are often replaced by one another. Likewise, β is the intercept, β_1 , β_2 , β_3 , β_4 , and β_s are the coefficients of the variables in the first order, where β_s refers to the coefficient of

the independent variable. In addition, $y_i, \delta_i, \theta_i, \varphi_i$ are the parameters of the error correction model, and ε_t is the vector of random error.

5. Results and Discussion

The Autoregressive Distributed Lag (ARDL) model has estimated the long-term and short-term relationships among the variables, integrated at different levels, I(0) or I(1). This study selected the governance indicator from the Kaufmann Indicator, specifically the Global Governance Database, which was first measured and published in 1996 by the World Bank. To represent the governance indicator, I calculate the average of governance effectiveness and corruption control scores that Nepal has secured from 1996 to 2022. The ARDL long-term result shows the strong statistical significance of the governance indicator on economic growth in Nepal. It also shows a one percent increase in the governance indicator's impact until the 0.160 percent rise in GDP.

The finding articulates that enhancing the governance quality boosts economic growth by ensuring policy stability and creating a conducive environment for production, investment, and employment. It is because good governance reduces inefficiency and corruption and leads to the better allocation of resources and operational efficiency with high people morale. This finding is consistent with the study by Huang and Ho (2017) on good governance and economic growth in Asia, as well as the study by Chaudhary (2020) on governance and human development in Nepal.

The result reveals that total government expenditures support economic growth in Nepal, which is consistent with the study of Gyanwaly (2014). This study shows that government expenditures, whether used in the capital or recurrent category, help to make the economy vibrant through consumption, employment, and capital formation. It also provides capital investment, leading to higher aggregate demand and GDP. It is one of the key determinants of economic growth in developing countries, helping to enhance the economy's productivity. This result is consistent with the study of Sarwar et al. (2021) in emerging economies and Gnawali (2019) in Nepal.

Table 1 further provides the long-term empirical association among the variables through the ARDL estimation technique. It displays the interaction of the independent variables in the four different models. The table reflects a strong and positive relationship between economic growth and the budget deficit in Nepal. The result is consistent with the Keynesian theory of economic growth and the Multiplier effect theory. Specifically, the budget deficits are used for capital expenditure. Therefore, the result seems to be effective for economic growth.

The empirical results further illustrate the interaction between economic growth and the working-age population aged 15 to 64 years, which is assumed to be economically active, representing the economically active population. This striking fact contradicts the prevailing assumption that the active population has a negligible impact on Nepal's economic growth. It is probably because of the massive scale of foreign labour migration into countries that would directly contribute to economic growth and prosperity. It is due to mass unemployment within the country, some prominent structural issues, a high rate of labor migration, an unskilled workforce, a mismatch between employment opportunities and skill development, the dominance of the informal sector, low productivity, and dependency on remittances. The ARDL model's long-run result shows the relationship between the consumer price index and economic growth in Nepal. The Nepalese economy relies on imports, remittance income, and CPI, which reflects our consumption-based economy. Therefore, the controlled level of CPI is helping Nepal's economic growth.

Table 1: Long-run coefficients of ARDL model

Dependent Variable: Log form of Real GDP				
Regressor	(1)	(2)	(3)	(4)
GI- Governance Index %	0.160***	0.038**		0.077***

	(0.016)	(0.017)		(0.064)
LBD- Log form of budget deficit	0.687***			-0.675
	(0.423)			(0.344)
POP- Active population %		-0.245	-0.084***	-0.481***
		(0.226)	(0.008)	(0.076)
CPI- Consumer price index %	0.203***		0.029**	
	(0.032)		(0.013)	
LGE- Log form of total government expenditure		0.169*	0.920***	
		(0.596)	(0.021)	
Number of observations	24	23	43	23
R-squared	0.999	0.999	0.999	0.999
Log Likelihood	71.915	-104.177	105.402	62.591
Lag	ARDL (4, 4, 4, 3)	ARDL (3, 4, 4, 3)	ARDL (4, 3, 4, 4)	ARDL (4, 1, 4, 4)

Source: Researcher's calculation

Note: ***, **, and * indicate that the statistics are significant at 1 percent, 5 percent, and 10 percent levels of significance, respectively. The figures in parentheses are standard errors.

Table 2: ARDL Model Short-run Coefficient (ECM) Results

Dependent Variable: Log form of Real GDP				
Regressor/Estimation	(1)	(2)	(3)	(4)
dGDP (-1) - Differentiated log form of gross domestic product from the previous period	-0.964***	-0.144	-0.086	-0.015
	(0.156)	(0.156)	(0.071)	(0.185)
dGDP (-2) - Differentiated log form of gross domestic product from the previous two period	-1.125***	1.027***	0.096	0.591**
	(0.180)	(0.127)	(0.068)	(0.160)
dGI (-1) - Differentiated form of governance indicator	0.039***	0.006		0.020*
	(0.005)	(0.004)		(0.008)
dLGE- Differentiated log form of total government expenditure	0.140	0.316***	0.361***	
	(0.098)	(0.053)	(0.058)	
dLBD- Differentiated log form of the budget deficit	0.033*			-0.021
	(0.014)			(0.025)
dLBD(-1) - Differentiated log form of the budget deficit from the previous period	-0.246***			0.647***
	(0.032)			(0.135)
dCPI - Differentiated log form of consumer price index	0.004**		0.002	
	(0.001)		(0.001)	
dCPI (-1) - Differentiated log form of consumer price index from the previous period	-0.055***		-0.007***	
	(0.006)		(0.001)	
dPOP - Differentiated form of the economically active population		0.007	-0.052	0.563
		(0.133)	(0.125)	(0.250)
dPOP (-1) - Differentiated form of the economically active population from the previous period			0.690***	-0.699
			(0.256)	(0.559)
ECM (-1) – Error correction term from the previous period	-0.337***	-0.519***	-0.435***	-1.048***
	(0.036)	(0.082)	(0.043)	(0.208)
Number of observations	24	26	43	23
R-squared	0.940	0.911	0.873	0.900
Log Likelihood	71.915	73.428	105.376	62.591
Lag	ARDL (4, 3, 4, 4)	ARDL (4, 1, 4, 4)	ARDL (4, 3, 4, 4)	ARDL (4, 4, 4, 4)

Source: Researcher's calculation

Note: ***, **, and * indicate that the statistics are significant at 1 percent, 5 percent, and 10 percent levels of significance, respectively. The figures in parentheses are standard errors.

The lagged error correction model (ECM) is displayed in the table, which shows the high speed of adjustment until 100%, bringing the system to its long-term equilibrium. Additionally, the R-squared value is 0.94. This implies that the significant variables account for 94 percent of the variations in short-run real GDP.

6. Conclusion and Recommendations

Governance quality and economic growth are closely tied in the economy. The finding proves this assumption. As expected, governance quality, which reflects the average effectiveness of government and its control over corruption, has a strong and significant positive impact on economic growth. The ADRL results show that a one percent increase in the governance indicator is associated with a 0.16 percent increase in GDP. Total government expenditures have a significant impact on Nepal's GDP growth. Despite the heavy dominance of recurrent allocation, inefficient resource allocation and utilization, and various fiscal constraints in the economy, government expenditures increased consumption, employment, and capital investment, which promotes growth performance. In line with the earlier model's findings, the impact of the economically active population on economic growth is insignificant, which may be the exact reason for massive labor migration, unemployment, and skill mismatches. Fifth, the consumer price index (CPI), i.e., inflation, significantly impacts economic performance. This is likely because moderate inflation motivates small-scale industries and stimulates consumer expenditure and revenue growth. Finally, the study on the association between governance quality and economic growth suggests that governance reform initiatives can stimulate economic activity, leading to sustainable economic growth.

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ppendix A. Descriptive Statistics and Correlation Analysis

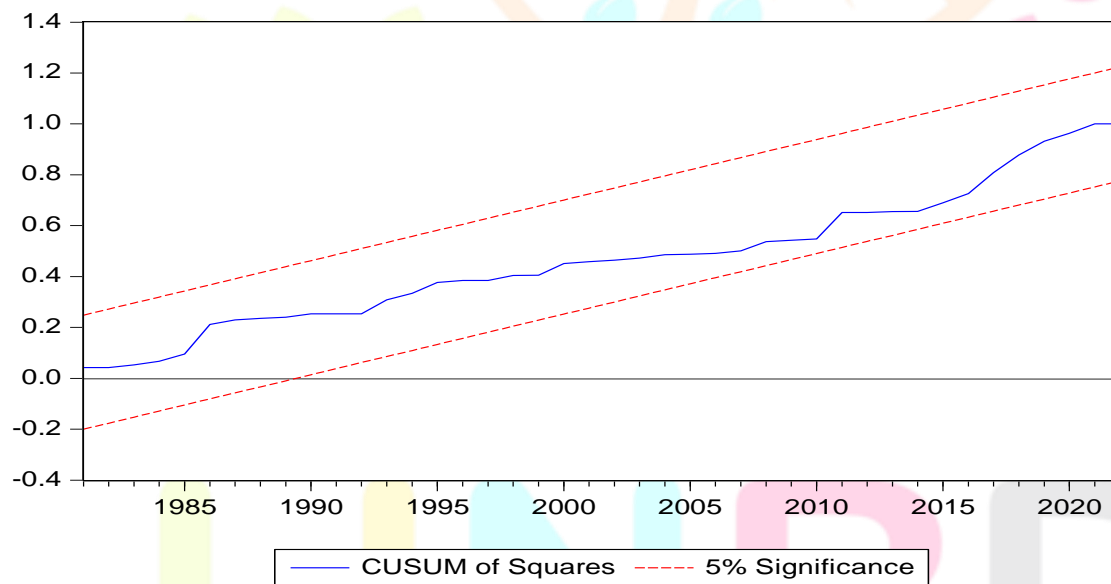
	LGDP	GI	LBD	CPI	POP	LGE
Mean	6.988	36.682	3.779	6.818	58.665	5.413
Median	6.895	35.445	3.404	6.704	58.100	5.392
Maximum	8.503	43.058	5.772	12.630	64.559	7.177
Minimum	5.517	33.264	2.626	2.434	55.071	3.840
Std. Dev.	0.962	3.266	1.000	2.754	3.015	1.128
Skewness	0.077	0.833	0.701	0.211	0.419	0.206
Kurtosis	1.604	2.354	2.118	2.077	1.895	1.623
Jarque-Bera	2.217	3.595	3.088	1.158	2.166	2.324
Probability	0.329	0.165	0.213	0.560	0.338	0.3127
Sum	188.699	990.428	102.047	184.103	1583.968	146.172
Sum Sq. Dev.	24.090	277.455	26.013	197.220	236.445	33.119
Observations	27	27	27	27	27	27

Correlation matrix

	LGDP	LBD	CPI	GI	POP	LGE
LGDP	1					
LBD	0.905	1				
CPI	-0.027	-0.162	1			
GI	-0.681	-0.488	-0.135	1		
POP	0.987	0.921	-0.049	-0.585	1	
LGE	0.995	0.936	-0.040	-0.645	0.990	1

Source: Researcher's calculation

LGDP, LBD, LGE, CPI, GI, and POP refer to the lag forms of gross domestic product, log form of budget deficit, log form of total government expenditure, and percentage of consumer price index, governance indicator, and economically active population.

Appendix B. Structural Break Test: CUSUM of Square Test

Source: Researcher's calculation

The CUSUM of the Squares test has been performed on the budget deficit, government expenditure, gross fixed capital formation, active population, and consumer price index.

Appendix C. Augmented Dickey-Fuller Test at Level

	With constant only		With constant and trend		Without constant and trend	
	t-statistics	P- value	t-statistics	P- value	t-statistics	P- value
LGDP	-0.423	0.896	-1.786	0.695	2.835	0.998
LBD	-1.483	0.532	-2.530	0.312	1.509	0.965
LGE	-1.104	0.706	-2.321	0.414	2.424	0.995
POP	0.549	0.986	1.787	1.000	1.469	0.962
CPI	-4.867	0.000***	-5.263	0.000***	-0.715	0.040**
GI	-1.994	0.287	-0.607	0.969	-1.090	0.242

Source: Researcher's calculation

Note: ***, **, and * indicate that the statistics are significant at 1 percent, 5 percent, and 10 percent levels of significance, respectively. The figures in parentheses are standard error.

Appendix D. Augmented Dickey-Fuller Test at First Difference

	With constant only		With constant and trend		Without constant and trend	
	t-statistics	P- value	t-statistics	P- value	t-statistics	P- value
LGDP	-7.319	0.000***	-7.337	0.000***	-4.299	0.076*
LBD	-6.345	0.000***	-6.338	0.000***	-5.604	0.000***
LGE	-4.945	0.000***	-4.941	0.001**	-2.123	0.033**
POP	4.448	0.082*	-3.526	0.048**	3.531	0.067*
GI	-4.008	0.005**	-6.080	0.000***	-3.975	0.000***

Source: Researcher's calculation

Note: ***, **, and * indicate that the statistics are significant at 1 percent, 5 percent, and 10 percent levels of significance, respectively. The figures in parentheses are standard error.

Appendix E. Phillips Perron Test at Level

	With constant only		With constant and trend		Without constant and trend	
	t-statistics	P- value	t-statistics	P- value	t-statistics	P- value
GI	-1.989	0.289	0.127	0.995	-1.021	0.267
LGDP	-0.4197	0.897	-2.066	0.550	6.819	1.000
LBD	-1.486	0.531	-2.618	0.274	0.945	0.945
LGE	-1.013	0.740	-1.890	0.643	4.852	1.000
CPI	-4.888	0.000***	-5.243	0.000***	-2.045	0.062*

POP 5.002 1.000 1.758 1.000 2.498 0.996

Source: Researcher's calculation

*Note: ***, **, and * indicate that the statistics are significant at 1 percent, 5 percent, and 10 percent levels of significance, respectively. The figures in parentheses are standard errors.*

Appendix F. Phillips Perron Test at First Difference

	With constant only		With constant and trend		Without constant and trend	
	t-statistics	P- value	t-statistics	P- value	t-statistics	P- value
GI	-3.978	0.005**	-8.248	0.000**	-3.951	0.000***
LBD	-6.338	0.000***	-6.339	0.000***	-5.669	0.000***
LGFCF	-7.029	0.000***	-7.412	0.000***	-2.620	0.009*
LGE	-4.900	0.000***	-4.891	0.001***	-1.846	0.062*
POP	2.961	0.095	-3.562	0.079*	2.988	0.087*

Source: Researcher's calculation.

*Note: ***, **, and * indicate that the statistics are significant at 1 percent, 5 percent, and 10 percent levels of significance, respectively. The figures in parentheses are standard error.*

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