

ADVANCE SOCIAL SCIENCE ARCHIVE JOURNAL
Available Online: https://assajournal.com
Vol. 03 No. 01. Jan-March 2025.Page# 2340-2346
Print ISSN: 3006-2497 Online ISSN: 3006-2500
Platform & Workflow by: Open Journal Systems
https://doi.org/10.5281/zenodo.24276034

The Voice and Accountability and Economic Growth: An Empirical Analysis for Pakistan

Dr Muhammad Ayub (Corresponding Author)
Assistant Professor, School of Economics Bahauddin Zakariya University Multan, Pakistan.
mayub@bzu.edu.pk
ORCID: 0000-0002-1621-5626
Dr Sarfraz Hussain
Associate Professor (BS-19), Department of Commerce, Government Graduate College Liaqat Road, Sahiwal, Punjab, Pakistan.
Putra Business School, Universiti Putra Malaysia (UPM), Kuala Lumpur, Malaysia.
ORCID: 0000-0001-9449-1047 Scopus: 57220863055
mianfraz1@gmail.com
Saba Khalid
BS Student at the School of Economics Bahauddin Zakariya University Multan, Pakistan.
sabakhalid1626@gmail.com
Muhammad Daniyal Farooq
M.Phil. Student at the School of Economics Bahauddin Zakariya University Multan, Pakistan.
chdaniyaljatt33@gmail.com

Abstract
The study uses the Autoregressive Distributed Lag (ARDL) bounds testing method to investigate the long run relationship among GDP per capita, voice and accountability (VA), foreign direct investment (FDI), gross fixed capital formation (GFC) and trade openness (TOP). The empirical results show that in long run, the GDP per capita is positively and significantly influenced by voice and accountability, FDI, and gross fixed capital formation. The strongest statistically significant association is with FDI (0.36), followed by voice and accountability (0.23) and gross fixed capital formation (0.25). Trade Openness, however, shows a positive but non-statistically significant correlation with GDP per capita. The results show that voice and accountability, foreign investment and domestic capital accumulation are important for economic growth. The study suggests that the resources should be intensified and productive investments are necessary for sustainable economic development with greater institutional accountability.

Keywords: Accountability, Economic Growth, Gross Fixed Capital Formation (GFC), Autoregressive Distributed Lag (ARDL) Model, Trade Openness.

1. Introduction

Economic growth is an important goal for developing and emerging economies as it brings about the enhancement of life standard, employment opportunities, poverty alleviation and economic development. GDP per capita is generally regarded as an important measure of economic performance because it provides a measure of the average economic output produced per person. A number of institutional and macro-economic conditions are important to meet in order to realize sustainable growth of GDP per capita: democratic governance, foreign investment, domestic capital accumulation and international trade. Of these, voice and accountability are particularly prominent as these dimensions of political participation, freedom of expression, transparency, and government accountability can have an impact on economic decision-making

and institutional performance. Voice and accountability (VA) is a key aspect of institutional quality and measures the degree of citizens' participation in choosing their government and freedom of expression, association and access to information. Effective voice and accountability can help to strengthen public institutions, curb corruption and increase transparency, and promote development-oriented policies. Moreover, accountable institutions can build trust and establish a positive investment climate for local and foreign investors. On the other hand, low accountability and low public participation may result in sub-optimal resource allocation, policy uncertainty and institutional instability, which will limit economic growth. Foreign direct investment (FDI) is another important determinant of economic growth. It helps in the process of economic development in the facets of capital inflow, technological transfer, employment creation and managerial skill. FDI can have positive impacts for developing economies regarding increasing productive capacity and reinforcing economies' links to international markets.

Likewise, gross fixed capital formation (GFC) has considerable importance in the growth of the economy by the way of investment in infrastructure, machinery, equipment and other productive assets. An increase in capital formation can help boost productivity and stimulate the industry and economic growth in the long run. Trade openness (TOP) also fosters economic growth through the increase in international trade, competition, technological transfer and access to markets. More trade integration will help optimize resource utilization and provide new opportunities for local industries. While the impact of institutional quality on economic growth has been studied extensively in the past, the role of voice and accountability beyond the effects of the major macroeconomic determinants is an empirical question that needs to be explored. In particular, it is crucial to comprehend how democratic accountability relates to foreign investment, capital formation and trade openness in designing effective economic policies. In the background of this, the present study aims to discuss the long run relationship between GDP per capita, voice and accountability, FDI, gross fixed capital formation, and trade openness, applying the bounds testing approach by Auto-regressive Distributed Lag (ARDL). The study is aimed at getting empirical evidence of institutional accountability and macroeconomic factors for sustainable economic growth.

2. Literature Review

In recent empirical studies, the link between institutional quality and economic growth has been the subject of a great amount of attention. Voice and accountability (VA) is one of the key governance aspects that come from citizens' involvement in the selection of government, their freedom of expression, political accountability, and transparency in government institutions. Good accountability systems can enhance government effectiveness, boost institutional trust and promote economic growth. In the case of Afghanistan, Azimi and Shafiq (2020) looked into the direction of the relationship between governance measures and economic growth and emphasized the role of governance institutions in economic performance. The same applies to the work done by Chand et al. (2020) on Fiji, which focused on the impact of export performance on the level of governance and economic growth, and the importance of institutional arrangements for economic development. Based on data from 218 countries, Azimi (2022) found a long-run relationship between governance indicators and economic growth. Azimi (2022) identified a long-run relationship between governance indicators and economic growth based on data from 218 countries. The results showed that the quality of governance positively affects the economy of both high-income and low-income groups.

Mohammad Naim Azimi, 2022 Another crucial factor that affects economic growth is foreign direct investment (FDI) which fosters capital accumulation, technology transfer, job creation and knowledge spillovers. In this study, Chengying et al. (2023) studied how the institutional quality-

moderating effect influences the relationship between national absorptive capacity and FDI inflows in 113 developing countries. Their research showed that institutional quality, among other factors, influences the attracting of foreign investment only when countries have the capacity to absorb foreign knowledge and technology. When studying 28 lower-middle income countries, Saha et al. (2022) found that the dimensions of institutions affect FDI flows in different ways. Interestingly, the results of their sample showed that voice and accountability had a negative relationship with FDI, suggesting that institutional effects can differ across economic and political contexts. Chen and Jiang (2023) found that institutional quality attracts FDI in 42 G20 countries by enhancing the degree of trade openness, industrial restructuring and technological innovation. Similarly, Antonietti and Mondolo (2023) found that foreign investment and institutional development, such as voice and accountability, were also found to have a two-way relationship in a sample of 102 developing and transition economies.

The effect of FDI on economic growth may not be the same in different countries. Ochi (2023) analyzed the growth impact of FDI on 102 developing countries and concluded that FDI only realistically has a positive growth impact once a threshold for good governance is reached. Likewise, Khan et al. (2024) studied institutional quality and FDI in Asian, developed and developing economies at global level. Their research showed that voice and accountability is an important factor in attracting FDI in developing and Asian countries but has different effects on FDI in country groups. The results from these studies offer a hope that accountable institutions can secure investor confidence and enhance the role of foreign investment in the economic development. Gross fixed capital formation (GFC) is also regarded as an important driver of economic growth as investment in productive assets and infrastructure, machinery and equipment, increases the productive capacity of the economy. This study by Radmehr et al. (2022) analyzed the effect of trade openness, FDI and financial development on sustained economic development in 62 countries. Both their research and their work activities reinforce the value of investment and international economic integration. To investigate the dynamic linkages between trade openness, FDI, capital formation, and industry economic growth, Hao (2023) applied ARDL bounds test method to China. The study highlighted the need to take into account their short- and long-term relationships.

In addition, Mumtaz et al. (2024) studied the accountability and economic prosperity in Pakistan with ARDL method. They found positive relationships between the variables of accountability, FDI, fixed assets, and technological advancement, but did not provide statistical evidence of the causality. DOI+2 Trade Openness (TOP) plays a positive role in economic growth because it enables international trade, enhances market access, fosters competition and technological diffusion. In the context of trade openness and GDP growth relationship, Fatima et al. (2020) emphasized that the human capital accumulation is crucial to understanding the growth impacts of international trade. Based on Vietnam, Nguyen and Poczta-Wajda (2024) found that FDI inflows and trade openness positively affect GDP per capita growth in the long run. Likewise, Hao (2023) showed that trade integration, foreign investment and capital formation have been crucial to the performance of the industrial economy in China.

Notwithstanding, these contributions, there is inconclusive evidence from the current literature on the individual and joint impact of institutional accountability and macroeconomic indicators on economic growth. According to Arjun and Mishra (2024), voice and accountability do have a positive impact in reducing the negative impacts of external debt on the economic growth of emerging economies. Damasceno and Guedes (2024) also emphasized the need for institutional and financial growth to realize capital accumulation and productivity. The results have suggested that the link between democratic accountability and economic performance needs further

research. Thus, in the present study, the long run relationship between GDP per capita, voice and accountability, FDI, gross fixed capital formation and trade openness is tested through the ARDL bounds testing approach.

3. Data and Methodology

The data used in the present study consists of annual time series of 2001-2022, given by World Development Indicators (WDI) database of Pakistan. There are 5 variables included in the empirical model with GDP per capita growth (in percentage per annum) as the dependent variable. The explanatory variables are voice and accountability (VA) (0 to 100) which measures institutional performance and effective public governance, foreign direct investment (FDI), growth rate of gross fixed capital formation (GFCF) and trade openness (TOP) (total exports + total imports / GDP). These variables were also added to the empirical framework and analyzed to understand the role of these variables in Pakistan's economic development.

Table.1 Source and Data Description.

Variables	Unit of Measurement	Source
GDP	Annual % growth	WDI
VA	Scaled from 0 to 100	WDI
FDI	Net inflows as % of GDP	WDI
GFC	Annual % growth	WDI
TOP	% of trade share in GDP	WDI

Notes: GDP=GDP per capita, VA= Voice and Accountability, FDI=Foreign direct investment flow, GFC=Gross fixed capital formation, TOP= Trade openness.

The models 2 is applied for running the regression.

$$GDP = f(VA, FDI, GFC, TOP) \quad (1)$$

$$GDP = \alpha_0 + \alpha_1 VA + \alpha_2 FDI + \alpha_3 GFC + \alpha_4 TOP + \varepsilon_t \quad (2)$$

The stationary values of variables are presented in table 2.

Table 2: The Findings of ADF Test

`Variables	Parameters	ADF Calculated	At 5%	Trend/ Intercept	Conclusions
GDP	-0.31	-3.12	-2.17	Intercept	I(1)
VA	-0.42	-4.57	-3.45	Intercept	I(I)
FDI	-0.39	-4.19	-3.69	Intercept	I(0)
GFC	-0.52	-5.21	-4.25	Trend	I(1)
TOP	-0.48	-4.46	-2.45	Intercept	I(0)

Note: The Results of the Table 2 are based on author's self-calculations

The advantage of ARDL model is that it has great applicability to empirical analyses of small samples and variables without an order of I(2), that is variables with different orders of integration (I(0) and I(1)). Moreover, the ARDL bounds testing approach provides a sound approach to analyses the presence of long-run relationships between variables. One big advantage of this approach is the estimation of both short-term adjustments as well as long-term equilibrium associations in the same econometric model.

4. Results and Discussion

The long run ARDL estimates show that voice and accountability, foreign direct investment (FDI), gross fixed capital formation (GFC), and trade openness (TOP) positively impact on GDP per

capita. However, the magnitudes and the significance of these vary by explanatory variable. The coefficient of voice and accountability is 0.23, Standard error is 0.08 and t-ratio is 2.87. This means that there is a positive and statistically significant relationship with GDP per capita at the 5% level. The discovery implies that democratic participation, freedom of expression, transparency in government, and institutional accountability have positive implications for the economy. Effective accountability systems can foster governance, build trust in governance and enhance the allocation of economic resources. Likewise, FDI is statistically significantly and positively correlated to GDP per capita (coefficient of 0.36 and a t-ratio of 2.25).

From the findings, it is concluded that foreign investment is related to its contribution to the long-term economic performance in terms of capital inflows, technological transfers, job creation and managerial improvements. It further underscores the need to ensure a favorable investment climate to bring in foreign investors. Gross fixed capital formation also has a positive coefficient (+25), standard error (+12), and t-ratio (+20.8). The relationship is statistically significant at conventional 5% level indicating that investment in infrastructure, machinery, equipment and productive assets contributes to economic growth. Increased capital formation can help to enhance domestic production capacity, productivity, and long-term development.

Moreover, the explanatory variables have different magnitudes of their coefficients: trade openness is the largest positive one (0.45). Its t-ratio (1.25) is not statistically significant at the conventional significance level, however. It indicates that for the sake of greater international trade integration, there is no guarantee that GDP per capita will increase unless there are complementary increases in export competitiveness, production capacity and institutional frameworks. The sign of the constant is positive and its coefficient is statistically significant (coefficient 4.29, t-ratio 2.69). In general, the study results determine voice and accountability, FDI, and gross fixed capital formation to be the statistically insignificant determinants of GDP per capita in the long run. The results highlight the relevance of democratic governance, fruitful investment and institutional responsibility for sustainable economic growth.

Table 3: Long- Run Results of ARDL bounding testing. Dependent variable is GDP

Explanatory Variables	Coefficients	Standard Error Coefficients	T-Ratio
VA	0.23	0.08	2.87
FDI	0.36	0.16	2.25
GFC	0.25	0.12	2.08
TOP	0.45	0.36	1.25
Constant	4.29	1.59	2.69
Trend	0.097	0.089	1.09

Notes: GDP=GDP per capita, VA= Voice and Accountability, FDI=Foreign direct investment flow, GFC=Gross fixed capital formation, TOP= Trade openness.

5. Conclusion and Policy Implication

This study aims to examine the long-run relationship between GDP per capita, voice and accountability, foreign direct investment (FDI), gross fixed capital formation (GFC), and trade openness (TOP) through ARDL bounds testing approach. The empirical results show that the variables voice and accountability, FDI and gross fixed capital formation are positively and statistically significant with GDP per capita in long run. Voice and accountability have a positive coefficient of 0.23, meaning that the economic performance improves when citizens' voices are heard and there is freedom of expression, transparency and government accountability. Similarly, the coefficient of FDI is 0.36 which shows the role of foreign investment in increasing

capital inflows, technological development and employment creation. Other factors also have positive effects on GDP per capita, such as gross fixed capital formation, which is 0.25. Gross fixed capital formation reflects investment in productive assets and infrastructure, which helps to drive long-term economic growth.

The coefficient on openness to trade is the highest with 0.45 but this relationship is not statistically significant with GDP per capita. This suggests that if the goal of international trade integration is to increase economic growth, other domestic economic and institutional reforms are needed. Governments should enhance democratic institutions, encourage transparency, freedom of expression, public participation and accountability in decision-making processes, from a policy perspective. Improving institutional credibility can help to increase public confidence and provide a favorable environment for economic activities.

Additionally, policy-makers should provide investor protection, develop nation's infrastructure, establish political stability and implement investment friendly regulations to encourage productive foreign direct investment. More focus should also be placed on the mobilization of domestic capital. Investment in transport, energy, technology, and industrial infrastructure should also be stepped up. Trade openness should be targeted with policies that priorities diversification of exports, development of domestic production capacity, export product quality and international competitiveness, instead of solely on trade liberalization. In general, coordinated policy measures involving democratic accountability, promotion of foreign investment, productive accumulation of capital, and effective trade measures are needed for sustainable growth in GDP per capita. These measures can help improve economic productivity and sustainable economic growth in the long-term.

References

Antonietti, R. and Mondolo, J. (2023). Inward FDI and the quality of domestic institutions: A cross-country panel VAR analysis. *Economic Systems*, 47(3), 101078. https://doi.org/10.1016/j.ecosys.2023.101078

Arjun and Mishra, B.R. (2024). External debt and economic growth: Does the role of governance matter in emerging countries? *SAGE Open*. https://doi.org/10.1177/21582440241243254

Azimi, M.N. (2022). A DCCE approach to the governance-growth nexus: Global perspective. *Global Business Review*. https://doi.org/10.1177/09721509221104247

Azimi, M.N. and Shafiq, M.M. (2020). Hypothesizing directional causality between the governance indicators and economic growth: The case of Afghanistan. *Future Business Journal*, 6, 1–14. https://doi.org/10.1186/s43093-020-00039-4

Chen, F. and Jiang, G. (2023). The impact of institutional quality on foreign direct investment: Empirical analysis based on mediating and moderating effects. *Economic Research-Ekonomska Istraživanja*, 36(2). https://doi.org/10.1080/1331677X.2022.2134903

Chengying, H., Wang, T., Shah, S.A., Chang, Y. and Zhou, X. (2023). A study on the moderating role of national absorptive capacity between institutional quality and FDI inflow: Evidence from developing countries. *Economic Research-Ekonomska Istraživanja*, 36(1), 2177–2198. https://doi.org/10.1080/1331677X.2022.2096659

Damasceno, A.O. and Guedes, D.R. (2024). Financial openness, capital accumulation, and productivity in emerging and developing economies. *Economic Modelling*. https://doi.org/10.1016/j.econmod.2024.106663

Fatima, S., Chen, B., Ramzan, M. and Abbas, Q. (2020). The nexus between trade openness and GDP growth: Analyzing the role of human capital accumulation. *SAGE Open*. https://doi.org/10.1177/2158244020967377

Hao, Y. (2023). The dynamic relationship between trade openness, foreign direct investment, capital formation, and industrial economic growth in China: New evidence from ARDL bounds testing approach. *Humanities and Social Sciences Communications*, 10, 160. https://doi.org/10.1057/s41599-023-01660-8

Khan, H., Dong, Y., Bibi, R. and Khan, I. (2024). Institutional quality and foreign direct investment: Global evidence. *Journal of the Knowledge Economy*, 15(3), 10547–10591. https://doi.org/10.1007/s13132-023-01508-1

Khan, I., Xue, J., Zaman, S. and Mehmood, Z. (2023). Nexus between FDI, economic growth, industrialization, and employment opportunities: Empirical evidence from Pakistan. *Journal of the Knowledge Economy*. https://doi.org/10.1007/s13132-022-01006-w

Mumtaz, N., Nasim, T. and Yamin, I. (2024). Accountability and economic prosperity: Unveiling the nexus between governance responsibility and GDP growth in Pakistan. *International Journal of Contemporary Issues in Social Sciences*, 3(1), 1754–1771.

Nguyen, A.T. and Poczta-Wajda, A. (2024). The relationship between foreign direct investment, trade openness, exchange rate, and gross domestic product per capita in Vietnam. *Journal of Economics & Management*, 46, 189–212. https://doi.org/10.22367/jem.2024.46.08

Ochi, A. (2023). Estimating relationships among foreign direct investment, governance quality, and economic growth in developing countries using the threshold auto-regressive model. *Regional Science Policy & Practice*. https://doi.org/10.1111/rsp3.12654

Radmehr, R., Ali, E.B., Shayanmehr, S., Saghaian, S., Darbandi, E., Agbozo, E. and Asumadu Sarkodie, S. (2022). Assessing the global drivers of sustained economic development: The role of trade openness, financial development, and FDI. *Sustainability*, 14(21), 14023. https://doi.org/10.3390/su142114023

Saha, S., Sadekin, M.N. and Saha, S.K. (2022). Effects of institutional quality on foreign direct investment inflow in lower-middle income countries. *Heliyon*, 8(10), e10828. https://doi.org/10.1016/j.heliyon.2022.e10828