



Nexus between Governance Quality on Industrial Growth: A Fresh Insight from Developing Economies

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ABSTRACT

This study examines the impact of governance on industrial growth. Moreover, this study also examines the impact of trade openness, exchange rate, and inflation on industrial growth in the presence of good and bad governance as well as overall governance. For this purpose, data is extracted from the World Development Indicator (WDI) and World Governance Indicator (WGI) of 47 countries of developing economies from 1984 to 2020. Examining the result Generalized Method of Moments (GMM) technique has been applied. The result shows that an increase in governance significantly improves industrial growth. However, trade openness has a significant relation with industrial growth in well governed countries however it deteriorates in bad governed countries. Whereas improvement in trade will deteriorate the industrial growth in the overall and as well as badly governed countries. In the bad governed countries devaluation of exchange rate significantly deteriorates industrial growth in the long run. On the other hand, Inflation significantly improves industrial growth in good as well as badly governed countries. The government needs to improve governance quality, and exchange rate while badly governed countries need to impose high import duties, produce local products to meet the country's needs and provide subsidies to exporting industries.



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1. Introduction

Industrialization, in other words, is the manufacturing production process using the capacity of the nation in the form of labor, raw material, and other input to convert into finished goods either for final consumption or for further production purposes (Akalegbere, 2022). The history of industrialization starts in 1760 when industrial production is based on a machine powered by steam and water also known as the first industrial revelation (Wen, 2021). In 1870 the second industrial revolution starts with the generation of electrification that was widely used in mass production (Loy, Chin, & Sankaran, 2021). Whereas the assembly revolution starts in 1970 with using electronics and computers while in 1980 the globalization offshoring of production to low-cost economies and also known as the 3.5 industrial revolutions (Lasi, Fettke, Kemper, Feld, & Hoffmann, 2014). Today we are living in the fourth revolution where the introduction of connected devices, data analytics, and artificial intelligence technologies automates the process (Frank, Dalenogare, & Ayala, 2019; Sharafuddin & Belik, 2022).

In this era, industrialization considers the backbone of economic growth, as the process of economic growth usually starts with industrialization (Nwogo & Orji, 2019). Industrial growth improves economic growth generating employment levels, reducing inflation, improving labor productivity through technical advancement, improving education level, and training (Maroof, Hussain, Jawad, & Naz, 2019). Furthermore, improvement in industrial growth also affects some non-industrialization sectors, it facilitates the services sector through improvement in efficiency and enhances productivity by using advanced technology and also affects the agriculture sector by creating demand for raw material (Samouel & Aram, 2016). However, the development of the industrial sector plays a crucial role to improve the growth of the other sectors as well. The countries that have higher industrial performance help to increase the trade surplus, improve exchange rate and increase the GDP of the country through efficient allocation and utilization of resources that further invested for the efficient utilization of the scarce resources (Bhatti, Farhan, Ahmad, & Sharif, 2019; Eswari & Yogeswari, 2019).

Industrial growth is marked as a "process based on complex forces generally rooted in new general processes most aptly characterized as practices of modernization" (Walton, 1987). Findings show that emerging economies with well-developed and competitive industrial sectors flourish more rapidly as compared to other economies. (Kniivilä, 2007) narrated better economic growth and reduced poverty levels in industrially developed economies like Korea, China, and Indonesia. In contrast to this, poor economic conditions along with an underdeveloped industrial sector leading to the economic crisis were reported in the least developed economies (LDE) during the period of the 1970s and 1980s. Such economic downturn compels implementation of key procedural restructurings and market-friendly inducements in the form of Structural Adjustment Program (SAP) by the International Monetary Fund (IMF) and World Bank (WB) during the late 1980s and early 1990s in the crisis-ridden economies (Rajan & Zingales, 1996). The major objective of the reforms was to liberate and develop financial markets focusing on financial stability, competition, novelty, export expansion, industrial development, trade liberalization, and economic stabilization (Kabango & Paloni, 2010).

Furthermore, some country-specific characteristics also play a vital role in the development of the industrial sector and the impact of these potential determinants also changes according to the country characteristics (Ejaz, Ullah, & Khan, 2016). In the country's characteristics, governance plays a very important role in all of these circumstances (Galindo, Schiantarelli, & Weiss, 2007). The primary variable that is used to account for the governance of the countries is "law and order situation", "bureaucracy quality" and "corruption" are the most important factor to improve economic growth (Roy & Tisdell, 1998). The governance concept of contributing to the structural efficacy of industrial development and policies has also recently emerged (Christoffersen & Doyle, 2000). According to Galindo et al. (2007) analysis, a better structure of governance, trade openness, financial liberalization, equity openness jointly improve the industrial sector growth and encourage economic activities. As Bardhan (1984) argument that in India he finds conflicts between industrialist and bureaucrats leads to institutional, political as well as economical inefficiency (North, 1981). Similarly, in good governance industrial policies perform in a better way due to less intervention of corruption and better performance of bureaucrats and law and order situation that eventually improve the efficient utilization of resources in a positive way (Roy & Tisdell, 1998).

After analyzing the literature review it is observed that there is a gap in the literature related to the impact of all these potential variables in the form of good governance and bad governance. The objective of this study is to check the impact of good, bad, and overall governance on industrial growth. Furthermore, this study also analyses the impact of potential determinants of industrial growth such as FDI, CPI, Real Exchange rate, and skilled labor force on industrial growth in the presence of good bad as well as overall governance. This study helps

us to provide more accurate policy recommendations for the improvement of industrial sectors in good governed and bad governed countries. Furthermore, this study also contributes to the literature review that helps the researcher to uncover critical areas in this topic.

The governance of every country directly attaches to every sector of the economy and plays a pivot role to improve its economic condition and the improvement of the economic condition depending on the industrialization process. Because due to trade openness every country wants to improve its production level through industrialization and export these products to other countries to improve the profitability of the country (Jianjun et al., 2021). However, to improve the industrialization process every country utilizes different economic tools to improve the productivity level. In all of this process, the effectiveness of utilization of these economic tools while making industry as well as economic policies, bad governed countries where corruption, law and order condition and bureaucratic quality not in good situation, intervene and change the backbone of the story. As result, the industrial sector works inefficiently which hamper the country's growth. On the other hand, in good governed countries, it efficiently performs. However, there is a need to check the impact of the potential economic variables on industrial growth in the presence of good and bad governed countries as well as overall to suggest the accurate direction to policymakers through which they can efficiently improve the growth of the industry sector.

As the circumstances in every country change according to its law & order condition, bureaucratic quality and corruption cumulatively represent the governance of a country. As in the verse condition of governance the resources misused and in better governance quality the resources are used an efficient way. So, to check the above potential variable in the presence of good and bad quality of governance can give us a clearer picture of the ground story of the variables that in future help us to provide more accurate policy recommendation for the improvement of industrial sectors in good governed and bad governed countries.

2. Literature Review

As industrial growth is the growing concern of all of the developed and developing economies to improve their productivity and increase the economic growth of the country (Usman, Kousar, Makhdam, Yaseen, & Nadeem, 2022). The vast range of continuous debate is available on the theoretical and empirical front. Many studies provide massive literature that examines the growth of the industrial sector using the potential variable (Rastoka, Petković, & Radicic, 2022).

Ahad, Dar, and Imran (2019) examine the impact of the development of the financial sector of Pakistan on industrial production. They use industrial value-added in real terms for the proxy of industrial production as dependent variable while financial development, saving (% GDP) In this study they were using data from 1972 to 2014 and using combined cointegration technique developed by Byer & Hanak and VECM Granger Causality find that saving and financial development has significant and positive effect industrial production in long run. While the development of the financial sector only has a significant and positive effect on industrial production in the short run. They recommend that to support financial institutions to help industrial production that further help to boost economic growth. While future research also needs to consider the factor of technological improvement.

Hong (2015) investigated the impact of globalization on industrial growth by using the Fixed and Random Effect Estimation method. Data of 33 Asian countries within 23 years (1990-2012). Industrial growth was taken as a dependent variable while Labor and capital, KOF globalization index, and investment were used as independent variable variables. The result of the study represents that FDI improves the growth of the industrial sector while globalization

harms the growth of the industry (Shafiq, Raheem, & Ahmed, 2020). The government needs long-term planning to the improvement of labor skills, investment in technology, academic performance, R&D, and attract FDI projects (Bhatti & Fazal, 2020; Nawab, Bhatti, & Nawaz, 2021).

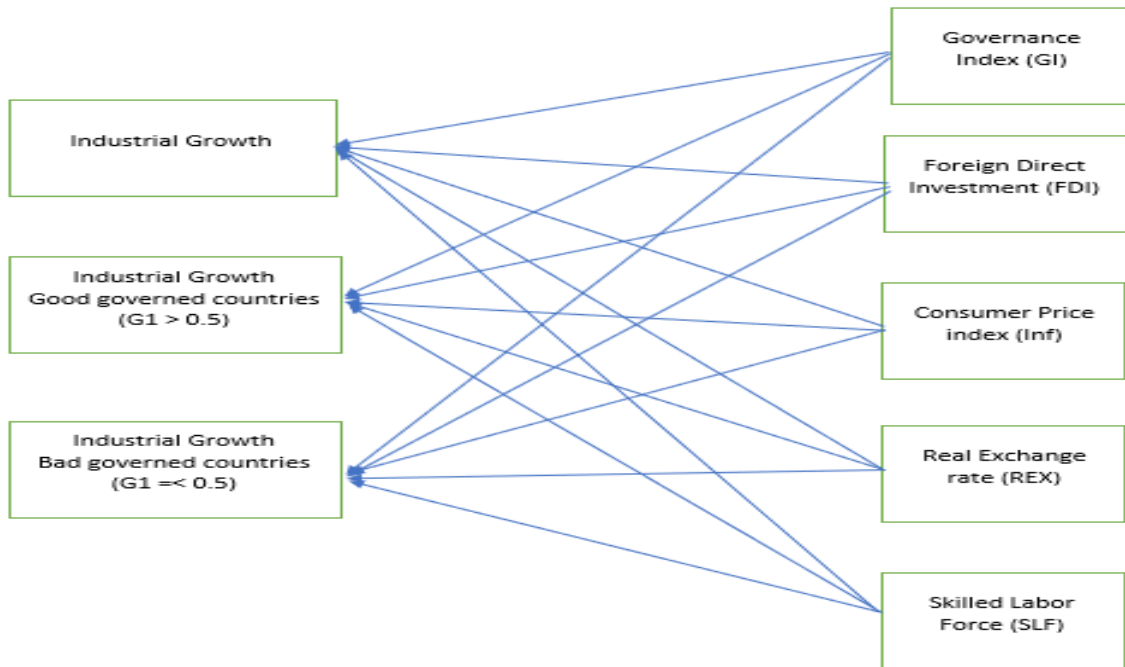
Ajmair and Hussain (2017) found the determinants of industrial sector growth from the year 1976 to 2014 in Pakistan by using ARDL. Industry value addition as a percentage of GDP as the dependent variable while GNI of external debt stock, Foreign direct investment (% of GDP), Denoted trade, Gross national expenditure, and Personal remittances, received an annual percentage of Inflation and Manufactures exports were used as independent variables. Results showed that there is a positive and significant association of Industry with Trade and Personal remittances received (Shafiq, Hua, Bhatti, & Gillani, 2021). It is recommended that the Government should focus on trade, especially on quantity and quality of exports and for the development of industrial sector overseas employment of labor force might be motivated.

Adamu and Doğan (2017) analyzed the long-run and short-run relationship of industrial production and trade openness in Nigeria using data from 1986 to 2008. ARDL method is used to check the short and long-run results. The industrial production index is used as a dependent variable while trade openness and inflation are used as independent variables. The result of ECM shows that a positive impact of trade openness was found on industrial production. It was suggested that export diversification policies must be promoted to overcome the overdependence of the economy on crude-oil exports. Nigeria might enhance regional and international trade to improve economic growth and reduction in poverty.

Okonkwo (2016) explored the effect of foreign portfolio investment on industrial growth in Nigeria. An empirical relationship between foreign portfolio investment and industrial productivity in Nigeria was examined from the year 1986 to 2013. OLS method was used to conduct a study having the dependent variables Industrial Production Index and independent variable of Investment on Foreign Portfolio, capitalized market, and gross fixed capital formation were used. It was found that foreign portfolio investment, gross fixed capital formation, market capitalization has a positive impact on industrial growth in Nigeria (Yang & Shafiq, 2020). It is suggested that authorities might take positive steps to increase market capitalization as it increases foreign portfolio investment which motivates industrial productivity.

Junejo and Khoso (2018) investigate the impact of the electricity crisis on industrial growth in Pakistan. By using time series data from the year 2005 to 2015 used. Industrial Growth of output is used as the dependent variable while Industrial growth rate of electricity consumption on yearly basis, Industrial consumers, Electricity consumption in industries are used as independent variables. ANOVA and multiple regression analysis were used to analyze the relationship among these variables. Results showed that there is a significant positive impact of the annual growth rate of electricity consumption, industrial consumers, and industrial electricity consumption (Gwh) on the industrial growth of output. It was also concluded that the output of industrial growth was negatively affected due to variations of demand and supply of electricity in Pakistan. It is recommended that the Government might use hydro and solar resources of energy to meet the needs of industries and there must be an annual budget scheme for the production of electricity. It is also suggested that all investors must take part in and support the government in power generation. Future studies might be implemented in other developing countries like Bangladesh, India, and South African countries and there might be a comparative analysis of the growth of energy production in these countries including Pakistan.

3. Theoretical Framework



4. Data and Method

4.1 Data Source

We took data of all variables from the world development indicator however the data of governance took from the quality of governance. The governance index that we took from the quality of governance is made by the three variables of the International Country Risk Guide (ICRG) data in which corruption, political stability, and Government Effectiveness are included.

4.2 Description of the Variables

In this study, we can use industrial growth as a dependent variable measured as industrial value addition including the construction sector (% of GDP). However, GI is defined as a governance index created by the quality of governance institute using three ICRG governance variables in which "Corruption", "Law and Order" and "Bureaucracy Quality" were included. The original scale of 0 to 12 for "Bureaucracy Quality" and 0 to 6 scales used for "Corruption" and "Law and Order". However, in the governance index, all these scales convert into 0 to 1 scale in a way the lower value represents poor governance and the higher value represents good governance. The mean value of all of these three variables represents the governance index that is between 0 to 1 value. FDI is defined as net foreign direct investment inflow (% of GDP), REX represents the real effective exchange rate of the country, INF represents inflation measured as consumer prices (annual %) is defines as an increase in prices and decrease in purchasing power of people. Trade represents the Trade (% of GDP) while SLF Represents the Labor force with minimum intermediate education from the percentage of the total labor force.

4.3 Method

In the following model, we have to check the impact of governance on Industrial growth in the presence of some other potential variables such as trade, real exchange rate, and inflation variables were included.

$$IG = \beta_0 + \beta_1 GI_{it} + \beta_2 Trade_{it} + \beta_3 REX_{it} + \beta_4 INF_{it} + \varepsilon_{it} \quad (1)$$

This study categorized analysis into three forms good governed, bad governed, and overall governed countries cases. The above equation (1) shows the overall governed countries model. For good governed and bad governed countries model equation 2 and equation 3 are written below respectively.

$$IG = \beta_0 + \beta_1 GI_{it}(obs > 0.5) + \beta_2 Trade_{it} + \beta_3 REX_{it} + \beta_4 INF_{it} + \varepsilon_{it} \quad (2)$$

$$IG = \beta_0 + \beta_1 GI_{it}(obs < 0.5) + \beta_2 Trade_{it} + \beta_3 REX_{it} + \beta_4 INF_{it} + \varepsilon_{it} \quad (3)$$

To estimate the impact of governance as well as other variables on the industrial growth of the country in the presence of good bad and overall governance we follow the methodology used by Ng, Lye, and Lim (2013). We also employ the Fixed effect and random effect model to estimate to analyze the impact of the study. Furthermore, to check the robustness of the result we also system the GMM technique.

5. Empirical Results and Discussion

The table 1 represent the descriptive statistics of industrial growth, governance index, Trade, Real Exchange rate and inflation for good governance. The descriptive statistics of industrial growth represent that the mean value of industrial growth for good governance is 25.88 while the minimum value of the data is 3.15 and maximum value of data is 84.349. The standard deviation of this variable is 11.839 mean that data can deviate 11.839 unit above or below the mean value. Total observation of Industrial growth is 3466.

Table 1
Good Governance Descriptive Statistics

Variable	Obs.	Mean	Std. Dev.	Min	Max
IG	3466	25.888	11.839	3.15	84.349
GI	2421	.724	.157	.502	1
Trade	3596	91.491	54.06	9.106	437.327
REX	1159	101.821	18.276	31.343	347.329
INF	3402	18.249	150.921	-30.243	4734.914

The table 2 represent the descriptive statistics of industrial growth, governance index, Trade, Real Exchange rate and inflation for bad governance. The descriptive statistics of industrial growth represent that the mean value of industrial growth for bad governance is 25.536 while the minimum value of the data is .96 and maximum value of data is 87.797. The standard deviation of this variable is 12.139. Total observation of Industrial growth is 2159.

Table 2
Bad Governance Descriptive Statistics

Variable	Obs.	Mean	Std. Dev.	Min	Max
IG	2159	28.536	12.139	.96	87.797
GI	2518	.372	.106	.042	.5
Trade	2105	65.911	32.885	.021	311.354
REX	175	104.947	23.817	57.512	237.807
INF	2034	42.52	626.484	-16.117	23773.132

While table 3 represent the correlation matrix that provide the correlation of one variable with another variable in term of overall governance. The correlation between industrial growth and governance index is 3.7% but negative while the correlation positive between industrial

growth & Trade, industrial growth & real exchange rate and industrial growth & inflation is 5.1%, 2.3% and 0.4% respectively.

Table 3
Overall Governance Pairwise correlations

Variables	(1)	(2)	(3)	(4)	(5)
(1) IG	1.000				
(2) GI	-0.037	1.000			
(3) Trade	0.051	0.236	1.000		
(4) REX	0.023	-0.016	-0.139	1.000	
(5) INF	0.004	-0.064	-0.033	0.004	1.000

Table 4
The relationship between Governance and Industrial Growth

Industrial, value added (% of GDP)	Good Governance		Bad Governance		Overall Governance	
	R.E	F.E	R.E	F.E	R.E	F.E
Quality of Government	13.8249*** (2.7658)	13.9541*** (2.6575)	10.9339*** (1.5530)	13.1377*** (1.6043)	12.0350*** (1.1960)	13.9071*** (1.2337)
Trade (% of GDP)	0.0964*** (0.0198)	0.0920*** (0.0194)	-0.0309*** (0.0044)	-0.0281*** (0.0045)	-0.0273*** (0.0044)	-0.0244*** (0.0045)
Real effective exchange rates	-0.0030 (0.0094)	-0.0029 (0.0091)	-0.0033 (0.0066)	-0.0008 (0.0066)	-0.0123* (0.0054)	-0.0105 (0.0054)
Inflation, CPI (annual %)	0.0272*** (0.0068)	0.0274*** (0.0065)	0.0016* (0.0007)	0.0014* (0.0007)	0.0050*** (0.0006)	0.0048*** (0.0006)
Constant	21.5445*** (2.5406)	21.3333*** (2.1703)	21.6007*** (1.8533)	18.2303*** (1.7320)	21.3191*** (1.5047)	19.6603*** (1.2918)
Observations	174	174	998	998	1172	1172
r ²		0.3203		0.1451		0.2281
r ² _a		0.2651		0.1056		0.1972
r ² _b	0.1222	0.1166	0.0102	0.0367	0.0702	0.1016
r ² _w	0.3200	0.3203	0.1436	0.1451	0.2268	0.2281
F		18.8504		40.4227		83.1786

Standard errors in parentheses
* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

Table 4 represents the result of fixed effect and a random effect for well-governed, bad governed, and overall countries. The results show that the Governance index significantly improves the industrial growth, in the presence of good, bad as well as overall governed countries. While the impact of governance index is more in the good governance and the impact of governance index is less in the presence of bad governance as compared to overall governance. The result of the study was verified through many other studies (Liu, Tang, Zhou, & Liang, 2018; Olson, Sarna, & Swamy, 2000; Roy & Tisdell, 1998).

Olson et al. (2000) in their study finds that the productivity growth is higher where the governance quality is better and productivity growth is low where governance quality is bad. In good governance industrial policies perform in a better way due to less intervention of corruption and better performance of bureaucrats and law and order situation that eventually improve the efficient utilization of resources in a positive way (Roy & Tisdell, 1998) In India conflicts between industrialist and bureaucrats leads to institutional, political as well as economical inefficiency (Roy & Tisdell, 1998).

Trade significantly improves the industrial growth in the presence of good governance while it reduces the industrial growth in the presence of bad governance as well as in overall countries. The result of the studies similar to some of the studies (Dutta & Ahmed, 2004; Grossman & Helpman, 1990; Sultan, 2008). In a bad governed country huge level of corruption involves performing trade activities that increase the cost of the trade (De Groot, Linders, & Rietveld, 2005; Gil-Pareja, Llorca-Vivero, & Martínez-Serrano, 2019; World Bank, 2013). As the governance of developing countries are not good and the people of these countries are not highly skilled and less efficient so the production of these countries is not much efficient and allocative cause high input cost in the production process while developed or good governed countries spend money on education sectors, make skilled labor force that produces products efficiently and cost-effective (Muzammil, Amir-ud-Din, & Khan, 2018). Sultan (2008) argues that when both good governed and bad governed countries trade the product of bad governed countries does not compete for good governed countries product concerning quality and cost. So, people of bad governed countries buy a cheap and good quality products from good governed countries (Sultan, 2008). In this way the industrial growth of bad governed countries deteriorates in the bad governed countries and improves in the good governed countries.

The increased inflation improves the industrial growth in the presence of good bad and overall governed countries. However, the impact is high in the presence of good governed countries as compared to bad as well as overall governance. Many studies provide the same evidence (Albaghdadi et al., 2018; Behera & Mishra, 2016; Bruno & Easterly, 1998; Christoffersen & Doyle, 2000; Dreger & Zhang, 2014). Behera and Mishra (2016) argue that the relationship holds in developed countries (Good governed countries) like BRICS because the income level of the people is high so people can pay a high amount to purchase the product but in bad governed or developing countries inflation deteriorates the industrial growth because the income level of the people low and due to inflation people demand the product lower that will reduce the output level and deteriorates industrial growth. While our study posits that in the short-run because of rising in inflation the price is less elasticity as compared to long-run (Mankiw, 2012) because of its product demand in the short-run most likely stable and industry and because of low input costs like labor and raw material industry secure good profit and try to grow but in long run because of high drop in demand the profit and growth deteriorates (Bakhtyar, Kacemi, & Nawaz, 2017).

Table 5
Overall Governance Hausman test

Test	Coef.
Chi-square test value	48.465
P-value	0

The above table represent the result of the Hausman effect that compare the result of random and fixed effect model and provide indication about best model. The result of the Hausman table show that the probability value of chi-square test is insignificant that help us to rejection of the null hypothesis that is "random effect model provides robust results" and acceptance of the alternative hypothesis is that "fixed effect model provides robust results".

To check the robustness of the results we also employ the system GMM technique. The results show that the overall governance insignificantly improves the industrial growth in terms of good, bad as well as overall governance in the long run. The direction of impact is similar to our fixed effect results. Similarly, the impact of trade on industrial growth is positive in the long run. The impact is only significant in the good governed countries that are similar with fixed effect and random effect results. On the other hand, the impact of a real effective exchange rate significantly deteriorates industrial growth in the long run while the impact is only insignificant

in the presence of good governed countries. The direction of impact is similar to our fixed effect results. While inflation deteriorates industrial growth in the long run. The system GMM result of inflation variable shows confliction with random effect and fixed effect results but the system GMM results are insignificant.

Table 6***Robustness checks the sensitivity of results to Governance and industrial growth***

Industrial, value added (% of GDP)	Good Governance		Bad Governance		Overall Governance	
	Lag1	Lag2	Lag1	Lag2	Lag1	Lag2
L. Industrial growth	0.8931*** (0.0297)	0.9523*** (0.0540)	0.8940*** (0.0158)	0.8878*** (0.0248)	0.8949*** (0.0146)	0.9293*** (0.0229)
L2. Industrial growth		-0.0734 (0.0502)		-0.0007 (0.0262)		-0.0484* (0.0231)
Quality of Government	2.5126 (1.6005)	2.8050 (1.6453)	0.0043 (0.7433)	-0.0300 (0.7544)	0.2408 (0.5326)	0.3751 (0.5496)
Trade	0.0420** (0.0139)	0.0488*** (0.0145)	0.0022 (0.0022)	0.0012 (0.0024)	0.0022 (0.0022)	0.0001 (0.0024)
Real effective exchange rates	-0.0084 (0.0056)	0.0005 (0.0068)	-0.0247*** (0.0044)	-0.0270*** (0.0046)	-0.018*** (0.0032)	-0.0184*** (0.0036)
Inflation	-0.0051 (0.0029)	0.0006 (0.0066)	-0.0002 (0.0003)	-0.0001 (0.0003)	-0.0002 (0.0003)	-0.0002 (0.0003)
Constant	1.2502 (1.3120)	0.2625 (1.4431)	4.9560*** (0.9431)	5.4855*** (0.9795)	4.2688*** (0.7476)	4.6776*** (0.7877)
Observations	172	169	967	936	1139	1105

Standard errors in parentheses
* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

The table 6 provide the one step system GMM result in which we check the impact of governance index, trade, real exchange rate and inflation on the industrial growth in term good governance in the long run. The system GMM regression result shows that the previous year Industrial growth significantly improve the industrial growth in the next year overall.

Table 7***Summary of Results***

No	Research Questions	Methodology	Table
1)	To examine the impact of the relationship between governance and industrial growth	Fixed and Random Effect	Table 4
2)	To compare the results of fixed and random effect relationship between governance and industrial growth	Hausman Test	Table 5
3)	To examine the robustness of the impact of the relationship between governance and industrial growth	GMM	Table 6

6. Conclusion and Policy Implication

This study examines the impact of good and bad governance as well as overall governance on industrial growth. Besides that, this study also checks the impact of other potential variables such as FDI inflow, exchange rate, and inflation on industrial growth in the presence of good and bad governance as well as overall governance. For this purpose, data of 47 developing countries

from 1984 to 2020 was used. To check the impact of industrial growth determinants we run Random Effect and Fixed effect regression. However, to select the appropriate method between random effect and fixed we also perform the Hausman test. Furthermore, to check the robustness of the result and the long-run impact we also run the system GMM Regression.

The result of the study shows that an increase in the governance index significantly improves industrial growth. As governance of a country improves then it improves the quality of bureaucracy reduce the level of corruption that alternatively improves the allocation of resources and reduces the cost of production that helps to improve industrial growth. However, trade only significantly improves industrial growth in good governed countries because in good governed countries the trade cost is less because of corruption while it deteriorates in badly governed countries because of high trade cost. The devaluation of the exchange rate deteriorates industrial growth in the long term while this impact is only significant and high in badly governed countries. As bad governed countries mostly working economy using debt. The devaluation of currency increases the amount of debt in terms of local currency. To pay back a high amount of debt government increase the tax that alternatively increases the cost of production and limits industrial growth. On the other hand, Inflation significantly improves industrial growth in good as well as bad governed countries while it insignificantly deteriorates industrial growth in the long run. the demand for the industrial product is less elastic in the short run in response to an increase in inflation while more elastic in the long term because its industry gets to profit in the short-run and grow significantly while in the long-run industry face loss because of long term less demand of the products.

The government needs to improve governance quality, and exchange rate while bad governed countries need to impose high import duties, produce local products to meet the country's needs, and provide subsidies to exporting industries. In this way, the industrial growth in the bad governed countries significantly improves.

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