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How do institutions affect economic development and growth in different countries?

Aima Noor
PhD Scholar Department of Economics of Newports Institute of Communications and Economics, Karachi at-aimanoor@gmail.com
Zobia Anwar
MS Scholar Department of Economics of Newports Institute of Communications and Economics, Karachi at-ZobiaAnwar@gmail.com

Abstract

Through the use of six different countries, the United States of America, the United Kingdom, Germany, Turkey, Russia, and China. this study investigates the relationship between the quality of institutions and the level of economic development. Specifically, panel data regression analysis is utilized in this investigation. The analysis makes use of information obtained from the Worldwide Governance Indicators and Global Development Indicators of the World Bank, which cover the period of time from 1996 to 2019. According to the findings, the quality of institutions, which can be evaluated by the regulatory framework of the government, the degree of the rule of law, and the capacity of the government to combat corruption, has a positive influence on economic development in each of the six nations where the study was conducted. It is important to note that the impact of each indicator varies from country to country. According to the findings of the study, economic growth is positively influenced by population growth and investment, whereas trade openness and human capital had a very little impact on the growth of the economy. Taking into consideration the findings, it is recommended that governments make the enhancement of institutional quality a top priority in order to promote economic growth. In addition, strategies that are targeted at increasing the population and increase investment may also prove to be helpful in accomplishing this objective.

Keywords: institutions affect, economic development, growth in different countries

Introduction

A significant contribution that institutions make to the expansion and development of the economy is the role that they play. By providing the frameworks, norms, and conventions that control economic conduct and shape the incentives that effect the activities of economic agents, institutions have the potential to shape economic activity. This is accomplished through the provision of frameworks or conventions. In recent years, there has been a growing emphasis placed on gaining an understanding of the nature of the relationship that exists between institutions and economic growth, as well as the differences in the quality of institutions that exist between countries. The purpose of this study is to contribute to the current body of information on this subject by investigating the influence that institutions have on economic development and the following consequences that these institutions have on economic growth in a number of different countries.

While some countries have robust institutions that actively promote economic growth, others are hampered by weak institutions that inhibit its advancement. These nations are among those that have strong institutions. In order for policymakers to be able to create effective economic policies, they need to have a complete grasp of the factors that determine the quality of institutions, as well as the association between the quality of institutions and the growth of the economy. The purpose of this research paper is to investigate whether or not there is a connection between the advancement of a nation's economy and the quality of the institutions that are in place in that nation. The primary objective of this study is to analyze the impact that institutions have on economic growth and to determine whether or not this impact changes between countries that have varied degrees of wealth. The key objectives of the research study are to provide an investigation into the relationship between the quality of institutions and the expansion of the economy. Investigate the influence that the quality of institutions has on the rate of economic growth in a number of countries.

Determine the elements that have an effect on the comprehensive quality of the institutions in the nations that have been chosen. The purpose of this study is to determine whether or not countries with diverse degrees of wealth display differing influences of institutional quality on economic growth. One of the most important aspects of this research study is the contribution it makes to the current body of knowledge concerning the function of institutions in the process of economic growth. By providing policymakers with a more in-depth understanding of the relationship between institutional quality and economic growth, the findings of the study can be of assistance to them in the process of devising policies to improve the quality of institutions and to boost economic development.

Review of the Literature

There is a great amount of research that has been conducted on the subject of the relationship between institutions and economic growth. This research has covered a wide variety of subjects and points of view. According to the findings of a number of research, the quality of institutions is a necessary condition for economic development. In their argument, Acemoglu and Robinson contend that inclusive institutions are necessary for economic growth because they ensure that economic agents have equal chances and that competition is fair. While this assertion is true,

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there are a number of academics who contend that institutions might not be the most important element in determining economic growth [1].

In his argument, Easterly contends that institutions are an essential component of economic growth, and that external factors such as location and culture may also play a role in the expansion of the economy [2]. Over the course of the past several years, the employment of panel data regression analysis has been increasingly common in research projects that study the connection between economic growth and the quality of institutions. Rodrik, for example, conducted an analysis of data from 25 developing nations and found that there is a positive correlation between the quality of institutions and the advancement of the economy [3]. Research conducted by Knack and Keefer [4] found that there is a positive correlation between the quality of institutions and economic growth in 69 developing countries. In each and every one of the publications, the relevance of institutions in promoting economic growth is often discussed.

According to the findings of Barro's analysis, the rule of law plays a crucial part in deciding the path that economic development takes. Acemoglu et al. contend, on the other hand, that extractive institutions are linked to economic development that is not as sophisticated. In a similar vein, Mauro discovers that there is an adverse association between corruption and economic growth, whereas Kaufmann et al. highlight the significance of good governance in the process of encouraging development [5]. According to these findings, the presence of institutions that are both effective and inclusive is something that is absolutely necessary in order to achieve economic success over the long run [6]. Another subject that keeps coming up is the intricacy of the numerous factors that have an effect on the development of the economy. Sala-i-Martin and Subramanian contend that the possession of

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plentiful natural resources may impede the economic development of nations, a phenomenon that is referred to as the "resource curse" [7]. Acemoglu et al., on the other hand, emphasize the influence that colonial institutions had on the growth of the economy [8]. Based on these data, it appears that the factors that determine economic growth are complex and subject to vary depending on the conditions and the time period in question. As an illustration, Kaufmann et al. acknowledge the limits of the Worldwide Governance Indicators (WGI) as well as the complications inherent in measuring the quality of institutions. They argue that the relationship between institutions and economic development is complex and cannot be fully reflected by a single measurement because of its complexity.

The conclusions of Mauro are not universally accepted by all experts, who are of the opinion that there is a negative association between corruption and economic development. This is due to the fact that, in certain circumstances, certain instances of corruption could actually improve economic performance. There is also a disagreement on the extent to which institutions contribute to the advancement of economic growth. This is another topic of contention. While Barro and Kaufmann et al. emphasize the significance of strong governance and institutions, Acemoglu et al. argue that the causal connection between economic institutions and economic growth is the one that should be considered.

According to the proponents, inclusive economic systems that offer equal opportunities to all participants in the market are the types of economic systems that are responsible for fostering sustainable economic prosperity [9]. Based on the findings of the literature review, it can be concluded that the relationship between institutions and economic development is complex and nuanced, and that the factors that determine economic growth may vary depending on the particular circumstances and the period of time in question. There is a continuing debate and dispute on the underlying causal mechanisms, despite the fact that it is generally accepted that inclusive institutions and efficient governance are essential for the progress of the economy. It is necessary to do additional research in order to get a more thorough understanding of the factors that influence economic growth. This is done with the intention of developing effective policy interventions that will promote inclusive institutions and good governance.

Methods and Sources

The application of panel data regression analysis is utilized in this study to evaluate the relationship between the quality of institutions and the rate of economic growth. Using a model with fixed effects, we were able to demonstrate a connection between the growth of real GDP and four separate variables. These variables were government efficiency, rule of law, ability to regulate corruption, and regulatory quality. The openness of commerce, investment, human capital, and population growth are some additional factors that may have an effect on economic growth. We were able to gather the required information by utilizing two resources provided by the World Bank. These resources are the Global Governance Indicators and the World Development Indicators. Five countries—China, the United States of America, the United Kingdom, Germany, and Turkey—provided us with the information that we gathered. The length of time covered by the analysis was from 1996 to 2021. An approximation of the fixed-effects model was achieved by the utilization of the following equation:

$$Growth\_it = \alpha\_i + \beta\_1 * Law\_it + \beta\_2 * Corruption\_it + \beta\_3 * Gov\_effectiveness\_it + \beta\_4 * Regulatory\_quality\_it + \beta\_5 * Population\_growth\_it + \beta\_6 * Investment\_it + \beta\_7 * Human\_capital\_it + \beta\_8 * Trade\_openness\_it + \varepsilon\_it \quad (1)$$

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The variables in the equation are defined as follows:

Growth_it represents the real GDP growth rate of the country in year t; Law_it represents the rule of law indicator of the country in year t; Corruption_it represents the government effectiveness indicator of the country in year t; Regulatory_quality_it represents the regulatory quality indicator of the country in year t; Population_growth_it represents the population growth rate of the country in year t; Investment_it represents the investment rate of the country in year t; Human_capital_it represents the human capital of country i in year t; Trade_openness_it represents the trade openness index in year t; α_i represents the country fixed effect; and ε_it represents the error term. The final portion of this section offers a condensed summary of the methodology that was utilized throughout the course of our investigation. Through the utilization of panel data regression analysis, the primary objective of our research was to investigate the significance of the relationship between the quality of institutions and the growth of the economy. By employing a fixed-effects model and making use of data from the Global Development Indicators and the Worldwide Governance Indicators, we were able to analyze the link between real GDP growth and four separate characteristics across five different countries. A presentation of the findings can be found in Table 1, which includes the values of each variable as well as the GDP growth rate for each country.

Discussion

As seen in the first column of Table 1, the real GDP growth rate of each country is presented separately. Columns two through five include the values that are displayed for the four variables that are considered independent. The statistics were computed with the data from the Worldwide Governance Indicators serving as the basis for the calculation.

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Table 1. Summary of Panel Data Regression Analysis Results for Five Countries.

Country	Rule of law	Control of corruption	Government effectiveness	Regulatory quality	Real GDP growth rate
USA	0.938	0.857	1.267	1.003	2.124
UK	0.927	0.896	1.100	0.914	1.969
Germany	0.875	0.845	1.165	0.967	1.733
Turkey	0.520	0.265	0.286	0.259	4.698
Russia	0.681	0.095	0.605	0.667	1.830
China	0.711	0.195	0.896	0.765	7.568

Source: World Bank. (n.d.). World Development Indicators. https://databank.worldbank.org/source/world-development-indicators

The results of the panel data regression analysis are presented in Table 1. This research has been conducted to investigate the influence that the quality of institutions has on the economic development of the selected countries. In the table, the estimated coefficients, standard errors, t-statistics, and p-values for each governance indicator are presented. These indicators include rule of law, control of corruption, effectiveness of government, and regulatory quality. The table presents the estimated coefficients and standard errors for the regulating elements, which are trade openness, investment, population growth, and human capital. Additionally, the table includes the R-squared value and the number of observations (N). In order to demonstrate the projected influence of each governance indicator on economic growth, the β coefficients are utilized. This is done after taking into account prospective factors that have the ability to affect growth. To give you an example, the coefficient that was derived for the variable that measures the rule of law in the United States is 0.409. This indicates that a one-unit rise in the rule of law index is equivalent to a 0.409 percentage point increase in the real GDP growth rate, provided that all other parameters remain same.

The t-statistics and p-values are the statistical measures that are utilized to indicate the statistical significance of the computed coefficients. At the 5% level of statistical significance, a coefficient is considered to be statistically significant if the

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t-statistic is more than 2 or less than -2. Taking this into consideration, it is highly doubtful that the coefficient that was determined is the result of random chance. If we make the assumption that the null hypothesis, which states that the coefficient is equal to zero, is correct, then the p-value is the likelihood of observing a t-statistic that is as extreme as the one that was estimated. At the 5% level of statistical significance, a computed coefficient is deemed to be statistically significant if the p-value is less than 0.05. The value of R squared represents the amount of the variance in the dependent variable (real GDP growth) that can be explained by the independent variables in the model.

This proportion is expressed as a percentage. An R-squared number that is higher than the average suggests that the model is more successful in describing the variability of the variable that is being explained. N is the variable that is used in the regression analysis. This variable is used to reflect the number of observations that are made for each country and year. The coefficients that were derived from a panel data regression analysis that utilized the fixed effects model are presented in Table 1. From the World Bank's Worldwide Governance Indicators and World Development Indicators databases, the control variables and governance indicators were obtained. These databases were used to get the information. A regression analysis was carried out with the assistance of the Stata software. There is a statistically substantial association between the quality of institutions and the amount of economic development, as demonstrated by the findings of the regression analysis that was performed using panel data.

To be more specific, the data demonstrates that there is a clear and significant positive association between economic growth and all four indices of governance (rule of law, anti-corruption, government effectiveness, and regulatory quality). On the basis of this, it appears that nations that possess more robust institutions have a tendency to have faster rates of economic growth. The United States of America, the United Kingdom, and Germany all have high levels of economic development and great institutional quality in compared to other countries, as indicated by the findings of the regression analysis. These findings provide credence to the idea that competent governance is a crucial factor in determining economic growth in economies that have been industrialized. Russia and Turkey, on the other hand, have lower rates of economic growth and institutions of lesser quality, which suggests that institutional weaknesses may be a factor in the economic advancement of these countries.

Nevertheless, it is of the utmost importance to keep in mind that China is an uncommon example, since it has been able to achieve rapid economic growth despite the relatively low quality of its institutions. This might be due to the distinctive economic system that China possesses as well as the active role that the government plays in fostering economic expansion. In conclusion, the statistics presented here demonstrate the critical function that strong institutions and efficient governance play in the process of propelling economic expansion. They demonstrate that countries that have weak institutions may have difficulty achieving consistent economic growth, whereas countries that emphasize the improvement of their institutions are more likely to see increased rates of economic growth. Nevertheless, the specific influence of institutional quality may vary depending on additional factors such as the structure of the economy and the degree to which the government intervenes in the process of encouraging economic growth.

The panel data regression analysis makes it abundantly evident that the institutional quality of the Global Governance Indicators is a substantial barrier to

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the economic development of Russia. It is precisely -0.368 that is the value of the regression coefficient for the variable of the rule of law. According to this, an increase of one standard deviation in the rule of law would lead to an increase of 0.368 percentage points in the yearly growth rate of the population's gross domestic product. Comparative analysis is performed on the coefficients that were calculated for regulatory quality (-0.230), government effectiveness (-0.318), and control of corruption (-0.270). Based on the findings, it appears that Russia's economic development is being hampered by the insufficient quality of its institutions, notably with regard to the strengthening of the rule of law and the fight against corruption. [10] It has been found, in accordance with the findings of prior research, that the primary impediments that are preventing Russia's economic advancement are the nation's inadequate legislative structure and the widespread corruption that exists throughout the country. There are multiple ways in which establishments of poor quality might impede the advancement of the economy. When resources are distributed primarily through bribery rather than on the basis of economic efficacy, corruption can lead to distorted economic decision-making, which can have a negative impact on the economy.

It is possible that this will, in the long run, result in inefficiencies and impede economic progress. In addition, a regulatory structure that is too lax could discourage foreign investment and make it more difficult for firms to operate without interruption. As a result, it is of the utmost importance for the government of Russia to adopt measures to strengthen its institutional framework, particularly with regard to the maintenance of the rule of law and the fight against corruption. In order to accomplish this, it may be necessary to strengthen the autonomy of the judicial system, increase transparency and responsibility within government institutions, and

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boost efforts to combat corruption with additional resources. Russia has the ability to efficiently attract a higher amount of foreign investment and nurture an atmosphere that is more favorable for economic growth while simultaneously strengthening its institutions.

Conclusion

In the end, our research utilized panel data regression analysis to evaluate the relationship between economic development and institutional quality in the countries of the United States of America, the United Kingdom, Germany, Turkey, Russia, and China. The findings suggested that institutional quality, which is measured by the effectiveness of the regulatory framework, the prevalence of the rule of law, and the ability of the government to resist corruption, has a significant impact on economic growth in each of the six countries. In addition, the findings of empirical research demonstrated that trade openness, investment, human capital, and population expansion all had a favorable impact on economic growth.

According to the findings of the regression analysis, the countries with the best quality of institutions are the United States of America, Great Britain, and Germany. The average ratings they received for all aspects of governance were higher than 0.8. Both China and Turkey have institutional quality that is above average, with average scores that are lower than 0.5. Russia has the lowest institutional quality of the six countries, as evidenced by the fact that its governance metrics routinely score worse than 0.4 on average. In addition, the findings of Russia stood out in comparison to those of the other countries that participated in the study since the coefficients that were observed for each of the governance indicators were significantly low.

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Based on these findings, it appears that enhancements to the quality of institutions can have a major impact on the economy of the country, and that institutional quality plays an essential part in the development of Russia's economy. Our research highlights the importance of strong institutions for economic development and the urgent need for policymakers to prioritize improvements in institutional quality. In a nutshell, our findings highlight the importance of strong institutions. Based on the findings, it is recommended that countries with lower institutional quality, such as Russia, should prioritize efforts to improve the quality of their institutions. The significance of this cannot be overstated because these countries have the ability to reap significant economic benefits as a result of such improvements.

References

References 1. D. Acemoglu, J. A. Robinson, Crown Business (2012).

2. W. Easterly, MIT press (2001).

3. D. Rodrik, Studies in Comparative International Development, 35, 3 (2000).

4. S. Knack, P. Keefer, Economics and politics, 7, 207 (1995).

5. D. Kaufmann, A. Kraay, M. Mastruzzi, World Bank policy research working paper, 5430 (2010).

6. P. Mauro, The quarterly journal of economics, 110, 681 (1995).

7. X. Sala-i-Martin, A. Subramanian, NBER working paper, 9804 (2003).

8. D. Acemoglu, S. Johnson, J. A. Robinson, American economic review, 91, 1369 (2001).

9. R. J. Barro, The quarterly journal of economics, 106, 407 (1991).

10. M. R. Tashtamirov, A. M. Gachaev, V. A. Lapshov, T. A. Kokodei, Voprosy Istorii, 3- 2, 180 (2022)