DOES GOVERNANCE PAY OFF? ASSESSING THE IMPACT ON FIRM VALUE IN PAKISTAN

Surayya Jamal[*1], Muhammad Yusuf Amin[2], Saeed Akbar[3], Humma Abid[4]

[*1]PhD, Abdul Wali Khan University Mardan, Pakistan,
[2]Assistant Professor Abdul Wali Khan University Mardan, Pakistan,
[3]Demonstrator, Wali Khan University Mardan, Pakistan,
[4]Lecture, Management Sciences Department, Lahore College for Women University Lahore

[*1]surayyajml@gmail.com, [2]yusuf@awkum.edu.pk, [3]saeed.akbar@awkum.edu.pk,
[4]humma.abid@lcwu.edu.pk

ABSTRACT
The purpose of this research is to investigate the connection between governance at the country level and the firm value of Pakistani firms from 2013 to 2022. This research contributes to the literature by using governance features at the country level instead of firm-specific aspects. In this paper, panel data was analyzed using GMM. It may be concluded from Pakistan's empirical data that elements of country governance enhance the value of companies operating there. The findings of this research study have broad implications for businesses, present and potential local and foreign shareholders and investors, management, and governments. The present study's findings demonstrated that governance factors at the national level enhance Pakistani companies' value. This information is also necessary for the local and global potential that stands to benefit from the macro factors. The policy maker must concentrate on country governance for betterment the of firms value.
Keywords: *Pakistan, Firm Value, GMM, Country Governance*

INTRODUCTION

A lot of emphasis has been paid to corporate governance. The Enron Corporation exemplified the worst kind of financial statement manipulation and assumed that the Sarbanes–Oxley Act of 2002 would solve the issue would be discouraged by Valukas' (2010) report on Lehman Brothers' attempts to conceal its debt. Additionally, WorldCom fabricated its balance sheet and income statements, resulting in a $200 billion loss for stockholders in 2002. One of the worst financial scams in history was the accounting disaster at the massive Italian dairy and food company Parmalat. I might take away from the above that businesses need to stress the significance of corporate governance and business ethics. Financial crises may potentially result from

poor corporate governance (Claessens and Yurtoglu 2013). Firm performance is favourably impacted by corporate governance and business ethics (Erondu et al. 2004). Firm valuation requires an analysis of the shift in corporate governance (Morey et al. 2009). There has been a sort of explosion in corporate governance research and practice since major accounting and corporate governance issues at a number of well-known companies, including Enron, Worldcom, HealthSouth, Parmalar, Alstom, and numerous others, were revealed at the beginning of the new millennium. To enhance governance procedures, the World Bank established a corporate governance forum in 1999. This topic has, in fact, been the subject of several empirical

investigations. Following the Enron scandal, several study studies on corporate governance were released. In predicting financial crises, corporate governance has grown in importance. The global financial crisis has prompted policymakers to reevaluate the role that financial system structure plays, particularly state ownership of businesses and other types of corporate governance, and has called into question long-held beliefs about state ownership of financial institutions.

The connection relating the board of directors, directors, and shareholders is based on corporate governance, which makes each party's rights and responsibilities clear (Donnelly & Mulcahy 2008; Barros et al. 2013; Forker 2012; Crifo et al. 2015). The function of networks amongst CEOs who sit on boards and the detrimental effects on the governance of such companies are highlighted by Hallock (1997) and Bhagat and Bolton (2013).

Corporate governance has been seen as being important for business stability, performance, and value (Bhagat & Bolton 2008; Morey et al. 2009). The government of the nation is also crucial. When the rule of law is established and corruption is decreased, Ngobo and Fouda (2012) suggest that effective national government may enhance business performance. Voice and accountability, political stability and the lack of terrorism or violence, regulatory quality, government efficacy, rule of law, and corruption control are the six elements of country governance (Kaufmann et al. 2009).

Large and liquid financial systems may be developed in nations with effective governance, which includes the rule of law and particular legal protections for creditors and investors (La Porta et al. 1998). Respect for property rights and judicial integrity are reflected in the rule of law. The extent to which people trust and observe social norms is measured by the rule of law. More trust in the judicial system is implied by a higher rule of law score (Kaufmann et al. 2009). According to Essen et al. (2013), businesses in nations with more advanced legal systems do better in times of financial crisis. When the rule of law is established and corruption is decreased, good national governance may enhance business performance (Ngobo and Fouda 2012). Financial

market risks that are harmful to economic development may be decreased by a stable and effective national government system. Bruno and Claessens (2010) look at the relationship between business performance and legal investor protection at the national level and corporate governance procedures at the company level.

The study's specific goals are to use the top 60 companies in Pakistan to objectively investigate how national governance affects value of firms. This is how the remainder of the article is structured.

Research hypotheses are developed and the appropriate literature is discussed in the next section. The approach is presented in Section 3. Section 4 presents robustness tests and empirical data. Implications are finally addressed in Section 5.

2. Literature review and development of Hypothesis

Governance is the process by which a society's laws are created, administered, and changed. The formal institutional structure of the state plays a crucial role in determining how a society is run, but governance encompasses much more. In practice, governance is complex and situation-specific. It necessitates the interplay of official and informal procedures, regulations, and connections. Because of this, governance deals with power and establishes who has the authority to establish and oversee social norms. La Porta et al. (1999) assert that socio-political and other cultural theories provide the elements that determine how successful a government is. La Porta also comes to the conclusion that cultural differences, together with religious and ethnic diversity, have an impact on how the government functions. Islam and Montenegro (2002) suggested that there is no correlation between institutional quality and social qualities. The researcher suggests improving the performance of bigger and better administrations while taking their size into consideration. Brunetti and Weder (1999) and Afonso et al. (2003), however, provided evidence in favour of the opposing view.

2.1 Voice and Accountability

Voice and accountability are essential components of healthy government. The capacity to openly communicate one's thoughts and ideas is embodied in the notion of voice. Stated differently, individuals are entitled to openly voice their opinions about governmental priorities and procedures. Politicians and public officials are held accountable to the people whose lives are impacted by their choices and actions when their laws and regulations are inadequate. As a result, voice and responsibility are crucial markers of the kind of connection that exists between a state and its people. It helps define the characteristics of all things and conveys the function across settings, claim Frink et al. (2008). According to another study, responsibility affects how many workers carry out, plan, and assess their work behaviour (Breaux et al., 2009). According to Frink et al. (2008), responsibility helps to maintain social order and informs workers about expectations for their jobs. Additionally, it teaches a number of appropriate attitudes and behaviours for completing tasks. Additionally, Hochwarter et al. (2007) propose a progressive relationship between performance and responsibility.

H1: Voice and Accountability enhance the value of firms.

2.2 Political Stability and Absence of Violence

The process of organising all the actions involved in the creation and distribution of resources is called politics. According to Leftwich (2006), the process of social and political bargaining is crucial for both individual and collective interests. For political stability and predictability, rules are crucial. Since terrorism and violence will have an impact on the administration, political stability and nonviolence are essential for good governance. According to Georgiou (2014), political instability occurs when there are conflicts inside a nation's political structure. Previous research by Venieris and Gupta (1986) and Gupta (1990) indicates that political volatility has an impact on business success. Because it influences business choices, investments, and savings, political instability has a detrimental impact on stock market performance and, eventually, economic development (Durnev, 2010; Chen &

Rodden, 2013). However, some research revealed that political unrest might sometimes provide investors with commercial opportunities (Irshad, 2017; Masood & Serge, 2008).

H2: Political Stability and Absence of Violence enhance the value of firms.

2.3 Government Effectiveness

Effective governance defines the standard of civil and public services independent of political pressure. It also outlines how to formulate sound policies and then put them into action. Good governance and sound institutions are two distinct concepts that influence each other. It is the effectiveness of public employees and bureaucracy, the duties and functions of provincial governments and local, the technical and administrative skills of the government, the ability to govern, the efficacy of the creation of policies and programs, and the efficient use of resources are all components of government effectiveness. Every nation should adopt excellent governance, according to Kaufman and Kraay (2003). More specifically, it clarifies that the capability of the government to formulate and carry out sensible policies, allocate resources, and provide services effectively. Good governance is the process that enables citizens to choose, oversee, hold responsible, and change their government. Respect for the government and its institutions is a prerequisite for a nation's economic progress. The financial performance of businesses is improved by an effective government structure.

H3: Government Effectiveness enhance the value of firms.

2.4 Regulatory Quality

The capacity of the government to create and afterward carry out rules and regulations for improved development is known as regularity quality. If the quality of the restrictions that the government imposes is high, then the country will make progress towards being wealthy. The opposite event was responsible for the complete destruction of the nation's system. Consequently, there will be a positive association relating financial success and regulatory quality. Because organisations are answerable to stakeholders for

their performances, institutionalism discusses the need of institutions' roles not taking into consideration the market (Campbell, 2007). According to Li et al. (2016), businesses in progressive economies are often influenced by the government, whose oversight pressure has a good effect on the businesses. Regulators are responsible for draughting laws, rules, and ordinances to oversee and control the economy. Superior regulatory constraints increase a firm's incentive to engage in more responsible operations, claim Berrone et al. (2013). Organisations that exhibit responsible behaviour are more likely to invest in green technologies and take environmental practices into account. Chen et al. (2005) draw attention to the effects of ownership structure and regulation on Chinese security organisations' performance. They assert that performance measurements and conditions imposed by the government will be positively correlated.

H4: Regulatory Quality enhance the value of firms.

2.5 Rule of Law

Government laws, regulations, and initiatives make up the institution's traditional environment. The most crucial component for both international competitiveness and national growth and development has been identified (Ahn & York, 2009; Peng, 2010; Ismail et al., 2008). According to institutional theory, normative forces typically have an impact on innovators and investors. These demands might come from businesses or from outside sources, such as the nation (Petzer et al., 2012). A stronger rule of law environment in a nation enables investors and innovators to carry out investment transactions there, according to institutional theory. Among the most important components the institution's legal environment is established by the rule of law. To put it simply, it refers to the laws, fundamental infrastructure, policies, rules, programs, and services of the government that improve every aspect of the economy's operation (North, 1992). The rule of law, according to Ahn and York (2009) and Fogel et al. (2006), outlines the scope of legal rights protection and enforcement for both individuals and corporate entities. By protecting people's property, the rule of law also fosters a business climate that promotes expansion (Haggard et al., 2008). The Fogel et al. (2006) claim that it gives the person transactional trust. However, Hausmann et al. (2005) contend that it guarantees the nation's financial stability.

H5: Rule of law enhance the value of firms.

2.7.3.6 Control of Corruption

According to Calhoun (2011) and Transparency International (2013), corruption is the abuse of power for one's own gain. According to Judge et al. (2011), corruption is the misuse of administrative authority for private gain. Investors and innovators are hesitant to make investments in a nation where corruption is seen to be widespread. Due to inefficient investments, misallocation of production resources, and increased transaction costs and uncertainty, corruption also lowers economic performance (Kaufmann & Wei, 2000; Shleifer & Vishny, 1993). Additional research has looked at how corruption impacts business performance and economic growth, confirming the idea that corruption has an impact on the economy (Doh et al., 2003; Rodriguez et al., 2006; Uhlenbruck et al., 2006). Kaufman et al. (2011) assert that there is no independence among these six country-level factors. For instance, it makes sense to say that a government is only considered functional if it is politically stable, that less corruption results in more accountability, or that the rule of law reduces the amount of private benefit. Transparency International (2010) and the IMF (2011) both claim that improved country-level governance improves businesses' financial performance. There are significant governance problems in developing nations that need research (Malik et al. 2018; Tahir et al. 2020). Thus, sampled counties were chosen by the researcher.

Positive relationship governance is suggested by the stewardship and institutional theories. For this research study, the researcher thus makes the following assumptions based on the above theories and empirical literature:

H6: Control of corruption enhance the value of firms.

2.7 Conceptual Frame Work

government policies, authoritative framework, Rule of Law, and the capacity of the nations to combat corruption are all factors that may be used

This research aims to establish a connection between value of firms and governance at the national level. Accountability, political certainty, to assess governance. However, the study's dependent variable is market value. Tobins Q (TQ) is used as a proxy for value of firm.
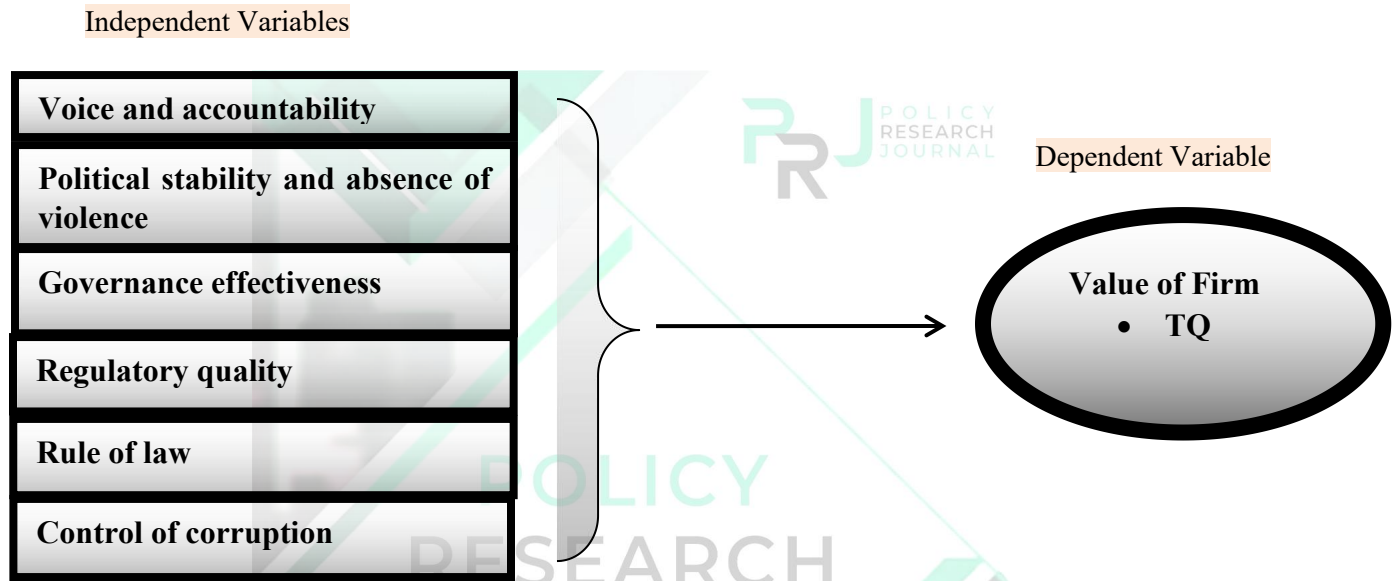
Independent Variables

Figure 1: Showing the association between firm value and country governance.

3.Research Methodology
3.1 Data, Sample and Population
Given the substantial literature analysis and debate, the current study is quantitative. The Panel data type is utilized by the researchers. Panel data came from several businesses throughout a range of time periods. All non-financial companies registered on Pakistani stock markets made up the population of this study. The study's sample comes from top companies that are listed on Pakistan's stock exchnage. Ten years of data, from 2013 to 2022, are used in this study. The World Governance Indicator (WGI) and annual reports are the sources of the data pertaining to each variable.

3.2 Variable Explanation
In this specific investigation, the dependent variable is the value of firms. The value of firms in this research is assessed using Tobins Q (TQ). Tobins Q is used to calculate market performance. Tobin's q is estimated by dividing the replacement

cost of all assets (COA) by the product of the market value (MV) of equity and the book value (BV) of debt (Turamari & Hyderabad, 2018; Song et al., 2008; Giannopoulos et al., 2021).

The Tobin's Q ratio was developed by Branard & Tobins in 1968. It shows the percentage difference between the targeted market value and the replacement value of the actual assets. According to Lindenberg & Ross (1981) and Smirlock et al. (1984), the replacement cost of all assets (COA) is divided by the market value (MV) of equity and the book value (BV) of debt to get the Tobin's q. The assembly sector in particular has employed Tobin's q to explain a wide range of corporate wonders. These include (a) the dissimilarities between venture and growing choices across different categories, (b) the relationship between value and company value, (c) the relationship between implementation and repercussions from the tricky proposition, opening, and delicate response, and (d) finance, profit, and compensation plan Chung and Pruitt (1994).

According to the references (Jamal et al., 2022; Yu et al., 2018; Ortas et al., 2015; Xie et al., 2018; Pintea et al., 2014), the Tobins Q (TQ) serves as a figure of organisations' market success.

The independent variables used in the study are governance indicators. Despite its measuring constraints, the World Bank has been actively connected in the goal of analysing governance qualities since 1996. This research used the World Bank's Governance Index (WGI), which offers overthrow the government is measured by political stability. People's opinions on the quality, ability, and independence of public services from political influences, as well as their ideals for improved policymaking and execution, are also captured.

Government effectiveness: The phrase "government effectiveness" encompasses people's opinions on the quality, competence, and independence of public services from political influences, as well as the values connected to improved policy design and execution. The ability of the state to to produce and to carry out sensible laws and regulations that support the growth of the private sector is measured by regulatory quality.

The concept of the rule of law encompasses the belief held by the populace regarding their ability to accept and adhere to social norms, the protection of private property, the trustworthiness and dependability of law enforcement, and the associated risk of criminal activity.

Control of corruption the degree to which the government's power is managed for personal gain is measured by the control of corruption, which encompasses both small-scale and large-scale corruption.

Several policymakers, international agencies, and academics have adopted these governance indicators, which were first used by Kaufmann et al. (2002) to assess the quality of governance (Dickson et al., 2021; Minghai, Khan et al., 2024; Schulenberg et al., 2020). The indicators, which

4.Analysis
4.1 Descriptive Analysis
Descriptive statistics provide a comprehensive and distinct portrayal of facts. Descriptive

comprehensive information on governance scores across six aggregate factors. The definitions of indicators specified by De Petrillo et al. (2009) are summarised here.

Voice and accountability: this word describes how respondents evaluate the extent to which people may freely associate with the press, vote for their government, and have access to free media;

The probability that violent and terrorist acts that contravene constitutional provisions might are categorized into six clusters, were evaluated using perception-related research that involved a variety of agencies, including think-tank groups, nongovernmental organizations, various government authorities, and consultancy businesses in the investment sector.

3.3 Econometric model
This study uses the Generalized Method of Moments (GMM), a dynamic panel data estimator, for estimate in order to address econometric issues including autocorrelation, fixed effects, and endogeneity. When analyzing panel data, GMM is often used. This broad estimator is intended for scenarios with "small T and large N" panels, which denotes a minor number of periods and a large number of persons or observations. For linear functional connections, it is also employed. Because heteroscedasticity might emerge after one-step estimations, a 2-step GMM estimator is employed for all estimations in this research work. The following is the study's regression model:

$$TQi,t = \alpha + \delta_0 ROAi,t\text{-}1 + \delta_1 VAi,t + \delta_2 PSi,t + \delta_3 GEi,t + \delta_4 RQi,t + \delta_5 RLi,t + + \delta_6 CCi,t + \varepsilon i,t$$

(1)The first equation (1) illustrates the relationship between voice and accountability, political stability and the lack of violence, the effectiveness of governance, the quality of regulatory oversight, the rule of law, the control of corruption, and Tobins Q. The symbols α, δ, and ε represent the intercept, coefficient, and error term, of the equation.

statistics include key elements such as observation, mean, standard deviation, and minimum and maximum values. Table 1 presents descriptive statistics, which provide a concise overview of the fundamental details of the variables.

Table 1. Descriptive statistics

Variable	Obs	Mean	Std. Dev.	Min	Max
TQ	600	13.41	8.61	111.91	136.34
VA	600	4.381	2.19	-1.24	6.87
PS	600	8.03	4.51	2.29	19.74
GE	600	131.79	34.23	101.1	204.67
RQ	600	7.03	.685	5.74	8.74
RL	600	43.63	16.62	13	73
CC	600	23.33	18.53	25	53

The table represents the descriptive statistics of Pakistan.

4.2 Correlation Matrix

The present research investigates the collinearity among variables using a correlation matrix. Table 2 displays the correlation matrix of Pakistan. The correlations among all variables fall below the threshold of 70% (Greene & Hensher, 2003; Gujarati & Porter, 2010; Khan et al., 2022). There is no problem of multicollinearity..

Table 2. Pearson Correlation Matrix

Variables	(1)	(2)	(3)	(4)	(5)	(6)	(7)
(1) TQ	1						
(2) VA	0.173***	1					
(3) PS	0.721***	-0.024	1				
(4) GE	0.775***	-0.102**	0.893***	1			
(5) RQ	0.097*	0.005	0.094**	0.127***	1		
(6) RL	0.000	0.000	0.000	-0.000	-0.030	1	
(7) CC	0.087*	0.004	0.092**	0.124***	0.731***	0.025	1

The Pearson correlation coefficients among the variables are shown in Table 2, along with the significance levels of each correlation. Table 1 has a description of the variables. Statistically significant values are represented by the symbols ***, **, and *, with 1%, 5%, and 10% meanings, respectively.

4.4 Generalized Method of Moments

For the purpose of estimate, this research makes use of the dynamic panel data estimator, often known as the Generalised Method of Moments (GMM). Table 3 presents the results.

Table 3: Estimation Results for Pakistan

Regressor	Model	Prob: value
L.TQ	-.393***	0.00
VA	.66***	0.00
PS	.282***	0.00
GE	.28***	0.00
RQ	17.05***	0.00
RL	5.831***	0.00
CC	.831	0.523
Constant	0.213***	0.00
Year Dummies	NO	

AR(1)	0.027	16.34
AR(2)	0.685	0.367
Hansen	0.16	0.357
No. Of groups	60	-
No. Of instruments	54	-
No of observations	540	-

Table presents the GMM step two results. ***, **and * are significance at 1%, 5% and 10% respectively.

4.5 Empirical Results and Discussion

The empirical findings for Pakistan are shown in Table 3. The findings demonstrate the statistical significance of the F-statistics for every variable. The result shows that VA has a positive coefficient of TQ indicates that voice and accountability improves the value of firms operating in Pakistan.

The beneficial effects of VA on TQ further support the stakeholder theory. The long-term worth of the company is increased by the best actions and performance, according to stakeholder theory. Weber (2008) states that the organization's growth is influence by governance quality.

As predicted by this study, the political stability has a substantial positive impact on TQ; the results indicates a positive relationship between PS and TQ. These results align with a substantial corpus of prior empirical research findings that have been well validated (Abdullahi et al., 2019; Khyareh & Amini, 2021).

The outcome demonstrates a favorable relationship between GE and the value of firms. It indicates that Pakistan's economy and improved governance are being hampered by the governanc effectiveness.

Weak mechanisms to prevent corruption, incompetent governments, and issues with the appropriate application of the law have all been illustrated to have a significant negative influence on economic development. In contrast to Dahir et al. (2018), Megaravalli and Sampagnaro (2018) demonstrated the beneficial impact of governance on financial performance.

The results also show a favorable relationship between TQ and RQ. This positively affects investors' perceptions, causing them to want the companies' shares, raising the share price and promoting economic expansion. The following

research (Nebojša et al., 2020; Paitoon & Panawong, 2023) corroborate this finding.

Rule of law and TQ have a statistically significant and favorable link. Strategic and effective government rules can boost competitiveness, lower transaction costs, increase trade, and increase productivity—all of which are important drivers of economic growth and the nation's exceptional standard of governance (Selvamani et al., 2023).

Control of corruption show insignificant relationship with value of firms operating in Pakistan.

Additionally, Table 3 shows that negative 1st-order serial correlation (AR(1)) is available, and no second-order serial correlation was found during analysis, according to 2nd-order serial correlation (AR (2)). According to the Hansen test findings, there is no potential association between the error term and the instruments, indicating that the instruments are genuine and the null hypothesis cannot be rejected for any variable. Additionally, the shows that there are 60 groups and 54 instruments.

Conclusion

This research looks into how Pakistan's firm value is affected by country level governance between 2013 and 2022. By employing country-level governance characteristics rather than firm-level factors, this study adds to the body of literature. GMM was used in this work to analyze panel data. Based on Pakistan's empirical findings, it can be stated that country governance factors support the value of businesses that operate there. The current research study's findings have wide-ranging effects on companies, prospective and current domestic and international investors and management, shareholders, and policymakers. The results of the current study showed that country level governance variables improve the market performance of Pakistanian firms. The

local and international potential that stands to gain from the macro variables also needs to know this knowledge. The results of this study assist shareholders and investors in making decisions about whether or not to invest in macroeconomic aspects. It makes sense that worse governance is typically associated with emerging nations. Developing nations should prioritize raising the standard of their governance in order to improve their standing. Therefore, emerging nations should adopt a number of macroeconomic policies to improve the standard of governance, the independence of the law from political pressure, and the level of corruption control. Improvements in a nation's quality of governance indirectly draw in more investors, which raises stock market performance. It is also recomended that more macroeconomic issues be analyzed in future study. This will aid in the explanation of how macroeconomic variables with more intricate interactions affect on governance quality. Further research on the influence of governance factors on foreign direct investment is also advised. Future research on the mediating and intervening variable in conjunction with macroeconomic issues is also recommended.

REFERENCES

Abdullahi, M., Ngadi, M. A., Dishing, S. I., & Ahmad, B. I. e. (2019). An efficient symbiotic organisms search algorithm with chaotic optimization strategy for multi-objective task scheduling problems in cloud computing environment. Journal of Network and Computer Applications, 133, 60-74.

Abdullahi, S. B., Ibrahim, O. R., Okeji, A. B., Yandoma, R. I., Bashir, I., Haladu, S., . . . Yahaya, M. (2021). Viral suppression among HIV-positive patients on antiretroviral therapy in northwestern Nigeria: an eleven-year review of tertiary care centre records, January 2009–December 2019. BMC Infectious Diseases, 21, 1-8.

Acemoglu, D., Johnson, S., & Robinson, J. A. (2005). Institutions as a fundamental cause of long-run growth. Handbook of economic growth, 1, 385-472.

Albassam, B. A. (2012). Political reform in Saudi Arabia: Necessity or luxury? Journal of South Asian and Middle Eastern Studies, 35(3), 1-17.

Alrabadi, D. W. H., Al Salamat, W., & Hatamleh, A. (2021). Does working capital management affect the profitability of small and medium sized enterprises in Jordan? International Journal of Economics and Finance Studies, 13(1), 194-214.

Bank, W. (2007). World development report 2008: Agriculture for development: The World Bank.

Barro, R. J., & Grilli, V. (2007). European macroeconomics: Bloomsbury Publishing.

Beyene, A. B. (2024). Governance quality and economic growth in Sub-Saharan Africa: the dynamic panel model. Journal of Economic and Administrative Sciences, 40(2), 404-418.

Bousquet, J., Akdis, C. A., Jutel, M., Bachert, C., Klimek, L., Agache, I., . . . Canonica, G. W. (2020). Intranasal corticosteroids in allergic rhinitis in COVID-19 infected patients: An ARIA-EAACI statement. Allergy, 75(10), 2440-2444.

Dahir, A. M., Mahat, F., Ab Razak, N. H., & Bany-Ariffin, A. (2018). Revisiting the dynamic relationship between exchange rates and stock prices in BRICS countries: A wavelet analysis. Borsa Istanbul Review, 18(2), 101-113.

De Ferranti, S. D., De Boer, I. H., Fonseca, V., Fox, C. S., Golden, S. H., Lavie, C. J., . . . Orchard, T. J. (2014). Type 1 diabetes mellitus and cardiovascular disease: a scientific statement from the American Heart Association and American Diabetes Association. Circulation, 130(13), 1110-1130.

De Petrillo, L. A., Kaufman, K. A., Glass, C. R., & Arnkoff, D. B. (2009). Mindfulness for long-distance runners: An open trial using Mindful Sport Performance Enhancement (MSPE). Journal of Clinical Sport Psychology, 3(4), 357-376.

Dickson, E., Palmateer, N. E., Murray, J., Robertson, C., Waugh, C., Wallace, L. A., . . . Gousias, P. (2021). Enhanced surveillance of COVID-19 in Scotland: population-based seroprevalence surveillance for SARS-CoV-2 during the first wave of the epidemic. Public health, 190, 132-134.

Emara, N., Chiu, I.-M., & Warrick, S. (2023). Green-Inclusive-Finance: The Case of Selected MENA & SSA Countries. Topics in Middle Eastern & North African Economies: Proceedings of the Middle East Economic Association, 25(1).

Fikadu, T., Bekuma, W., Tesfaye, W., & Furgasa, M. (2021). Adaptability study of Brachiaria grass accessions for forage yield and nutritive value in lowlands of East oromia, Ethiopia. Ecology and Evolutionary Biology, 6(2), 42.

Grabka, M. M. (2024). Niedriglohnsektor in Deutschland schrumpft seit 2017. DIW Wochenbericht, 91(5), 67-76.

Greene, W. H., & Hensher, D. A. (2003). A latent class model for discrete choice analysis: contrasts with mixed logit. Transportation Research Part B: Methodological, 37(8), 681-698.

Gujarati, D., & Porter, D. (2010). Functional forms of regression models. Essentials of econometrics, 6, 132-177.

Han, H. (2014). The norm activation model and theory-broadening: Individuals' decision-making on environmentally-responsible convention attendance. Journal of environmental psychology, 40, 462-471.

Iyoboyi, M., & Iganiga, B. O. Do Institutions Matter For Economic Growth in the midst of Government Size? Evidence from Nigeria.

Kaufmann, D., Kraay, A., Lora, E., & Pritchett, L. (2002). Growth without governance [with comments]. Economia, 3(1), 169-229.

Kaufmann, D., Kraay, A., & Mastruzzi, M. (2010). The worldwide governance indicators: Methodology and analytical issues. World Bank policy research working paper(5430).

Keping, Y. (2018). Governance and good governance: A new framework for political analysis. Fudan Journal of the Humanities and Social Sciences, 11, 1-8.

Khan, Y., Ahmad, W., & Awan, S. H. (2022). The Hijab Consumer Attitude toward Hijab Fashion Brand: A Case of the Developing Country. Journal of Social Sciences Review, 2(4), 125-137.

Khan, Y., Ahmad, W., & Malik, F. (2022). THE INFLUENCE OF CORPORATE GOVERNANCE ON ACCOUNTING CONSERVATISM IN TOP NON-FINANCIAL FIRMS OF PSX: THE MODERATING ROLE OF AUDIT QUALITY. Competitive Social Science Research Journal, 3(1), 321-340.

Khan, Y., Rehman, A., Shah, T. U., & Khan, K. (2018). The Impact of Corporate Social Responsibility on Firm's Productivity: A Comparative Study of Two Competing Firms having UN Global Compact Status. Discourse, 4(02).

Khyareh, M. M., & Amini, H. (2021). Governance quality, entrepreneurship and economic growth. Journal of Competitiveness, 13(2), 41.

Kim, S., Chen, J., Cheng, T., Gindulyte, A., He, J., He, S., . . . Yu, B. (2021). PubChem in 2021: new data content and improved web interfaces. Nucleic acids research, 49(D1), D1388-D1395.

Lorenz, R., Yotyodying, S., Eickelmann, B., & Endberg, M. (2022). Schule digital–der Länderindikator 2021: Lehren und Lernen mit digitalen Medien in der Sekundarstufe I in Deutschland im Bundesländervergleich und im Trend seit 2017: Waxmann Verlag.

Mee, L. D. (2005). The role of UNEP and UNDP in multilateral environmental agreements. International Environmental Agreements: Politics, Law and Economics, 5, 227-263.

Megaravalli, A. V., & Sampagnaro, G. (2018). Macroeconomic indicators and their impact on stock markets in ASIAN 3: A pooled mean group approach. Cogent Economics & Finance, 6(1), 1432450.

Minghai, Y., Khan, W. A., Khalil, K., Khan, Y., & Marwat, A. (2024). DOES GREEN FINANCE PROMOTE ENVIRONMENT PERFORMANCE? EVIDENCE FROM PAKISTAN. Remittances Review, 9(1).

Nebojša, P., Marija, I., & Kristina, Č. (2020). Organizational culture and job satisfaction among university professors in the selected Central and Eastern European countries. Studies in Business and Economics, 15(3), 168-184.

Paitoon, T., & Panawong, C. (2023). The comparison of executive functions of prathom students between school systematic with innovation changes Jitsuksa, PBL and PLC with General school. Naresuan University.

Raj, N., & Breda, G. (2011). Understanding Growth and Poverty: Theory, Policy, and Empirics: The International Bank for Reconstruction and Development/The World Bank ….

Rasha, H., Noha, E., Mohamed, D., Giorgos, C., & Amira, H. (2022). Dynamics of polychaete communities in the intertidal soft bottom of Alexandria coast, Egypt. Regional Studies in Marine Science, 56, 102645.

Rasha, R. E., & EL-SAYED, S. F. (2012). Effect of organic and bio-fertilization on potato productivity. New Medit: Mediterranean Journal of Economics, Agriculture and Environment= Revue Méditerranéenne d′Economie Agriculture et Environment, 11(4), 66.

Romer, P. M. (1986). Increasing returns and long-run growth. Journal of political economy, 94(5), 1002-1037.

Romer, P. M. (1990). Endogenous technological change. Journal of political economy, 98(5, Part 2), S71-S102.

Salawu, R., Shamsuddin, A., & Bolatitio, S. (2023). Theoretical and conceptual frameworks in research: Conceptual clarification. European Chemical Bulletin, 12(12), 2103-2117.

Saqlain, M., Munir, M. M., Rehman, S. U., Gulzar, A., Naz, S., Ahmed, Z., . . . Mashhood, M. (2020). Knowledge, attitude, practice and perceived barriers among healthcare workers regarding COVID-19: a cross-sectional survey from Pakistan. Journal of Hospital infection, 105(3), 419-423.

Schulenberg, J., Johnston, L., O'Malley, P., Bachman, J., Miech, R., & Patrick, M. (2020). Monitoring the Future national survey results on drug use, 1975-2019: Volume II, college students and adults ages 19-60.

Selvamani, S., Kapoor, N., Ajmera, A., El Enshasy, H. A., Dailin, D. J., Sukmawati, D., . . . Abomoelak, B. (2023). Prebiotics in New-Born and Children's Health. Microorganisms, 11(10), 2453.

Sequeira, S. L., Silk, J. S., Hutchinson, E., Jones, N. P., & Ladouceur, C. D. (2021). Neural responses to social reward predict depressive symptoms in adolescent girls during the COVID-19 pandemic. Journal of pediatric psychology, 46(8), 915-926.

Solow, R. M. (1956). A contribution to the theory of economic growth. The quarterly journal of economics, 70(1), 65-94.

Tuite, A. R., Bogoch, I. I., Sherbo, R., Watts, A., Fisman, D., & Khan, K. (2020). Estimation of coronavirus disease 2019 (COVID-19) burden and potential for international dissemination of infection from Iran. Annals of internal medicine, 172(10), 699-701.

Van Doan, H., Hoseinifar, S. H., Ringø, E., Ángeles Esteban, M., Dadar, M., Dawood, M. A., & Faggio, C. (2020). Host-associated probiotics: a key factor in sustainable aquaculture. Reviews in fisheries science & aquaculture, 28(1), 16-42.

Weber, M. (2008). The business case for corporate social responsibility: A company-level measurement approach for CSR. European Management Journal, 26(4), 247-261.

Yassine, R. A., Elham, M. K., Mustapha, S., & Hamade, R. F. (2018). Heterogeneous versus homogeneous material considerations in determining the modal frequencies of long tibia bones. Journal of

Engineering and Science in Medical Diagnostics and Therapy, 1(2), 021001.

Yousaf Khan, D., Ahmad, W., & Malik, F. (2021). Does Audit Quality Moderate the Nexus Between Corporate Governance and Accounting Earnings Quality in Emerging Economies. Indian Journal of Economics and Business, 20(4).

Zhijun, Z., & Juzhong, Z. (2010). Report on the 2001 Flotation Results from the Site of Jiahu. Chinese Archaeology, 10(1), 196-202.