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Analyzing the Effect of Institutional Quality and Foreign Direct Investment on Economic Growth of Pakistan

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Abstract

This study analyzes the influence of institutional quality and foreign direct investment on the economic growth of Pakistan using data from 1996 to 2023. The ADF unit root test, bound test of cointegeration and ARDL model are applied for data analysis. The results show that FDI is positively and significantly impacting the economic growth, while institutional quality negatively impacts the economic growth of Pakistan. Furthermore, the study shows that labor force, human capital, and gross fixed capital formation are positive factors of economic growth in Pakistan. Based on the results, it is suggested that Pakistan should strengthen policies to attract and sustain FDI while urgently reforming institutions to reduce inefficiencies and corruption. Improving institutional quality is essential to ensure FDI's positive effects translate into inclusive, sustainable economic growth and maximize the benefits of labor, human capital, and capital formation.

Keywords: *Institutional Quality, FDI, Economic Growth, ARDL Model, Pakistan*

Introduction

Attaining high economic growth (EG) is the key aim of all countries. Economic growth is a multifaceted phenomenon influenced by different factors. Foreign direct investment (FDI) is also recognized as one of the significant aspects of EG. One of the most efficient ways to extract funds from outside sources is through FDI. The application of this method has grown to be a crucial part of capital development in emerging nations worldwide. FDI is gaining popularity as a tool for EG and strengthening in developing nations due to its positive effects (Khan, 2007). The job prospects, natural resource exploitation, adopting creative business techniques in management and marketing, and lowering the budget deficit are all made possible by FDI in developing countries. Another advantage is that FDI involves the risks and rules of external debt and enhances human capital by offering on-the-job training. Numerous studies have found that foreign direct investment can facilitate knowledge and technology transfer (Dunning & Hamdani, 1997).

Furthermore, institutional quality is critical in determining a country's economic growth trajectory. Institutions shape incentives for investment, innovation, and allocation of resources. High-quality institutions protect property rights, enforce contracts, and uphold the rule of law, all reducing uncertainty and transaction costs for economic agents (Nawaz et al., 2014). When businesses and individuals trust that their assets are secure and that agreements will be honored, they are more probable to invest in productive activities, fueling capital accumulation and technological progress. On the other hand, poor institutions with bad governance and political instability are a hindrance to

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economic growth as they distort the markets and scare away investment. Corruption increases the cost of business, makes the spending of the government inefficient and shifts resources to unproductive uses. Political instability poses a risk that attracts capital flight and decreases FDI (Hayat, 2019). Empirical evidence indicates that economies with good institutions are more probable to record better and sustainable EG (Valeriani & Peluso, 2011; Nguyen et al., 2018; Abubakar, 2020). In addition, good institutions also lead to inclusive growth because of equal opportunities and fair competition. They facilitate human capital formation through facilitation of access to education and health services which are critical to a productive workforce. Powerful institutions also provide a stable climate of innovation and entrepreneurship, and new ideas and businesses can thrive (Asghar et al., 2020).

Pakistan has been facing a challenge of maintaining economic growth despite many economic reforms and having a lot of natural and human resources. Different factors that have been identified to be detrimental to its development but have not been fully examined is the quality of its institutions which have been found to be inefficient, corrupt, poor rule of law and poor governance in Pakistan. Such institutional weaknesses create a situation where investors are not encouraged and the market incentives are not properly aligned and the resources are not effectively utilized. At the same time, FDI could be used to increase EG by bringing capital inflows, transferring technology, and creating jobs, but the erratic performance of FDI in Pakistan indicates that some institutional quality might be limiting the gains of these investments. The interaction between IQ and FDI in determining economic growth is important in formulating policies that can stimulate the growth potential in Pakistan. However, the joint impact of IQ and FDI on the EG of Pakistan is not well-explored empirically. This knowledge gap reduces the capacity of policymakers in implementing effective reforms. The study thus aims to investigate the effects of IQ and FDI on the EG in Pakistan, and the study will present an evidence-based report to inform the strategies to enhance governance, investments and sustainable development.

Literature Review

Studies on the Association between FDI and Economic Growth

Ndlovu & Haabazoka (2024) and Nguyen (2022) analyzed the link between FDI and EG in Zambia from and ASEAN nation, respectively. Their study outcomes indicate that FDI positively contributes to economic growth of both regions. On the same note, Ramzan et al., (2019) investigated a relationship between FDI and EG in seventy developing countries using panel dataset between 1980 and 2015. The results indicated that FDI had a direct impact on EG in case a country had sufficient human capital that met the minimum requirement. The results also indicated that financial development, the growth of labor force, and GCF had positive impacts on EG and the inflation rate had negative impacts on the EG. The results implied that the policymakers should take measures that would improve the human capital of a country since well-built human capital increases the inflows of FDI into a country. In the same manner, Carbonell & Werner (2018) analyzed the connection between EG and FDI in Spain with the data of the period between 1984 and 2010. GDP was the endogenous variable in the analysis whereas FDI inflows, exchange rate, employment rate, and human capital were used as exogenous variables. The results showed that the FDI had a positive effect on the GDP of Spain. Similarly, employment rate and human capital are also determinants of the EG of Spain in a positive way. Phuyal & Sunuwar (2018) looked at the relationship between FDI and EG. The present paper analyzed the influence of FDI on EG and employment level in Nepal based on the data of 2007-

2016. The results of the current research revealed that FDI in the tourism and agriculture industries was connected positively with GDP growth in Nepal. Alzaidy et al., (2017) studied the impact of FDI, financial development on EG in Malaysia between 1975 and 2014. These findings indicated that the impacts of FDI, labour force, capital and financial development on EG were positive and the association between government expenditures and EG were positive. Hussain & Haque (2016) explored the connection between the FDI and the EG in Bangladesh based on statistics between 1973 and 2014. The findings showed that the FDI and trade affected the GDP per capita positively. The paper has suggested that the policy makers should focus on the policies that limit the restriction on FDI inflow and enhance EG.

Studies on the Association between Institutional Quality and Economic Growth

Asghar et al., (2024) explored the effect of IQ and trade on inclusive growth in SAARC nations by adopting data from 1996 to 2020. Their study found that IQ, human capital and financial development promoting the inclusive growth whereas trade openness insignificantly affecting the growth in SAARC countries. Islam (2022) investigated how human capital development and IQ affected EG in Bangladesh using data from 1990 to 2019. According to the ARDL analysis, IQ and health and educational expenditures had a direct effect on EG in Bangladesh. Tran et al., (2021) investigated the link between EG and IQ in 48 Asian nations from 2005 to 2018. Their study showed better institutional quality significantly contribute to the higher EG in Asian countries. Radulović (2020) examined the influence of South East European institutions' quality on economic growth, comparing the effects in EU and non-EU nations between 1996 and 2017. The findings exhibited that IQ significantly impact the EG in EU countries whereas the effect of IQ on EG was statistically insignificant. Nawaz et al., (2014) examined the influence of IQ on EG in Asian countries using data from 1996 to 2012. Their study showed a varying influence of IQ on EG in different Asian economies. The finding showed that IQ effect on EG was more effective in developed countries relative to the developing Asian economies. Malik & Naseem (2015) scrutinized the influence of FDI and trade openness on Pakistan's EG. The authors used data that covers the period from 2008 to 2013. Outcomes revealed that domestic capital, trade openness, and FDI optimistically influenced the EG of Pakistan.

Data and Methodology

This study used Pakistan's yearly data from 1996 to 2023 to examine the impact of FDI and institutional quality on EG. The data is collected from World Development Indicators (WDI) and World Governance Indicators. The study employed a neoclassical production function, which states that labor and capital are imperative factors of production. Furthermore, HC, IQ and FDI are crucial in upholding the EG. Therefore, these variables are also added to a model:

Functional Form

GDP = f (LFPR, GFCF, FDI, IQ, HC) (1)

Econometric Form

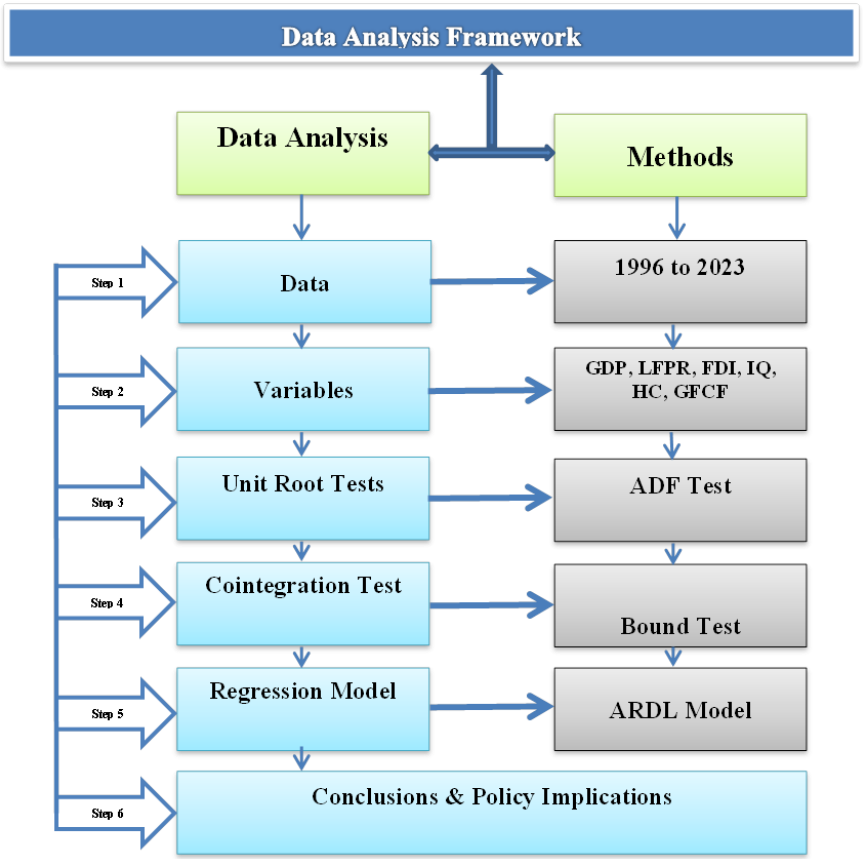
$$GDP_t = \beta_o + \beta_1 LFPR_t + \beta_2 GFCF_t + \beta_3 FDI_t + \beta_4 IQ_t + \beta_5 HC_t + \mu_t \quad (2)$$

Table 1: Description of Variables

Variables	Variables' Descriptions	
	Dependent Variable	
GDP	Gross domestic product	Current US dollars
	Independent Variables	
GFCF	Gross fixed capital formation	Percentage of GDP
LFPR	Labor force participation rate	Rate
FDI	Foreign direct investment	Percentage of GDP
IQ	Institutional Quality	Index
HC	Human Capital (Secondary school enrolment)	% Net

For data analysis, firstly, the unit root analysis is conducted. Unit root analysis is necessary to inspect the stationarity level of variables. The Augmented Dickey-Fuller (ADF) test is used to evaluate the degree of stationarity of variables. Second, the bound test is used for a model's long-run cointegration among variables. Lastly, the Autoregressive Distributed Lag model is used for long-run estimation of the model. The ARDL technique provides reliable outcomes.

Figure 1: Data Analysis Framework



Descriptive Analysis

Table 2 point out that the mean of GDP is 7.159, maximum GDP value is 7.436, minimum GDP value is 6.941 and SD is 0.164. The skewness value of GDP indicates a positive skewed distribution while the kurtosis value suggests the GDP distribution is platykurtic. Similarly, the descriptive statistics of other variables can be analyzed.

Table 2: Descriptive Statistics

Variables	Mean	Maximum	Minimum	Std. Dev.	Skewness	Kurtosis
GDP	7.159	7.436	6.941	0.164	0.145	1.787
LFPR	52.363	55.050	50.141	1.232	0.510	2.694
GFCF	14.468	17.377	12.825	1.231	0.714	2.567
FDI	0.977	3.036	0.310	0.726	1.743	5.064
IQ	0.000	1.905	-2.995	1.652	-0.709	2.096
HC	32.834	38.618	27.051	3.560	0.005	1.770

Correlation Analysis

The outcomes of the correlation coefficient given in Table 3 illustrate that GDP is positively correlated with the LFPR, FDI, GFCF and HC, whereas GDP is negatively correlated with the IQ in Pakistan.

Table 3: Correlation Matrix

Correlation	GDP	LFPR	GFCF	FDI	IQ	HC
GDP	1.000					
LFPR	0.687	1.000				
GFCF	0.302	-0.600	1.000			
FDI	0.142	-0.419	0.669	1.000		
IQ	-0.599	0.381	0.113	0.103	1.000	
HC	0.671	0.924	-0.471	-0.250	0.554	1.000

Unit Root Analysis

For unit root analysis, we have employed the ADF test. The results given in Table 4 suggest that GDP and HC are integrated at order zero I(0) while LFPR, GFCF, FDI and IQ are integrated at order one I(0), suggesting a diverse integration order.

Table 4: Unit Root Analysis

Variables	Level		1st Difference		Outcomes
	t-stat.	Prob.	t-stat.	Prob.	
GDP	-4.184	0.018	--	--	I(0)
LFPR	--	--	-6.106	0.000	I(1)
GFCF	--	--	-3.996	0.005	I(1)
FDI	--	--	-3.333	0.024	I(1)
IQ	--	--	-2.706	0.013	I(1)
HC	-5.605	0.001	--	--	I(0)

Bound Test Analysis

This analysis utilized the ARDL bound test for the long-run cointegration of variables. The results shown in Table 5 indicate a long-term relationship between GDP, LFPR, GFCF, FDI, IQ, and HC, with the F-statistic value exceeding the upper bound values.

Table 5: Bound Test Analysis

H_o: No Level Association				
Test Statistic	**Value**	**Sig.**	**I(0)**	**I(1)**
F-Statistic	10.2294	10%	2.08	3
	5	5%	2.39	3.38
		2.5%	2.7	3.73
		1%	3.06	4.15

Long-Run Analysis of ARDL Model

This section illustrates the ARDL long-run outcomes of the effect of IQ and FDI on the EG of Pakistan (as shown in Table 6). Firstly, the effect of LFPR on EG is direct and substantial, signifying the importance of LFPR in augmenting EG in Pakistan. These results were also found by Yıldırım & Akinci (2021) and Yakubu et al., (2020). The findings also demonstrate a positive and substantial correlation between Pakistan's GDP and GFCF. According to the GFCF coefficient, Pakistan's GDP increases by 0.0361 units for every unit increase in GFCF. It suggests that improving domestic infrastructure raises people's incomes and standards of living by generating job opportunities. Thus, it increases the nation's GDP. Ali (2015) and Kong et al., (2020) also discovered these findings. FDI is essential for boosting the nation's GDP. The findings demonstrate a direct and significant link between FDI and Pakistan's GDP. According to the FDI coefficient, Pakistan's GDP increases by 0.0392 units for every unit increase in FDI. It implies that foreign direct investment (FDI) inflows provide a nation with technology and capital, essential for raising domestic output, employment, and people's incomes. As a result, FDI inflows boost the nation's GDP. Ramzan et al., (2019) and Pegkas (2015) also discovered these findings. To raise the nation's GDP, institutions must be of higher quality. The outcomes exhibit a substantial negative link between IQ and Pakistan's GDP. According to the IQ coefficient, Pakistan's GDP decreases by -0.0236 units for every unit increase in IQ. It implies that Pakistani institutions are not operating effectively. Pakistan has unfavorable conditions for political stability, the rule of law, corruption, and poor governance. Consequently, each element has a detrimental effect on Pakistan's GDP. Abubakar (2020) and Asghar et al., (2024) also discovered these outcomes. Lastly, boosting a nation's GDP requires its human capital. The results suggest a direct and substantial correlation between HC and Pakistan's GDP. According to the HC coefficient, Pakistan's GDP increases by 0.0226 units for every unit increase in HC. It implies that increasing human capital enhances education, specialization, and skills, all of which raise employee productivity and a nation's GDP.

Table 6: ARDL Estimates

Dependent Variable: GDP				
Selected Model: ARDL(1, 2, 0, 0, 0, 0)				
Long-Run Form				
Variable	**Coefficient**	**Std. Error**	**t-Statistic**	**Prob.**
LFPR	0.1084	0.0379	2.8543	0.0115
GFCF	0.0361	0.0131	2.7445	0.0144
FDI	0.0392	0.0170	2.3058	0.0259
IQ	-0.0236	0.0077	-3.0649	0.0109
HC	0.0226	0.0108	2.0873	0.0532
C	0.2691	1.7059	0.1577	0.8766
Short-Run Form				
D(LFPR)	0.0053	0.0056	0.9383	0.3620
D(LFPR(-1))	-0.0285	0.0064	-4.4380	0.0004
ECM(-1)	-0.3621	0.0364	-9.9226	0.0000

Model Diagnostic Analysis

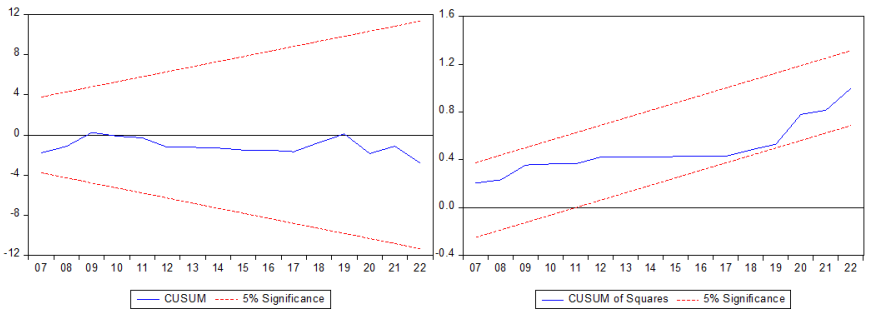
We have employed different model diagnostic tests to check autocorrelation (Breusch-Godfrey test), Heteroskedasticity (Breusch-Pagan-Godfrey test), residuals normality (Jarque-Bera test) and model misspecification bias (Ramsey Reset test). The estimates of all these tests are given in Table 8, suggesting that the issues of heteroskedasticity and autocorrelation are not present in the model. Furthermore, residuals are normally distributed and the model is specified correctly.

Table 7: Model Diagnostic Analysis

Problem	**Statistic**	**Prob.**	**Findings**
Autocorrelation	0.1722	0.6662	Not Present
Heteroskedasticity	0.6252	0.1190	Not Present
Misspecification Bias	0.5288	0.1832	Correct Form
Residuals	1.4301	0.1732	Normal

Similarly, OLS recursive residuals of CUSUM and CUSUM of squares are utilized to check the dynamic stability of the model. Figure 1 portrays that the fitted lines are within the critical region lines at the 5 percent significance level, indicating that the model is dynamically stable.

Figure 1: Model Stability Analysis



Conclusions and Recommendations

The study analyzed the effect of IQ and FDI on the EG of Pakistan. For this purpose, annual time series data from 1996 to 2023 are used in a study. The study applied different economic techniques for data analysis. The ADF unit root test analysis shows that the variables GDP, FDI, LFPR, IQ and GFCF are integrated at order zero, whereas HC is integrated at order one, suggesting the mixed integration order in a model. Furthermore, the ARDL bound test confirms the long-run cointegration between GDP, FDI, LFPR, IQ, HC and GFCF. The ARDL results indicate that FDI is directly and substantially impacting the EG, while institutional quality negatively impacts the EG of Pakistan. Furthermore, the study shows that labor force, human capital and GFCF are positive factors of EG in Pakistan. Based on the results, the study proposed that Pakistan should strengthen policies to attract and sustain FDI while urgently reforming institutions to reduce inefficiencies and corruption. Improving institutional quality is essential to ensure FDI's positive effects translate into inclusive, sustainable EG and maximize the benefits of labor, human capital, and capital formation.

Although this research is likely to give some useful information on the impacts of IQ and FDI on the EG in Pakistan, various limitations need to be taken into consideration. On the one hand, the analysis is based exclusively on the annual time series data since 1996 to 2023, and it does not reflect short-term fluctuations and structural breaks of economic relations. Second, the ARDL model is powerful in small sample sizes, but it might not be appropriate to consider the possible endogeneity between IQ, FDI and EG, not allowing to interpret the results causally. Third, the other significant growth determinants, e.g. the political stability, trade policies and external shocks were not included, which may bias the estimated effects. The paper also fails to distinguish the sectoral allocation of FDI which could have different effects on growth based on whether the investments are directed to productive sectors or not productive sectors. Last, the results are limited to a particular economic and institutional setting of Pakistan and cannot be extrapolated to other developing economies. Future studies should overcome these limitations by using different methodologies, larger data, and disaggregated results.

References

1. Abubakar, S. (2020). Institutional quality and economic growth: Evidence from Nigeria. *African Journal of Economic Review*, *8*(1), 48-64.
2. Ali, G. U. L. Z. A. R. (2015). Gross fixed capital formation & economic growth of Pakistan. *Journal of Research in Humanities, Arts and Literature Applied*, *1*(2), 21-30.
3. Alzaidy, G., Ahmad, M. N. B. N., & Lacheheb, Z. (2017). The Impact of Foreign-direct Investment on Economic Growth in Malaysia: The Role of Financial Development. *International Journal of Economics and Financial Issues*, *7*(3), 382-388.
4. Asghar, M. M., Safdar, R., Zubair, M., & Hanif, M. (2024). Exploring the influence of financial development, institutional quality and trade openness on inclusive growth in SAARC countries. *Pakistan Journal of Humanities and Social Sciences*, *12*(2), 1450-1461.
5. Asghar, N., Qureshi, D. S., & Nadeem, M. (2020). Institutional quality and economic growth: Panel ARDL analysis for selected developing economies of Asia. *South Asian Studies*, *30*(2).
6. Carbonell, J., & Werner, R. A. (2018). Does foreign direct investment generate economic growth? A new empirical approach applied to Spain. *Economic geography*, *94*(4), 425-456.
7. Dunning, J. & Hamdani, A. (1997). *The new globalism and developing countries*. Tokyo; New York: United Nations University Press.

8. Hayat, A. (2019). Foreign direct investments, institutional quality, and economic growth. *The Journal of International Trade & Economic Development*, *28*(5), 561-579.
9. Hussain, M., & Haque, M. (2016). Foreign direct investment, trade, and economic growth: An empirical analysis of Bangladesh. *Economies*, *4*(2), 7.
10. Islam, M. S. (2022). Impact of institutional quality and human capital creation on economic growth in Bangladesh: evidence from an ARDL approach. *International Journal of Social Economics*, 49(12), 1787-1802.
11. Khan, M. A. (2007). *Foreign direct investment and economic growth: The role of domestic financial sector* (No. 2007: 18). Pakistan Institute of Development Economics.
12. Kong, Y., Nketia, E. B., Antwi, S. K., & Musah, M. (2020). Scrutinizing the complex relationship between financial development gross fixed capital formation and economic growth in Africa by adopting CCEMG and AMG estimation techniques. *International Journal of Science and Business*, *4*(11), 160-174.
13. Malik, K., & Naseem, I. (2015). Impact of foreign direct investment on economic growth of Pakistan. *American Journal of Business and Management*, *4*(4), 190-202.
14. Nawaz, S., Iqbal, N., & Khan, M. A. (2014). The impact of institutional quality on economic growth: Panel evidence. *The Pakistan Development Review*, 15-31.
15. Nawaz, S., Iqbal, N., & Khan, M. A. (2014). The impact of institutional quality on economic growth: Panel evidence. *The Pakistan Development Review*, 53(1), 15-31.
16. Ndikumana, L., & Verick, S. (2008). The linkages between FDI and domestic investment: Unravelling the developmental impact of foreign investment in Sub-Saharan Africa. *Development Policy Review*, *26*(6), 713-726.
17. Ndlovu, D., & Haabazoka, L. (2024). Evaluating the Impact of Foreign Direct Investment on Economic Growth in Zambia; 1996-2020. *East African Finance Journal*, *3*(1), 107-130.
18. Nguyen, C. P., Su, T. D., & Nguyen, T. V. H. (2018). Institutional quality and economic growth: The case of emerging economies. *Theoretical Economics Letters*, *8*(11), 1943-1956.
19. Nguyen, M. L. T. (2022). Foreign direct investment and economic growth: The role of financial development. *Cogent Business & Management*, *9*(1), 2127193.
20. Pegkas, P. (2015). The impact of FDI on economic growth in Eurozone countries. *The Journal of Economic Asymmetries*, *12*(2), 124-132.
21. Phuyal, R. K., & Sunuwar, S. (2018). A Sectoral Analysis of Foreign Direct Investment on the Economic Growth of Nepal. *Journal of Business and Social Sciences Research*, *3*(1), 1-14.
22. Radulović, M. (2020). The impact of institutional quality on economic growth: A comparative analysis of the EU and non-EU countries of Southeast Europe. *Economic Annals*, *65*(225), 163-181.
23. Ramzan, M., Sheng, B., Fatima, S., & Jiao, Z. (2019). Impact of FDI on Economic Growth in Developing Countries: Role of Human Capital. *Seoul Journal of Economics*, *32*(3).
24. Tran, O. K. T., Le, H. D., & Nguyen, A. H. V. (2021). Role of institutional quality in economic development: A case study of Asian countries. *Problems and Perspectives in Management*, *19*(2), 357-369.
25. Valeriani, E., & Peluso, S. (2011). The impact of institutional quality on economic growth and development: An empirical study. *Journal of Knowledge Management, Economics and Information Technology*, *1*(6), 1-25.
26. Yakubu, M. M., Akanegbu, B. N., & Jelilov, G. (2020). Labour force participation and economic growth in Nigeria. *Advances in Management and Applied Economics*, *10*(1), 1-14.

27. Yıldırım, D. Ç., & Akinci, H. (2021). The dynamic relationships between the female labour force and the economic growth. *Journal of Economic Studies*, *48*(8), 1512-1527.