

Globalization and Economic Growth in Pakistan

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ARTICLE DETAILS	ABSTRACT
History Revised format: May, 2020 Available Online: Jun, 2020 Keywords Globalization Index, Remittance, DI, FDI, Trade Openness, LFPR, Pakistan,	This study explored the relationship between economic growth and globalisation in Pakistan. Data from the yearly time series used from 1972 to 2019. The unit root test was applied in this research study to check the stationary data. The study also applied Autoregressive Distributed Lag (ARDL) analysis and to estimate the long run and short run relationship between dependant variable and independent variables. The result of ARDL approach demonstrations that there is a positive and significant association among the variables like Globalization Index, Remittance, Foreign direct investment, Labor Force Participation Rate on economic growth of Pakistan. Remittance has positive and significant impact on GDP of Pakistan.

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1 Introduction

The way to explain developments in the international economy and in world politics has been globalisation. It is characterised by economists as the freely movement of products, services, labour and capital over borders. Globalization is the reason for low transport and communication costs, lower barriers to trade, rapid communication, growing movements of capital, intense competition, standardisation, and immigration. The method has tried to bring advanced markets nearer together and managed to make them more closely linked. In the current era of increased economic and societal integration, individuals and corporations are reaching farther, faster, and much more economically than before around the world. Globalization has made economic future more productive and demanding, rendering the development of human knowledge more important. Through international trade, FDI, portfolio investment, international labour flows and technological progress in information and communications technology, globalisation acts as a catalyst for rapid growth (Naveed Ahmad, 2005). Since 1998, trade as a percentage of GDP, portfolio flows, and foreign direct investment as a percentage of GDP have risen, with trade slightly falling in 2002 as a percentage of GDP. A push to liberalise trade and investment regimes is driving globalisation. The open trade regime improves welfare and revenue by obtaining consumption and production resources via resource reorientation to areas of comparative advantage. Over a prolonged period of time, empirical work has demonstrated a positive and linked in between trade openness and economic growth. In 1995-6, the total inflow of foreign investment increased only to \$1.3 billion, mainly due to the inflow of FDI into the private project. Trade as a percentage of GDP in 1992-3 was 32.5 percent, that decreased to 28 percent in 1998-9 largely due to decreased imports. In relation to this, as a percent of GDP, the degree of openness in 1996 was 38 percent in Bangladesh, 40 percent in China, 51 percent

in Indonesia, 83 percent in Thailand and 183 percent in Malaysia (World Bank, 1999). GDP growth dropped from 6.1% during the 1980s to 4.2% during the 1990s (Khalil-ur-Rehman and Dr. Amanat Ali Jalbani, 2004). Trade openness can also affect external finance demand via the process of the specialisation and sectoral framework, or via the space of technology and innovation transfer activities which are inclined to make insentive use of external funding. Trade openness is given by the number of imports and exports divided by GDP, which can be found in the International Financial Statistics for this measure.

Research Questions

- What is the Impact of Globalization on Economic Growth in Pakistan?
- What is the Effect of Remittance on Economic Growth in Pakistan?
- What is the Effect of FDI on Economic Growth in Pakistan?

Objectives of the Study

- To check the Impact of Globalization on Economic Growth in Pakistan.
- To check the Effect of Remittance on Economic Growth in Pakistan.
- To check the Effect of FDI on Economic Growth in Pakistan.

2 Literature Reviews

There are many studies about developing and non-developing countries in which performance of globalization has been discussed. These studies have shown the effect of globalisation on Pakistan's economic development. All of these studies analysed the link between globalization and economic development and examined how globalization changes improved the economic growth. Some famous studies reviews are given below.

2.2 Literature Reviews of National Portfolio

Iqbal et al (2018) explored the impact of natural resources and globalisation on Pakistan's economic growth, through using annual time data covering the period from 1970 to 2014. The study used Autoregressive Distributed Lag (ARDL) Model for data analysis. The study also used Philips Perron Unit root test. The study used GDP per capita as dependent and Natural Resources, Globalization Index and Urban Population as independent variables. The study concludes the results that Globalization promotes economic growth in Pakistan. Natural Resources is also contributing to promote economic growth in Pakistan. Khan et al (2017) analyzed the impact of globalisation on employment in Pakistan through the use of data from the yearly time series for the 1980 to 2013 timespan. The research used the Augmented Dickey Fuller (ADF) unit root test to verify the stationary data and the approach of Autoregressive Distributed Lag (ARDL) to examine the effect on jobs of globalisation. The findings show that, in the short run, social globalisation and political globalisation are advantageous and raise the level of jobs. In the long and short term, economic globalisation is advantageous. Hasnain et al (2016) scrutinizes the impact of economic and political globalization on Pakistan's economic growth applying yearly series data covering the period of 1973 to 2011. The study used ARDL Bound Test approach and ECM. Augmented Dickey Fuller and Phillips Parron unit root measures were also used in the analysis. The research concluded that economic globalisation has marginal effects, although political globalisation and global globalisation have significant positive short-term effects on the economy, while political and global globalisation have significant positive long-term effects on economic growth.

Cuneyt Kilic (2015) investigated the effect of technological, social and political globalisation on emerging countries' economic development through the use of panel data analysis. For the 1981 to 2011 period, the analysis used panel data from 74 developing economies. The results of the study indicate that economic and political globalisation has positively affected economic growth, although economic growth has been negatively affected by social globalisation. Rahman (2015) investigated three South Asian countries such as Pakistan, India and Bangladesh have an economic growth effect of globalisation through the use of annual data for the period from 1981 to 2011. For stationary purposes, the analysis utilised the Augmented Dickey Fuller and Phillip Perron Unit Root test. The study also used Ordinary Least Square (OLS), Johansen Co-integration and Granger Causality test is used to find out the impact of globalization on economic growth. The results show that globalization and GDP both influence each other and illustrates bidirectional causality in India while Pakistan and Bangladesh show unidirectional causality between globalization and GDP. It is statistically found that overall index of globalization may affect the rate of growth. Rasool et al (2014) analyzed the impact of Globalization on economic growth of Pakistan by using annual time series data for the period of 1980 to 2009. The study used Autoregressive Distributed Lag (ARDL) Model for data analysis and Augmented Dickey Fuller (ADF) is used to check the stationary of data. The results show that Economic globalisation has a positive impact in the long term, social globalisation has a negative impact, and political globalisation has a marginal effect on Pakistan's economic development economic globalisation has a positive impact in the short term and social globalisation has a negative and negligible relationship with economic growth and there is no effect of political globalisation on economic growth. Javed et al (2011) analyzed the Globalization's effect on jobs in Pakistan by the use of data from the annual time - series data for the period 1973 to 2009. For the research, the study used the Johansen Co-integration test. To verify the stationary data, the Augmented Dickey Fuller Unit root test is used. The findings indicate that trade openness and social and political globalisation have no effect on Pakistan's job growth. FDI and remittances from employees have a huge impact on job growth in Pakistan. Khan et al (2011) explored the relation between globalisation and Pakistan's economic growth by the use of data from the annual time - series data for the 1980 to 2009 period. To establish the long-term relationship between globalisation and economic development, the analysis used Johansen Co-integration and Error Correction Techniques. The findings suggest that globalisation can be a helpful technique for Pakistan's economic development. Afzal (2006) examined the effect of globalisation on Pakistan's economic growth by the use of annual time series data for the 1960-2006 period. To evaluate the effect of globalisation on Pakistan's economic development, the study used the Johansen Co-integration Test and Error Correction Model. In order to verify the stationary data, the study used the Augmented Dickey Fuller Unit Root test. The Johansen Co-integration outcome has shown that all variables are co-integrated and have a long-term correlation to economic development. The co-integration findings also help the Error Correction Model.

2.3 Literature Reviews of International Portfolio

Kilicarslan and Dumrul (2018) examined the effect of globalisation on Turkey's economic development. For the 1980 to 2015 era, the study used annual data. The outcome of the Johansen Co-integration test indicates that economic globalisation and social globalisation have a positive influence on economic growth over the entire KOF globalisation index, whereas political globalisation has a negative impact on Turkey's economic growth. Lee et al (2014) analyzed the effect of globalisation on China's economic growth by the use of panel data from the 1970-2008 period. The research used the Ordinary Least Square and Granger Causality Test to assess the economic growth effect of globalisation. To verify the stationary results, the study also used Philips Parren unit root test. Economic globalisation has a positive impact, and social globalisation and political

globalisation have a negative impact on China's economic development, the results show. Meraj (2013) investigated the effect of globalisation on Bangladesh's economic growth using the Autoregressive Distributed Lag (ARDL) and Granger Causality measure, Vector Auto Regression (VAR) and Error Correction Model (ECM) econometric model. Augmented Dickey Fuller (ADF) and the Philips Perran Unit root test were also used in the analysis. From 1971 to 2005, the secondary data was obtained. The findings reveal a causal correlation between GDP and exports and imports. This means that globalisation has had a positive influence on Bangladesh's economic development.

3 DATA AND METHODOLOGY

This study uses the time series data for the years 1972-2019 for Pakistan and data is collected from the World Bank (WB), International Financial Statistics (IFS) and Pakistan Economic Survey Various issues. Different econometric techniques are applied such as Descriptive Statistics, Correlation matrix, Auto, Heteroskedasticity Test and Ordinary Least Square (OLS) are applied to get the required results from the study. The mathematical model of the study is,

$$GDP=f(KOFGI, REM, DI, FDI, TO, LFPR)$$

The econometric model is as,

$$GDP_t = \alpha_0 + \alpha_1 KOFGI_t + \alpha_2 REM_t + \alpha_3 DI_t + \alpha_4 FDI_t + \alpha_5 TO + \alpha_6 LFPR + \varepsilon$$

Where;

GDP= Gross domestic product

KOFGI=Globalization Index

REM= Remittance

DI=Domestic Investment

FDI= Foreign direct investment

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TO= Trade Openness

LFPR= Labor Force Participation

Rate ε = Error Term t= Time Series

4.3 Description of Variables

Table: 4.1 Summary of Variables

Variables	Explanation
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GDP	Gross Domestic Product
KOFGI	Globalization Index
TO	Trade Openness
FDI	Foreign Direct Investment
REM	Remittances
LFPR	Labour Force participation rate
DI	Domestic Investment

4 RESULTS AND DISCUSSION

5.2 Descriptive Statistics

Descriptive statistics define the data's basic features. Central tendency uses the three measures, mean median and mode for the measurement of a random variables (Gujarati,2004).

	GDP	KOFGI	REM	DI	FDI	TO	LFPR
Mean	95985.2	43.9	5530.9	15.9	1017.9	32.8	49.3
Median	61414.0	43.7	2491.7	16.5	403.7	33.2	50.6
Maximum	304951.8	54.8	19808.0	19.2	5594.2	38.9	53.4
Minimum	6324.9	32.1	139.0	11.4	0.2	25.3	30.0
Std. Dev.	90332.3	8.4	6198.5	1.9	1365.2	3.5	4.7
Skewness	1.0	0.1	1.4	-0.5	1.9	-0.4	-2.8
Kurtosis	2.7	1.4	3.4	2.3	6.2	2.4	10.8
Jarque-Bera	8.8	5.5	15.0	2.9	49.2	1.8	182.4
Observations	48	48	48	48	48	48	48

Source: Eviews 9

Table 1 present the basic features of the data of every variable. Dependent variable is Gross Domestic Product (GDP) but the Trade Openness (TO), Foreign direct investment (FDI), Remittance (REM), Labor Force Participation rate (LFPR), Globalization Index (KOFGI), Domestic Investment (DI) are the independent variables of the model. Numbers of the observations are 49 years from 1972 to 2019. The mean, median, maximum and minimum values of the Gross domestic product (GDP) are 95985.17,61413.9,304951.8 and 6324.884 respectively. Dispersion of data of every variable is measured by the standard deviation in descriptive statistics. Highest value of standard deviation is 90332.38 of Gross domestic product (GDP) in this model of the study. The values of the standard deviation of other variables like Globalization Index (KOFGI), Trade openness (TO), Foreign direct investment (FDI), Remittance (REM), labor force participation rate (LFPR) are 8.357402, 6198.51, 1.884486, 1365.163, 3.453006 and 4.688781 respectively. The skewness value indicates about data distribution whether it is positively skewed or negatively. The value of skewness is 1.038276 of the Gross Domestic Product (GDP) that show data distribution of the GDP is positively skewed and progressive. The kurtosis value of Gross Domestic Product (GDP) is 2.665893 that show Platykurtic distribution. Goodness of fit checked by the Jarque-Bera test. Jarque-Bera test based on residuals of OLS.

Jarque-Bera test for Gross Domestic Product (GDP) is 1.80232 which is greater than 0.5 and forecast that data is not normally distributed. If probability of data is less than 0.05 means rejected null hypotheses. Probability (P) value of Gross Domestic Product (GDP) is 0.406098 shows that it is statistically insignificant. The value of skewness is 0.053022 of the Globalization Index (KOFGI) that show data distribution of the Globalization Index (KOFGI) is positively skewed. The kurtosis value of Globalization Index (KOFGI) is 1.351805 that show Platykurtic distribution. The value of Jarque-Bera is 5.455586 and probability value is 0.065363. Probability value show that that Globalization Index (KOFGI) is statistically insignificant. The value of skewness is 1.357281 of the Remittance (REM) that show data distribution of the Remittance (REM) is negatively skewed. The kurtosis value of Remittance (REM) is 3.383531 that show Platykurtic distribution. The value of Jarque-Bera is 15.03188 and probability value is 0.000544. Probability value show that that Remittance (REM) is statistically insignificant. The value of skewness is -0.50073 of the Domestic Investment (DI) that show data distribution of the Domestic Investment (DI) is positively skewed. The kurtosis value of Domestic Investment (DI) 2.338782 is that show Platykurtic distribution. The value of Jarque-Bera is 2.880237 and probability value is 0.2369. Probability value show that Domestic Investment (DI) is statistically insignificant. The value of skewness is 1.889464 of the Foreign Direct Investment (FDI) that show data distribution of the Foreign direct Investment (FDI) is positively skewed. The kurtosis value of Foreign direct Investment (FDI) is 6.211099 that show Platykurtic distribution. The value of Jarque-Bera is 49.18292 and probability value is 0. Probability value show that Foreign Direct Investment (FDI) is statistically insignificant. The value of skewness is -0.36084 of the Trade Openness (TO) that show data distribution of the Trade Openness (TO) is positively skewed. The kurtosis value of Trade Openness (TO) is 2.392475 that show Platykurtic distribution. The value of Jarque-Bera is 1.779804 and probability value is 0.410696. Probability value show that Trade Openness (TO) is statistically insignificant. The value of skewness is -2.77893 of the Labour Force Participation Rate (LFPR) that show data distribution of the Labour Force Participation Rate (LFPR) is positively skewed. The kurtosis value of Labour Force Participation Rate (LFPR) is 10.7649 that show Platykurtic distribution. The value of Jarque-Bera is 182.3667 and probability value is 0. Probability value show that Labor Force Participation Rate (LFPR) is statistically insignificant.

5.3 Correlation Matrix

Correlation Matrix is used to check the statistical association among the variables. The relationship will be shown positive or negative between the variables if the working variables are increasing or decreasing together. However, if one variable is increasing and other is decreasing then the correlation between the variables is negative. Nature of the correlation is shown through the signs of the coefficient. Correlation Matrix is used to check the multi-co linearity in the data, the value of the variables is not more than 0.9.

Table: 2 Correlation Matrixes

	KOFGI	REM	DI	FDI	TO	LFPR
KOFGI	1					
REM	0.678456	1				
DI	-0.28872	-0.40346	1			

FDI	0.756555	0.523495	-0.0341	1		
TO	-0.2488	-0.56921	0.499032	-0.15292	1	
LFPR	0.538778	0.429574	0.090147	0.34684	-0.05689	1

Results of the correlation matrix represent that multicollinearity not present in the data.

5.5 Auto-Correlation

Table:5.3 Auto-Correlation

Breusch-Godfrey Serial Correlation LM Test:			
F-statistic	0.076725	Prob. F(2,39)	0.9263
Source: E-views 9			

To check the auto-correlation in the data Breusch-Godfrey Serial Correlation LM Test is applied. The value of the F-Statistic is 0.076725 and probability value is 0.9263 which is greater than 5%.and outcomes predicts that auto-correlation exist in the data of the current study.

5.6 Heteroskedasticity

Table: 5.4 Heteroskedasticity Test

Heteroskedasticity Test: Breusch-Pagan-Godfrey			
F-statistic	1.724454	Prob. F(6,41)	0.1397
Obs*R-squared	9.672334	Prob. Chi-Square(6)	0.1391
Scaled explained SS	21.94683	Prob. Chi-Square(6)	0.0012
Source: Eviews 9			

To check the heteroskedasticity in the data, Breusch-Pagan-Godfrey Test is applied. The value of the F-Statistic is 1.724454 and probability value is 0.1397 which is greater than 5%.and outcomes predicts that hetro exist in the data of the current study.

4.4.2 Ordinary Least Square Method

Ordinary least squares (OLS) is a type of linear least square method used in statistics to estimate unknown values in a model of linear regression. By the rule of least squares, OLS decides the factors of the linear function of a set of independent variables: minimising the sum of the squares of the difference between the measured dependent variable (the values of the observed variable) in the data set so those predicted by the linear function

Table: 5.5 Regression Results

Variable	Coefficient	Std. Error	t-Statistic	Prob.
LOG(KOFGI)	0.404556	0.136805	2.957175	0.0052
LOG(REM)	0.079776	0.021976	3.630063	0.0008
LOG(DI)	-0.233	0.140882	-1.65384	0.106
LOG(FDI)	0.083297	0.011417	7.295925	0

LOG(TO)	0.128625	0.141281	0.910417	0.3681
LOG(LFPR)	0.263867	0.122556	2.153033	0.0374
R-squared	0.995359	Adjusted R-squared		0.994663
Durbin-Watson stat	2.11646			

Source: Eviews 9

Results of the table show that the coefficient and probability values of the Globalization Index (KOFGI) are 0.404556 and 0.0052 respectively. Its mean that when KOFGI will increase by 1 unit then the rise in the Gross

Domestic Product (GDP) will be 0.031837 unit. KOFGI has statistically significant and positive impact on the Gross Domestic Product (GDP) in the Pakistan. As the exchange rate will increase, it would become the cause to enhance the terms of trade because prices of exports will increase and prices of imports will become cheaper. The coefficient and probability values of the Remittance (REM) are 0.079776 and 0.0008 respectively. Its mean that when Remittance will increase by 1 unit then the decrease in the Gross Domestic Product (GDP) will be 0.079776 units. REM has statistically significant and negative impact on the Gross domestic product (GDP) in the Pakistan. When the Gross Domestic Product increase, value of the currency will decrease, then the government has to pay more amount against the principal amount and its services. That is why increased Remittance will negatively affect the high Gross Domestic Product. The coefficient and probability values of the Domestic Investment (DI) are -0.233 and 0.106 respectively. Its mean that when DI will increase by 1 unit then the decrease in the Gross Domestic Product (GDP) will be 0.08468 units. KOFGI has statistically significant and negative impact on the Gross Domestic Product (GDP) in the Pakistan. Low interest rate will not attract the foreign capital, when the foreign direct investment will not come in the country then it not become the cause to increase the Gross domestic product. The coefficient and probability values of the Labour Force Participation (LFPR) are 0.263867 and 0.0374 respectively. Its mean that when LFPR will increase by 1 unit then the increase in the Gross domestic product (GDP) will be 0.08468 units. LFPR has statistically significant and positive impact on the Gross domestic product (GDP) in the Pakistan.

5 CONCLUSION AND RECOMMENDATIONS

Objective of the study is to check the association between the globalization and economic growth in the context of Pakistan for the 49 years (1972-2019). Data source is the World Bank (WB), International Financial Statistics (IFS) and Pakistan Economic Survey. The Ordinary Least Square (OLS) Method is applied to get the results. Outcomes of the OLS show that TO has statistically significant and positive impact on the Gross Domestic Product (GDP) in the Pakistan. As the exchange rate will increase, it would become the cause to enhance the terms of trade because prices of exports will increase and prices of imports will become cheaper. REM has statistically significant and negative impact on the Gross domestic product (GDP) in the Pakistan. When the Gross domestic product increase, value of the currency will decrease, then the government has to pay more amounts against the principal amount and its services. That is why increased Remittance will negatively affect the high Gross Domestic Product. DI has statistically significant and negative impact on the Gross Domestic Product (GDP) in the Pakistan. Low interest rate will not attract the foreign capital, when the foreign direct investment will not come in the country then it not become the cause to increase the Gross Domestic Product. LFPR has statistically significant and positive impact on the Gross Domestic Product (ER) in the Pakistan. The findings of the study indicate that economic and political globalisation has positively

affected economic growth, while economic growth has been negatively affected by social globalisation. This research was limited to the effects of globalisation on the nation's overall economic development, but globalisation has a different influence on different sectors of the economy. The effects of globalisation on economic growth have been discussed in the current analysis using the KOF Index. The study's empirical results indicate that economic globalisation shows a constructive and meaningful association with growth in the long run. In this analysis, the KOF globalisation index, revised by Gygli et al . (2018), was used as the globalisation scale. Through increasing international trade and foreign investment, by reducing import barriers and by reforming tax policies, policymakers will benefit more from economic globalisation. Elevated levels of exports , imports and FDI have often been linked to higher economic performance, but also to improved resource reallocation across industries, comparative advantage changes and output reorganisation. According the results of the study, economic and political globalisation raised the degree of economic growth in 74 developing countries surveyed, yet social globalisation reduced economic growth. The findings of this study were partly supported in this regard by Ying et.al. (2014), which reported that general globalisation had a beneficial impact on economic development. The empirical results show that globalisation 's economic openness and social and political aspects have no effect on the generation of jobs in Pakistan. Nonetheless, globalisation's proxy variables (foreign direct investment and remittances of workers) are statistically highly important and are more receptive to generating job opportunities in Pakistan. Trade openings do not have an effect on economic growth in the short term. Openness to trade offers opportunities for greater access to the broad commercial market and increases opportunities for domestic production and jobs. In addition, avoiding the detrimental impact of social globalisation on economic growth is very significant.

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