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Abstract

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Keywords: Trade, Foreign Direct Investment, Environmental Degradation and Pakistan

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Title

Do Trade and Foreign Direct Investment Contribute to Environmental Degradation in Pakistan

Contents

Abstract

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Introduction

The world of the late 20th century and early 21st century was searching to attain higher levels of growth. Developed and developing countries have made many plans to encourage growth-related activities. Many policies are designed to get faster growth as compared to the earlier ages. A significant amalgamation in world economies is experienced through trade and investment. Economies are liberalized by reducing barriers to products and resources flow across the countries.

Such activities caused a huge increase in the world's growth which is desirable but along with the increase in world resources by liberalizing economies, a serious issue is known as environmental degradation. It emerged because of the high and intensive use of natural and physical resources. Countries of the world realized that the majority of the world's population could benefit from resource sharing after a long period of de-globalization. They were of the view that the world's resource sharing could increase output and employment. Growth is desirable and necessary to improve the status of life of the average of the world's population (Afzal 2007). The worldwide economies are now more globalized than before. Particularly, since the 1980s, the world's economies are closely linked through trade openness.

It improves the development level through developing industrialization, internationalization, and transportation. These aspects require serious utilization of assets, which may be dependable for the increment in natural contamination (Shahbaz et al., 2020). Such utilizations also affect the use of inputs that can affect their use in different sectors. Labor effectiveness in different sectors and their rewards also affected BT trade and FDI in different countries (Ullah et al., 2020)

Writing recognized that natural contamination has antagonistic results for the well-being quality of the larger part of the world tenants (Majeed & Ozturk 2020; Destek & Sarkodie 2019). According to the report of the Interval Board on Climate Alter (IPCC, 2014), due to natural issues the public health status has been influenced specifically and in a roundabout way. These well-being issues include high blood weight which is generally considered the causing figure of cardiac sicknesses (Nahian et al., 2022). In brief, huge financial development requires tall vitality requests, coming about in tall emanations and a genuine risk to human creatures and the environment (Ozatac et al., 2017). It brings money-related advancement and exchange openness, which affect financial development. Budgetary help invigorates financial exercises, expanding vitality requests (Shahbaz et al. 2020), but globalization through exchange moreover brings progress Kraay (2014), energy-efficient advances that moderate CO2 emanations and improve financial development (Parveen et al., 2021). The proficient utilization of vitality through progressed innovation diminishes vitality utilization and improves monetary advancement and natural quality by decreasing CO2 emanations (Saud et al. 2019). Among Asian economies, Singapore is the foremost open economy with a score of 115.21 (Gygli et al., 2019). In any case, on normal, over the past 25 a long time, the degree of financial globalization of Asian economies is 55, which is nearly 12% less than the normal degree of financial globalization of the World.

Shahbaz et al (2019) inspected the effect of globalization on natural corruption in 87 nations. Cross-correlational strategy is utilized to discover the relationship between globalization and the natural Kuznets bend theory. This affirmed the legitimacy of the rearranged U-shaped bend for the center wage and created nations. The result showed that an increment in globalization will lead to moving forward the natural quality in these nations within the near future. Moreover, think about moreover found that 8 percent of the over-specified nations have a U-shaped relationship between natural corruption and globalization. Akadiri et al (2019) examined the affiliation between globalization, natural debasement, tourism, and other macroeconomic factors from 1995 to 2014. They chose 15 tourism goal states for the think-about range. In this perspective, board information econometric strategies are utilized. They come about demonstrated that tourism may have a negative effect on CO2 outflow, whereas vitality utilization and globalization have a positive effect on CO2 emanation in the long run. In this way, the display study concluded that globalization-tourism induced the natural Kuznets theory. Le and Ozturk (2020) investigated the effect of globalization on natural corruption alongside per capita GDP for chosen developing and creating economies over the period of 1990 to 2014. Basic changes are exhorted by governments and driving teachers like the World Bank and IMF. These shifts can influence straightforwardly and by implication

to utilize (nature of utilization of assets: concentrated and proficiency shrewd) and utilization behaviors of the masses. It may moreover influence the commitment of resultantly diverse segments of the economy towards yield and influence the environment. Another angle of globalization is Multinational enterprises (MNCs) which is a result of universal venture. MNCs too put weight on normal assets in most of the creating nations because of their serious utilization in profitable environments. This manner, there are requires comprehensive thinking to look at the effect of globalization on the environment in creating nations more particularly in Asian chosen nations.

The race towards the top regarding growth by implementing structural reforms in trade and other economic transactions leads to an increase. The world-leading institutions like the World Bank and IMF helped the countries in it. These shifts can affect directly and indirectly the structure of the markets in the economy and can definitely affect their performance and contribution to the economy and society. This variation in different sectors' structure has been positively and negatively reported by the literature. Globalization forces provide access to foreign technology and expertise that can help the developing countries to increase their productivity and can also increase employment opportunities. However, some of the literature is of the view that the use (nature of utilization of resources: intensity and efficiency wise) and consumption behaviors of the masses can affect the environment adversely. The world of the 21st century faces many challenges like slow and sluggish growth, unemployment, poverty, and inequality which can be reduced by using globalization. However, the intensification of world resource usage can hurt the environment which is one of the most important problems associated with globalization. Along with it, many other researchers are of the view that globalization is also a threat to society as a result of the exploitation of the resources of the developing world. The world of the 21st century is getting more and more polluted with passing days and more especially in the developing world.

Pakistan is one of the developing countries that entered the race of globalization in the late 1980s. The country entered the race of globalization and faced many challenges in the early stages. The era of the decades 1990s, 2000s, and 2010s experienced many shortfalls in economic activities. Political instability is one of the reasons for the shortfall in economic activities. The economy of Pakistan didn't get a significant increase in aggregate output and employment. But faced many challenges which is environmental degradation. Because intensification of the usage of resources wasn't able to increase domestic productivity but continuously put pressure on natural resources. Now this study is trying to examine the impact of globalization on environmental status/quality in the case of Pakistan and whether the process of globalization has affected the environment in the country or not.

These findings underscore the need for tailored policy interventions that account for the specific circumstances of each country and sector to balance the benefits of trade with the imperative of environmental sustainability. Moreover, the relationship between FDI and environmental degradation is multifaceted, with outcomes heavily influenced by factors such as the host country's regulatory environment, the sectoral composition of FDI, and the level of technological development. While FDI can contribute to environmental degradation, especially in the absence of strong regulations, it also holds the potential for positive environmental outcomes through the transfer of clean technologies and better practices. Policymakers need to balance attracting FDI with enforcing environmental standards and promoting sustainable investments to ensure that economic growth does not come at the expense of environmental health.

Research Methodology

Theoretical Framework

Globalization enhances the growth level through growing industrialization and international trade

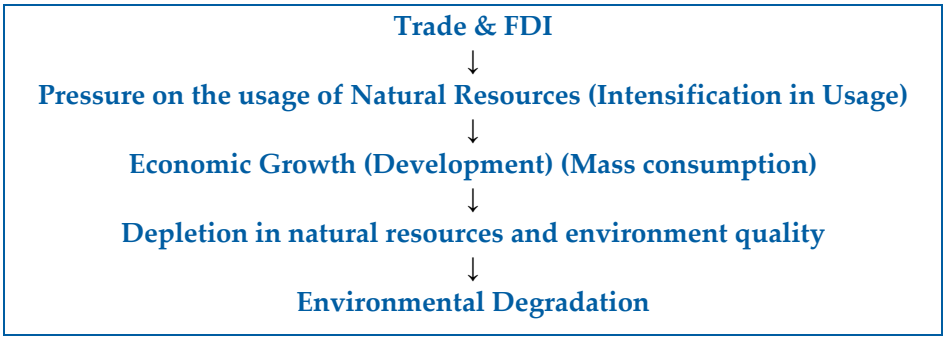
(Singh, 2014). However, these Industrial expansions and openness need extra energy, which is attached to an intensive spread of pollution (Shahbaz et al., 2020). Additionally, an environmental hazard is one of the hardships leading to globalization (Majeed & Ozturk (2020); Destek & Sarkodie 2019). Due to environmental problems, the public health status has been affected directly and indirectly (Majeed & Ozturk, 2020). In short, high economic growth requires high energy demand, resulting in high emissions and a serious threat to human beings and the environment (Ozatac et al., 2017). Tisdell & Tisdell (2001) were of the view that environmental pollution is determined by the forces of the ratio of physical to natural capital resources; globalization could affect the use and participation of the physical and natural resources that could affect the level of environmental pollution. The intensive use of physical capital in comparison with natural capital/resources with the inception of globalization may affect environmental pollution. Ali et al., (2019) claimed that the structural change from agriculture to industrial sector could also affect environmental pollution.

Conceptual Framework:

Trade and FDI on Environmental Degradation

Figure 1

Conceptual Framework



The mechanism through which trade and FDI can possibly affect environmental quality. Globalization stimulates economic activities, including an increase in transport services, an increase in production, and an increase in consumption of commodities and services, resulting in the scale effect (Shahbaz et al., 2017; Huang et al., 2022), which causes environmental degradation (a rise in CO2). Moreover, Globalization has both direct and indirect impacts on environmental degradation, and its significance can be understood through the following points:

Increased Resource Consumption: Trade and FDI drive economic growth, leading to higher demand for natural resources like water, minerals, fossil fuels, and timber (X Ni et al., 2022). This increased consumption often exceeds the sustainable capacity of ecosystems, resulting in deforestation, water scarcity, and the depletion of other natural resources. Sometimes it is suggested that an increase in different facilities and an increase in population put pressure on the environment in the long run (Ali et al., 2020).

Industrialization and Pollution: As countries in the more globalized world with trade and FDI, they often industrialize rapidly to compete in the global market. This industrialization frequently relies on fossil fuels, leading to higher emissions of greenhouse gases, air pollution, and water contamination. Developing nations, in particular, may have weaker environmental regulations, contributing to increased pollution. These aspects

i.e. industrialization may affect the volume of emissions in air and water leading to increased environmental degradation (Luan et al., 2022).

Transportation Emissions: Global trade relies heavily on transportation, including shipping, aviation, and trucking, all of which contribute significantly to carbon emissions and air pollution by oil products Mishkin (2009). The global supply chain's reliance on transportation increases the carbon footprint of goods, exacerbating climate change (Huang et al., 2022).

Environmental Exploitation in Developing Countries: Globalization can lead to environmental exploitation in developing countries, where multinational corporations may exploit weaker environmental regulations. This can result in unsustainable mining, logging, and fishing practices, which contribute to habitat destruction and biodiversity loss.

Waste and Plastic Pollution: The global trade of goods often leads to increased waste generation, including packaging waste and electronic waste. Inadequate waste management systems in many countries can result in increased pollution, including plastic pollution in oceans, which threatens marine life and ecosystems.

Deforestation for Agriculture: To meet the global demand for commodities like palm oil, soy, and beef, forests are often cleared for agriculture, leading to deforestation. This not only contributes to the loss of biodiversity but also releases significant amounts of carbon stored in trees, contributing to climate change.

Climate Change Acceleration: Globalization accelerates economic activities that contribute to climate change, such as the burning of fossil fuels, deforestation, and large-scale industrial agriculture. The globalized economy's reliance on high carbon footprints increases overall greenhouse gas emissions, worsening global warming, and climate-related impacts.

Environmental Awareness and Sustainable Practices: On the positive side, globalization can also spread environmental awareness and promote sustainable practices. It allows for the transfer of green technologies, international environmental agreements, and the spread of eco-friendly products and services.

Economic Disparities and Environmental Justice: Globalization often leads to uneven economic growth, with poorer nations bearing the brunt of environmental degradation while wealthier nations benefit economically. This raises concerns about environmental justice, where the environmental costs are disproportionately borne by those least responsible for them.

Overall, globalization significantly impacts environmental degradation by amplifying resource extraction, pollution, and greenhouse gas emissions while also offering potential pathways for global cooperation and sustainable development.

The Model

This study uses the following model based on the studies conducted by Omri & Nguyen, (2014); Sadorsky, (2009); Ali et al., (2013); Ali et al., (2019); Ullah et al., (2019); Wahid et al., (2021); Huang et al., (2022); Huang et al., (2022); Luan et al., (2022); (Liao et al., 2023).

$$ED = f(TR, FDI, Y, EC) \quad (1)$$

Where ED is an environmental degradation proxy by CO_2 emission (CO_2 is the carbon dioxide emissions in metric tons per capita). The other variables i.e. TR is trading, FDI is Foreign Direct Investment, Y is the output of the economies (output/income is Per Capita income), and EC is total final energy consumption per capita.

$$ED_t = \beta_0 + \beta_1 TR_t + \beta_2 FDI_t + \beta_3 Y_t + \beta_4 EC_t + \mu_t \quad (2)$$

Where ED is environmental degradation proxy by CO_2 emission, TR stands for Trade, FDI is Foreign Direct Investment, Y is national Incom/production, and EC is energy consumption. β's indicated the estimated coefficients for short & long-run trade, FDI Y, and EC on Environmental degradation.

Data and Sources of Data

The data of the presented study will be taken from the World Development Indicators World Bank Website over the period of 1990 to 2022.

Environmental degradation is a proxy by CO_2 Emission, trade is the total volume of the exports and imports of the country, FDI is the net inflow of FDI to Pakistan, Economic Growth proxy by Gross Domestic Product (GDP) Growth, EC is the energy consumption are variables in the current study. This study is based on time series data, for the time period of 1990-2022. This research proposed that CO_2 is the dependent variable while Trade, FDI, GDPG, and energy consumption are the dependent variables.

Table 1

Variable Description & Data Sources

Variable	Description	Units	Source
CO_2	Carbon Dioxide Emission: The amount of Carbon dioxide emissions from the use of fossil fuels and the manufacture of cement, and produced during consumption of solid, liquid, and gas fuels and gas flaring measured in per capita of metric tons.	Metric tons Per Capita	World Bank
Y/GDPG	"Gross Domestic Product Growth: GDP growth is the % increase in gross domestic product or the sum of gross value added by all resident producers in the economy plus any product taxes and minus any subsidies not included in the value of the Product definition.	%	World Bank
TR	Total volume of Trade Total volume of exports and imports as % of GDP	%	World Bank
FDI	Net inflow of Investment to country Pakistan during a year as % of GDP	%	World Bank
EC	Total energy consumed during a year period per capita	Per capita	World Bank

Econometric Techniques

As the nature of the data is time series therefore stationarity is necessary and a unit root test will be used. After the results of the unit root tests, suitable estimation techniques will be used.

Economic Growth and Environmental Strain: Globalization often leads to increased economic activities, such as industrialization and urbanization, which can strain local environments. Developing countries might experience environmental degradation as they exploit natural resources to meet global demand.

Resource Exploitation: Developing countries may become targets for resource extraction due to their rich natural resources. This can lead to deforestation, soil degradation, and loss of biodiversity. For example, logging and mining operations can have severe environmental consequences, including habitat destruction and pollution. Pollution and Waste Management: As developing countries industrialize, they often face challenges related to pollution and waste management. The influx of global industries can lead to increased air and water pollution, as well as inadequate waste management infrastructure, which can adversely affect local ecosystems and public health. Economic Dependency and Environmental Policies: Developing countries might prioritize economic growth over environmental protection due to dependency on foreign investments and aid. This can result in weaker environmental regulations and enforcement, as governments might prioritize attracting business over environmental sustainability.

Global Environmental Standards: Participation in the global economy can encourage developing countries to adopt international environmental standards and agreements. Engagement with global environmental initiatives and organizations can help promote better environmental practices and policies.

In summary, trade and FDI bring both challenges and opportunities for the environment in developing countries. While it can exacerbate environmental degradation and strain local resources, it also offers pathways for technological advancement, better environmental practices, and access to global environmental networks. Balancing these aspects is crucial for ensuring sustainable development in the context of globalization.

This study needs to examine the impact of trade and FDI on environmental degradation with the help of suitable econometric tools/techniques. Some of the techniques are needed to examine the problem associated with the data and for the estimation of the parameters of the models. This study is based on time series data. Therefore, prior to estimation stationarity testing is necessary.

Stationarity of the Data

To avoid any inconvenience in estimation and to provide efficient results two different unit root tests are selected from the past literature to test the stationarity of the data. These tests are the Augmented Dickey-Fuller (ADF) Test and the Phillips Peron (PP) Test.

Estimation Technique

Prior to the introduction of the stationarity concept and co-integration techniques, only ordinary least square techniques were in the examination and estimation of the parameters. With the introduction of spurious regression due to the existence of non-stationarity time series. To solve the existing problem co-integration techniques were introduced. In the very beginning Engle Granger's (1987) two-step procedure and later on the augmented procedure by Johansen & Juselius (1990). Johansen & Juselius (1990) used a more powerful technique for estimation of the parameter in a model. Some problems associated with the co-integration techniques were resolved with the introduction of new and comparatively more powerful tools by Pesaran et al., (2001). the introduced technique is Auto regressive Distributor Lag (ARDL), which is the most preferred technique over the previous one. The unique features of the ARDL that make it distinctive are as: this technique produces efficient results in case of a small data span, which means that when there are small data sets it has the power to provide you accurate results as compared to other co-integration techniques. It can used in case of mixed orders of integration means that it can be used in case of stationarity of different orders i.e. I(0), I(1), and I(1) and I(0) the ARDL technique is defined as:

Results and Discussions:

Descriptive Statistics

Descriptive statistics give the basic summaries of the data of the variables under consideration. These statistics are used to describe the characteristics of data. Table 2 shows the results of descriptive statistics on a logarithmic scale.

Table 2

Descriptive Statistics

	ED	TR	FDI	Y	EC
Mean	0.399	22.701	1.7	3.013	2.02
Median	0.268	0.68	1.77	4.012	2.03

	ED	TR	FDI	Y	EC
Max	0.722	29.90	1.9	6.140	2.94
Mini	0.088	16.85	2.23	2.172	1.492
Std. Dev.	0.313	3.21	0.54	1.801	0.920
Skewness	0.560	0.65	1.33	-0.899	-0.892
Kurtosis	1.01	0.93	1.88	3.024	2.99
Jq-B	8.200	5.36	7.28	9.001	12.720
Prob	0.000	0.005	0.000	0.000	0.000

Table 2 describes the descriptive statistics of the variables of the study. The mean of the variables are presented in row two. Other descriptive aspects are presented in the next row i.e. from row-3 to row 10 are median, max, mini, standard deviation, Skewness, kurtosis, normality, and probability respectively. An important aspect of descriptive statistics is normality which shows that all the variables are normally distributed clearly from the values of the JB test and probability.

Stationarity Testing (Unit Root Test)

The nature of the data of the study under consideration is a times series which can be tested for the possible existence of the unit root. This aspect of the data can affect the results of the spuriously. It means that the existence of unit roots in the data can lead to misguiding results. To avoid such results and to get one can need the use of stationarity testing. The study of past studies of the same nature enables us that the most frequent tests used for the purpose of unit root testing are the Augmented Dickey-Fuller test and Phillips and Peron tests. The outcomes of these tests are presented as under:

Table 3

ADF Test Results

Variables	ADF Test outcomes				
	Level		First Difference		Decision
	T-statistics	P-value	T-Statistics	P-value	
ED	1.672	0.183	-3.88**	0.018	I(1)
TR	2.672**	0.035			I(0)
FDI	1.385	0.312	-3.67**	0.026	I(1)
Y	0.825	0.592	-3.89**	0.014	I(1)
EC	1.202	0.393	-3.90**	0.012	I(1)

Source: E-views Outcomes

The values in Table 3 are the outcomes of the Augmented Dickey-Fuller test. It is clear from the values of the test statistics and probability that all the variables except trade are stationary after the first difference. The results of the stationarity test i.e. AFD confirm that the variable trade is stationary at a level while the other variables are stationary at first difference. The decision regarding stationarity for all variables is given in column 6 of the table above.

Table 4

PP Test Results

Variables	Phillips Peron Test				
	Level		First Difference		Decision
	T-statistics	P-value	T-Statistics	P-value	
ED	1.702	0.194	-3.99**	0.020	I(1)
TR	2.672**	0.035			I(0)
FDI	1.402	0.299	-3.801**	0.023	I(1)
Y	1.012	0.455	-3.77**	0.025	I(1)
EC	1.199	0.402	-3.880**	0.020**	I(1)

Source: E-views Outcomes

The outcome of the PP test is presented in Table 4. It is clear from the values of the test statistics and probability that all the variables except trade are stationary after the first difference. The results of the stationarity test i.e. PP test confirm that the variable trade is stationary at a level while the other variables are stationary at first difference. The decision for all the variables regarding the decision stationarity is given in the tables above.

Long Run Relationship Testing

The outcomes of both stationarity tests reported that there is a unit root present in the data of the variables of the study. Therefore, it suggested that Ordinary Least Square approach for estimation of the parameters cannot be used as an estimation suitable technique. The results of OLS can disguise us and can lead us to an inappropriate destination. To examine the required impact of energy consumption on environmental degradation in the case of Pakistan based on the outcomes of ADF and PP is the Auto Regressive Distributive Lags model (ARDL). The next step in parameter estimation and the use of proper estimation techniques is testing for the existence of the long-run relationship. ARDL procedure is explained as under:

Auto-Regressive Distributive Lags Model

The first step in the examination of the relationship is the existence of a long-run relationship for this purpose Bound text is used to decide whether the long-run relationship exists or not. This study is interested in estimating three different models in this research.

Results:

Bound Test Results

The result of the Bound test is presented in Table as under:

Table 5

Results of Bound Test

	Magnitude	No. of Explanatory Var
F-Statistic (estimated)	5.88	K=05
Critical Values of the Bound		
Level of significance	Lower- Bound	Upper- Bound
1%	3.29	4.28
5%	2.48	3.52
10%	2.19	3.04

Source: E-Views Results

It is clear from the output of the bound test by using E-views that the estimated value of the Bound test F-statistic is 5.88 which is greater than the upper bound critical value i.e. even at a 1 % level of significance. Therefore, this study concluded that in the case of energy consumption and environmental degradation long-run relationship existed. After the existence of the long-run relationship, the next step is the estimation of the long-run and short-run parameters.

The results of the long-run environmental degradation are presented in Table 6. The variables are in column I, the estimates of the parameters are in column ii, the Standard error is in column III, the Test statistic values are in column IV and the Probability is in column V.

It is evident from the estimated values of the objective variables i.e. Trade and FDI. The coefficient value of the trade variable is 0.491 with a probability value of 0.344 which is greater than 0.05 which means that trade is insignificant in the determination of environmental degradation in Pakistan. The coefficient of FDI is positive and significant with the coefficient value of 0.29 corresponding value of 0.028. This means that FDI contributes significantly to environmental degradation. The findings of the present study are consistent with the findings of Parveen et al., (2021), and Shahbaz et al., (2020). They were of the view that foreign direct investment leads to increased environmental degradation. As FDI increases the use of domestic resources hurts the environment.

Results revealed that energy consumption has an insignificant impact on environmental degradation in Pakistan. The impact of national income/production leads to increased environmental degradation which is parallelse theory and many research studies i.e. Parveen et al., (2021), Ali et al., (2020), etc.

Long Run Estimates

Table 6

Long Run Results

Variables	Coefficient	Std. Err	T-Value	Prob
C	0.22	0.080	2.75	0.036
TR	0.491	0.40	1.225	0.344
FDI	0.29	0.12	2.416	0.028
Y/Incom	0.38	0.19	2.00	0.048
EC	0.102	0.092	1.108	0.312

Short Run Estimates

It is evident from the results in Table 7 that the impact of trade is positive and significant while the impact of FDI is insignificant in the short run. It means that in the short run, the increase in trade leads to increased environmental degradation in Pakistan. The impact of energy consumption and national income is found positive and significant in the short run means that an increase in national production and energy use leads to increased environmental pollution in the form of CO_2 emission, the findings of the study conducted by Shahbaz et al., (2020).

Table 7

Short Run Results

Variables	Coefficient	Std. Err	T-value	Prob
C	0.501	0.196	2.556	0.029

Variables	Coefficient	Std. Err	T-value	Prob
dTR	0.201	0.035	5.742	0.000
dFDI	0.0025	0.0092	0.271	0.482
dY/Income	0.02	0.005	4.000	0.000
dEC	0.220	0.011	20.090	0.000
ECM-1	-0.205	0.053	-3.867	0.0066

The value of the ECM term is turned negative and significant in the case of the present research. The value of the ECM term is -0.205 which tells us the speed of adjustment towards long-run equilibrium. The coefficient reveals that disequilibrium in the short run will adjust at a speed of about 20.5% means converging at a time of about five years.

Diagnostic Tests

Some of the post-regression diagnostic tests are done which is necessary to tell about the efficiency and bias of the results. These tests i.e. LM Serial Correlation, Jarque-Bera test for Normality, and PG test for heteroscedasticity, and their outcomes are presented in the following table. The estimated values of the test statistic are greater than 0.05 which confirms the absence of the econometric problems.

Table 8

Diagnostic Tests

Test	Serial-Correlation	Heteroscedasticity	Normality
LM Test	0.352		
PG test		0.401	
JB test-bera			0.885

Conclusion

This study is devoted to examining the impact of trade and FDI on environmental degradation in the case of Pakistan over the period of 1990 to 2022. As the nature of the data is times series therefore time series econometrics are employed. ADF and PP reported that variables are of mixed order of stationarity. ARDL estimation Technique is employed for estimation and a long-run relationship is found. In the model, the impact of trade, FDI, income, and energy consumption are tested against environmental pollution in Pakistan. The impact of FDI and income (GDP) is found positive and significant in the long run. While the impact of trade and energy consumption is found insignificant in the long run. The impact of trade, income (GDP), and energy consumption is found positive and significant in the short run, while the impact of FDI is insignificant. The term error correction which shows the speed of adjustment is negative and significant which confirms the existence of long-run stable equilibrium.

Policy Suggestions

Based on the outcomes of the present study it is suggested that FDI and income of the country should considered in policy formulation regarding environmental degradation in Pakistan in the long run while in the short, trade, income, and energy consumption should be present in policy formulation regarding short environmental degradation control.

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