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THE IMPACT OF TRADE OPENNESS ON THE ECONOMY OF PAKISTAN

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Abstract
The purpose of this study is to understand how trade influences the economic growth of a country by examining both the potential benefits and challenges associated with trade openness in the global market. The study aims to identify the conditions under which open trade policies are beneficial for economic growth, as well as the factors that may hinder a positive impact. It aims to study the mutual impact of trade openness on Gross domestic product (GDP) of Pakistan. Regression analysis, Ordinary least square (OLS) method is used to test whether imports and exports have significant impact on Gross domestic product or not. In this study data of imports, exports and Gross domestic product of Pakistan has been gathered from the year 2000 till 2023. Total number of observation is 23. EViews software is used to test the data. This study shows that exports do not have a significant influence on Gross domestic product while imports have a significant impact.

INTRODUCTION

As for regarding trade liberalization, it is defined as the level of accessibility and integration a country's economy has with the rest of the world in terms of earning foreign exchange. A country's economic performance can be measured through Gross domestic product, as it shows the growth of a nation as a whole. Nations that are liberal in their international trade policies tend to have a higher standard of living than those that control international revenue flows to their country and suffer slow growth in overall Gross domestic product.

Trade at an international level is often considered one of the most prominent contributors to an economy. All policies that encourage both exports and imports are seen to be extremely advantageous as long as the pitfalls of their implementation are accounted for. With the liberalization of trade, it will ensure that the resources of countries can be sourced and a job product brought in that is far superior to the goods produced in an efficient manner while saving time and effort. In addition to this, liberalization of trade also allows countries to export those resources that they possess in abundance, while having superior natural resources and skills in comparison to other nations. The changes in the overall economic activity are accompanied by the modifications in the Gross domestic product and additional wealth, the standard of living, the level of technology, and the utilization of primary resources. The import/export quota and the economic situation in relation to its gross domestic product are of interest for governments, policymakers, economists, and financial institutions, as they aid in

understanding the distribution of the available resources and the possibility for utilizing them.

At present, the national economies of the countries are integrated through intertrade as a result of globalization, and as such, no nation exists in isolation. Economically, every country has a role in participating in international trade so that products, technology, or inputs, which they do not have the ability to produce or would be expensive to manufacture, can be sourced easily. For example, Pakistan imports oil from Saudi Arabia, while Saudi Arabia imports machinery from China, USA, or Japan. It was also noted how they are interconnected in the business world and how these relationships are important for the sustenance of a business and the economy in general. There is a relationship between trade and economic development. In general, it can be said that adopting trade openness would lead to more foreign investments, which in turn leads to favorable market efficiency in the economy. On the other side of the coin, there are problematic areas like the trade deficits, too little diversification of the exports, and overreliance on a few selected markets.

In order to strengthen exportation and trade, the issues mentioned above can be resolved through the policies of infrastructure development, trade vitalization, and exportation, which in turn will augment the gross domestic product of the country. The intention of this document is to focus on how trade has an impact on a country's economy, in this case with regards to the opportunities and challenges presented by the concept of free trade in a global economy. The purpose is to find out under which conditions open trade policies are effective in increasing economic growth and under which conditions they become counterproductive. Therefore, it has examined how the development of the financial sector and trade liberalism influence the level of gross domestic product and the role that human capital and infrastructure and financial institutions have as moderators of this relationship. Previous studies have pointed out that there is a positive correlation between international trade and investment into financial services and economic growth, as an integration of all these factors is considered beneficial. By accepting trade openness, the commonly agreed view tends to have a positive impact on growth, including improved efficiency, enhanced innovations, and increased foreign direct investment.

The trade sector contributes to gross domestic product by generating revenue, which also helps to provide employment opportunities and in turn, provides an impetus for industrial growth. Exports help to increase foreign exchange reserves and help to decrease the levels of dependency on loans that are provided from external sources. On the other hand, imports offer access to technologies that are required for industrial development as well as allow access to raw materials which are required to provide industrial output.

LITERATURE REVIEW:

The previous study examines the interconnected roles of international trade, financial development, and economic growth, synthesizing insights from empirical studies and theoretical perspectives. These elements collectively drive economic development, with trade and financial systems reinforcing each other to maximize growth potential.

The relationship between trade openness, financial development, and economic growth in Pakistan has been a critical area of study over the years, with recent contributions offering new insights into this dynamic. Trade openness is often seen as a key driver of economic growth due to its ability to enhance efficiency, foster innovation, and provide access to international markets. Similarly, financial development complements this by mobilizing resources, reducing transaction costs, and facilitating investment.

Trade serves as a significant driver of economic growth through its ability to increase market access, attract Foreign direct investment (FDI), and promote technological spillovers.

Fintech innovations have streamlined financial services, making them more accessible to underbanked populations. Platforms such as JazzCash and Easypaisa have enabled digital payments and microloans, supporting financial inclusion (State Bank of Pakistan, 2022).

Pakistan's strategic location positions it as a gateway between South Asia and Central Asia. Ahmed et al. (2022) argue that regional agreements like the South Asian Free Trade Area (SAFTA) and collaboration

under the Central Asia Regional Economic Cooperation (CAREC) framework could significantly increase trade volumes and diversify export markets.

Pakistan has transitioned from protectionist policies to trade liberalization over the past three decades. Recent policies include export-oriented strategies and bilateral agreements aimed at boosting trade volumes. The World Bank (2021) emphasizes that Pakistan's trade-to-gross domestic product ratio remains suboptimal but is gradually improving, primarily due to tariff reforms and export facilitation measures.

Another significant contribution is the work on the Pakistan China Free Trade Agreement, which examines both trade creation and diversion effects. While the agreement has increased bilateral trade flows, concerns about trade balance and sectoral competitiveness persist.

Financial development has been explored as a critical enabler of economic growth. For instance, Ahmed et al. (2021), using a threshold model, found a nonlinear relationship between financial development and economic growth in Pakistan. The findings suggest that while financial development contributes positively to growth, its impact diminishes at higher levels of financial deepening, requiring tailored reforms.

On the other hand, environmental studies, such as those analyzing the trade-offs between growth and sustainability, highlight the adverse effects of unchecked industrialization and trade expansion on Pakistan's ecological balance interplay between trade and financial reforms has also been analyzed in recent years. Mahmood and Khan (2021) discuss how trade liberalization policies, complemented by financial reforms, have bolstered Pakistan's industrial growth but note the challenges posed by external shocks and policy inconsistencies. Similarly, the role of foreign aid in promoting trade and economic growth is explored in studies like the one on Aid for Trade initiatives, which underscores the mixed outcomes of such programs in Pakistan's context.

Studies such as the one by Kakar et al. (2020) highlight how trade openness positively impacts Pakistan's gross domestic product, provided it is supported by stable macroeconomic conditions. This research employs econometric models, emphasizing the long-term benefits of liberalized trade policies in enhancing productivity and industrial performance.

Empirical studies, such as those by Abbas and Iqbal (2020), confirm the synergistic effects of trade openness and financial development on economic growth in Pakistan. Their findings highlight that countries with more advanced financial systems derive greater benefits from trade liberalizations.

Similarly, studies focusing on South Asian economies, including Pakistan, reveal that robust financial institutions amplify the positive effects of trade openness on growth.

In addition to financial development, human capital and environmental considerations have emerged as influential factors. A comparative investigation of Asian countries, including Pakistan, by Rauf et al. (2020) demonstrates the dual role of human capital and trade in driving economic performance. This research emphasizes the significance of skill development and institutional quality in maximizing the benefits of trade.

Lastly, trade openness on growth has been examined using advanced econometric approaches, such as the ARDL bounds testing method, to establish robust causality relationships. These studies reveal that while trade openness has a significant positive impact, its success depends on complementary factors like infrastructure development, political stability, and effective governance.

RESEARCH METHODOLOGY:

Research design:

The purpose of this research is to study and describe how imports and exports have affected the gross domestic product of Pakistan. The research design of this study is descriptive and exploratory in nature, as it serves to understand whether imports and exports have impacts on the economy gross domestic product of Pakistan or not.

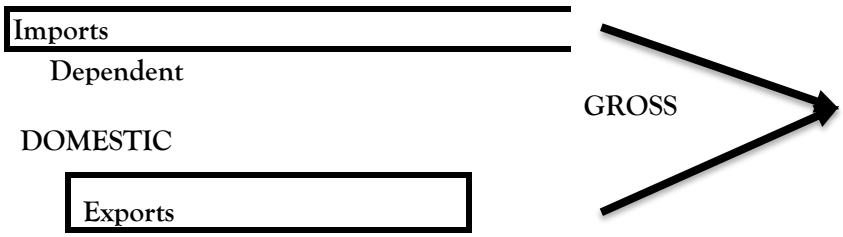
Data collection:

In this research, secondary data is collected from journals and articles, and data on gross domestic product and imports and exports of Pakistan is collected from 2000 to 2023.

Samples and variables:
In this research, gross domestic product is used as the dependent variable and IMPORTS and EXPORTS are used as independent variables. Data points were included in this study, covering the period from 2000 till 2023.

Research tool:
Hypothesis testing is conducted using the software Eviews. Now using this software, regression analysis, OLS ordinary least square method is performed to know how IMPORTS and EXPORTS affect gross domestic product. The output includes statistical measures like coefficients, P-values, and R-values, which help to understand how significant the relationship lies between independent and dependent variables.

Research Framework/Model



Hypothesis:
H1: IMPORTS have significant impact on gross domestic product growth.
H2: EXPORTS have significant impact on gross domestic product growth.

Descriptive Statistics of Variables:

	GROSS DOMESTIC PRODUCT	EXPORTS	IMPORTS
MEAN	234.1379	24.75125	42.62750
MEDIAN	240.3500	27.64500	46.92000
MAXIMUM	374.7900	39.52000	84.32000
MINIMUM	97.15000	9.580000	11.62000
STANDARD DEVIATION	92.17071	8.224642	19.53762
SKEWNESS	-0.091190	-0.456034	-0.091140
KURTOSIS	1.645616	2.261191	2.402243
JARQUE-BERA	1.87617	1.37709	0.390540
PROBABILITY	0.393054	0.502151	0.822612
SUM	5619.310	594.0300	1023.060
SUM SQ. DEVIATION	195395.1	1555.829	8779.525
NUMBER OF OBSERVATIONS	24	24	24

Gross Domestic Product: The central tendency of gross domestic product (geometric mean) is 234.14, and the median is very close to the mean 240.35, indicating a normal symmetric distribution. A standard deviation of 92.17 indicates that the values are more variable (with a wide range of differences between observations) over time. The skewness is about zero, reflecting that the data is very symmetric.

Kurtosis (1.65), which indicates an extended, flat distribution, i.e., a distribution with lighter tails than a normal distribution. The Jarque-bera 1.87 with a p-value 0.393 value indicates that gross domestic product is not non normal.

Imports: The central tendency of imports (the mean of imports) is 42.63, and the median is slightly to the right of the mean, i.e., 46.92, which indicates a very mild left skew. The standard deviation of 19.54 indicates that the values are moderately variable and illustrate a notable amount of variation between observations. Skewness of imports is in the vicinity of zero, indicating an essentially symmetric distribution. The kurtosis of 2.40 is very near 3, which indicates the distribution is slightly normal. The Jarque-bera 0.39 with a p-value of 0.823 ehich supports the normality of the imports.

Exports: The central tendency of exports (the mean of exports) is 24.75, and the median is practically greater than mean (27.65), indicating that the distribution is left skewed. A standard deviation of 8.22 indicates that there is a moderate level of variability in values. The skewness of exports is negative, indicating the presence of lower export values (longer left tail). Kurtosis (2.26) indicates that the distribution is platykurtic (less peaked than a normal distribution). The 1.38 Jarque-bera with a p-value 0.502 indicates that exports are not significantly different from a normal distribution.

Interpretation:
Gross domestic product has high variability, indicating significant differences in gross domestic product levels. The distribution is symmetric and playkurtic, meaning it lacks extreme outliers. IMPORTS shows moderate variability and a symmetric distribution, with values clustered around the mean. EXPORTS shows moderate variability and a slight negative skew, with some lower export values contributing to the left tail; the distribution is slightly flatter than normal.

Unit Root Test

UNIT ROOT TEST RESULTS TABLE (ADF)

Null Hypothesis: the variable has a unit root				
	At Level			
		GDP	EXPORTS	IMPORTS
With Constant	t-Statistic	-1.4378	-1.4397	-1.6008
	Prob.	**0.5443**	**0.5452**	**0.4646**
		n0	n0	n0
With Constant & Trend	t-Statistic	-1.6902	-2.1204	-1.2678
	Prob.	**0.7176**	**0.5083**	**0.8679**
		n0	n0	n0
Without Constant & Trend	t-0.9255 Statistic		1.3539	2.0664
	Prob. **0.8986**		**0.9511**	**0.9877**
	n0		n0	n0
	At First Difference			
		d(GDP)	d(EXPORTS)	d(IMPORTS)
With Constant	t-Statistic	-2.3154	-5.0311	-7.2275
	Prob.	**0.1769**	**0.0006**	**0.0000**
		n0	n0	n0
With Constant & Trend	t-Statistic	-6.8392	-4.5841	-7.3807
	Prob.	**0.0001**	**0.0079**	**0.0000**
		n0	n0	n0
Without Constant & Trend	t-Statistic	-1.1367	-4.2678	-2.1368
	Prob.	**0.2236**	**0.0002**	**0.0344**

		n0	n0	n0

Interpretation:
gross domestic product is stationary at first difference only when the trend is included, suggesting trend stationarity. Exports and Imports are stationary at the first difference under all conditions.

Autocorrelation Test

F-statistic	7.117915	Prob.F(1,20)	0.0148
Obs*R-squared	6.299524	Prob.Chi-Square(1)	0.0121

Variable	Coefficient	Std. Error	t-statistic	Prob.
C	-18.01494	18.95772	0.950269	0.3533
IMPORTS	-1.489898	0.940847	1.583571	0.1290
EXPORTS	3.319907	2.187183	1.517892	0.1447
RESID(-1)	0.651401	0.244159	2.667942	0.0148

R-squared	0.26248	Mean dependent var	4.59E
Adjusted R-squared	0.151852	S.D dependent var	24.03807
S.E of regression	22.13785	Akaike info criterion	9.183466
Sum squared resid	9801.687	Schwarz criterion	9.379809
Log Likelihood	-106.2016	Hannan-Quinn criter.	9.235556
F-Statistic	2.372638	Durbin-Watson stat	1.897416
Prob(F-statistic)	0.100741		

Interpretation:
Probability is less than o.o5, which means it has autocorrelation in the regression model, and we know that if Durbin-Watson is equal to 2, it means no correlation exists and if DurbinWatson is greater than 2, it means negative autocorrelation exists and if Durbin-Watson is less than 2, it has positive autocorrelation. In this table, Durbin-Watson is 1.897416, which indicates that this regression has positive autocorrelation because 1.89 is slightly less than 2.

Johansen Cointergation Test:

Unrestricted Cointegraion Rank Test (Trace)

Trace Hypothesized No. of CE(s)	Eigenvalue	Statistic	0.05 Critical Value	Prob.**
None	0.552955	30.84594	42.91525	0.4528
At most 1	0.345132	13.93894	25.87211	0.6626
At most 2	0.213716	5.049179	12.51798	0.5893
Trace test indicates no cointegration at the 0.05 level * denotes rejection of the hypothesis at the 0.05 level **MacKinnon-Haug-Michelis(1999)p-values Unrestricted Cointegration Rank Test (Maximum Eigenvalue)				

Hypothesized No. of CE(s)	Eigenvalue	Max-Eigen Statistic	0.05 Critical Value	Prob.**
None	0.552955	16.90700	25.82321	0.4656
At most 1	0.345132	8.889758	19.38704	0.7357
At most 2	0.213716	5.049179	12.51798	0.5893

Max-eigenvalue test indicates no cointegration at the 0.05 level
* denotes rejection of the hypothesis at the 0.05 level
**MacKinnon-Haug-Michelis(1999)p-values

Interpretation:
Based on both the trace test and the maximum eigenvalue test, we fail to reject the null hypothesis at each step. This indicates that no evidence of cointegration exists between the variables being analyzed at a 5 percent level of significance. In other words, there is no significant long-run relationship exists between variables according to this test, so we can apply the OLS method to run the data.

RESULT AND DISCUSSION:
Dependent Variable: GROSS DOMESTIC PRODUCT
Method: Least Squares
Sample: 2000 2023
Included observations: 24

Variable	Coefficient	Std. Error	t-statistic	Prob.
C	36.51031	20.13008	1.813719	0.0840
IMPORTS	4.371998	0.860443	5.081101	0.0000
EXPORTS	0.454938	2.043980	0.222575	0.8260
R-squared	0.931984	Mean dependent var		234.1379
Adjusted R-squared	0.925506	S.D dependent var		92.17071
S.E of regression	25.15671	Akaike info criterion		9.404595
Sum squared resid	13290.07	Schwarz criterion		9.551852
Log Likelihood	-109.8551	Hannan-Quinn criter.		9.443663
F-Statistic	143.8746	Durbin-Watson stat		1.147595
Prob(F-statistic)	0.000000			

Result Interpretation:
In this test the dependent variable is gross domestic product and the independent variables are IMPORTS and EXPORTS.
This research gave us the following result:
One unit increase in IMPORTS will lead to an increase in gross domestic product by 4.371998 units. One unit increase in EXPORTS will lead to an increase in gross domestic product by 0.454938 units. From this we can specifically see that the estimated value of gross domestic product when both IMPORTS and EXPORTS are zero is 36.51031.
The imports p-value is 0.0000, which means IMPORTS are significant for gross domestic product, while EXPORTS are greater than alpha (p=0.05) (0.8260), which means EXPORTS are not significant for gross domestic product.
The model fits well, with high R-squared and low STD error. But Durbin-Watson (1.147459) is far from 2, so there is positive autocorrelation in the residuals.
F-statistic (143.8746) with p-value 0.0000 shows that the overall model is significant.
T-statistics for IMPORTS (5.081101) show a strong positive relationship with gross domestic product; t-statistics for EXPORTS (0.222575) show a weak relationship with gross domestic product.

CONCLUSION:

Pakistan was investigated in this study, which aimed at determining the impact of trade openness on the economy of Pakistan. The trade relationship is measured through the imports, exports, and gross domestic product for the time frame 2000 through 2023. the regression analysis deduced that imports are positively influential for gross domestic product growth rate, which is important due to the fact that imports provide the country with technological inputs, raw materials, and machinery, which is essential for industrial growth. exports will however, have a somewhat weaker relationship with gross domestic product growth but will be crucial to foreign exchange reserves, which suggests that there will be a number of difficulties with marketing against exports and/or diversification of markets in Pakistan. Trade has a positive effect on the whole gross domestic product of Pakistan, but trade deficits will inhibit the growth rate in the base for exports, and little marketing exists which makes this problematic. In the absence of the suitable interventions that will help to solve these challenges, trade liberalization will not be fulfilling its core intentions of stimulating growth in Pakistan.

Additionally, registration of autocorrelation in residuals calls for a more complex modeling technique whereby trade and its impact on gross domestic product linear relations may be improved. For trade openness to benefit the economy, trade liberalization must enhance the ease of transition within the global economy. However, in order for this transition to be smooth and advantageous for the general economy, a number of effective economic policies need to be implemented by Pakistan.

Recommendations:

A sector study will need to be carried out dedicated to assessing the differential impacts of trade openness and financial development on agriculture, industry, and services in Pakistan. These studies will determine which sector of the economy needs interventions in order to best take advantage of policies that may be implemented by policymakers. Promote green trade policies that incorporate environmental regulations as well as sustainable practices within trade agreements. Further research should investigate the implementation of environmentally friendly technologies alongside the use of renewable energy systems in trade and financial sectors. Future studies should look into the role of institutional quality, corruption control, and governance in mediating the impact of trade and financial development. This may then help in formulating policies that aim to strengthen institutions. Policymakers need to focus on increasing access to financial services more specifically for underserved populations, especially those who live in rural areas. Researchers should also analyze the potential role of microfinance, mobile banking, and fintech solutions in promoting growth among underserved populations. Investigate how e-commerce, digital trade platforms and blockchain technology can support the development of the trading efficiency and transparency of the Pakistani financial system. In this era in which the global economy is becoming increasingly digital it is important to plot the evolution of the role of commercially viable e-commerce, digital trade platforms, and blockchain technology in support of the efficiency of the financial systems of Pakistan. Conduct longitudinal studies on socio economic and geopolitical effects of trade agreements similar to the Pakistan China Free Trade Agreement. This includes looking at how these measures affect domestic industries within China and Pakistan, both in the short term and longer term.

Expand the survey on how AfT programs will be able to be customized to suit the needs of Pakistan. This needs to include the identification of priority sectors for investment as well as strategies on how to ensure that the resources are efficaciously allocated.

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