EFFECT OF TRADE DEFICIT ON THE ECONOMY OF PAKISTAN
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Abstract
This study has conducted to find the effects of trade deficit on the economy of Pakistan in which trade deficit is the independent and gross domestic product, foreign direct investment exchange rate are the dependent variables. Depending on the availability of data we have selected the longest possible sample period to avoid the small sample bias. A sample period of 24 years has been selected for this study for the period of 1988-2011 with annual frequency. We use histogram, scatter plot matrix and the correlations ordinary least square method of regression has been used for the analysis. Histogram of exchange rate show rupees value against U.S dollar are continuously decrease. FDI is also not good, Gross domestic product (GDP) of the Pakistan is also very low trade, In histogram also represent the trade volume (TV) in which imports of Pakistan is very high while export is low. Scatter plot show the positive relationship dependent and independent variables except trade volume. So its result shows if the government working on these variables then trade deficit should automatically decrease like 2003 and 2004 in which our export are more as compare to import. Correlation coefficient of trade deficit with gross domestic product, foreign direct investment, exchange rate has shown the moderate correlation except trade volume.

Keywords: EFFECT; TRADE DEFICIT; ECONOMY OF PAKISTAN

1. Introduction
1.1 Background
Pakistan is one of those countries who are facing trade deficit from last many years. Pakistan was facing trade deficit in financial year (FY) 1957-58. Foreign trade sector was sensibly good during financial year 1953, 1954 & 1956. Its average exports were 161 million US dollar more than its imports. In financial year 1956 -57 and in financial year 2003-4 Pakistan has surplus balance of trade. This was the financial year in which Pakistan had a favourable balance of trade. Except these years Pakistan is facing the problem of trade and current account deficit. The factual improvement in balance of payments can be seen after the event of September 11, FY2001. The post-September 11 proceedings helped a lot in improving Pakistan's long-lasting external deficit in balance of payments. Major reduction in the trade deficit, more than doubling up of foreign remittances, and budgetary support from coalition partners in the war against terrorist enabled Pakistan to run a current account surplus for the first time since FY 1956-1957. The balance of current account remained in surplus from FY 2001-02 to FY 2004-05 but in negative trend. The position of current balance in FY2001-02 was US$ 761 million. In FY2002-03, the balance goes to surplus to US$ 494.0071709 million. In FY2003-04 it also increase in surplus 1012.767066 and afterward in financial year 2004-05 the balance goes again in deficit US$ -4246.231889 and US$ -10185.6765,-10234.75863,-18080.76034,-12221.45618,-10344.99395,-10666.69775 million respectively. Pakistan is suffering deficit in the balance of payments that has lasted for many decades. Trade deficit is major causes which have very harmful effect on the economy of Pakistan. Most of the
developed countries are facing trade deficit. Trade deficit have the negative effect on the economy. Trade deficit happened when imports are more as compare to exports. Measures engaged by the Economic Monitoring Committee (EMC) and State Bank of Pakistan have acutely failed to decrease import volume of the country. Forex reserves of Pakistan rapidly draining Government is difficult to manage the balance of trade payment that’s why foreign currency against the home currency is strengthen which results in imports of goods and services becoming more expensive as compared to exports and cause for devaluing of the home currency and a balance of payments deficit. As the merchandise trade deficit carries on to shake the country’s economy, the services trade deficit minimized substantially by 66 percent in September of recent fiscal over the same month of previous year. Thanks to the rupee devaluation that helped increasing exports. Apart from trade of goods, services sector has also been seen to consume major lump of dollars on the payment of royalties and import of business, financial and other services. Country’s trade deficit has flown to $7.522 billion in just four months July-October in the period of current fiscal year 2008-09 as compared to $5.642 billion in the similar period of last fiscal, representing an increase on 33.3 percent. Federal Bureau of Statistics (FBS) reported services reported the deficit to be standing at $171 million during September over $504 million in the same month of preceding year. The growth in services export was unparalleled as it grew by 233 % to $629 million through the month under review against $188 million in the similar period of preceding year. While services export increased by 15.49 percent to $800 million in September of this fiscal year against $693 million in the parallel month of previous year.

To avoid the crisis balance of payment, export of both goods and services are increase the necessity of the hour as poor performance of this sector has fostered the balance of payment crisis. Country needs $3.5 to $4.5 billion instantly to plug the financing gap and $9 to $15 billion for to avoid balance of payment for the upcoming two years. During first quarter (July-September) of current fiscal year, the services trade deficit also decreased by 22.35 percent to $1.237 billion against $1.593 billion in the parallel period of previous year. The export of government services primarily consisting of defence services led the export types in service sector followed by logistic support provided to foreign countries. Transportation services, visits of tourists and businessmen and construction services were also among the significant export categories.

Flow in trade deficit is due to costly imports of oil, fertilizer, wheat and other necessities as well as fall in country’s textile sector’s exports, which is an addict of compensatory duty hitches, excessive incentives and recently approved explore and evolution support benefits. The country’s inadequate export sector has also been unsuccessful to cash in on the Rupee devaluation. Below this miserable performance of the textile sector, exports of the non-traditional items, which are not enjoying any Research and Development benefit or incentives are growing at a faster pace and helping the country to diversify its exports basket.

1.2 Purpose of study
Purpose of my research is to identify the factors that affect the economy of Pakistan it attempts to test the causes and relationship between different variable Unit base is utilized to check the unmoving by different variables and trade deficit effect the balance payment of import and export of Pakistan in depth we analysis intensity of effect on dependent variables gross domestic product, foreign direct investment, exchange rate, trade volume.

1.3 Objective of the Study
The objective of this study is to find the effects of trade deficit on the economy of Pakistan and also detailed check

- To check the effect between Trade deficit and exchange rate
- To check the effect between Trade deficit and foreign direct investment
To Check the effect between Trade deficit and gross domestic product
To check the effect between Trade deficit and trade volume

After investigating the effects of trade deficit on different factors of economy of Pakistan, we will try to find that which of the factors is most important for decreasing the trade deficit.

1.4 Significance of Study
- Government can improve their trade Policy
- Government check the effect between Trade deficit and exchange rate
- Government check the effect between Trade deficit and foreign direct investment
- Government Check the effect between Trade deficit and gross domestic product
- Government check the effect between Trade deficit and trade volume
- Helpful for other researchers they can use this research for future on behalf of this study
- Increase the foreign investment
- Control the exchange rate of the currency
- Help to the increase the GDP of the country
- Help to the increase the trade volume
- It will help the Research student to get knowledge about the behavior of the economy

1.5 Research Question
How the trade deficit affects the exchange rate, foreign direct investment, gross domestic product and trade volume in Pakistan. And which techniques are used to decrease the trade deficit

1.6 THEORATICAL MODEL
1.6.1 Key terms

Exchange rate

“The value of one currency for the purpose of conversion to another”
(Oxford dictionary)
Exchange rate at which one currency may be converted into another. The exchange rate is used when simply converting one currency to another (such as for the purposes of travel to another country), or for engaging in speculation or trading in the foreign exchange market. There are a wide variety of factors which influence the exchange rate, such as interest rates, inflation, and the state of politics and the economy in each country also called rate of exchange or foreign exchange rate or currency exchange rate.

Foreign direct investment
Foreign direct investment are the net inflows of investment to acquire a lasting management interest (10 percent or more of voting stock) in an enterprise operating in an economy other than that of the investor. It is the sum of equity capital, reinvestment of earnings, other long term capital, and short-term capital as shown in the balance of payments. This series shows net inflows (new investment inflows less disinvestment) in the reporting economy from foreign investors.

Trade volume
The values of all the goods and services we sell to other countries (exports)

Gross domestic product
GDP at purchaser's prices is the sum of gross value added by all residents Producers in the economy plus any product taxes and minus any subsidies not included in the value of the products. It is calculated without making deductions for depreciation of fabricated assets or for depletion and degradation of natural resources. Data are in current U.S. dollars. Dollar figures for GDP are converted from domestic currencies using single year official exchange rates. For a few countries where the official exchange rate does not reflect the rate effectively applied to actual foreign exchange transactions, an alternative conversion factor is used.
Source: World Bank national accounts data, and OECD National

Trade deficit
A trade deficit occurs when the value of a country's imports is greater than the value of its exports. This means that the country's balance of trade is negative

1.7 Hypotheses

Hypotheses 1
H₀: There is no association between trade deficit and gross domestic product.
H₁: There is a significant association between trade deficit and gross domestic product.

Hypotheses 2
H₀: There is no correlation between trade deficit and foreign direct investment.
H₁: There is a significant correlation between trade deficit and foreign direct investment.
Hypotheses 3
H₀: There is no association between trade deficit and trade volume.
H₁: There is a significant association between trade deficit and trade volume.

Hypotheses 4
H₀: There is no association between trade deficit and exchange rate.
H₁: There is a significant association between trade deficit and exchange rate.

Hypotheses 5
H₀: There is no association between gross domestic product and foreign direct investment.
H₁: There is a significant association between gross domestic product and foreign direct investment.

Hypotheses 6
H₀: There is no correlation between gross domestic product and trade volume.
H₁: There is a significant correlation between gross domestic product and trade volume.

Hypotheses 7
H₀: There is no correlation between gross domestic product and exchange rate.
H₁: There is a significant correlation between gross domestic product and exchange rate.

Hypotheses 8
H₀: There is no correlation between foreign direct investment and trade volume.
H₁: There is a significant correlation between foreign direct investment and trade volume.

Hypotheses 9
H₀: There is no correlation between foreign direct investment and exchange rate.
H₁: There is a significant correlation between foreign direct investment and exchange rate.

Hypotheses 10
H₀: There is no correlation between foreign direct investment and trade volume.
H₁: There is a significant correlation between foreign direct investment and trade volume.

In multiply regression we have conclude different result through hypotheses these hypotheses are given below.

Hypotheses 11
H₀: There is no effect of trade deficit on exchange rate.
H₁: There is an effect of trade deficit on exchange rate.

Hypotheses 12
H₀: There is no effect of trade deficit on foreign direct investment.
H₁: There is an effect of trade deficit on foreign direct investment.
Hypotheses 13
H₀: There is no effect of trade deficit on gross domestic product.
H₁: There is an effect of trade deficit on gross domestic product.

Hypotheses 14
H₀: There is no effect of trade deficit on trade volume.
H₁: There is an effect of trade deficit on trade volume.

2. Literature Review

(Khan & Hossain, 2010) is analyzed the relation between democracy and trade balance for Bangladesh. The data used is annual covering a period of 1973-2006. For estimating democracy political rights and civil liberties are used. Granger causality showed one way, causality from democracy the variables on the bilateral trade balance of Bangladesh (KHAN & HOSSAIN, 2010) is analyzed a model of bilateral trade balance and its determinants for Bangladesh. The study uses data of 50 trading partners for the period of 1980-2005. The variables tested included GDP, trading partners GDP, domestic per capita income, partners per capita income, distance between trading countries and real exchange rate. The results showed significant effect of all the variables on the bilateral trade balance of Bangladesh.

(Mohammad, 2010) is analyzed the long run and short determinants of trade deficit in Pakistan. Annual data for the period of 1975 to 2008 is used. For long run Johansen co integration technique is adopted, while Vector error correction model is used for short run analysis. Foreign income, domestic consumption, real effective exchange rate and foreign direct investment are the variables tested. Results showed that all the variables have a significant effect on the trade deficit in Pakistan.

(Aqeel & Nishat, 2005) They conducted the study to explore the reasons of foreign direct investment in Pakistan. Over the last ten years foreign direct investment had grown at least twice as fast as trade (Meyer, 2003). As there was lack of capital in the developing countries that need the capital for their development process, the marginal productivity of capital was higher in these countries. The selective policies not only improve fundamentals of the economy but they also aim at attracting more foreign investments in the country. The government had steadily liberalized its trade and investment regime by providing generous trade and fiscal incentives to foreign investors through a number of tax concessions, credit facilities, and tariff reduction and had also eased foreign exchange controls (see Khan, 1999). They had estimated that political stability, peaceful law and order situation, level of technical labour force and mineral resources and liberal policies of the government attracted foreign investors in Pakistan. Dunning (2002) finds out that FDI from more advanced the industrialized countries depends on government policies, transparent governance and supportive infrastructure of the host country. In Pakistan discuss the labor cost which was one of the major components for the cost which was one of the major components for the cost function. They give high wages. The relationship of wages and FDI were the negative but the other researcher says its relation was positive, high quality give high labor and low quality give low labor (Love and Lave-Hidalgo, 2000). Government decrease the tariff, import duty then FDI will be increase for the FDI fiscal incentive, taxation structure was very important. If depreciation of host currency increases then FDI should increase. FDI selective policies, tax, tariff policy, fiscal incentive offered and exchange rate policies. In this study use elements of Consecration and error-correction techniques, unit root test, Estimation of
a Integration Vector, And per capital GDP to test for relative demand market size hypothesis. Their results give some evidence that reducing import tariffs and corporate tax rate would positively affect the growth of FDI. Moreover, the coefficient of exchange rate was positive implying that when rupee appreciates, FDI increases as investors see it as a good sign for the economy and expect high returns. Their main interest was to study how different variables or indicators reflecting trade, fiscal and financial sector liberalization attract FDI in Pakistan. If the FDI increase in Pakistan then increase many resources for the people. Another benefit decrease inflation and increase reserve. Pakistani economy should be stable. So it was positive impact of Pakistan. It should perform the vital role for decrease the trade deficit 

(Aqeeq & Nishat, 2005)The paper empirically ascertains the determinants of growth in foreign direct investment (FDI) in Pakistan over the period 1961 to 2003. Our main concern is to study how different variables or indicators reflecting trade, fiscal and financial sector liberalization attract FDI in Pakistan. The study uses the Co-integration and error-correction techniques to identify the variables explaining the FDI in Pakistan. The study considers the tariff rate, exchange rate, tax rate, credit to private sector and index of general share price variables if they explain the inflow of foreign direct investment. It also included wages and per capita GDP to test for relative demand for labor and market size hypotheses. All variables indicated correct signs and are statistically significant except for wage rate and share price index. The study clearly emphasizes the role of these policy variables in attracting FDI and determining its growth in both short and long run in Pakistan. The study also indicates a positive and significant impact of reforms on FDI in Pakistan. Accordingly during early 1980s, the government in Pakistan has initiated market-based economic reform policies. These reforms began to take hold in 1988, and since then the government have gradually liberalized its trade and investment regime by providing generous trade and fiscal incentives to foreign investors through number of tax concessions, credit facilities, and tariff reduction and have also eased foreign exchange controls (see Khan, 1999). In the 1990s, the government further liberalized the policy and opened the sectors of agriculture, telecommunications, energy and insurance to FDI. But due to rapid political changes and inconsistency in policies the level of FDI remained low compared to other developing countries. Nevertheless, the time series data on FDI inflows and stocks has shown remarkable progress over time particularly during the reform period of the 90’s. 

(Afzal, 2001)He conducted the study to explore the estimated import function for Pakistan using simultaneous equation approach. This study includes the period from 1960-1999. The import demand and supply function has been assessed by using Ordinary Least Square (OLS) and Two Stage Least Square (2SLS) techniques. The results of the study point out those variables who expected signs for both the traditional as well as fake integrated models of import demand function. The coefficient of relative price of import was negative but not significant, and the domestic income coefficient was positive and significant. Whereas, liberalization do not have a positive impact on imports. However, this article was subject to weakness as it does not test for the stationary of the data. 

(Akhtar & Malik, 2000) They conducted the study to explore the estimated bilateral price and income impacts on Pakistan’s trading performance with its four major trading partners [USA, UK, Germany and Japan]. He applied three stage least square technique using quarterly data for the period 1982-1Q to 1996-4Q. Their results indicate income elasticity for an import from USA and Japan was in a close range of unity. Imports from these two countries increase by an equal percent of increase in our GDP. It was positive and small for UK and Germany but statistically not significant as basic chemicals and raw material imports explain the weak income elasticity of imports from U.K and Germany. Consumer durables from Japan and specialized imports from USA were reasonable causes for high elasticity of imports.
They conducted the study to investigate the external determinant of growth and focuses on prospects of external economic cooperation of Pakistan. If any country is not the member of SAARC, it cannot participate in the international trade. SAARC is the global partner as well as manages flows of foreign investment. FDI is the most important for every country, because its play the marginal role in the countries’ exports. Low skill and technology intensive goods were not only low value adding as compared to knowledge intensive goods but also slow moving because of increasing prices competition. GDP was very high because of being the member of SAARC. Coefficients of relationships estimated within a system of two Simultaneous equations, the authors could not access the data for Bhutan and Maldives on the variables included in the model. Utilizing the pooled data for the period from 1972-2001. The initial formulation of the system included a much larger number of instruments, many of which had to be dropped due to the inaccessibility of sufficient data for the countries included in the model. They found the rise income inequality and poverty in the country. So they adopt the alternative growth strategies which they help to improve welfare. And this strategies required high growth rate. It was important to note that majority of the liberalization measures of Pakistan were part of the IMF/World Bank Policy framework paper of December 1998. Findings made by a number of studies suggest that SAPs were accompanied with rising income inequality and poverty in the country [See, Kemal 1994; Jaffery and Khattak 1995; and Anwar 1996]. Growth rate can calculate by converting all values into constant market price increase the international policies. SAARC carries the image of high profile and low performance. So they working joint and erasing the problem and working on plan to increase the growth.

He conducted the study to explain the political economy of international financial institutions lending to Pakistan. This study investigates the determinants of multilateral aid from international financial institutions (IFIs) to Pakistan, focusing on the world’s three major IFIs, the World Bank, the IMF and the ADB. In particular, international bureaucracy and its utility maximizing behaviors were generally considered to play a major role. The corresponding line of argument strongly leans on the economic theory of bureaucracy (Niskanen, 1994; Moe, 1997; Wintrobe, 1997; Borcherding and Besocke, 2002; Michaelowa, 2003). Governments provide an incentive to the bureaucrats working at multilateral financial institutions to disburse money to their home countries. This study applies a political economic analysis of decision making to major IFIs’ lending to Pakistan. The IFIs most relevant for Pakistan since 1960 were the World Bank, the International Monetary Fund (IMF) and the Asian Development Bank (ADB). Pakistan had second ranked among the recipients of International Development Agency (IDA). Pakistan did not comply with IMF and World Bank targets, new planning were still concluded (Hasan, 1998; Raman, 2000). They find that loans tend to be larger and more frequent when a country had a bigger quota and more professional staff at the IMF, or when a country was more closely connected politically and economically to the major shareholding countries of the IMF, Barro and Lee (2005). The study was divided into four parts. Section II provides a brief overview of IFIs’ lending practices to Pakistan. In section III, hypotheses about the determinants of political decision making in these IFIs will be presented, and regression results for both the probability of obtaining loans and the size of these loans will be discussed. In this section, they will also present the results for each donor and compare the differences between them. The conclusions will be presented in section IV. The World Bank (IBRD and IDA) was the largest source of multilateral flows to Pakistan, providing half the total resources. World Bank had approved 85 loans and 125 credits for Pakistan, totaling more than US $ 14.3 billion. In May 2005, International bureaucrats exert their power at the executive board of each IFI and favor lending to their respective home economies as well as defensive lending to any country with a serious risk of default. Another set of political economic variables explaining the economic and political
interests of the major shareholders of IFIs also turn out to be partially significant. They tend to be more careful to avoid a disagreement between official lending objectives and lending decisions. This study provides evidence for political economic determinants of joint lending. It seems that IFIs, in particular the ADB and the IDA, move away from their originally defined economic lending objectives. Thus, it remains a promising agenda for future research to explore how international supporter institutions perform regarding lending decisions to other countries. (Aujla & Saadullah, 2007)

They conducted the study to explore the marketing system of fruits margins and export potential in Pakistan. This study is especially on fruit production and export. Our Pakistani fruit is more demand other develop country. Russia is the major market for Pakistan. They first examined the fruit production consumption and trade; then described the existing fruit market identifying fruit market and promoting exports and improve the international market. The study was based on secondary data and specifically designed to examine the trends in fruit production, consumption and trade; describe existing fruit marketing system; identify constraints in fruit marketing systems and promoting exports; and propose measures for improving and enhancing their international competitiveness. A significant amount of information was gathered from secondary sources like Economic Survey of Pakistan, Agricultural Statistics of Pakistan. Information on fruits was collected as well as reviewing relevant literature and scientific studies. Data showed that the per capita consumption of fruits has increased from 28 kg/annum to 35 kg/annum during the period 1970-2000 in Pakistan (FAO, 1999-2001). This increase in area and production is due to increasing trend of the farmers towards high value crops. Similarly, consumption of fruits in Pakistan has increased at the rate of 2.6 percent per annum during the same period. There are growing concerns about the low productivity of fruits as compared to developed and developing countries, especially in comparison to our neighbors like India and Iran. This signifies a need to identify the factors responsible for this low productivity. Market development and increased productivity are the keys to the future. Foreign trades are problem to generate market surplus. Charge the high commission rate to the farmer. Another problem is disequilibrium of demand and supply. Fruit export give benefit to decrease trade deficit. In Pakistan great scope of increase the productivity and then increase the export potential of fruit in Pakistan. The research on orchard management and demonstration should be strengthened in collaboration with the farmers to increase productivity. In the international market only fresh fruits are acceptable. They improve the quality. Packing method proper maintained the drip irrigation system. Define the grade from national and international market. Improve the market infrastructure. Fruit market should be maintained. Pakistan must try to compete in international market (Butt A. R., 2005)

He conducted the study to examine the stability of demand for import functions in Pakistan. Their purpose of study was to check the stability of demand for import of goods and services in Pakistan. Pakistan adopt trade liberalization polices and reduce quantitative restrictions and reduce the tariff structure. If export of Pakistan increases then long term economics growth will automatically increase and impact on capital goods and latest machinery. Infect our import was automatically increasing. Pakistan imports many important items. Another fact is that if import increase but export do not increase then trade deficit also increases. So trade deficit was negative effect on our economy of Pakistan. In Pakistan major import trading partner are USA, UK, Germany and Japan and also China. We purchase different types of product for these importer price of importer is negative but Domestic level income is positive but the liberalization does not have a positive impact on demand for import. Pakistan’s economy is highly dependent upon the imports like industrial inputs, machinery, fuel and essential food items. If import was increasing then country faces to serious problem for the balance of payment. In long term it is the positive relationship with export and import. But some
country was very sensitive to import the raw materials. They were use two types of methodology which they use to identify the problem. First they use to estimate the imports for first Simple linear function & second long linear function. Some techniques are used to estimate import show test, unit root tests first difference in the long linear functional form all the series are fixed. If import decrease increases the domestic’s income out study purpose to check the demand for import, important variable use to identify the import level. Some tests were applied but conclusion that our demand of imports goods and services are not stable. So govt. adopts policies of import and change the structure of liberalization. So they utilized the natural resources in Pakistan. And also stable the politics. 

(Din, Ghani, & Siddique, 2003) They conducted the study to explore the openness and economic growth in Pakistan. Trade and growth have a positive relationship between openness to international trade and economic growth. They examined the relationship between openness and economic growth in the context of Pakistan’s economy. Technological change can influence a country’s openness to trade leading to productivity gains and economic growth Helpman (1995). The trade and growth study have been complemented by a growing body of empirical literature that has focused on the question of whether or not more open economies tend to grow faster. In the early years, tariffs on consumer goods were set higher than the tariffs on intermediate and capital goods. The prices of agricultural inputs at below world market prices, it made domestic raw materials available to the industrial sector at very cheap prices. The policy of import controls and tariffs, tax concessions such as tax holidays, accelerated depreciation allowances, and loans at very low interest rates, clearly accentuated the pro-industrial bias in the growth strategy. They were also improving the viability of Pakistan’s industrial sector in an increasingly competitive international economic environment. The transition to the new system led to an adjustment in the rupee which boosted Pakistan’s exports. The method which they use the analysis was based on annual time series data on real exports, real imports, and real GDP, obtained from the World Development Indicators. Auto-regression (VAR) framework, the concept of Granger causality6 was employed to examine the relationship between openness and economic growth. So they finding the empirical result More specifically, greater openness leads to higher growth, thanks to the benefits arising from competition, specialization and economies of scale, and to productivity improvements made possible by access to advanced technologies. The evidence that openness is driven by higher economic growth also seems plausible, and is in line with Frankel and Romer (1999) and others who argue that countries which experience more rapid growth due to reasons other than openness may engage in more international trade. The objective of this study, therefore, has been to empirically examine the relationship between openness and economic growth in Pakistan. There is evidence of a long-run equilibrium relationship between openness and economic growth. An error-correction model is estimated to investigate the short-run as well as long-run causal patterns. The results indicate the absence of causality between openness and economic growth in the short run. This suggests that short-run variations in openness and growth rates may be dominated by business cycle fluctuations with no clear causal pattern in the short run. It is important to spell out two major limitations of our analysis. It is well known that a variety of economic, institutional and political factors influence the process of economic growth. A common feature of that study was their reliance on estimations based on cross-country growth averages of diverse groups of economies which differ in terms of their socio-economic characteristics, institutions, and policies. Since individual country experiences can be quite different, these studies are unable to identify country-specific parameters in the openness growth nexus. Consequently, a number of studies have focused on individual country experiences based on time series data. Jung and Marshall (1985) and Chow (1987) were among the earlier studies along this line. Using time series data for 37 developing countries, Jung and Marshall (1985) find
a significant relationship between export growth and economic growth in only 4 countries. Chow (1987) applies Granger causality tests on time series data of 8 newly industrialized countries to investigate the causal pattern between export growth and growth in manufacturing output. The study finds evidence of bidirectional causality in the case of Brazil, Hong Kong, Israel, Korea, Singapore, and Taiwan; and no causality in the case of Argentina.

(Durbarry, Gemmell, & Greenawa) are conducted the study to examine the new Evidence on the Impact of Foreign Aid on Economic Growth. It aims to promote research in all aspects of economic development and international trade on both a long term and a short term basis. Foreign aid inflows have grown significantly in the post-war period. This study assesses the impact of foreign aid on growth for a large sample of developing countries. The econometric aid-growth literature has been criticized on several grounds, sample size and composition, data quality, econometric technique and specification Mosley (1987). They focus on some criticisms of previous econometric aid growth studies by comparing panel data and cross-section econometric techniques for a large sample such as (68 developing countries) over a long period (1970-93). So they were using some specific method/technique such as regression models and econometric, and also use lease square method. They put out the result of regression that generates around 57% of the variation in country growth rates. Larger budget surpluses and more stable inflation appear to be helpful to faster growth and there is also some confirmation that financial liberalization is beneficial to growth. Foreign aid is also encouraging the economy for any country. It’s also saving the domestic level. Foreign aid is faster growth for developing countries. Source of investment, are allowed to affect long-run growth rates. Their results stress the importance of controlling properly for other growth determinants when measuring the impact of foreign aid. They shows that there is most favorable aid allocation in terms of growth effects: while low amounts of aid do not appear to generate faster growth, very high aid/GDP ratios are also associated with slower growth. The growth effects of private capital inflows appear strongly positive using panel techniques. Certainly the level of the growth impact of private inflows appears to be higher than for any other sources of capital, and there is strong statistical support for the inclusion of these sources of investment finance in the growth model.

(Farooq & Keung, 2003) He conducted the study to explore the Linkage between stock market and exchange rate. First they checked the direction and movement between exchange rate and stock price. KSE is faster growing to increase market as well as in the emerging economies. They find out for India, Korea and Pakistan, exchange rate Granger cause stock prices Abdalla and Murinde (1997). Yu analyzes this relationship for Hong Kong, Tokyo and Singapore (1997). Amare and Mohsin examine this association between exchange rates and stock prices for nine Asian countries (2000). Oskooee and Sohrabian points out that there is two-way relationship between US stock market and exchange rate (1992). They observe the financial crises. Stock and foreign exchange market suffered fluctuations from the financial crisis. Because both are the relationship between positive or negative they play role in balancing the demand and supply of assets. They adapted the method of time series. Four indicator general index, Financial index, Industrial index, Services index are use in stock exchange. And exchange rate was express in U.S. dollar. In each series they investigate employing augment with unit root test. They use the method of t-test and f-test. If null hypothesis was accepting then its acceptance otherwise reject the null hypothesis. Non stationary and stationary level is first difference. This paper analyses empirically the relationship between four stock indices and exchange rate in Karachi Stock Exchange (KSE). As services sector is a prerequisite for attaining economic growth and improving country’s productive capacity by reducing production cost and it has also been widely recognized that economies with efficient services sector are positioned more advantageously in term of overall competitiveness. These results provide the mixing relationship. Long run
relationship between stock indices and exchange rate can be used as policy tool to improve the service sector and stabilized the stock exchange. (Kemal, 2005) Exchange rate deviation from the trend had been calculated by fitting the trend in the nominal exchange rate. Data on government borrowing had been taken as quarterly change in claims of central bank on the government. They had estimated monetary policy reaction function for Pakistan for the period 1993-2005 to identify the objectives of monetary policy in Pakistan. They had included in our reaction function: the output gap, inflation, lagged interest rate, exchange rate and trade deficit as monetary policy objectives, while to overcome the issue of miss-specification, two more variables had been included in the reaction function that were not the policy objectives; foreign exchange reserves and government borrowing from the central bank. Results confirm that the State Bank of Pakistan does care about both inflation and output. However the policy had also been focused on other factors as all of the objectives they included in the estimation significantly affect the behavior of monetary policy instrument. The important result was that the trade deficit that was not taken as monetary policy objective in the empirical literature had significant impact on the central bank (SBP)’s actions. Taylor rule that focuses on inflation and output may be incomplete for the developing countries. But including too many objectives into the rule loses the simplicity of these rules—an important characteristic of the instrument rules. A simple result they can draw from here was that SBP focuses on output gap, inflation and trade deficit in the long run while other variables were correlated with interest rate only in the short run. Also, the monetary policy in Pakistan was much influenced by foreign interest rate. (Khan, 2006) He conducted the study to explore the Macro Determinants of Total Factor Productivity in Pakistan. The economy of Pakistan had grown at an average annual rate of 5 percent with wide variations across the five decades since independence and across each of the years within each decade. Average annual ratio of 17 to 18 percent of investment to GDP indicates relatively low incremental capital-output ratio in Pakistan as compared to other developing economies, Pasha et al. (2002). Different factors had some role to play in determining how much output a country can produce. For example, factors of production such as the size of the labor force and the capital stock certainly matter; but a large number of other things such as education, government regulation, and even the weather had their roles to play. This study attempts to establish the macro determinants of total factor productivity (TFP) in Pakistan. The results of the estimates were significant, establishing the impact of a number of factors with TFP. It first notes the methods of calculating the fundamental sources of growth; namely, labor, capital, and productivity and then highlights TFP as the most important source of growth. They find that GDP growth is more sensitive to capital input growth relative to labor input growth. It implies that mere increase in labor input did not add to GDP growth. Foreign direct investment also plays an important role in driving growth through increase in productivity levels. Foreign direct investment brings technology and creates employment. It helps to adopt new methods of production and enhances productivity by bringing competition in the economy. Foreign direct investment also introduces to novice management and organizational skills, and explores hidden markets in the economy. The indicator of education expenditure was somewhat a broader measure of human capital. Budget deficit indicates the size of an economy. Productivity refers to the efficiency with which an economy transforms inputs into useful outputs. They use government consumption as a share of GDP to observe its effect on TFP. Studies on economic growth had increasingly focused on the role of government in the process of economic growth. Population growth may affect the pace of economic development at some point in time positive or negative direction. Labor force series used above account for the total number of people in the labor force. No distinctions were made about the quality augmentation...
of the inputs (labor and capital). The model’s assumptions were not the first place to look. A much bigger problem lies in the interpretation of the results. This study had attempted to establish the determinants of TFP in Pakistan. The results of financial sector development conform to the theory. The positive result of financial sector development implies that financial sector may influence TFP through two channels, which were known as quantity channel and quality channel. His findings remain the negative impact of education expenditures.

(Lansbury, Pain, & Smidkova, 1996) They conducted the study to examine the foreign direct investment in central Europe. FDI were the most important for developing countries (Meyer, 2003). Most important factor was human capital and long term trading. After that they increased two factor influence of timing and level of investment. Taxes were also the most important element. They had estimated that political stability, peaceful law and order situation, level of technical labour force and mineral resources and liberal policies of the government attracted foreign investors in Pakistan. In Europe zero percent trade deficit in 1991. Foreign exchange reserve accumulated and inflation stabilized at around 10% in 1995. This study would be of interest to policy makers in many developing countries where structural reforms were being implemented. So the Hungarian Polish Authorities adopt more flexible exchange rate. Some firm investment on strategic reasons because they wanted to beat the competitors. There were other researchers who had found out that higher wages do not always deter FDI in all industries and had shown a positive relationship between labor costs and FDI (Moore, 1993; and Love and Lave-Hidalgo, 2000). Recently, a few researchers had also studied the impact of specific policy variables on FDI in the host countries. These policy variables include openness of trade, tariff, taxes and exchange rate. Nugent, and Pashamova (1998) and Asiedu (2002) focus on policy reforms in developing countries as determinants of foreign direct investment inflows. The result suggest that FDI was positively determined by the size of the host country and negatively determined be the cost of capital and political stability, Tory, Power, Past trade linkages innovation infrastructure and privatization program were all found the had a positive impact on the investment. The study clearly emphasizes the role of these policy variables in attracting FDI and determining its growth in both short and long run in Pakistan. The study also indicates a positive and significant impact of reforms on FDI in Pakistan. They also find the significant effect from relative labor cost and an indicator of research intensity. Strong investment was effect on the economy of any country.

(Limam & Miller, 2004) In this paper (LIMAM & MILLER, 2004) examines cross-country arrays of economic growth by estimating a stochastic frontier production function for 80 developed and developing countries and decomposing output change into factor gathering, total factor Efficiency growth and production productivity improvement. In addition, this paper combines the quality of inputs in analysing output growth, where theProductivity of capital depends on its average age, while the productivity of labour depends on its average level of education. Our growth decomposition involves five geographic regions - Africa, East Asian, Latin America, South Asia, and the West. Factor growth, especially capital accumulation, generally proves much more important than either the improved quality of factors or total factor productivity growth in explaining output growth. The quality of capital positively and significantly affects output growth in all groups. The quality of labour, however, only possesses a positive and significant effect on output growth in Africa, East Asia and the West. Labour quality owns a negative and significant effect in Latin America and South Asia.

(Malik, 2007) He conducted the study to explore the Monetary Policy Objectives in Pakistan. One practical issue in the Taylor rule was that the monetary policy objectives considered in the rule. According to this rule there were only two objectives of monetary policy: output and
inflation. This issue becomes more important in developing countries where exchange rate was not flexible and governments depend heavily on signora revenues due to limited effort to generate revenues from other sources and heavy budget deficits. So if these countries use Taylor rule. Researchers had included variables other than the output and inflation in their estimation procedure like the interest rate smoothing factor, exchange rate, stock prices, government debt, foreign interest rate and foreign exchange reserves. The problem arises because of not including the variables in the reaction function that had important information about the variable used as monetary policy instrument. The motivation behind this study was estimation of the Taylor rule for Pakistan in Malik and Ahmed (2007). In that study, they had estimated the Taylor rule and found that SBP had not been following such a rule. Also found very low values of R2 and DW statistics: both show that there were missing variables in the equation. It means there were certain objectives of monetary policy, other than output and inflation that the SBP focuses on. They had estimated monetary policy reaction function including five objectives for monetary policy: output, inflation and exchange rate stabilization, interest rate smoothing, and reducing the trade deficit. They had included two variables in the reaction function: foreign exchange reserves and government borrowing from the central bank. These functions show that if there was a positive shock in the interest rate, output, inflation, exchange rate and/or in trade deficit, interest rate would respond positively but the direction of change in interest rate was reversed when shock occurs in foreign exchange reserves or government borrowing. Data on all the variables except GDP were taken from International Financial Statistics (IFS) while that on GDP were taken from Kemal and Arby (2005). Exchange rate deviation from the trend had been calculated by fitting the trend in the nominal exchange rate. Data on government borrowing had been taken as quarterly change in claims of central bank on the government. They had estimated monetary policy reaction function for Pakistan for the period 1993-2005 to identify the objectives of monetary policy in Pakistan. They had included in our reaction function: the output gap, inflation, lagged interest rate, exchange rate and trade deficit as monetary policy objectives, while to overcome the issue of miss-specification, two more variables had been included in the reaction function that were not the policy objectives: foreign exchange reserves and government borrowing from the central bank. Results confirm that the State Bank of Pakistan does care about both inflation and output. However the policy had also been focused on other factors as all of the objectives they included in the estimation significantly affect the behavior of monetary policy instrument. The important result was that the trade deficit that was not taken as monetary policy objective in the empirical literature had significant impact on the central bank (SBP)’s actions. Taylor rule that focuses on inflation and output may be incomplete for the developing countries. But including too many objectives into the rule loses the simplicity of these rules—an important characteristic of the instrument rules. A simple result they can draw from here was that SBP focuses on output gap, inflation and trade deficit in the long run while other variables were correlated with interest rate only in the short run. Also, the monetary policy in Pakistan was much influenced by foreign interest rate.

(Moosa & Cardak, 2003) He conducted the study to explore the determinants of FDI. The determinants of FDI lead us to select a set of explanatory variables that are widely used and found to be significant determinants of FDI. For example he highlight how the domestic market size and differences in factor costs can relate to the location of FDI Markussen and Maskus (1999), Lim (2001), Love and Lage-Hidalgo (2000), Lipsey (2000) and Moosa (2002). To foreign investors who operate in industries characterized by relatively large economies of scale, the importance of the market size and its growth is magnified. This is because they can exploit scales economies only after the market attains a certain threshold size. The most usually used
measures of market size are GDP, GDP/capital and growth in GDP. The signs of these coefficients are usually positive

(Mushtaq & Abdullah, 2007) conducted the study to explore the analysis of technical efficiency of rice production in Punjab. It was the implication for future investment strategies. How they enhance the future production of rice. Rice is important cash crop of Pakistan. This crop helps uplifting the economy of Pakistan. It was the way of foreign exchange earnings. Technology was important to increase the productivity without technology they cannot utilized resources. First they improve the existing resources then required new inputs and technology prepare infrastructure, developed farmer skill. It wanted to improve the rice productivity. So they use the three sources of variation of output, first fluctuations, second technical problem or efficiency and third random stock. They pick the different rice sample after that they test and point out the conclusion. And set the data at null hypothesis. After hypothesis they used method of Cobb-douglas production function. They choose best production function was the water intensive crop more than other crop. So they guide the farmer about the fertilizers and investigate the inefficiency of technical problem. Farmer limited supply of labour during the peak time and rice transplantation. They facing problem in weed removing process. Government give the credit policies to the farmer important in irrigation facilities and increase investment an above all these activities. They investment on education sector, private sector and also invest in rural area on young generation. Because they have better ability to adopt modern technology and they make timely decision.

(Riazuddin, 2006) conducts the study to explore the Determining Import Intensity of Exports for Pakistan. This study provides empirical evidence in support of the hypothesis that imports of intermediate and capital goods were critical inputs in the export production of the country. Any short-run deviation in trade balance due to these would lead to higher exportable surplus in the long-run. They were important for domestic capital formation and were used as inputs in the export production process. Despite the fact that in the recent past, the long-run dynamic relation between imports and exports had received importance in the literature of international trade, the empirical work available on this topic was still limited; for example, Khan and Knight (1988). Pakistan provides the opportunity to investigate the above issue as its trade deficit, in term of GDP, had increased sharply in the recent years (from 2.4 percent in FY00 to 5.6 percent in FY05) mainly due to a surge in capital and intermediate imports because The higher international oil prices could be another factor for the surge in import bills. Interestingly, imports excluding oil price impact were also showing significant rise thus trade deficit was 4.8 percent of GDP. Trade deficit was based on the assumption that the surge in imports will result in higher exportable surplus, thereby resulting in lower trade deficit in future years. Pakistan, there were empirical works on the estimation of the export supply and demand function such as Hasan and Khan (1994). The existing work to estimate the long-run relation between imports and exports through Vector Autoregressive (VAR) method done by Irandoust and Ericsson (2004). The result shows that the imported inputs had a significant role in the overall export performance of Pakistan. They had founded that imports had significant effect on exports Koukouritakis (2004). In USA which do not reject the null hypothesis of no long-run relationship between imports and exports, Wu (1999). The objective of this study was to examine and estimate the long-run dynamics of the real exports and imports for Pakistan. This study developed a semi-reduced export equation that takes into account the impact of imports on exports. The level of contribution raw material and capital goods in total export performance was 24 and 16 percent respectively. The import of raw materials and capital goods had an important role in boosting the overall export level of the country; whereas, the country’s exports were more sensitive to import of raw material rather than capital imports. The capital imports for those exporting industries
which had a potential to export but due to capacity constraints were unable to do so, they can increase the export level of the country. This will help the policy-makers to focus on importing more of those items which were directly used into export production, thereby increasing the export capacity of the country and reducing the excess pressure on trade imbalances. The restricting imports through tariff measures might not be desirable given the country’s obligation under WTO commitments. And any slowdown in trade imbalance could only be achieved through appropriate exchange rate and interest rate policies. 

(Thorbecke & Zhang, 2009) They conduct the study to explore the Effect of Exchange Rate Changes on China’s Labor-Intensive Manufacturing Exports. China’s exports had grown faster than 22 percent per year between 2005 and the first half of 2008. The Chinese government had resisted calls for faster appreciation, saying it would damage labor-intensive exports (Ito, 2008). Processed exports, as classified by the Chinese customs authorities, were goods that were produced using intermediate goods that had been imported duty free. This finding makes sense in light of the fact that more of the value-added of ordinary exports than of processed exports comes from China. In this study, they focus not on all of China’s ordinary exports but only on labor-intensive manufacturing exports. They explain exports using the bilateral RMB exchange rate and income in the importing countries. They control for competition between China and other countries by including a weighted exchange rate from the 17 other leading exporters of labor-intensive goods. They control for supply side factors by including China’s capital stock in manufacturing. Final electronics goods were produced largely within East Asian production and distribution networks. China had almost two hundred million redundant rural laborers and tens of millions more who were either joining the labor force each year or underemployed in the urban sector. The Chinese government had resisted calls for faster appreciation, saying it would damage labor-intensive exports. To do this they construct a panel data set of China’s exports of labor-intensive manufactures to 30 countries. These results confirm the claims of the Chinese government that an exchange rate appreciation would damage labor-intensive exports. The findings reported here indicate that this depreciation had caused China’s exports of clothing, furniture, and footwear to crowd out Europe’s exports of these goods in world markets. The results in this paper indicate that such an appreciation would be painful for Chinese producers of clothing and shoes and might cause these industries to migrate abroad.

(Xafa, 2007) he conducted the study to explore the monetary, Stability, exchange rate regimes and capital controls what we have learned international monetary fund which they has no explicit mandate to promote capital account liberalization then IMF seeks center of excellence analyzing capital Account issue. IMF has generally advocate reduction fiscal policies to overheating. The government cannot change the fiscal policies because they unable to change it. So it was impact on capital inflow. First the theoretical assumption, that capital account of liberalization was goods for growth. Infect reduce growth by shifting resources to less productive sectors. And how increase the total factory productivity. Benefits of financial liberalization were also realized through security benefit. These benefit not cover the cross country because they try to explain the growth so its impact on other variable, such as financial sector and institutional quality. Weak domestic financial institution was incapable of in between large inflow of capital efficiency. FDI are mostly promoting the growth trade-off improving the number of reason. Investor has raising the market assets. Foreign exchange reserve was also increasing. And countries improved the macro frame work. They maintain the exchange rate for different reasons because if exchange rate movement was high then domestic price is so high. Interest rate in monetary policies is weak because Balance sheet has mismatched, then financial crisis increases. IMF was important role to stable the exchange rate. Countries should open their capital account and financial sector should achieve the minimum standard. Government improved taxation structure and increase exports.
Yousaf, Hussain, & Ahmad, 2008) conducted the study to explore the economic evaluation of foreign direct investment in Pakistan. Foreign direct investment (FDI) attracted great attention not only in developing countries but also in developed countries. The open FDI regime forced the host countries to adopt greater deregulation policies and reliance on market forces in their economies. Most developing countries such as Pakistan now considered FDI as the major external source of funding to meet obligations of resources gap and economic growth. The other positive spillover effect was that the presence of foreign firm helps expand infrastructure facilities, which makes it easier and profitable for local firms to crowd-in (Lemi, 2004). Firstly, the Pakistanis economy showed responsiveness and potential capacity to meet exogenous shocks and minimize risks in response to various major regional and global events, for instance, the nuclear blast (1998), the bombing against French technicians in Karachi (2001). Foreign investors were assured that they could carry out business in a stable and certain environment. Pakistan had a population of more than 150 million (IFS, 2005) which provides a large market for consumer goods, a growing middle class with adequate purchasing power, and provision of low-cost labour, which reduces the cost of production and its strategic geographical location in Central and South East Asia. Cessary for investment. The country inherited strong institutions from the British, and provided adequate communication infrastructure for foreign investors. Finally, there was also a strategic consideration for increasing FDI in Pakistan having implications for global security (Hussain, 2003). The current fiscal year, exports increased only by 3.4 percent, rising from $13.46 billion to $13.9 billion. Pakistan’s exports were mainly consisted of few items namely; cotton, leather, rice, synthetic textiles and sports goods. Imports target was set to decline by 2.1 percent in 2006-07 to $28.0 billion from last year’s level of $28.6 billion (GOP, 2006-07). Time series data was used to find the impacts of foreign direct investment on Pakistan’s imports and exports for the period of 1973-2004. The included variables in this research analysis were: real Gross Domestic Product, GDP deflator, volume of exports, unit value of export, volume of imports, unit value of import, volume of foreign direct investment (FDI) as a percentage of GDP. Foreign Direct Investment (FDI) had become an important growth factor in the globalization of the world economy. The countries that experienced faster growth rate of GDP were considered successful and had been attracting larger amount of FDI. In developing countries FDI was helpful to narrow down the Saving-Investment gap. A Multinational company’s decision to expand its business to another country was mostly based on high efficiency, low production cost, availability of strategic raw material and emerging market. The economic benefits of FDI were wide-ranging; it opened new avenues of knowledge, transfer of technology, training of manpower, market networking and many other spillover effects and externalities in the host countries. Many theoretical and empirical research studies were conducted at national and international level related to FDI and most of them were reviewed in the literature. This research study empirically analyzed impacts of FDI on Pakistani imports and exports. The analysis relied on annual time series data over the period of 1973 to 2004. This study applied the Unit roots (ADF test) to check the stationary of the data used in the analysis. The results of export model expressed that FDI had negative relation with real exports in the short-run and positive relation in the long run. The results of import model expressed that one percent increase in FDI; real demand for import would increase by 0.078 percent in the short-run and 0.522 percent in the long run.
3. Data and Methodology

3.1 Research Paradigm (Positivism)
While the word ‘positivism’ is used today as little more than a term of abuse, this was not always so; and, in historical terms, we can identify some characteristic assumptions on the part of positivists:
Science is the only reliable source of knowledge and the methods used in the natural sciences especially physics and chemistry - are therefore the appropriate model for educational research. Science involves logically inferring clearly specified laws about the behaviour of phenomena from evidence, and/or testing them against it. These laws state what effects a specific sort of change in a set of variables always produces, or what it tends to produce with a specified level of frequency. The evidence must be in some sense empirically given, for example by means of direct observation. In order for such observation to be sound, subjective factors must be eliminated as far as possible, notably by following explicit and standardised procedures that are open to replication by others also required is experimental control of variables, or some effective substitute for this. Both the explanatory variable and confounding variables – in other words, those which might also affect the outcome variable – must be controlled in some way. This can be done physically, through experimental manipulation, or via statistical analysis. Sound investigation requires the quantitative measurement of variables, since only this will allow us to detect any changes in outcome produced by variation in the explanatory variable.

3.2 Research approach
In this research we use the quantitative research. On that based more directly on its original plans and its results are more readily analyzed and interpreted.

3.3 Population sampling
This research is based on economy of Pakistan. WDI has 246 country and 1265 variable we select Pakistan in country and five variable are selected for research Population size 53 year data is available but our population size is 24

3.4 Data Collection and Instrument
In research we use secondary data sample period of 24 years has been selected for this study i.e. 1988-2011. Depending on the availability of data we have selected the longest possible sample period to avoid the small sample bias. Data on all the variables have been collected from WDI (World Development Indicators) from the data bank of World Bank.

3.5 Data Analysis
Inferential statistic
Mathematical methods that employ probability theory for deducing (inferring) the properties of a population from the analysis of the properties of a data sample drawn from it. It is concerned also with the precision and reliability of the inferences it helps to draw.

Frequency distribution
A set of intervals, usually adjacent and of equal width, into which the range of a statistical distribution is divided, each associated with a frequency indicating the number of measurements in that interval. (By the free dictionary)

Average
A number expressing the central or typical value in a set of data, in particular the mode, median, or (most commonly) the mean, which is calculated by dividing the sum of the values in the set by their number. (oxforddictionaries.com)
Median

Denoting or relating to a value or quantity lying at the midpoint of a frequency distribution of observed values or quantities, such that there is an equal probability of falling above or below it. (oxforddictionaries.com)

Mode

A way or manner in which something occurs or is experienced, expressed, or done (oxforddictionaries.com)

Standard Deviation

A quantity expressing by how much the members of a group differ from the mean value for the group. (oxforddictionaries.com)

Descriptive Statistics

Mathematical quantities (such as mean, median, standard deviation) that summarize and interpret some of the properties of a set of data (sample) but do not infer the properties of the population from which the sample was drawn.

Presentation of data in the form of tables and charts or summarization by means of percentiles and standard deviations

Histogram

A bar graph of a frequency distribution in which the widths of the bars are proportional to the classes into which the variable has been divided and the heights of the bars are proportional to the class frequencies.

Scatter plot

Two or three dimensional chart in which the density and direction of the plotted points indicates the type of relationship (or a lack thereof) between dependent and independent variables. Also called scatter diagram, scatter graph, or scatterplot, it is one of the seven tools of quality.

3.6 Limitation

- This research based only on Pakistani economy more country could be selected for this research to understand the worldwide economy
- We used the limited Sample size which can be increase in the research work
- We use five variable it can be increased and can expand the population size
- Only quantitative data is used to conduct this research qualitative data is not used
- Period of this research is based on 24 years only
- Data collected from the WDI data bank websites it is reliable but not effective

3.7 Ethical Consideration

- Only realistic, reliable and relevant data is taken in research.
- During the research no personal information is explored
- Ethical researchers do not fabricate or falsify data in their publications.
- Data used in research properly referenced using Harvard referencing system
- Almost all research guarantees the participants confidentiality hey are assured that identifying information will not be made available to anyone who is not directly involved in the study
- Data collected through the proper sources provided by Sample banks
3.8 Future Research

We are use the limited data and five factor are there so many factor who effect the economy of Pakistan my study has included many important determinants in the analysis on the basis of theoretical narrations, yet in future studies it would be useful to include some other variables in the analysis as well, addition of other variables e.g. industrial growth, foreign reserve and government policies, tariff rate, exchange rate, tax rate, credit to private sector and index of general share price and also I should take only 24 year data on the availability it can be spread on more year.

4. Result and Analysis

4.1 Descriptive Statistics

<table>
<thead>
<tr>
<th>Table 4.1</th>
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<tbody>
<tr>
<td><strong>N</strong></td>
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<tr>
<td>Exchange Rate (Rs.)</td>
</tr>
<tr>
<td>Foreign Direct Investment (Rs.)</td>
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<tr>
<td>Gross Domestic Product (Rs.)</td>
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<tr>
<td>Trade Deficit (Rs.)</td>
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<td>Trade volume (Rs.)</td>
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<td>Valid N (list wise)</td>
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In the above table the minimum values, maximum values, mean values and the values of standard deviation of all the five variables have been shown. Mean value provides the idea about the central tendency of the values of a variable. Number of observations of each variable is 24. Standard deviation and the extreme values (minimum in comparison to maximum value) give the idea about the dispersion of the values of a variable from its mean value. Since different units of measure have been used for different variables the dispersion of a variable using standard deviation can’t be compared to that of other variable unless both the variables have the same unit of measure. But still these statistics are helpful to have an idea about the central tendency and the dispersion of a variable in absolute terms rather than relative terms.

4.2 Histogram

A histogram is useful graphic representation of data to get a visual impression about its distribution. It may be noted that the area under a histogram can be calculated by adding up the areas of all the rectangles that constitute the histogram.
4.2.1 Histogram of Exchange Rate

In the above graph 4.2.1 of histogram on x-axis have an exchange rate and on y-axis no. of frequency in shape of year. The class boundaries show rupees values against one dollar ($) after passing one year. The first bar shows two year fall because value of rupees high against dollar. This graph show the devaluation of rupees against one dollar ($). The second bar massive no. of years are increase and value of rupees between (Rs.20 to Rs.30). After that devaluation of rupees is continuously decrease. But in sixth bar have a small change in rupees and then become appreciation in the value of rupees so it is shape of normal curve. Because mean, median, mod are equal. Last ten to fifteen year the value of rupees is decrease day by day and it reached on 90rs against one dollar( $)
4.2.2 Histogram of Foreign Direct investment

Figure 4.2.2

In figure 4.2.2, FDI on x-axis and number of year on y-axis. Class boundaries shows amount which invest foreign companies in Pakistan, in shape of million rupees. In first bar large no. of year are fall and lowest foreign direct investment in Pakistan between (0 to 50000) million rupees. Last two three years FDI are continuously increase. Because FDI across Rs. 400,000 million due to terrorism in Pakistan destroy the economy of Pakistan and not increase as the positive change in last 10 year. Mean of foreign direct investment is 79652 and standard deviation of FDI is 107997.67.
4.2.3 Histogram of Gross Domestic Product

Figure 4.2.3

In figure 4.2.3 histogram number of year on y-axis, and GDP on x-axis. Class boundaries are shows as 50 lac interval. So in first bar large no. of years are fall in between Rs. (0 to 16, 00,000). But this graph show approximately near to positive skewed. This figure show continuously improvement in GDP.in starting and then stable. Mean of GDP is 5189173.96 and standard deviation of GDP is 4875950.833
4.2.4 Histogram of Trade Volumes

Figure 4.2.4

In above figure 4.2.4 there is a graphical representation of trade volumes; x-axis is volume of trade and no. of year on y-axis. Class boundaries shows amount in million rupees. So in first bar trade volume amount is very low and large no. of years is fall in that bar. Trade volume is based on import and export. The curve in figure 5.1.4 is (+ve) skewed. Because trade volume is continuously increase. Mean of TV is 1855555.506 and standard deviation of TV is 2506627.60
4.2.5 Histogram of Trade deficit

Figure 4.2.5

In above figure 4.2.5 trade deficit on x-axis and no. of frequency in year on y-axis. Class interval Rs.500,000 in million. So large no. of years are falls in first bar. Trade deficit are negative effect on economy of Pakistan. So first bar is favorable because low amount as deficit. Curve on that graph is positive skewed. It is favorable for Pakistan. In 2003 and 2004 export of the Pakistan is more as compare import in the history of Pakistan it is first time happened that there is no trade deficit in that year and reserve of Pakistan are increase but afterward due terrorism in Pakistan it become negative.
4.3 SCATTER PLOT
4.3.1 Scatter plot of Exchange Rate
Figure 4.3.1

Scatter plot 4.3.1 in the above diagram independent variable is on x-axis and dependent variable is on y-axis. In this matrix show some idea about the relationship between trade deficit and exchange rate in Pakistan. This matrix shows the positive relationship between trade deficit and exchange rate. There is no specific relationship between trade deficit and exchange rate R Sq Linear is 0.502

4.3.2 Scatter plot of Foreign Direct Investment
Figure 4.3.2

Figure 4.3.2 is the graphical representation of foreign direct investment and trade deficit in the form of scatter plot matrix. In this matrix we intend to have some idea about the relationship between trade deficit and other variable is foreign direct investment. This matrix shows the positive linear relationship between trade deficit and foreign direct investment
4.3.3 Scatter plot of Gross Domestic Product

Figure 4.3.3 is the graphical representation of GDP and trade deficit in the form of scatter plot matrix we take independent variable on x-axis and dependent variable on y-axis. In this matrix we intend to have some idea about the relationship between trade deficit gross domestic products. This matrix shows the positive relationship between trade deficit and GDP and relationship of GDP and TD is not linear There is no specific relationship between trade deficit and GDP the difference between quadratic and linear is .008

4.3.4 Scatter plot of Trade Volume

Figure 4.3.4
Figure 4.3.4 is the graphical representation of trade volume and trade deficit in the form of scatter plot matrix. In this matrix we intend to have some idea about the relationship between trade deficit and other variable trade volume. This matrix shows the positive relationship between trade deficit and trade volume and it is not linear relation. There is no specific relationship between trade deficit and trade volume and difference between quadratic and linear is .082

### 4.4 Correlations

**Table 4.4.1**

<table>
<thead>
<tr>
<th></th>
<th>Trade Deficit (Rs.)</th>
<th>Gross Domestic Product (Rs.)</th>
<th>Foreign Direct Investment (Rs.)</th>
<th>Trade volume (Rs.)</th>
<th>Exchange Rate (Rs.)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Trade Deficit (Rs.)</strong> Pearson Correlation</td>
<td>1</td>
<td>.875**</td>
<td>.846**</td>
<td>.330</td>
<td>.709**</td>
</tr>
<tr>
<td>Sig. (2-tailed)</td>
<td>.000</td>
<td>.000</td>
<td>.116</td>
<td>.000</td>
<td>24</td>
</tr>
<tr>
<td>N</td>
<td>24</td>
<td>24</td>
<td>24</td>
<td>24</td>
<td>24</td>
</tr>
<tr>
<td><strong>Gross Domestic Product (Rs.)</strong> Pearson Correlation</td>
<td>.875**</td>
<td>1</td>
<td>.686**</td>
<td>.371</td>
<td>.913**</td>
</tr>
<tr>
<td>Sig. (2-tailed)</td>
<td>.000</td>
<td>.000</td>
<td>.075</td>
<td>.000</td>
<td>24</td>
</tr>
<tr>
<td>N</td>
<td>24</td>
<td>24</td>
<td>24</td>
<td>24</td>
<td>24</td>
</tr>
<tr>
<td><strong>Foreign Direct Investment (Rs.)</strong> Pearson Correlation</td>
<td>.846**</td>
<td>.686**</td>
<td>1</td>
<td>.663**</td>
<td>.625**</td>
</tr>
<tr>
<td>Sig. (2-tailed)</td>
<td>.000</td>
<td>.000</td>
<td>.000</td>
<td>.000</td>
<td>.001</td>
</tr>
<tr>
<td>N</td>
<td>24</td>
<td>24</td>
<td>24</td>
<td>24</td>
<td>24</td>
</tr>
<tr>
<td><strong>Trade volume (Rs.)</strong> Pearson Correlation</td>
<td>.330</td>
<td>.371</td>
<td>.663**</td>
<td>1</td>
<td>.476*</td>
</tr>
<tr>
<td>Sig. (2-tailed)</td>
<td>.116</td>
<td>.075</td>
<td>.000</td>
<td>.019</td>
<td></td>
</tr>
<tr>
<td>N</td>
<td>24</td>
<td>24</td>
<td>24</td>
<td>24</td>
<td>24</td>
</tr>
<tr>
<td><strong>Exchange Rate (Rs.)</strong> Pearson Correlation</td>
<td>.709**</td>
<td>.913**</td>
<td>.625**</td>
<td>.476*</td>
<td>1</td>
</tr>
<tr>
<td>Sig. (2-tailed)</td>
<td>.000</td>
<td>.000</td>
<td>.001</td>
<td>.019</td>
<td></td>
</tr>
<tr>
<td>N</td>
<td>24</td>
<td>24</td>
<td>24</td>
<td>24</td>
<td>24</td>
</tr>
</tbody>
</table>

**. Correlation is significant at the 0.05 level (2-tailed).**

**. Correlation is significant at the 0.01 level (2-tailed).**
Table 4.4.1 show the correlation of trade deficit with growth rate, foreign direct investment, trade volume, exchange rate. The correlation coefficient of trade deficit with growth rate is 0.875 at the significant level of 0.000. The given significant level is less than 0.05 which does provide any evidence against null hypothesis (h₀) in this case null hypothesis states:

H₀: There is no association between trade deficit and growth rate.
H₁: There is a significant association between trade deficit and growth rate.

Null hypothesis is rejected, so we conclude that there is relationship between the above two variable.

In the table 4.4.1 shows that there is correlation between trade deficit with FDI. The correlation coefficient of trade deficit with FDI is .846 at the significant level of 0.000. It mean trade deficit contribute 85% in foreign direct investment. The magnitude of above correlation is less than 0.05. The given significant level is less than 0.05 which does provide any evidence against null hypothesis (h₀) in this case null hypothesis states:

H₀: There is no correlation between trade deficit and foreign direct investment.
H₁: There is a significant correlation between trade deficit and foreign direct investment.

Null hypothesis is rejected, so we conclude that there is relationship between the above two variable.

The correlation of trade deficit with trade volume is 0.330 at the significant level of 0.116 which is more than 0.05 so we conclude that there is no signification relationship between trade deficit and trade volume. The given significant level is more than 0.05 which does provide any evidence against null hypothesis (h₀) in this case null hypothesis states:

H₀: There is no association between trade deficit and trade volume.
H₁: There is a significant association between trade deficit and trade volume.

Null hypothesis is accepted, so we conclude that there is no relationship between the above two variable.

Correlation coefficient of trade deficit with exchange rate is 0.709 at the significant level of 0.000. The given significant level is less than 0.05 which does provide any evidence against null hypothesis (h₀) in this case null hypothesis states that:

H₀: There is no association between trade deficit and exchange rate.
H₁: There is a significant association between trade deficit and exchange rate.

Null hypothesis is rejected, so we conclude that there is relationship between the above two variable.

Correlation coefficient of Gross Domestic Product (Rs.) with Foreign Direct Investment (Rs.) is 0.686 at the significant level of 0.000. The given significant level is less than 0.05 which does provide any evidence against null hypothesis (h₀) in this case null hypothesis states that:

H₀: There is no association between GDP and foreign direct investment.
H₁: There is a significant association between GDP and foreign direct investment.
Null hypothesis is rejected, so we conclude that there is relationship between the above two variable GDP and foreign direct investment.

Correlation coefficient of GDP with trade volume is 0.371 at the significant level of 0.075. The given significant level is more than 0.05 which does provide any evidence with null hypothesis (h0) in this case null hypothesis states:

H$_{0}$: There is no correlation between GDP and trade volume.
H$_{1}$: There is a significant correlation between GDP and trade volume.

Null hypothesis is accepted, so we conclude that there no is relationship between the above two variable GDP and trade volume.

Correlation coefficient of GDP with exchange rate is 0.913 at the significant level of 0.000. GDP and exchange rate contribute with each other is 91.3% . The given significant level is less than 0.05. it does provide any evidence against null hypothesis (h0) in this case null hypothesis states:

H$_{0}$: There is no correlation between GDP and exchange rate.
H$_{1}$: There is a significant correlation between GDP and exchange rate.

Null hypothesis is rejected, so we conclude that there no is relationship between the above two variable GDP and exchange rate.

Correlation coefficient of FDI with trade volume is 0.663 at the significant level of 0.000. The given significant level is less than 0.05 which does provide any evidence against null hypothesis (h0) in this case null hypothesis states:

H$_{0}$: There is no correlation between foreign direct investment and trade volume.
H$_{1}$: There is a significant correlation between foreign direct investment and trade volume.

Null hypothesis is rejected, so we conclude that there is relationship between the above two variable FDI and trade volume.

Correlation coefficient of FDI with exchange rate is 0.625 at the significant level of 0.001. They contribute with each other is 62.5%. The given significant level is less than 0.05 which does provide any evidence against null hypothesis (h0) in this case null hypothesis states:

H$_{0}$: There is no correlation between foreign direct investment and exchange rate.
H$_{1}$: There is a significant correlation between foreign direct investment and exchange rate.

Null hypothesis is rejected, so we conclude that there is relationship between the above two variable foreign direct investment and exchange rate.

Correlation coefficient of trade volume with exchange rate is 0.476 at the significant level of 0.019. The given significant level is more than 0.05 which does provide any evidence against null hypothesis (h0) in this case null hypothesis states:
H₀: There is no correlation between foreign direct investment and trade volume.
H₁: There is a significant correlation between foreign direct investment and trade volume.
Null hypothesis is accepted, so we conclude that there is no relationship between the above two variable.

4.5 Regression

4.5.1 Dependent variable: Exchange rate (Rs.)

Model Summary

<table>
<thead>
<tr>
<th>Model</th>
<th>R</th>
<th>R Square</th>
<th>Adjusted R Square</th>
<th>Std. Error of the Estimate</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>.709*</td>
<td>.502</td>
<td>.480</td>
<td>15.12915</td>
</tr>
</tbody>
</table>

a. Predictors: (Constant), Trade Deficit (Rs.)

ANOVA

<table>
<thead>
<tr>
<th>Model</th>
<th>Sum of Squares</th>
<th>Df</th>
<th>Mean Square</th>
<th>F</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Regression</td>
<td>5080.390</td>
<td>1</td>
<td>5080.390</td>
<td>22.196</td>
<td>.000*</td>
</tr>
<tr>
<td>Residual</td>
<td>5035.605</td>
<td>22</td>
<td>228.891</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>10115.995</td>
<td>23</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

a. Predictors: (Constant), Trade Deficit (Rs.)

b. Dependent Variable: Exchange Rate (Rs.)

Coefficients

<table>
<thead>
<tr>
<th>Model</th>
<th>Unstandardized Coefficients</th>
<th>Standardized Coefficients</th>
<th>t</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>B</td>
<td>Std. Error</td>
<td>Beta</td>
<td></td>
</tr>
<tr>
<td>(Constant)</td>
<td>38.565</td>
<td>3.753</td>
<td></td>
<td>10.276</td>
</tr>
<tr>
<td>Trade Deficit (Rs.)</td>
<td>3.823E-5</td>
<td>.000</td>
<td>.709</td>
<td>4.711</td>
</tr>
</tbody>
</table>

a. Dependent Variable: Exchange Rate (Rs.)

\[
\text{EXR}_t = 38.565 + 0.00003823\text{TD}_t
\]

**Interpretation**

We conducted regression analysis to investigate if there is a relationship between trade deficit and exchange rate. The results were statistically significant \( F (1, 22) = 22.196, p<.001 \). The identified equation to understand this relationship was exchange rate \( = 38.565 + 0.00003823 \text{trade deficit} \). The adjusted \( R^2 \) value was 48.0 This indicates that 48% of the variance in exchange rate
was explained by the trade deficit. According to Cohen (1988), this is a large effect. So we have strong evidence against null hypothesis which states:

H₀: There is no effect of trade deficit on exchange rate.
H₁: There is an effect of trade deficit on exchange rate.

null hypothesis (H₀) is rejected, we conclude the effect of trade deficit on exchange rate is positive at statically significant.

4.5.2 Dependent Variable: Foreign Direct Investment

Model Summary

<table>
<thead>
<tr>
<th>Model</th>
<th>R</th>
<th>R Square</th>
<th>Adjusted R Square</th>
<th>Std. Error of the Estimate</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>.846⁺</td>
<td>.716</td>
<td>.703</td>
<td>58886.4018</td>
</tr>
</tbody>
</table>

a. Predictors: (Constant), Trade Deficit (Rs.)

ANOVA⁺

<table>
<thead>
<tr>
<th>Model</th>
<th>Sum of Squares</th>
<th>Df</th>
<th>Mean Square</th>
<th>F</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Regression</td>
<td>1</td>
<td>1.920E11</td>
<td>55.362</td>
<td>.000⁺</td>
</tr>
<tr>
<td></td>
<td>Residual</td>
<td>22</td>
<td>3.468E9</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>23</td>
<td>2.683E11</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

a. Predictors: (Constant), Trade Deficit (Rs.)

b. Dependent Variable: Foreign Direct Investment (Rs.)

Coefficients⁺

<table>
<thead>
<tr>
<th>Model</th>
<th>Unstandardized Coefficients</th>
<th>Standardized Coefficients</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>B</td>
<td>Std. Error</td>
</tr>
<tr>
<td>1</td>
<td>(Constant)</td>
<td>17891.214</td>
</tr>
<tr>
<td></td>
<td>Trade Deficit (Rs.)</td>
<td>.235</td>
</tr>
</tbody>
</table>

a. Dependent Variable: Foreign Direct Investment (Rs.)

Regression equation is  

\[ Y = 17891.214 + .235X \]

Interpretation

We conducted regression analysis to investigate if there is a relationship between trade deficit and Foreign Direct Investment (Rs.). The results were statistically significant F (1, 22) = 55.362, p<.001. The identified equation to understand this relationship was Foreign Direct Investment = 17891.214 + .235 (Trade deficit). The adjusted R² value was .703. This indicates that 70% of the variance in Foreign Direct Investment was explained by the trade deficit. According to Cohen (1988), this is a large effect. So we have strong evidence against null hypothesis which states:

H₀: Independent variable trade deficit do not affect the foreign direct investment.
H₁: Independent variable trade deficit do affect the foreign direct investment.

Null hypothesis (H₀) is rejected, we conclude the effect of trade deficit on foreign direct investment is significant hence our model is good fit.
4.5.3 Dependent variable: GDP (Rs.)

Model Summary

<table>
<thead>
<tr>
<th>Model</th>
<th>R</th>
<th>R Square</th>
<th>Adjusted R Square</th>
<th>R Std. Error of the Estimate</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>.875</td>
<td>.766</td>
<td>.755</td>
<td>2.41303E6</td>
</tr>
</tbody>
</table>

a. Predictors: (Constant), Trade Deficit (Rs.)

ANOVA

<table>
<thead>
<tr>
<th>Model</th>
<th>Sum of Squares</th>
<th>Df</th>
<th>Mean Square</th>
<th>F</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Regression</td>
<td>1</td>
<td>4.187E14</td>
<td>71.912</td>
<td>.000</td>
</tr>
<tr>
<td></td>
<td>Residual</td>
<td>22</td>
<td>5.823E12</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>23</td>
<td>5.468E14</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

a. Predictors: (Constant), Trade Deficit (Rs.)
b. Dependent Variable: Gross Domestic Product (Rs.)

Coefficients

<table>
<thead>
<tr>
<th>Model</th>
<th>Unstandardized Coefficients</th>
<th>Standardized Coefficients</th>
<th>t</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>B</td>
<td>Std. Error</td>
<td>Beta</td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>(Constant)</td>
<td>2.305E6</td>
<td>598588.149</td>
<td>3.850</td>
</tr>
<tr>
<td></td>
<td>Trade Deficit (Rs.)</td>
<td>10.975</td>
<td>1.294</td>
<td>.875</td>
</tr>
</tbody>
</table>

a. Dependent Variable: Gross Domestic Product (Rs.)

Regression equation is \( Y = 2.305E6 + 10.975X \)

Interpretation

We conducted regression analysis to investigate is there are relationship between trade deficit and Gross Domestic Product (Rs.). The results were statistically significant \( F (1, 73) = 71.912, p<.001 \). The identified equation to understand this relationship was Gross Domestic Product (Rs.) =2.305E6+10.975(Trade Deficit). The adjusted \( R^2 \) value was .755. This indicates that 76% of the variance in Gross Domestic Product (Rs.) was explained by the Trade Deficit (Rs.). According to Cohen (1988), this is a large effect. So we have strong evidence against null hypothesis which states:

\( H_0: \) There is no effect of trade deficit on gross domestic product.
\( H_1: \) There is an effect of trade deficit on gross domestic product.

Null hypothesis is rejected we concluded that there is relationship between trade deficit and GDP and significant hence our model is a good fit.
4.5.4 Dependent variable: Trade Volume (Rs.)

Model Summary

<table>
<thead>
<tr>
<th>Model</th>
<th>R</th>
<th>R Square</th>
<th>Adjusted R Square</th>
<th>Std. Error of the Estimate</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>.330(^a)</td>
<td>.109</td>
<td>.068</td>
<td>2.41977E6</td>
</tr>
</tbody>
</table>

\(^a\) Predictors: (Constant), Trade Deficit (Rs.)

ANOVA\(^b\)

<table>
<thead>
<tr>
<th>Model</th>
<th>Sum of Squares</th>
<th>Df</th>
<th>Mean Square</th>
<th>F</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Regression</td>
<td>1.570E13</td>
<td>1</td>
<td>1.570E13</td>
<td>2.681</td>
<td>.116(^a)</td>
</tr>
<tr>
<td>Residual</td>
<td>1.288E14</td>
<td>22</td>
<td>5.855E12</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>1.445E14</td>
<td>23</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

\(^a\) Predictors: (Constant), Trade Deficit (Rs.)

\(^b\) Dependent Variable: Trade volume (Rs.)

Coefficients\(^a\)

<table>
<thead>
<tr>
<th>Model</th>
<th>Unstandardized Coefficients</th>
<th>Standardized Coefficients</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>B</td>
<td>Std. Error</td>
</tr>
<tr>
<td>1</td>
<td>(Constant)</td>
<td>1.297E6</td>
</tr>
<tr>
<td></td>
<td>Trade Deficit (Rs.)</td>
<td>2.125</td>
</tr>
</tbody>
</table>

\(^a\) Dependent Variable: Trade volume (Rs.)

Regression equation is

\[ Y = 1.297E6 + 2.125X \]

**Interpretation**

We conducted regression analysis to investigate is there are relationship between trade deficit and Trade volume (Rs.). The results were statistically significant \(F (1, 22) = 2.681, p>.001\). The identified equation to understand this relationship was Dependent Variable: Trade volume (Rs.) = 1.297E6 + 2.125 (Trade Deficit (Rs.)). The adjusted \(R^2\) value was .068. This indicates that 6.8% of the variance in Trade volume (Rs.) was explained by the Trade Deficit (Rs.). According to Cohen (1988), this is a no effect. The given value of the significant level of F-statistic provides us the strong evidence against null hypothesis for f-statistics are stated as below.

\(H_0:\) Independent variable trade deficit do not affect trade volume.

\(H_1:\) Independent variable trade deficit do affect trade volume.
Null hypothesis accepted we conclude there is no relation between trade deficit and trade volume and they are not significant hence our model is not good fit.

5. Conclusion

This study has conducted to find the effects of trade deficit on the economy of Pakistan in which trade deficit is the independent and gross domestic product, foreign direct investment exchange rate are the dependent variables. Depending on the availability of data we have selected the longest possible sample period to avoid the small sample bias. A sample period of 24 years has been selected for this study for the period of 1988-2011 with annual frequency. There are five variables have been selected for this research. We use histogram, scatter plot matrix and the correlations ordinary least square method of multiple-regression has been used for the analysis. Trade deficit has been used as independent variable. In histogram of rupees value against U.S dollar are continuously decrease. But two three times had very high variation in rupees (Rs) against U.S dollar ($), it is effected due to inappropriate government policies and foreign loan payments and terrorism and foreign aids are very low for previous year in Histogram of foreign direct investment(FDI). It is because of government doesn’t providing facilities and support to the investor. Gross domestic product (GDP) of the Pakistan is very low because government doesn’t utilize the natural resources of Pakistan. Gross domestic product (GDP) is automatic increase when the government of Pakistan work to utilize the natural resources in better way. Import of the country are more as compare to export government must provide facilities to domestics investor and can reduced the import and increase export. In histogram also represent the trade volume (TV) in which imports of Pakistan is very high while export is low. Scatter plot show the positive relationship dependent and independent variables except trade volume. So its result shows if the government working on these variables then trade deficit should automatically decrease like 2003 and 2004 in which our export are more as compare to import. Correlation coefficient of trade deficit with gross domestic product, foreign direct investment, exchange rate has shown the moderate correlation except trade volume these are high effect due to trade deficit. Our results show trade deficit on trade volume it is positive but not statistically significant. Because this shows that on average foreign direct investment has been not a problem in Pakistan during the period under study. Foreign direct investment of ten years is very low, afterward it is gradually increase from previous. Now a day it is low but is better with their previous year. The coefficient of exchange rate as it was expected, but impact of trade deficit on exchange rate is not statistically significant so devaluation of money have a bad effect on economy of Pakistan. According to the definition of exchange rate used in this study any increase in exchange rate represents the local currency depreciation. The absence of this condition shows that the demand for imports and exports of Pakistan is less elastic. The less flexible in demand for imports and exports of Pakistan might be the reason of this negative effect. Monetary authority of Pakistan should maintain the value of exchange rate at the lower level. Positive and significant impact on trade deficit cause increase in gross domestic product, trade volume. These play very important role to improve the economy of Pakistan. Primary objective in this research to examine trade deficit. All the data is taken from WDI. There are many product which causes of increase in foreign reserve. There are few high value import like defence and medical machinery, petroleum & petroleum products, and chemicals operate required a large amount of foreign reserves. Pakistan does not have healthy atmosphere for foreign direct investments as compare to others like India china Malaysia Bangladesh. Political instability, economic condition, high inflation, and lower gross domestic saving. Some others
factors are also effected like fluctuating oil prices, lower production of value added products and insufficient capability of domestic producers are the main cause of deficit in Pakistan’s balance of payments. Government can overcome on these factors by making the best policies for import and export and encourage domestics investor.

**Recommendations**

- Pakistan exports great quantities of cotton, leather, gem stone etc. in their raw form. Instead of this we should establish industries and export these things after processing and converting them to some finish goods.
- Literacy rate of the Pakistan is 55% which is too low as compare to other country china 94% turkey 91% Indonesia 92% Iran 85% Egypt 66% and India 62% etc. Pakistan must improve the literacy rate of the country must be 90% as Growth in literacy Pakistan become the better policy.
- Electricity is the main problem of the Pakistan we construct more dams and generate electricity through hydral power stations, this electricity would be very cheap so it and also installed the alternative energy plants like solar and wind mills there are help in the agricultural and industrial sector. Pakistan is one of the countries who has a lot of mineral resources Pakistan should use mineral resources and increase their GDP.
- Industrialization and mineral resources also play a vital role in building country’s economy, so they also need our special attention and they are in massive need of improvement.
- Pakistan is an agrarian country. 70% of its economy is based on agriculture the agriculture sector’s production can be improved by introducing mechanization and making it common for farmers. Most of the farmers in Pakistan are poor and unable to adopt modern techniques. So they should be provided with (easy to return) loans. The farmer should be educated that they must only use the seeds of good quality; they must use appropriate fertilizers in right quantities. The farmer should be made aware that they should practice collective farming instead of farming on small fragments of land, by doing this they would be able to set up tube wells and buy tractors (of their own) collectively. It will increase the foreign exchange reserve.
- Industries should be established near to the resources to save the fuel used for transporting the raw material.
Pakistan imports great quantities of petrol and other fuels most of the reserve are used for oil and fuel payment we should reduce the import it will help to manage our trade deficit and reserve will increase.

Government must improve the economic policies such as taxes, subsidy, education policies and reserve monetary policies. Trade system, minimizes tariffs, import quotas, and exchange rate and also control the inflation rate.

Pakistan should try to establish more domestic as well as international industries inside the country to increase the domestic productions. It will help you to fulfill domestic demands but also increase the exports of the country. The country should provide opportunities to foreign investors to develop their businesses in a peaceful society of Pakistan.

Focus should be made on those industries where we have the genius comparative advantages and raw material availability in the domestic markets i.e. increase investment in the gem stone, jewelry, leather industries, textile manufacturing, surgical instruments, and sports goods.

R&D helps us to reduced cost with better quality and it will also help you to increase the quantity which will fill the domestic requirements but also can export. Pakistan must make greater investments in the area of research and development.

Pakistan’s exports are not all over the world. Most of the export only in seven countries of the world. Pakistan must spread its exports and try to find some new markets. If raw materials and machinery used in domestic productions are supplied by domestic industries (local manufacture) this will increase demand for their products, which creates more employment. Higher export growth helps in achieving higher economic growth.

Pakistan must take various steps to increase foreign direct investment. The Pakistan of government must build up the confidence of outside Pakistani and enhance workers remittance. It will help to reduce the current account deficit.
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### Appendix

<table>
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<tr>
<th>Series Name</th>
<th>Official exchange rate (LCU per US$, period average)</th>
<th>Foreign direct investment, net (Rs) million</th>
<th>GDP (current Rs) million</th>
<th>Imports of goods and services (current Rs) million</th>
<th>Exports of goods and services (current Rs) million</th>
<th>Trade deficit (million)</th>
<th>Stocks traded, total value (Rs) million</th>
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