Effect of Different Factors on Gross Domestic Product: A Comparative Study of Pakistan and Bangladesh

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Abstract:
This study investigates the affect of thirteen selected factors (independent variables) on Gross Domestic Product (GDP) in Pakistan and Bangladesh economy, for the purpose of comparing both countries finding, to identify with reasons, which country is in better position and why? Economic growth measured in GDP by using time series data over the period 1976/77 to 2008/09 for the last thirty-four years. GDP represent the dependent variable and independent variables taken such as gross national expenditure, final consumption expenditure, goods exports & imports, services exports & imports, external debt stocks, gross saving, FDI inflows, FDI outflows, gross domestic income, net income from abroad and worker's remittances and compensation of employees paid. This study found that in Pakistan gross national expenditures, goods exports, gross saving and final consumption expenditure have a positive effect on the GDP. But the factors such as external debts total stock and services exports have a negative effect on the GDP of Pakistan. In case of Bangladesh, this study found that factor such as gross national expenditures, external debts stock total, goods imports and exports have positive effect on the GDP of Bangladesh but the factor as final consumption expenditure has negative effect on the GDP of Bangladesh.
Keyword: GDP, Pakistan, Bangladesh, Different Factors

Introduction

There are a few issues which have been long debated and have been not resolved in the literature of development economics, the affect of different factors on the GDP as economic growth is one of them. In this study GDP represent the dependent variable and 13 independent variables taken such as Gross National Expenditure (GNE), Final Consumption Expenditure (FCE), Goods Exports, Goods Imports, Services Exports, Services Imports, External Debt Stocks, Gross Saving, Foreign Direct Investment Inflows (FDI In), Foreign Direct Investment Outflows (FDI Out), Gross Domestic Income (GDI), Net Income From Abroad (NIFA) and Workers' remittances and compensation of employees paid (WRACE).

The most recognized indicators used for assessing a nation's economic growth are Gross Domestic Product (GDP), Gross National Product (GNP) and Balance of Payments (BOP). GDP is the market value of all the products and services that are produces by the people and property of a given country, for the period of one year (Afzal, 2007). GNP is the total measure of the flow of goods and services at market value resulting from current production during a year in a country, including net income from abroad (Akhtar & Tahir, 2002). BOP is overall record of accounts of all the transactions between residents or people of a country and rest of the world (Aslam, 2010).

Thought both the indicators GNP and GDP efficient but GDP is favored. In other words, GDP is more concerned towards, where the production occurred and is less concerned with, who produced it (Vissak & Roolaht, 2005).

The foreign direct investment (FDI) inflow into Pakistan increased from US $ 322.4 millions1 in 2000-01 to US $ 5,153 million in 2007-08.

Bangladesh, one of the poorest countries in the world with a population of 144 million, counts on the inflow of foreign exchange to fund its imports. The Bangladeshi economy grew by a healthy 6.2 per cent to the year ended June 30, 2008, despite a sluggish investment climate due to a state of emergency, severe flooding and a devastating cyclone.

Gross national expenditure (formerly domestic absorption) is the sum of household final consumption expenditure (formerly private consumption), general government final consumption expenditure (formerly general government consumption), and gross capital formation (formerly gross domestic investment). Final consumption expenditure consists of expenditure incurred by resident institutional units on goods or services that are used for the direct satisfaction of individual needs or wants or the collective needs of members of the community. This consumption expenditure may take place on the domestic territory or abroad.

The term export is derived from the conceptual meaning of ship the goods and services out of the port of country and the term import is derived from the conceptual meaning as to bring in the goods and services into the port of a country (Allbusiness.Com). External Debt refers to the portion of a country's debt that was borrowed from foreign lenders including commercial banks, governments or international financial institutions. These loans, including interest, must usually be paid in the currency in which the loan was made. In order to earn the needed currency, the borrowing country may sell and export goods to the lender's country.

The top officials at Ministry of Finance have of view, that with depreciation of Pakistani currency by one rupee the public debt increases by Rs45 billion. Since the Pak

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currency melted down by Rs8.30 against one US dollar during the time under review, so the country would have to face extra financial burden of Rs373.5 billion in its debt regime.

Gross saving are calculated as gross national income les total consumption, plus net transfer and unemployment means that the state of being without paid work, through willing and able to work. Inflation define as the rise in the prices of goods and services, as happens when spending increases relative to the supply of goods on the market-in other words, too much money chasing too few goods. The definition of services trade under the GATS is four-pronged, depending on the territorial presence of the supplier and the consumer at the time of the transaction (WTO, 2010).

According to the United Nations Conference on Trade and Development (UNCTAD), the global expansion of FDI is currently being driven by over 64,000 transnational corporations with more than 800,000 foreign affiliates, generating 53 million jobs. According to Lim (2001) many studies have confirmed the positive effects of FDI on the host country economic growth; he also founded some that there is still no consensus on the degree of these affects. Balasubramanyam, Salisu, & Sapsford (1996) found that the impact of Domestic Saving on economic growth have been widely studied, there are still questions concerning the real affects of saving, and also concerning the necessary conditions and the channels through which different factors leads to economic growth.

Objectives of study

The objective of this study is to investigate the affect of different selected factors as independent variables on Gross Domestic Product (GDP) in Pakistan and Bangladesh. Purpose is to conduct comparative study and analyze that which country is in better position by comparing both countries findings.

Hypotheses to be tested

The study focuses on testing the following hypotheses for both countries as Pakistan and Bangladesh:

In case of Pakistan:

H_1: The Model is best fit. ($P < 0.05$)

Ho: The Model is not best fit. ($P > 0.05$)

In case of Bangladesh:

H_2: The Model is best fit. ($P < 0.05$)

Ho: The Model is not best fit. ($P > 0.05$)

The further hypothesis about the regression or slope coefficient (Betas excluding intercept β_0) depends on the fitting of model, which will be discussed under the sections of methodology and results.

Alternative Hypothesis about Coefficients of Regressions of 13 Independents Variables

As it mentioned in the study that total 13 independent variables are used to investigate the affective on GDP, so

H1 =Gross National Expenditure affect the GDP of Pakistan.

H2 = Final Consumption Expenditure affect the GDP of Pakistan.

H3 = Goods Exports affect the GDP of Pakistan.

H4 = Goods Imports affect the GDP of Pakistan.

H5 = Services Exports affect the GDP of Pakistan.

H6 = Services Imports affect the GDP of Pakistan.

H7 = External Debt Stocks Total affect the GDP of Pakistan.

H8 = Gross Saving the GDP of Pakistan.

H9 = FDI Net Inflows affect the GDP of Pakistan.

H10= Gross Domestic Income affect the GDP of Pakistan.

H11= Net Income from Abroad affect the GDP of Pakistan.

H12= WRAEC affect the GDP of Pakistan.

H13= FDI Net Outflows affect the GDP of Pakistan.

The remaining paper structure is as follows. Section 2 provides the literature review. Theoretical framework is built in the section 3. Discusses the data and explains the methodology of analysis in section 4. Section 5 reports the results and discussions regarding analysis. Comparative discussion in section 6, Conclusions and Recommendations mentioned in section 7 and References are mentioned in section 8.

Literature Review

There have been extensive theoretical and empirical research to date that attempt to focus on the relationship between inflation and economic growth, both in the context of developed and developing countries. In particular, during the last decade a large number of studies focused on the economic growth in less developed countries. But there is no consensus with regard to the direction of causality about GDP and their affective factors. This section presents a brief review related to economic factors.

Iqbal (2010) argued that FDI is generally considered as a factor which enhances economic growth, as well as the solution to the economic problems of developing countries. That deals with causality link between FDI, GDP, Exports and Import; he founded bidirectional causality between FDI and GDP, FDI and Export, GDP and Export, and Imports and Exports. Muhammad (2000) suggested that for a true transformation of any economy, including Pakistan and Bangladesh, non-economic problems are critical. Although Bangladesh was not a separate unit for his analysis, remarkably, as articulated in this paper, the experience of Bangladesh fits quite snugly into Myrdal's analysis as simply a continuation of Pakistan's experience. Awan (2010) examined that overall impact of FDI inflows into the economy of Pakistan, by using annual time series data for the period of 1971-2008. Results indicated that Gross Fixed Capital Formation (GFCF), Degree of Trade Openness (TO) and Inflation rate (INF) are statistically significant with positive signs.

Shamim and Mortaza (2005) investigated the relationship between inflation and economic growth in the context of Bangladesh. The empirical evidence demonstrates that there exists a statistically significant long-run negative relationship between inflation and economic growth for the country as indicated by a statistically significant long-run negative relationship between CPI and real GDP. Afzal (2007) examined that financial integration do not have short-run impact on economic growth. Long run equilibrium relationship is founded between economic growth and GDP. Public sector investment and private investment stimulate each other that in turn benefit the economic growth. According to Vissak and Roolaht (2005) positive effects on economic growth is may be result of Gross Saving and Population growth.

Chew (2010) examined the short-run and long-run dynamic interactions between exports, imports and income for Pakistan within a multivariate framework. Chew (2010) also suggest that with the used of imports as an additional relevant variable in the empirical model, the researchers can have a better understanding on the affects of exports on economic growth. However, that study doesn't find evidence to support import-led growth and export-led growth hypotheses in the long-run. In the short-run, this study finds evidence to support export-led growth, growth-led exports, import-led growth and growth-led imports hypotheses. This study suggested that exports and imports are important in fueling the economic growth of Pakistan in the short run.

Mubarik (2005) estimated the threshold level of inflation for Pakistan using an annual data set from the period between 1973 and 2000. His estimation of the threshold model suggests that an inflation rate beyond 9-percent is detrimental for the economic growth of Pakistan. Atique, Ahmad & Azhar (2004) argued that the affect of FDI in import substitution industries may be different from those of export–oriented industries since former target mostly the limited domestic market, while the latter target the larger international market. Moreover, it generates more employment.

Aurangzeb (2006) investigated the relationship between exports and economic growth in Pakistan by utilizing the analytical framework. The hypothesis that marginal factor productivities are not equal in export and non-export sectors of the Pakistan economy is tested by using time series from 1973 to 2005. Their study estimation results indicated that marginal factor productivities significantly higher in the export sector. Moreover, the difference seems to derive, in part, from inter-sectoral positive externalities generated by the export sector. In broad terms, therefore, the results of their study supportive of the export oriented, outward-looking approach to trade relations adopted by policymakers over the past decade.

Andros and Sugata (2006) examined the impact of government expenditure on growth, in a heterogeneous panel for 15 developing countries. With the help of GMM techniques, study showed that countries with substantial government expenditure have strong growth affects, which vary considerably across the nations. According to some studies that were investigated in the long run, services exports do have a positive impact on GDP growth, both in developed and in developing countries. Yet, in the latter, the services exports/GDP growth nexus was severely weakened in the 1990s (to the point of becoming statistically not significant), while it grew quite strong in developed countries. Nasir and Akhter (1979) invested the impacts of defense expenditures on economic growth and other major economic variables in the Pakistan economy. In which time series annual data set especially constructed for this purpose. The data set covers the period 1972–1995 and the study suggested that there is bi-directional feedback between the defence burden and GDP growth.

Fotopoulos and Louri (2004) examined a modal which consists of five variables as GDP, FDI, labor force, and gross capital formation as a percentage of GDP, which founded that Pakistan's capacity to progress on economic development will depend on performance in attracting FDI. Alfaro (2003) conducted a study taking panel /data 47 countries sample for the period 1981-1999 and indicators such as output levels and growth, FDI, Govt., institutional quality, inflation, openness, private credit, schooling that FDI negative affects in the primary sector, a positive effect of FDI in manufacturing on growth and in the service sector an ambiguous affect. Barro (1995) explored the inflation–economic growth relationship using a large sample covering more than 100 countries from 1960 to 1990. His empirical findings indicate that there exists a statistically significant negative relationship between inflation and economic growth.

Theoretical Framework

The theoretical framework is developed through the literature review. The history of economic theory and research in the area of foreign direct investment is relatively short. Although it has its roots in the writings of classical economists such as Adam Smith and David Ricardo who first acknowledged the importance of international specialization in production as a means to increase economies of scale, efficiency and economic growth.

Smith (1776) predicted that globalization would be a force for economic progress. Ricardo (1817) mentioned in the principle of comparative advantages expands on Smith's theory argued that nations should specialize in the production of goods that they can produce most efficiently in terms of international factor movements. Heckscher (1919) and Ohlin (1933) build the H-O modal on David Ricaro's theory of comparative advantage by predicting patterns of commerce and production based on the factor endowments of a trading region

According to expenditure approach components of GDP;

$GDP = C + I + (ex – i)$

Here

C = Private Consumption,

I = Gross Investment,

G = Govt. Spending and

(ex – i) = Exports – Imports = Net Exports

And according to Income approach components of DGP as under;

$GDP = COE + GOS + GMI$

Here

COE = Consumption of Employees

GOS = Gross Operating Surplus

GMI = Gross Mixed Income

Independent Variables

With the help of two approaches of GDP as mentioned above, this study tries to include those independent variable which somehow cover GDP component of these approaches such;

1. Gross National Expenditure (Current in Million US$),
2. Final Consumption Expenditure (Current in Million US$),
3. Goods Exports (Current in Million US$),
4. Goods Imports (Current in Million US$),
5. Services Exports (Current in Million US$),
6. Services Exports (Current in Million US$),
7. External Debt Stocks (Current in Million US$),
8. Gross Saving (Current in Million US$),

9. FDI Net Inflows (Current in Million US$),
10. FDI Net Outflows (Current in Million US$),
11. Gross Domestic Income (Current in Million US$),
12. Net Income from Abroad (Current in Million US$) and
13. Workers' remittances and compensation of employees paid.

After reviewing literature review and some theories related to economic growth measure in (GDP), it's clear that GDP is affected by a number of factors which may or may not become reason for economic growth. However according to the review of literature it is observed that due to some selected above factor, a positive significance change is occurred in the GDP.

Data and methodology

Data

To investigate the affect of thirteen selected independent variables on the GDP in Pakistan and Bangladesh, the data were taken from the World Bank Development Indicators 2009. Annual time series data covering the period 1976/77 to 2008/09 for past 34 years, which data was available was used. The figures of the GDP were taken in million of US dollar. Table1 shows the time series data of Pakistan for the period of 1976 to 2009 and Table 2 shows the time series data of Bangladesh for the period of 11976 to 2009.

Methodology and models

In the study following empirical Multiple Regression Model is used to investigate the affect of fourteen selected independent variables on the GDP in Pakistan and Bangladesh.

1.1.1. In case of Pakistan

In case of Pakistan

SPSS Software is used for the purpose of analysis, the following model considered as a best fit model for this study. This model is selected from numerous other statistical models which obtained by Multiple Regression Analysis with Stepwise method. Result of all models are present in table 3.

GDP = □□□□□□□□GNE + □2 GdsExp + □□GrsSvg + □4 SerExp + □□EDST + □6 FCExp + e

Here

- GDP= Gross Domestic Product (in million US $);
- GNE = Gross National Expenditure (in million US $);
- GsdExp= Goods Exports (IN million US$);
- GrsSvg = Gross Saving (In million US $);
- SerExp = Services Exports (In million US $);
- EDST = External Debt Stocks Total (Current in Million US$);
- FCExp = Final Consumption Expenditures (Current in Million US$); and
- e = Error Term

Further the model of this study contained;

- β_0 define the intercept of this model,
- β_1 defined as coefficient regression of Gross National Expenditure
- β_2 described as coefficient regression of Goods Exports
- β_3 described as coefficient regression of Gross Saving
- β_4 described as coefficient regression of Services Exports
- β_5 described as coefficient regression of External Debt Stocks Total
- β_6 described as coefficient regression of Final Consumption Expenditures

After putting the values of the slope coefficients in model, the Multiple Regression Line as under;

GDP = -975.672 + 0.537 GNE + 1.203 GdsExp + 0.614 GrsSvg – 2.854 SerExp + 0.263
EDST + 0.171 FCExp + e

In case of Bangladesh

The main hypotheses of on hand study are as following:

By the SPSS Software, the following model considered as a best fit model for this study. This model selected from different models which obtained in Multiple Regression Analysis with Stepwise method and Table 4 showed the result of all models

GDP = □0 + □1 GNE + □2 EDST + □3 FCExp + □4 GodImp + □5 GodExp+ e

Here

- GDP= Gross Domestic Product (in million US $),
- GNE = Gross National Expenditure (in million US $),
- EDST = External Debt Stocks Total (Current in Million US$)
- FCExp = Final Consumption Expenditures (Current in Million US$)
- God Im = Goods Imports (in million US $),
- GodExp = Goods Exports (In million US $) and
- e = Error Term

Further the model of this study contained;

- β_0 define the intercept of this model,
- β_1 defined as coefficient regression of Gross National Expenditure
- β_2 described as coefficient regression of External Debt Stocks Total
- β_3 described as coefficient regression of Final Consumption Expenditures
- β_4 described as coefficient regression of Goods Imports
- β_5 described as coefficient regression of Goods Exports

After putting the values of the slope coefficients in model, the Multiple Regression Line as under;

GDP = 200.563 + 1.155 GNE + 0.124 EDST - 0.299 FCExp -0.518 GodImp
+ 0.440 GodExp + e

Results and discussions

In case of Pakistan

The study obtains the following best fit model:

GDP = -975.672 + 0.537 GNE + 1.203 GdsExp + 0.614 GrsSvg – 2.854 SerExp + 0.263 EDST + 0.171 FCExp + e

Table 1. Summary of Model 2 results

R	R^2	Adj. R^2	F Sig.	t Sig. β_0	t Sig. β_1	t Sig. β_2	t Sig. β_3	t Sig. β_4	t Sig. β_5	t Sig. β_6
0.997	0.994	0.985	.000	.000	.000	.000	.000	.000	.000	.006

Table 2. Values of Coefficients of Regression

Value of β_0	Value of β_1	Value of β_2	Value of β_3	Value of β_4	Value of β_5	Value of β_6
-975.672	0.537	0.1.203	0.614	-2.584	0.263	0.171

Table 3. Coefficients

Model	Unstandardized Coefficients		t	t Sig.	95% Confidence Interval for B	
					Lower Bound	Upper Bound
	Betas	Std. Error				
β_0 (Constant)	-975.672	416.428	-2.343	0.000	-1830.111	-121.232
B_1	.537	.050	10.686	0.000	.434	.640
B_2	1.203	.245	4.904	0.000	.700	1.707
B_3	.614	.065	9.518	0.000	.482	.747
B_4	-2.854	.623	-4.582	0.000	-4.132	-1.576
B_5	.263	.036	7.285	0.000	.189	.338
B_6	.171	.057	2.987	0.006	.054	.289

From the analysis of this study, the value of F means the p value tell about the overall fitting of model that the model number 2 in the case of Pakistan is appropriate a best fit model because the value of the f have value, less than the 0.05. and the value of coefficient of determinant R Square tell that in this study the about 99% of the variation in the GDP is explained by the Coefficient of regressions or slops such as national gross expenditure, goods exports, services exports, gross saving and external debt stock total.

Further the analysis results of this study also suggests that the value of Coefficient of Correlation R about 1.000 which means that GDP is highly positive with the gross national expenditure, goods exports, gross saving, services exports, external debts stock total and final consumption expenditures because the value of these Coefficient Regressions or slops have positive sign such as β1 equal to 00.537, β2 equal to 1.203, β3 have value of 0.614, β5 equal to 0.623 and β6 have value of 0.717.

Further the value of the Coefficient Correlation shows that GDD is highly negative correlated with the services exports because the value of the Coefficient Regression or slop of the services exports is negative. So, from these results, it can be identify that most of the variables became the reason of incensement of GDP in Pakistan.

The value of the Coefficient of regression of Gross National Expenditures β1 = 0.537 which measure the slope of the line show that as the value of NGE increase by the one dollar, the estimated increase in the value of GDP on average about 53 cents by considering the constant values of all other coefficient regressions. Further the value of the value of the Coefficient of regression of Goods Exports β2 = 1.203 which measure the slope of the line show that as the value of God Exp increase by the one dollar, the estimated increase in the value of GDP on average about 1 cents and 21 cents, by considering that constant values of all other coefficient regressions. The value of the Coefficient of regression of Gross Saving β3 = 0.614 which measure the slope of the line show that as the value of Grs Svg increase by the one dollar, the estimated increase in the value of GDP on average about 62ents by considering the constant values of all other coefficient regressions. Further the value of Coefficient of regression of Gross Saving β5 = 0.263 which measure the slope of the line show that as the value of Grs Svg increase by the one dollar, the estimated increase in the value of GDP on average about 26ents by considering the constant values of all other coefficient regressions. And the value of Coefficient of regression of Final Consumption Expenditures β6 = 0.171 which measure the slope of the line show that as the value of FCE, increase by the one dollar, the estimated increase in the value of GDP on average about 17 cents.

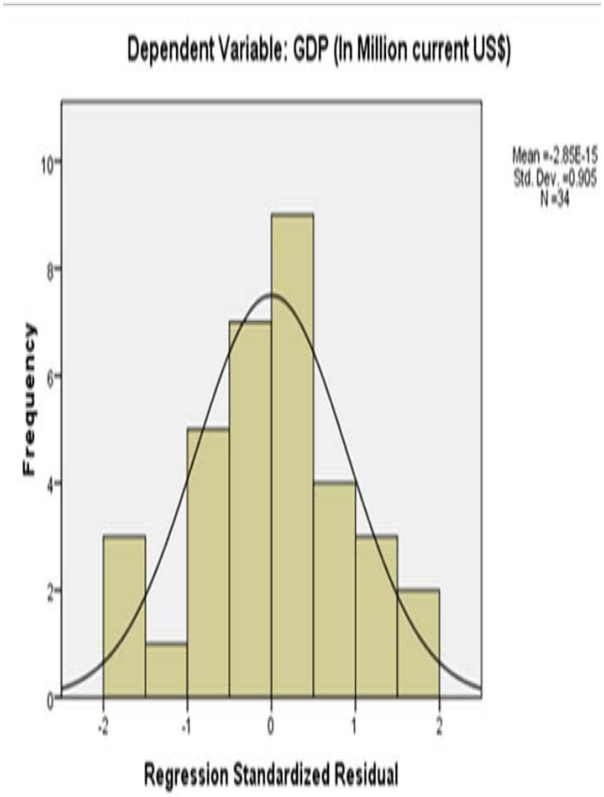
The value of the βo = -975.672, which is intercept of the line indicate the average level of Gross Domestic Product when the all Regression Coefficients remain constants on their level as zero. Study also suggested that if in Pakistan, its consider that there is not any variable or factor which affect the GDP then the Pakistan GDP is at level decrease as -975.672.

The results of this study also tell about the confidence interval of the coefficient regressions, as it mentioned in the above table the value of all coefficient regressions with confidence interval of 95%. According to this study it can say that the value of all Coefficients regression which is part of this model must lies between the Lower Class Limits and Upper Class Limits 95 time out of 100 times.

Accept or Reject Hypothesis about Coefficients of Regressions in case of Pakistan

On the base of "t" values from the above table, this study accepts these hypotheses such as H1, H2, H3, H5, H7 and H8. In case of Pakistan, this study shows that the Gross National Expenditures, Goods Exports, Gross Saving, Services Exports, External Debt Stock Total and Final Consumption Expenditures affect the Gross Domestic Product of Pakistan.

- H1 = Gross National Expenditure affect the GDP of Pakistan
- H2 = Final Consumption Expenditure affect the GDP of Pakistan.
- H3 = Goods Exports affect the GDP of Pakistan.
- H5 = Services Exports affect the GDP of Pakistan.
- H8 = Gross Saving the GDP of Pakistan.
- H7 = External Debt Stocks Total affect the GDP of Pakistan.



Figur 1. Histogram

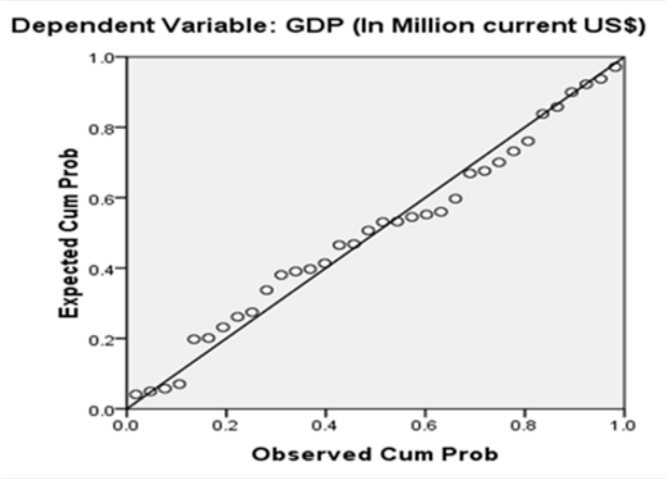


Figure 2. P-P Plot of Regression Standardizes Residual

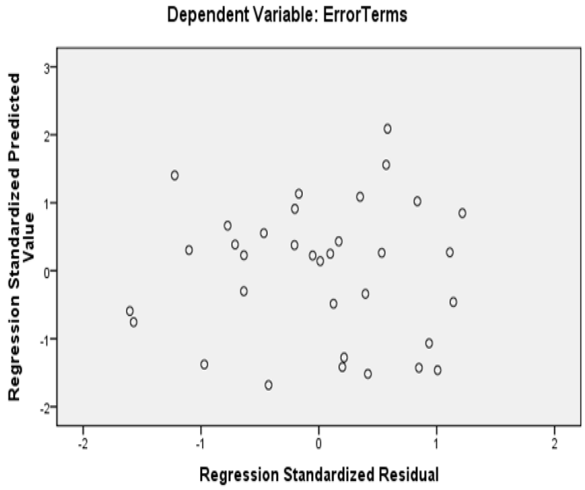


Figure 3. Scatter plot

Table 4. Values of Error Terms in case of Pakistan

Year	GDP	Esetameted Values of GDP	Error Term Values	Year	GDP	Esetameted Values of GDP	Error Term Values
1976	13338.49	12227.49	1111.00	1993	51478.35	51125.63628	352.718282
1977	15126.06	14345.89	780.17	1994	51894.80	51916.33883	-21.5431756
1978	17820.10	17362.22	457.89	1995	60636.07	60412.77845	223.293238
1979	19707.98	19584.23	123.75	1996	63320.17	61910.81509	1409.35499
1980	23689.70	24129.55	-439.85	1997	62433.34	62603.7931	-170.45263
1981	28100.61	28236.25	-135.64	1998	62191.96	62062.81438	129.14143
1982	30725.97	30194.37	531.60	1999	62973.86	62981.64553	-7.78980681
1983	28691.89	29852.93	-1161.03	2000	73952.37	73189.2812	763.093773
1984	31151.83	31072.64	79.19	2001	72309.74	72684.67024	-374.931323
1985	31144.92	31062.35	82.57	2002	72306.82	72436.85129	-130.030895
1986	31899.07	31779.99	119.09	2003	83244.80	83480.71986	-235.91877
1987	33351.53	34382.29	-1030.76	2004	97977.77	97576.26903	401.497172
1988	38472.74	38643.38	-170.64	2005	109600.00	108599.9904	1000.0096
1989	40171.02	39763.70	407.32	2006	127500.00	128658.1847	-1158.18468
1990	40010.43	40579.72	-569.29	2007	143171.18	143678.5518	-507.369148
1991	45451.96	45942.62	-490.65	2008	163891.68	162757.6229	1134.05312
1992	48635.24	49727.56	-1092.32	2009	161989.98	161858.4372	131.53898
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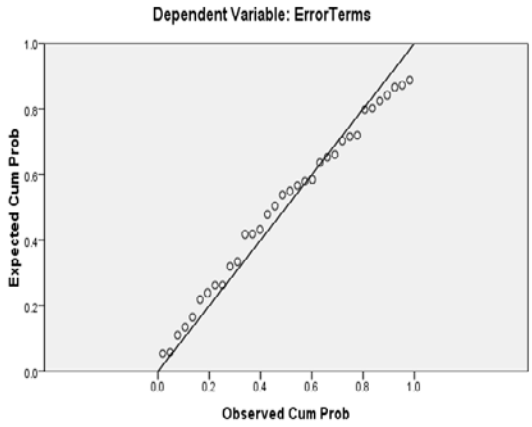


Figure 4. P-P Plot of Regression Standardizes Residual

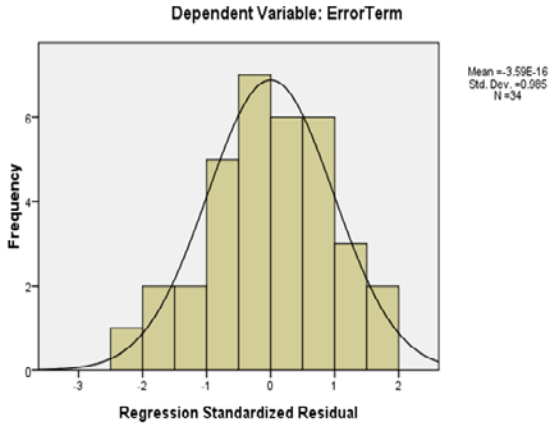


Figure 5. Histogram

In case of Pakistan

We obtain the following best fit model:

GDP = 200.563 + 1.155 GNE + 0.124 EDST - 0.299 FCExp -0.518 GodImp + 0.440 GodExp + e

Table 5. Summary of Model 2 results

R	R^2	Adj. R^2	F Sig.	t Sig. β_0	t Sig. β_1	t Sig. β_2	t Sig. β_3	t Sig. β_4	t Sig. β_5
0.989	0.978	1.000	.000	.009	.000	.000	.000	.000	.010

Table 6. Values of Coefficients of Regression

Value of β_0	Value of β_1	Value of β_2	Value of β_3	Value of β_4	Value of β_5
200.563	1.155	0.124	-0.299	-0.518	0.440

Table 7. Coefficients

Model	Unstandardized Coefficients		T	t Sig.	95% Confidence Interval for B	
					Lower Bound	Upper Bound
	Betas	Std. Error				
β_0 (Constant)	200.563	161.317	1.243	0.009	-129.881	531.007
B_1	1.155	.055	20.843	0.000	1.041	1.268
B_2	.124	.018	6.697	0.000	.086	.161
B_3	-.299	.072	-4.164	0.000	-.447	-.152
B_4	-.518	.075	-6.873	0.000	-.673	-.364
B_5	.440	.107	4.115	0.010	.221	.659

In case of Bangladesh, from the analysis of this study results, the value of F means the p value tell about the overall fitting of model that the model in the case of Pakistan is appropriate a best fit model because the value of the f have value, less than the 0.05. and the value of coefficient of determinant R Square tell that in this study the about 98% of the variation in the GDP is explained by the Coefficient of regressions or slops such as national gross expenditure, External debt total stock, final

consumption expenditure, goods imports, and goods exports.

Further the analysis results of this study also suggests that the value of Coefficient of Correlation R about 0.984 which means that GDP is highly positive with the gross national expenditure, external debt total stock and goods exports because the value of these Coefficient Regressions or slops have positive sign such as β_1 equal to 1.155, β2 equal to 0.124 and β5 equal to 0.440.

Further the value of the Coefficient Correlation shows that GDD is highly negative correlated with the final consumption and goods imports because the value of the Coefficient Regression or slop of the services exports is negative. So, from these some results of this analysis of study, it can be identify that mostly variables became the reason of incensement of GDP in Pakistan.

The value of the Coefficient of regression of Gross National Expenditures β1 = 1.155 which measure the slope of the line show that as the value of NGE increase by the one dollar, the estimated increase in the value of GDP on average about 1millio and 16 cents dollars by considering the constant values of all other coefficient regressions. Further the value of the value of the Coefficient of regression of external debt stock total β2 = 0.124 which measure the slope of the line show that as the value of external debt stock total increase by the one dollar, the estimated increase in the value of GDP on average about 0.124 million dollars, by considering that constant values of all other coefficient regressions. The value of the Coefficient of regression of final consumption expenditure β3 = -0.299 which measure the slope of the line show that as the value of final consumption expenditure increase by the one dollar, the estimated decrease in the value of GDP on average about 0.299 million dollars by considering the constant values of all other coefficient regressions. Further he value of Coefficient of regression of goods imports β4 = -0.518 which measure the slope of the line show that as the value of goods exports increase by the one dollar, the estimated decrease in the value of GDP on average about 0.518 million dollars by considering the constant values of all other coefficient regressions. And the value of Coefficient of regression of goods exports β6 = 0.440 which measure the slope of the line show that as the value of goods exports, increase by the one dollar, the estimated increase in the value of GDP on average about 0.440 Million dollars.

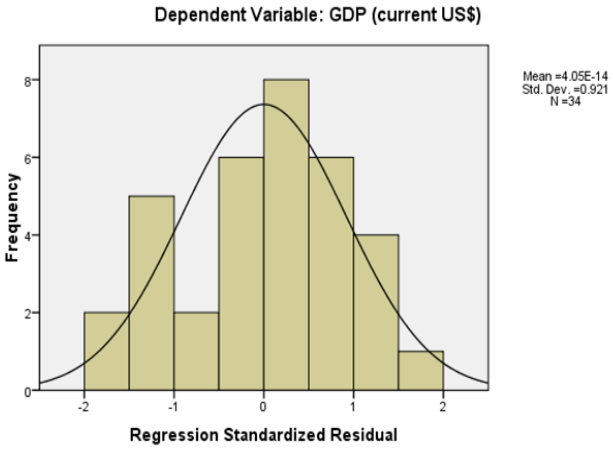
The value of the βo = -200.563, which is intercept of the line indicate the average level of Gross Domestic Product when the all Regression Coefficients remain constants on their level as zero. Study also suggested that if in Bangladesh its consider that there is not any variable or factor which affect the GDP then the Pakistan GDP is at level as 200.563 million dollars.

The results of this study also tell about the confidence interval of the coefficient regressions, as it mentioned in the above table the value of all coefficient regressions with confidence interval of 95%. According to this study it can say that the value of all Coefficients regression which is part of this model must lies between the Lower Class Limits and Upper Class Limits 95 time out of 100 times.

Accept or Reject Hypothesis about Coefficients of Regressions in case of Bangladesh

On the base of "t" values from the above table, this study must accept these hypotheses such as H1, H2, H3, H4 and H7. In case of Pakistan, this study shows that the Gross National Expenditures, Goods Exports, Gross Saving, Services Exports, External Debt Stock Total and Final Consumption Expenditures affect the Gross Domestic Product of Pakistan.

- H1 =Gross National Expenditure affect the GDP of Pakistan
- H7 = External Debt Stocks Total affect the GDP of Pakistan
- H2 = Final Consumption Expenditure affect the GDP of Pakistan
- H3 = Goods Exports affect the GDP of Pakistan
- H4 = Goods Imports affect the GDP of Pakistan



Figur 6. Histogram

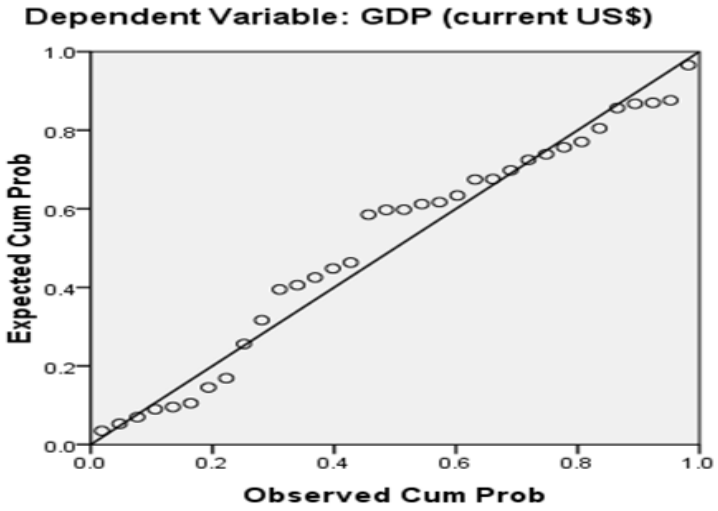


Figure 7. P-P Plot of Regression Standardizes Residual

Table 8. Values of Error Terms in case of Bangladesh

Year	GDP	Esetameted Values of GDP	Error Term Values	Year	GDP	Esetameted Values of GDP	Error Term Values
1976	10083	10366	-283	1993	33167	33282	-115
1977	9632	9336	297	1994	33769	33821	-52
1978	13299	13265	34	1995	37940	37931	9
1979	15586	15412	174	1996	40666	41014	-348
1980	18115	18344	-229	1997	42319	42286	33
1981	19763	19595	168	1998	44092	43992	100
1982	18087	18354	-267	1999	45694	45641	53
1983	17156	17335	-179	2000	47125	47115	10
1984	19670	19736	-65	2001	46988	47067	-79
1985	21613	21511	102	2002	47571	47578	-6
1986	21160	21066	95	2003	51914	52145	-231
1987	23781	23829	-48	2004	56561	56439	121
1988	25639	25706	-68	2005	60278	60449	-171
1989	26825	26767	58	2006	61901	62185	-283
1990	30129	30387	-258	2007	68415	68450	-34
1991	30957	30883	75	2008	79554	79561	-6
1992	31709	31548	161	2009	89360	89408	-48
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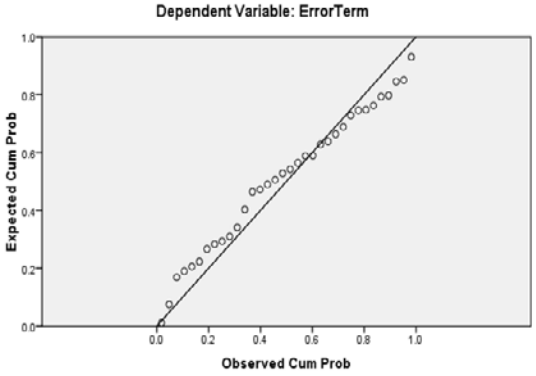

Figure 8. Scatterplot

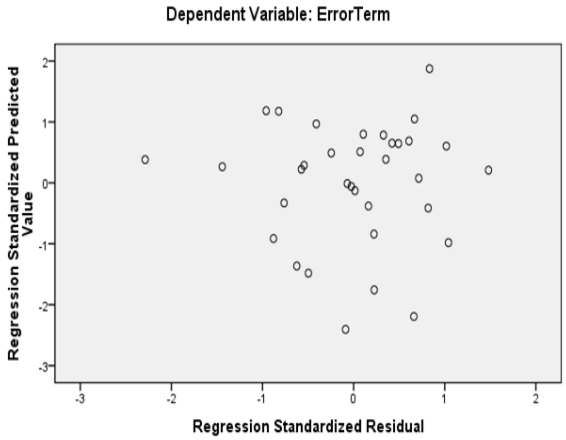

Figure 9. P-P Plot of Regression Standardizes Residual

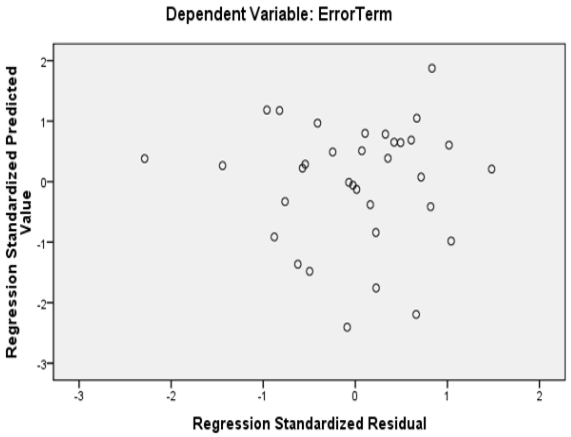

Figure 10. Histogram

Comparative Discussion with respect to analysis of Pakistan and Bangladesh

According to the results of this study with respect to Pakistan and Bangladesh, this research indicates that Bangladesh lie in better position as compare to Pakistan. Because the value of intercept is in positive in case of Bangladesh and the value of the intercept is negative in case of analysis of Pakistan. Further the study shows that in last decade the economy of Bangladesh increase due to increasing the investment in to the country and this inflow investment in final became the reason for the increase in the goods exports. In Bangladesh both the goods exports and the goods imports affect the GDP of the country but due to the goods import the GDP of the Bangladesh decrease and due to increase the goods export the GDP increase. And in the both countries the Gross National Expenditure had a positive effect on the GDP. Further the factor such as the Final consumption Expenditure had also a positive effect on the GDP in the both countries Pakistan and Bangladesh.

As the factors FDI not show any effect on the GDP of Pakistan, its means that due to the some factors such as booms blasts, uncontrollable system of the country, politics parties and instability in the prices of different goods,

products, servicer etc. the Foreign countries have not any interest in the country of Pakistan for investment, so due to these reasons the intercept of the Pakistan Model shows the negative value as -975.672 million dollars.

Conclusions and Recommendations

This study examined the affect of thirteen selected factors (independent variables) on Gross Domestic Product (GDP) in Pakistan and Bangladesh, for the purpose of comparing both countries finding, to identify with reasons that which country is in better position and why. Economic growth measured in Gross Domestic Product (GDP) in both countries by using time series data over the period 1976/77 to 2008/09 for the last 34 years.

This study investigates by using the multiple regression models for affect of some factors on the GDP and found that in Pakistan Gross National Expenditures, Goods Exports, Gross Saving and Final Consumption Expenditure have a positive effect on the GDP. But the factors such as External Debts Total Stock and Services Exports have a negative effect on the GDP of Pakistan.

In case of Bangladesh, this study found that factor such as Gross National Expenditures, External Debts Stock Total, Goods Imports and Goods Exports have positive effect on the GDP of Bangladesh but the factor as Final Consumption Expenditure has negative effect on the GDP of Bangladesh.

In context of the recommendation according to this study, Pakistan involve foreign private sector in technical training and development as well as in manpower export. Government should pay the private sector for each employment person trained. Develop fruits and vegetable processing zones near Karachi, Lahore, Multan, Faisalabad, Rawalpindi, Quetta and Mingore etc. by doing so more jobs can be generate for people. Develop downstream industries to generate the job. Adopt modern agriculture methods to reduce the wastage of water and to improve agriculture productivity. Promote development of corporate farming and growing cash crops. Involve private sectors in program and project implementation to the maximum, use of foreign resources wherever possible.

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