Journal of Economics and Sustainable Development
ISSN 2222-1700 (Paper) ISSN 2222-2855 (Online)
Vol.5, No.19, 2014

Which Factors Influence the Economic Growth of the Country? Evidence with Reference to Pakistan

Muhammad Nawaz (Corresponding Author)
Department of Management Sciences, Islamia University of Bahawalpur
Email: nawaz120g1@hotmail.com

Muhammad Qurban Rafiq
Department of Management Sciences, Islamia University of Bahawalpur
Email: Mqurbanrafiq@yahoo.com

Atif Mehmood
Department of Management Sciences, Islamia University of Bahawalpur
Email: moneekhan2003@yahoo.com

Muhammad Abdullah
Department of Management Sciences, Islamia University of Bahawalpur
Email: muhammadabdullah.iub@gmail.com

Muhammad Safdar Hussain
Department of Management Sciences, Islamia University of Bahawalpur
Email: safdarmalik5@yahoo.com

Abstract
Economic growth of the country is influenced by different factors. These factors vary from country to country. Some of the factors which fluctuate the economic growth of the country are common in all the countries either these are developed countries or underdeveloped countries as well. Different researches have already been conducted by different researchers in different countries and they used different variables which have impact on economic growth of the country as well. This study used five independent variables named as Inflation Rate, FDI, Literacy Rate, exchange rate and interest which become the reason of bringing change in economic growth of the country. Gross Domestic Product has been used as proxy for economic growth of the country as dependent variable in this study. This study mostly results match with previous studies as well. This study used for tests for results such as collinearity for reliability, correlation, regression and descriptive statistics as well to check the relationship between these dependent variable and independent variables. This study found that three variables named as inflation rate, FDI and interest rate has significant positive relationship with GDP except one inflation rate which has significant negative relationship with GDP. While other two variables named as exchange rate and literacy rate has insignificant positive relationship with GDP as well.
Keywords: GDP, FDI, Pakistan, Collinearity, Regression, Correlation, Pakistan

Introduction

Many developed countries tried to minimize their level of poverty and to make the government institutions more powerful and strong so that country's economic growth could be boosted. These developed countries make sure that their people life quality is good and they protected their natural resources from destroying and their wastage in the hands of different stakeholders. They focused on the stability of political situations in the country. Different countries developed different economic policies to bring growth in their economy as well. They emphasized on the increment of saving and decreasing the population growth (Solow, 1956). Different researchers used different methods in their researches to check the impact of different factors such as inflation, FDI, Literacy, population growth and different other factors on the economic growth of Pakistan as well.

Different factors such as human capital, technology involvement and open trade policies and inflation also become the reasons for the fluctuations in the economic growth of the country (Fischer, 1993). If it we see in Pakistan here economic growth depends upon the structural changes in the country. If structural changes are positive then these changes become the positive influencing factors of economic growth. If the structural changes are negative then these changes derail the economic growth from its original track. Pakistan is a developing country that's why its natural resources cannot be utilized by the government due to lack of financial resources in the country as well. If a government try to bring structural changes in the economy it needs a lot of money and it takes loans from foreign countries on heavy interest rates along with many economic sanctions which become the reasons to slow down the economic growth.

Different techniques such as bringing improvement in the balance of payments, decreasing the inflation rate shortening the fiscal deficit so that economic growth could be stable. The factors such as free trade agreements, lack of accountability and transparency in structural reforms, wrong and late economic policies, privatization of national institutions, superior level of corruption, no convenient implementation of policies, burden of foreign debts etc become the reason of decrement in the economic growth of any country (Singer, 1995).

Foreign direct investment also play very important role for the economic growth of any country. FDI grab the attention of researchers in the field of economic development and emphasized that many basic issues regarding it remain unsolved. When foreign investment comes in a developing country first of all it increases the employment level of that country poor people get jobs and their standard of living increases and they work very hard which results the increment in the economic growth of the country (Riedel, 1987). Many researchers are of the view point that growth rate of the country attracts the FDI while if growth rate of any country is low the FDI incoming is low in that country.

Gross domestic product is the dependent variable in this study. Macroeconomic policy developers are of the view point that they always try to keep inflation low so that high economic growth could be achieved. Inflation always remained under debate of researchers from many years because it has a direct relationship with economic growth of the country. Different factors determine the inflation rate but inflation is always divided into two categories named as demand pull inflation and cost push inflation. Demand pull inflation is at that time when there is aggregate demand increases and cost pull inflation is there where when there is short of supply and it increases the prices of goods as well.

Economic position of the country tells about the relationship between inflation and economic growth. When there is high level of economic growth without increasing the inflation rate it means economy has a potential out and it is growing without disturbing demand in the country. Problem creates at that time when there is a difference between actual output and potential output because there is no demand balance and additional capacity is available and demand will grow. This problem could be solved only when there is a balance between actual output and potential output it means the full capacity is being used instead of spare capacity. At this stage the level of employment is full and economy is working at superior level.

General Price level of goods increases at that time when inflation continues to grow due to not expansion in the capacity of production as well. Many other factors such as interest rate, exchange rate, national income, literacy may also affect the economic growth of the country either positively or negatively. When population increases and with that the production also increases then increase in population has positive impact on economic growth and vice versa. When production increases it means the people get employment and per capita income also increases and people become more prosper. Literacy rate also affect positively and negatively to the economic growth of the country. If literacy rate is high people have options to get start their business and get best opportunity which would have a positive impact on the economic growth of the country and if literacy rate is low it means people are not able to start their business and they can work only in the form of labourer which is not more profitable. Literate people can utilize the resources of the country efficiently and effectively as well. They earn more with spending very few pennies.

Interest rate in the country may also affect the country economic growth differently. If there is high interest rate in the country people will not take loan and don't start their business means do not make investment because they have to pay more instead of earning high. If interest goes high people saving remained unused and economic growth is disturbed negatively. Exchange rate of the country may also influence the economic growth of the country. If there is high exchange rate in your country your economic growth may move forward and if exchange rate is low then the country economic growth may lead back.

Those countries which natural resources are used efficiently these countries don't move toward poverty. Almost those countries which are under development process may use their natural resources but not efficiently and effectively as well. All the countries which are less developed ca not use their resources because they have not enough money to explore their resources so that economic growth could be enhanced. Pakistan is a developing country here natural resources are available but due to lack of financial resources the natural resources could not be explored as well due to which it is facing many economic problems. Many projects which are relevant to natural resources could not be start by the Pakistan government in many eras due to which its economic growth is not good.

This research study focuses on different factors of the economic growth of the country which positively or negatively vacillate its performance. This was all about the introduction of the study the other sections of the research are second section will be literature review, third section will be research methodology of the study, fourth section will elaborate the findings of the study and the last fifth section will consist of discussions and conclusion.

Motivation of the study

Economic growth has been remained under debate of researchers from many years. Due to different financial environmental changes such as financial crisis in the world and natural disasters affect the economic growth of the country. Many researchers worked upon economic growth in developed countries because there is no problem for the researchers because they don't have financial constraints for them during research project. Many researchers found different factors which influence the economic growth of the country. They are of the view that economic growth sustainability is consistent with policies of the government. If governments make policies for benefit of public then these policies are fruitful for the economic growth of the country. If these policies are against of public then these may derail the economic growth from its origin track of development.

In developing countries very few researches are conducted by the academia because they are not paid for their efforts to investigate different phenomenon in the country due to which they don't work for common goals. If these researchers start work they face the financial and time constraints due to which they cannot continue their research as well. Governments do not support these researchers to work on different research projects.

In Pakistan different studies have been conducted to investigate the relationship between different independent variables and one independent variable GDP which represents the economic growth of the country. This study is going to investigate the relationship between variables which may not have been already investigated by other researchers in Pakistan. There is a electricity shortfall in the country, terrorism in the country and political instability in the country motivates the researchers to investigate and to see the economic growth of the country.

With the passage of time different factors take place which affect the economy of the country. Due to changes in different areas of interest of the economy researchers develop their interest in new areas. This study is going to investigate those factors which contribute in the economic growth of the country.

Objectives of the Study

Economic growth remained under discussions of different researchers but it is important to note here that due to passing of time the economy of the country takes the effect of different factors which every researcher try to investigate. No doubt many researchers will be conducted in Pakistan but it is first research which is going to investigate the relationship between some independent variables and on independent variable which may be different from the previous researches. It is also important to mention here that different factors remained high and low influence on the economic growth of the country.

With the passage of time if one factor have positive influence on economic growth it might be possible in next era that factor has negative influence on economic growth of the country. These movements of variables and their impact compel researchers to conduct study and to check the relationship in between them. It is also note able that economic growth is dependent on different variable which takes different trends in different period of time. Following are the objectives of the study:

- Is there a association between inflation and Economic growth
- Is there a tie between interest rate and economic growth
- Is there a correlation between literacy rate and economic growth of the country
- Is there an association between FDI and economic growth
- Is there a link between exchange rate and economic growth

Above are research questions which will be answered by the study after empirical analysis of quantitative data of the study. This research questions are developed to investigate the actual problems and its solutions. This was the first chapter, the second chapter is literature review, the third chapter is methodology, the fourth chapter is findings of the study and fifth chapter would be discussions and conclusion.

Literature Review

Many factors can influence the economic growth of the country. These factors include interest rate, rate of inflation, exchange rate, literacy rate and many more which vary country to country. This study is using GDP as a symbol for the economic growth of the country. In different countries the GDP has different relationship such as positive or negative with other independent variables as well. This study uses the variables such as rate of inflation, rate of interest, literacy rate, FDI and exchange rate as independent variable.

Inflation and GDP

Many studies have been conducted in different countries these countries may be developed or under developed or less developed so that the relationship between inflation and GDP could be found. Every researcher found different results as according to their data. Two theorists named as structuralists and monetarists have different at top of relationship between inflation and GDP. Structuralists are of the view point that due to inflation the economic growth increases or decreases with same trend as the inflation increases or decreases. While on the other hand monetarists argue that there is a inverse relationship between inflation and GDP of the country. They are of the point that as the inflation increases the GDP of the country decreases in against of inflation. If inflation decreases then GDP increases as according to inflation. Many other researchers asserted in their researches that inflation leaves harmful impact on the economic growth of the country (Mallik and Choudhry, 2001; Bruno and

Easterly, 1998).

One other researcher conducted a research and found that there is a negative relationship exists between inflation and GDP. He is of the view point that there are extreme values which disturb the association between inflation and economic growth of the country (Dornbush, 1993). One of the researchers concluded that there is a different trend about inflation regarding economic growth. They are of the view point that inflation may have positive or negative relationship with economic growth. They give opinion that as the inflation crosses a standard it may go to negative effect on economic growth (Sarel, 1996). A study was conducted by Khan and Qasim in (1998) which concluded that inflation has negative relationship with GDP of the country. Two other researchers conducted a research and found that there is positive relationship between disinflation and economic growth of the country (Ghosh and Phillips, 1998).

Another study was conducted in South Africa in which researchers found that if inflation is in single digit it is beneficial for the economic growth of the country while the inflation in double could be harmful for the economic growth of the country (Nell, 2000). A study was conducted in Brazil in which they tried to investigate the relationship between inflation and GDP. They concluded that that inflation doesn't have an effect on the output and economic growth of the country (Faria and Carneiro, 2001). One other research was concluded that there is a long term positive relationship between Inflation and GDP of the Pakistan. They are of the view point that this relationship is for long run instead of short run.

Literacy rate and GDP

Importance of education cannot be denied in the economic development of the country. Human capabilities can be increased only through the education which becomes the root cause of economic development of the country. Socio Economic policies can be improved and implemented in a better way due to superior outcome of education which would also become the cause of reduction in poverty. Many developing countries and less developed countries remained fail to increase the skilled manpower of the country. Economic growth in Pakistan is still unsatisfactory due to many factors such as terrorism, low effort on education sector and political instability etc. High inflation rate, deficit in balance of payments, burden of foreign debts, low exports of Pakistani products, weak level of physical and human capital of the country and very weak law and order situation in the country become the reason for unsustainable economic development. Educated and skilled human capital always tries to increase their income due to which employment opportunities in the country increases. Education and economic growth are interlinked. Economic growth, level of output of production, equal distribution of income is only possible due to the better educational policies in the country. To get education is not necessary but implementation of education on the society is too important.

A study was conducted in Europe which concluded that education is basic human right for which government is liable to the public (Hannum and Buchmann, 2006). Another study was conducted in South Asian countries including Sri Lanka, Philippines, Bangladesh and India which found that unequal distribution of education has negative impact on the economic growth of the country due to which per capita income is very low in these countries. Another study was conducted in Pakistan which found that education is the best predictor of economic growth. Temple (2000) asserted that there is a positive relationship between education economic growth of the country because due to betterment in educational reforms and policies the productivity of the country increases. Another study was conducted in which researcher inserted that there is positive relationship between better educational policies and GDP. They are of the view point that as the educational policies are implemented then social and country economic goal can be achieved very well (Kerr, 2001).

A study has been conducted in New Zealand in which researcher concluded that there is a strong association between economic growth and education. They are of the view point that without knowledge wave the human living standards were reducing and economic growth was declining (Lattimore, 2002). Steven and Weale (2003) insisted in their research that there is a positive relationship between economic growth and education policies in the country through parameters of inefficiency model. They suggested that higher educated individuals are earning higher income. Another study was conducted which found that there is a positive relationship between education and GDP by using five complementary theoretical models. Many other researchers are of the view that economic growth can be improved by talented and qualified human resource management (Afza and Nazir, 2007; Abbas and Peck, 2007; Papademos, 2007).

Interest Rate and GDP

The importance of interest rate cannot be ignored during discussion of GDP of the country. Interest rate plays vital role in the economic growth of the country. Different researchers are of the view point that there is a strong relationship between interest rate GDP of the country. A research was conducted in a country in which researcher asserted that there is a positive relationship between interest rate and GDP (Fry, 1995). Another researcher in his research inserted that there is strong positive relationship between interest rate and GDP. They are of the view point as interest rate increases the economic growth also increases accordingly (Galbis, 1995).

A study was conducted in world bank in 1993 which found that there is a significant positive relationship between real interest rate and economic growth of the country. They give opinion that this relationship exists only at the time of absence of inflation in the country. Many other researchers are of the view point that there is a significant relationship between real rate of interest and GDP of the country as well (De Gregorio and Guidotti, 1995).

Exchange Rate and GDP

Many theorists discussed and profound a relationship between economic growth in shape of GDP and exchange rate of the country. They emphasised that real exchange rate plays the role of backbone in the economic growth of the country. Some researchers found that there is no strong relationship between exchange rate and GDP. Gala (2007) asserted in his research that there is no perfect relationship evidences received from the empirical studies. Another research was conducted which found that there is a no enough relationship prevails between exchange rate of the country and economic growth of the country. They give opinion that fluctuation in exchange cannot affect the economic growth of the country. They are of the view point that GDP takes influence of exchange rate but very low level (Bhalla, 2007).

There have not been found any evidence from the literature that there is a enough or strong relationship exists between GDP of the country and Economic growth. One other study found in its research that there exists a relationship between economic growth and GDP of the country but its negativity and positivity is not clear (Levy- Yeyati, 2002). Rodrick (2008) conducted a research in which he concluded that GDP takes the influence of economic growth in developing countries. Economists do not agree with this argument and they said that the relationship between economic growth and GDP vary country to country. Some other researchers are of the view that the relationship between GDP and economic growth exists in developing countries and not in developed countries.

FDI and GDP

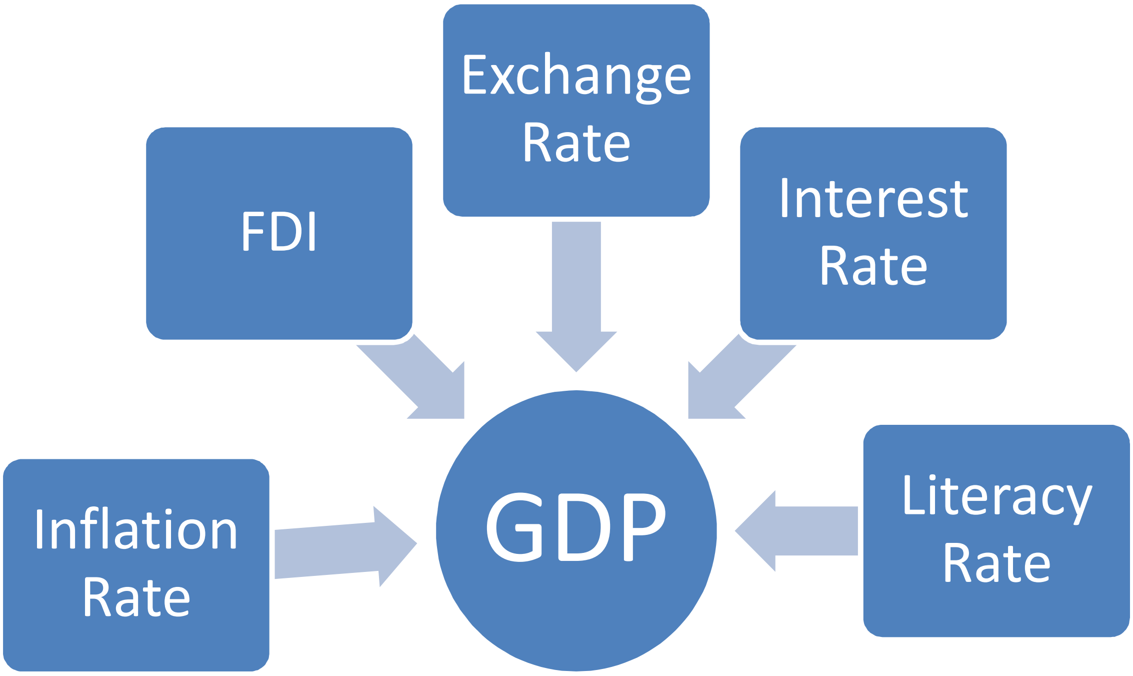
FDI has become much important for the economic growth of the country because due to FDI financial resources come in the country which reduces many hurdles such as unemployment, poverty and inflation rate. Capital can be collected from world by the developing countries to boost their economy. Many economists called FDI with the name of economic boosting tool because it strengthens the economy of any country (Muhammad, 2007). FDI brings increment in employment opportunities in the country, increment in export rate, exchange of technology and mass production. Natural resources could be explored by the FDI in developing countries.

A study was conducted in Pakistan which concluded that FDI has negative impact on the economic growth of the country (Falki, 2009). Another research was conducted upon South Asian countries which asserted that there is a negative relationship between FDI and GDP in developing countries (Agarwal, 2000). Adam and Tweneboah (2009) conducted a research in Ghana which concluded that there is positive relationship between FDI and Economic growth and suggested that this relationship will be beneficial for long run time period. Abbas et al. (2011) tried to find the relationship between FDI and GDP in SAARC member countries and found that overall there is a positive relationship exists between FDI and GDP of the country.

Another researcher asserted that there is a positive relationship between FDI and GDP. They suggested that FDI can play pivotal role in the economic development of the country at that time when initial GDP and Human Capital of that country is sound (Wu and Chiang, 2008). Alfaro et al. (2004) insisted after conducting a study that there is a positive relationship between FDI and economic development of the country. They provided opinions that those countries which have sound financial system are capable to explore their resources when they receive FDI in their country. A study was conducted in Pakistan which concluded that FDI positively influences the economic growth of the country (Shabir and Mahmood, 1992).

Theoretical Framework

This research model will show the relationship between five independent variables and one dependent variable.



Methodology
The main purpose of this study is to investigate the relationship between the independent variables named as inflation rate, FDI, interest rate, exchange rate and literacy rate and the dependent variable named as GDP. This study uses time series data for fifteen years from 1998 to 2013 of Pakistan.

Development of Research Hypothesis
Why researchers use the literature review in their study? The researchers use previous literature so that they can take the view of previous studies about this topic what they found. These past studies may have been conducted in different countries, regions and cities and we try to test empirically about our surroundings regarding our topic of economic growth as well. Therefore on the basis of previous studies we develop hypothesis and try to test our own hypothesis.

Research Hypothesis
Different studies have been conducted and they used the same variables as we are using in this study as predictor of economic growth is inflation. Some studies concluded in their research that there is a negative relationship between inflation and economic growth (Mallik and Choudhry, 2001; Bruno and Easterly, 1998; Dornbush, 1993; Qasim, 1998; Sarel, 1996; Ghosh and Phillips, 1998).

H1: There is a negative relationship between inflation and GDP

Past studies concluded in their findings that there is a positive relationship between FDI and economic growth of the country. They give the opinion that as the FDI in form of different names comes in the country the economic growth of the country increases as well (Muhammad, 2007; Falki, 2009; Agarwal, 2000; Tweneboah (2009; Abbas et al., 2011; Wu and Chiang, 2008; Alfaro et al., 2004; Shabir and Mahmood, 1992).

H2: There is a positive relationship between FDI and GDP of the country

Different studies have different findings concerning the relationship between GDP of the country and interest rate. Some researchers showed positive relationship and others showed inverse relationship between GDP and interest rate but majority of the studies support positive relationship between GDP and interest rate. They are of the view that as interest rate increases the country economic conditions goes prosperous and people make investments and therefore financial institutions earn more (Fry, 1995; Galbis, 1995; De Gregorio and Guidotti, 1995).

H3: There is a positive relationship between GDP and interest rate

This study uses exchange rate as its independent variable. Not more studies used this variable as a factor which may influence the economic growth of the country either positively or negatively. Mostly studies found no relationship between GDP and exchange rate. They suggested in their studies that increment in exchange rate do not affect the economic growth of the country as well (Gala (2007; Bhalla, 2007; Levy- Yeyati, 2002; Rodrick, 2008).

H4: There is no significant relationship between exchange rate and GDP

The relationship between literacy rate and economic growth has been checked out by different researchers in their studies in different location of the world. There is mixed response from the previous literature regarding the relationship between literacy rate and economic growth. Most of the studies found in their researches positive relationship between literacy rate and economic growth. They are of the view point that as the literacy rate increases people per capita income goes high and due to which economic growth of the country increases (Hannum and Buchmann, 2006; Temple, 2000; Kerr, 2001; Lattimore, 2002; Steven and Weale, 2003; Afza and Nazir, 2007; Abbas and Peck, 2007; Papademos, 2007).

H5: There is a positive relationship between GDP and literacy rate

Data Collection

Data of the study have been collected from secondary sources. Facts and figures have been used from different institutions websites. Due to time and cost constraints data has been taken from the websites the State Bank of Pakistan website, World Bank website and from Pakistan Bureau of Statistics website. Sample is the representative part of population. It is not easy to take data from the whole population (Kumar, 2007; Sekran, 2005). Therefore random sampling technique has been used by the researcher to choose the years of the data from Pakistan. For data collection convenience sampling technique has been used.

Instruments and Measures

This study is of empirical nature therefore different techniques such as Collinearity, correlation, descriptive statistics and regression will be used for analysis of the study. Collinearity will include the VIF and Tolerance factor to find whether there is a collinearity exists or not. Correlation will explain the relationship between all variables included in the theoretical framework above. Descriptive statistics will tell about the mean, maximum, minimum and standard deviation values in the data. At the end and finally regression analysis will explore the relationship between independent and dependent variables as well. It will also elaborate the impact of independent variables on dependent variable. SPSS Version 16.0 has been used to test the data.

Explanation of Variables

Dependent Variable

A dependent variable is one which depends upon other independent variables to take the effect of fluctuations in it. This study uses one dependent variables named as GDP which has been used as a proxy for the economic growth of the country. This study is going to test which factors play role in the fluctuations of economic growth of the country.

Independent Variables

An Independent variable is one which is responsible for the fluctuations in the dependent variables. An independent variable play major role in the fluctuations of dependent variable. This study uses five independent variables named as Inflation rate, Exchange rate, Literacy rate, Interest rate and FDI. This study uses these variables to test the relationship of these independent variables and dependent variable.

Control Variable

Control variable is one which controls both independent variables and dependent variable as well. It means remaining these control variables we can continue our further analysis. This study used fifteen years from 1998 to 2013 as control variable.

Findings of the Study

Collinearity

Different techniques are used before going to apply regression analysis as well. There are some assumptions which you have to fulfill before going to use regression tests. These assumptions may be Multicollinearity, Outlier and normality. This study uses Collinearity as an assumption before going to use regression. You have to choose a predictor variable of such nature which has correlation with the criterion variable. But it is not necessary to this predictor to be strongly correlated with the many other predictor variables as well. Collinearity which is also called multicollinearity is brought to elaborate the circumstances when predictor variables are highly correlated with each other. Problem arises at that time when predictor variables are highly correlated which tests are applied for further findings about the sensation of the model and to check the role of every predictor (Pallant, 2005).

The collinearity table is as under:

Collinearity Results

Model		Collinearity Statistics	
		Tolerance	**VIF**
1	Constant		
	INF	2.342	.456
	LIT	3.890	.321
	INT	1.321	.871
	EXC	3.628	.289
	FDI	1.98	.507

a. Dependent Variable: GDP

Interpretation

The function of multicollinearity is applied in SPSS software and it is used only at that time when there is high correlation between exogenous variables. The researcher used the correlation analysis as well as to check the correlation also. The study uses SPSS to perform the collinearity test for those variables which have to use for the regression analysis. I used two indicators for each variable. First indicator is tolerance which tells about the variability of one independent variable due to another independent variable in the research model. The second indicator is Variance Inflation Factor (VIF) which is opposite to the tolerance (B. G. Tabachnick & Fidell,L.S, 2001).

Different researchers use different threshold for the tolerance and VIF indicators. They are of the view that the value of tolerance less than (.10) is not suitable while on the other hand the value of VIF should not be greater than the value of (10). Therefore a researcher should have to take into consideration these standards when using tolerance and VIF to check the reliability of the data (B. G. Tabachnick & Fidell,L.S, 2001; Kleinbaum et al., 1988; Mayer, 1990; Belsely, 1991) . In this study all the variables have tolerance values greater than the warning value of (.10) and the VIF values of all the independent variables are less than 10. Therefore it is clear from the Collinearity analysis that the researcher can continue his further analysis on this study.

Regression Analysis

When the assumptions are fulfilled then we use the regression method to investigate the relationship between endogenous variables and exogenous variables. Following is the table of regression test.

Coefficients[a]

		Unstandardized Coefficients		Standardized Coefficients		
Model		B	Std. Error	Beta	t	Sig.
1	(Constant)	26.498	102.439		1.53	.061
	INF	-.664	.463	-.225	-1.97	.020
	EXC	1.530	1.198	1.438	1.471	.330
	INT	.234	.979	.072	2.31	.013
	LIT	.146	2.164	.064	.067	.952
	FDI	6.160	3.499	.583	1.99	.0190

a. Dependent Variable: Gross Domestic Product

Interpretation

Inflation Rate and GDP

Our first hypothesis was to ensure the relationship between GDP and inflation. This study statistical results found that there is significant relationship between GDP and inflation of country as well because the p value is (.020) which is less than the threshold **p-value** (.05) and t-value is (-1.97) which is greater than the t standard value of the (-1.96). Therefore we concluded that there is a major impact of inflation on the GDP of the country. These both relationship is negative because the coefficient value is (-.664) negative. If inflation increases or decreases the GDP takes impact of it and adjust it.

FDI and GDP

This research second hypothesis was to verify the relationship between FDI and GDO. Our statistical findings proved that there is a significant relationship exists between FDI and GDP because the value of **p-value** is

(.0190) which is too much less than the **p-value** standard value of (.05) and t value is (-1.99) which is higher from its standard value and due to positive value of coefficient (6.160) there relationship is direct. Briefly we concluded that there is a significant positive relationship cascade between FDI and GDP and therefore as the value of FDI increases the GDP increases as accordingly and if the value of FDI decreases the GDP of the country also decreases as accordingly.

Interest Rate and GDP

The third hypothesis of the study was to investigate the relationship between interest rate and GDP. The statistical results of the study prove that there is a significant positive relationship between interest and GDP because the value of p is (.013) which is less than the **p-value** benchmark value (.05) and the **t-value** is (2.31) which is higher than the t standard value of (1.96). These both variables relationship is positive because the value of coefficient is (.234) positive. Therefore it is concluded that there is positive relationship between interest and GDP. It means that as the interest increases or decreases in the country the GDP also fluctuates positively or negatively in favour of interest rate.

Exchange Rate and GDP

The fourth hypothesis of the study was to evaluate the relationship between exchange rate and GDP. Our statistical inferences prove that there is no significant relationship exists between exchange rate and GDP because the value of p (.330) which is higher than its threshold value of **p-value** (.05) and **t-value** is (1.471) which is less than its standard value of (1.96). Therefore it can be concluded that due to increase or decrease in the Exchange rate the GDP don't adjust itself as according the exchange rate fluctuations. No doubt there is no significant relationship exists but the relationship exists between them and this relationship is positive because the value of coefficient is (1.530) positive. The GDP takes minor impact and positive impact when exchange rate increases or decreases.

Literacy Rate and GDP

Our study fifth hypothesis was to confirm the association between literacy rate and GDP. According to the statistical results there is a insignificant association between literacy rate and GDP because the value of **p-value** is (.952) which is higher than the standard value of **p-value** (.05) and the **t-value** is (.067) which is less than the threshold value of t (1.96). No doubt there is insignificant relationship between these two variables but this relationship is positive because the value of coefficient (.146) is positive. Comprehensively it can be concluded that there is positive insignificant relationship falls between two variables which means that as the literacy rate increases/decreases the GDP also increases/decreases as accordingly.

Descriptive Statistics

Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation
Inflation	8	7.44	20.29	11.4699	4.44100
Gross Domestic Product	8	105.18	143.87	1.2652E2	13.11151
Exchange Rate	8	58.26	86.34	70.3050	12.32198
Interest Rate	8	-6.77	4.19	-.9929	4.01275
Literacy Rate	8	79.15	94.94	87.3803	5.72044
Foreign Direct Investment	8	.62	3.90	2.1166	1.23998
Valid N (listwise)	8				

Description

This research study uses different measures of descriptive statistics so that the numerical data could be made understandable. It is difficult to disclose individual year data therefore the above table is the comprehensive table of descriptive statistics. The above table discloses all the variables descriptive facts and figures of the data. In this table four main measures named as Maximum, Minimum, Mean and Standard Deviations have been included. The purpose of using arithmetic mean instead of median is to measure the central tendency because there are extreme values in the data and standard deviation is used to check the variations in the mean of the variables as well.

These values are original which have been taken from the websites of World Bank, SBP, and Bureau of Statistics Pakistan. The minimum value rate of inflation in last fifteen years remained 7.44% while maximum inflation remained 20.29%. The mean inflation rate was 11.47% with standard deviation of 4.14%. The minimum percentage of a variable named as exchange rate remained Rs. 58.26/$ while maximum value was Rs. 86.34/$. The mean value of exchange rate was Rs. 70.31 with standard deviation of Rs. 12.13. The third variable is literacy rate which minimum rate is 79.15% and maximum literacy rate remained 94.94%. The mean literacy rate is 87.38 with standard deviation of 5.72%.

The fourth variable named as FDI has minimum value of .62billion and maximum value of FDI was 3.9 billion rupees. The means FDI value was 2.11 billion with standard deviation of 1.2 billion. The fifth and last variable named as interest rate minimum rate was -6.77% and maximum rate was 4.19%. The mean percentage of interest rate was -.99 with standard value of 4.01%. The minimum value of dependent variable named as GDP was 105.18 and maximum was 143.87. The mean value of GDP was 126.52 with standard deviation of 13.11.

Correlation Analysis

	GDP	INF	EXC	INT	Lit.	FDI
GDP Pearson Correlation	1					
Inflation Pearson Correlation	.530	1				
EXC Pearson Correlation	.897	.564	1			
INT Pearson Correlation	-.126	-.025	-.210	1		
Lit. Pearson Correlation	.932	.616	.915	.102	1	
FDI Pearson Correlation	-.219	-.026	-.585	.179	-.325	1

Interpretation

Correlation is a name of measure which is used in statistics. Correlation is used to measure the association among independent variables separately for individual variable and for the dependent variable. The correlation ranges from +1 to -1. The plus and minus sign in correlation give the direction either there is positive correlation or negative correlation among the variables. If there is positive sign it means both have same direction of movement if one variable increases the other variable also increases in according to the first variable and if one variable decreases the other variable also decreases toward same direction.

If there is negative sign it means there is inverse direction of movement of both the variables. It means when one variable increases the other variable decreases it means these variables move in opposite of each other. The decrease of one variable becomes the cause of other variable to increase. High correlation is not necessary or important. If the value of correlation cross this standard value your variables association gives direction too spurious relationship between these variables. Correlation results on three different standards such as at 1%, 5% and 10% level of significance or at 99%, 95% and 90% confidence interval.

Discussions and Conclusions

This chapter will elucidate the findings of the study and current study results are matched with the earlier literature review upon this topic. The affiliation between theory and empirical results will also be described in this chapter. The authentic arguments in against or in favour of the results will be explained over here. The findings will be elaborated in Pakistan economic system. Developing countries researchers do research work later and their results implementations become more lately. Five variables have been used to check the impact of these variables on economic growth of the country.

This study finding almost matches the findings of the previous researches but it might be possible that these previous researches may be from developed countries. Different tests have been used by the researchers to reach at the final destination. From the above results it has been concluded that just one variable named as Inflation has inverse relationship with dependent variable GDP. The remaining four variables such as interest rate, literacy rate, FDI and exchange rate have positive relationship with GDP. Out of these five independent variables three variables such as interest rate, inflation rate and FDI have significant relationship with GDP while other two variables such as exchange rate and literacy rate have insignificant relationship with GDP.

It means due to change in three variables named as interest rate, inflation rate and FDI can fluctuate the economic growth of the country in the name of GDP. Remaining two variables such as exchange rate and literacy rate cannot bring fluctuations in economic growth of the country as well. These findings are empirical based which have been taken from SPSS results using fifteen years data from different websites. At the end the researcher concluded that these five variables reflect the economic growth of the country any way. No doubt some of these variables have weak relationship and others have strong relationship with GDP. It means those variables which have strong relationship with GDP influence the dependent variable instantly as they take change themselves. While other variables which have weak relationship with GDP do not influence the GDP as soon as they take change.

Limitations of the Study

This study uses fifteen years data from 1998 to 2012 of twenty three banks of Pakistan. This study has been conducted to find the factors which have contribution when deciding the GDP of the country. Data of the study have been taken from websites of different organizations such as World Bank, State Bank of Pakistan and Bureau of Statistics Pakistan and it might be possible that due to low number of observations it is difficult to generalize the results because convenience sampling technique is used in this study due to cost and time constraints. Therefore the study results cannot be generalized for non banking industries either in Pakistan or any other developing countries due to many other reasons. The results of this study can be generalized only for the banking sector in Pakistan and in those developing countries which have same banking culture and environment.

References

Solow, R. M., 1956, A contribution to the theory of economic growth. Quarterly Journal of Economics February, 65-94.

Fischer, Stanley (1993). "The Role of Macroeconomic Factors in Growth," *Journal of Monetary Economics,* 32, 3 (December), 485–512.

Faria, J, R. and F, G. Carneiro (2001).Does High Inflation Affect Growth in the Long-Run and Short-Run?, *Journal of Applied Economics*, 4 (1), 89-105.

Ghosh, A. and P. Steven (1998).Warning! Inflation May Be Harmful to Your Growth, *IMF Staff Papers*, 45(4), 672-710.

Malik, G. and Chowdhury, A. (2001). Inflation and Economic Growth: Evidence from Four South Asian Countries, *Asia-Pacific Development Journal*, 8 (1), 123-135.

Nell, K.S. (2000). Is Low Inflation a Precondition for Faster Growth? The Case of South Africa. *Working Paper No. 7*.

Sarel, M. (1996). Nonlinear Effects of Inflation on Economic Growth, *IMF Staff Papers*, 43(1).

Bhalla, Surjit S. (2007) *Second Among Equals: The Middle Class Kingdoms of India and China.* Washington DC: Peterson Institute of International Economics.

Bruno, T. & Easterly, W. (1998) Inflation crises and long-run growth. J*ournal of Monetary Economics* , 3-26.

De Gregorio, Jose. & Guidotti, P. E. (1995) financial development and economic growth. *World Development*, Vol. 23(3), pages 433-448

Dornbush, R. (1993) Stabilization, Debt and Reform: Policy Analysis for Developing Countries. New York: Harvester Wheatsheaf .

Fry, M. (1995) *Money, Interest, and Banking in Economic Development*. Johns Baltimore & London: Hopkins University Press.

Galbis, V. (1995) *Financial Sector Reforms in Eight Countries: Issues and Results.* IMF Working Paper No. 95/141

Levy-Yeyati, E. and Sturzenegger, F. (2002) To Float or to Fix: Evidence on the Impact of Exchange Rate Regimes on Growth. *American Economic Review*, 12(2), p.1-49.

Rodrik, D. (2008) *The Real Exchange Rate and Economic Growth*. Harvard University, MA 02138

Kerr, Roger (2001), "Education and Economic Growth" New Zealand Business Roundtable, Wellington.

Lattimore, Dr.Ralph (2002), "Education and Growth: the Seed and Flower of Economic Development"Education Forum.

Papadenos, Lucas (2007), "Human Capital and Economic Growth" speech in 35th Economic Conference by National bank Vienna.

Abbas, Qaiser and James Foreman-Peck, (2007), "Human Capital and Economic Growth: Pakistan, 1960-2003" Under NRPU Projects by Higher Education Commission of Pakistan.

Afza, Talat and Mian Sajid Nazir, (2007), "Human Competitiveness and Human Resource Development" Department of Management Sciences COMSATS Institute of Information Technology, Pakistan Economic and Social Review.

Stevens, Philip and Weale, Martin (2003), "Education and Economic Growth" International Handbook on the Economics of Education.

Temple, Jonathan (2000), "Education and Economic Growth" Seminar on Economic Growth and Government Policy, 12 October 2000.

Abbas, Q., Akbar, S., Nasir, A., Amanullah, H. & Naseem, M. (2011) Impact of Foreign Direct Investment. *Global Journal of Management and Business Research*, Volume 11 Issue 8 Version

Adam, A. & Tweneboah, G. (2009) Foreign Direct Investment and Stock Market Developments. *International Research Journal of Economics Issue*, 26.

Falki, N. (2009) Impact of Foreign Direct Investment on Economic Growth in Pakistan, *Review of Business Research Papers* Vol. 5 No. 5

Muhammad, A. (2007) Economic Growth and Foreign Direct Investment: The Role of Domestic Financial Sector, *PIDE Working Papers* 2007:18

Wu, J. & Chiang, H. (2008) Does Foreign Direct Investment Promote Economic Growth? *Economics Bulletin*,

Vol. 15(12)
Shabbir, T. & Mahmood, A. (1992) The Effects of Foreign Private Investment on Economic Growth in Pakistan. *The Pakistan Development Review*, Vol. 31(4) pp.831-841
Gala, P. (2002) *Real Exchange Rate Levels and Economic Development: Theoretical Analysis and Empirical Evidence*, Sao Paulo Business Administration School, Getulio Vargas Foundation, 200
Alfaro, L., Chanda, A., Ozcan, S. K., & Sayek, S. (2006). How does foreign direct investment a. promote economic growth? Exploring the affects of financial markets on linkages.
Tabachnick, B. G., & Fidell, L. S. (1996). Using multiple statistics. Harper collins publishers, New York,NY.
Tabachnick, B. G., & Fidell, L. S. (2007). Using multivariate statistics. Boston: Pearson/Allyn and Bacon. theory, Asia-Pacific Journal of Financial Studies 38, pp. 35–66.
Sekaran, U. (1992). Research methods for business: a skill-building approach. New York: John Wiley
Belsely,D.A., (1991), " conditioning diagnostics: collinearity and weak data in regressions. Willey, New York,NY.

The IISTE is a pioneer in the Open-Access hosting service and academic event management. The aim of the firm is Accelerating Global Knowledge Sharing.

More information about the firm can be found on the homepage:
http://www.iiste.org

CALL FOR JOURNAL PAPERS

There are more than 30 peer-reviewed academic journals hosted under the hosting platform.

Prospective authors of journals can find the submission instruction on the following page: http://www.iiste.org/journals/ All the journals articles are available online to the readers all over the world without financial, legal, or technical barriers other than those inseparable from gaining access to the internet itself. Paper version of the journals is also available upon request of readers and authors.

MORE RESOURCES

Book publication information: http://www.iiste.org/book/

IISTE Knowledge Sharing Partners

EBSCO, Index Copernicus, Ulrich's Periodicals Directory, JournalTOCS, PKP Open Archives Harvester, Bielefeld Academic Search Engine, Elektronische Zeitschriftenbibliothek EZB, Open J-Gate, OCLC WorldCat, Universe Digtial Library , NewJour, Google Scholar