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DEMOCRACY VERSUS DICTATORSHIP IN PAKISTAN: AN ECONOMETRIC ANALYSIS

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ABSTRACT-The objective of this study is to measure the performance of Pakistan economy during the period of democracy and dictatorship by using time series data for the sampling period from 1999 – 2016. The dictatorship period is from 1999 to 2007 and democratic period is from 2008 to 2016. Ordinary least square method (OLS) is applied to find out the result. Gross domestic product (GDP) is dependent variable and inflation, investment, population and trade are independent variables. Our result shows that dictatorship period was better than democratic period because the result of dictatorship is more reliable and significant.

Key words: Gross domestic product (GDP), Dictatorship, democracy.

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1. INTRODUCTION

1.1 Background of study:

Dictatorship started in Pakistan in 1958. In Pakistan, three attempts of dictatorship were made due to failure of political governments. The period of dictatorship consisted of 1958-1971, 1977-1988 and 1999- 2008. In 1958, Major General Iskandar Mirza (who then was first president of Pakistan) terminated the Prime Minister Feroz Khan's government and handed over rule to General Ayub Khan, then the Chief of Army Staff. General Ayub Khan imposed Martial law in the country and declared himself as Chief of Martial Law administrator.

In 1977, Chief of Army Staff, General Zia-ul- Haq dismissed the government of then

Prime Minister, Zulfikar Ali Bhutto. He ordered to arrest the Zulfikar Ali Bhutto and other members of his party (Pakistan people party). He also imposed Martial Law and tried to run the country on the basis of Islamic thought. He established Majlis-e-Shoora (Parliament) and also set up Qazi Courts in the country. He promoted religious thoughts to transform the society on Islamic principles. He fought Jihad (war) in Afghanistan against Soviet's occupation for about 11 years.

General Pervez Musharraf detained Prime Minister Nawaz Sharif in October 1999 and became Chief Executive of Pakistan. This time martial law was imposed due to failure of civil military relations. Then Nawaz Sharif was the Prime Minister of Pakistan. He decided terminated General Musharraf when he was on official tour of Sri Lanka.General Zia Uddin Butt, then Director General-ISI was appointed as Chief of Army Staff but he did not accept the order and decided to protect General Musharraf. General Musharaf controlled the government and arrested Mian Nawaz Sharif and his close associates. He was trialed under hijacking case and was awarded life sentence. But later on, he along with his family left for Saudi Arabia after compromising with Gen Musharaf's Government. So, General Musharraf was ruled Pakistan from 1999 to 2007. In his regime, growth rate was 6.3%, domestic savings fall from 17.8% to 16.1%, investment increase from 17.2% in 2001-2002 to 23.0% in 2006-2007. Gross domestic product (GDP) increased at annual rate of 4.7%. He supported US war against terrorism in Afghanistan during his tenure. However, under domestic and international pressure, he declared that election conducted on 15th February 2008. But due to death of Benazir Bhutto, election commission decided that elections on 8th January were not possible and announced that election would be held on 18th February 2008. There were 35.2 million people who casted their vote and turnout of voters was 44.01%. Pakistan people party (PPP) and Pakistan Muslim league (PML-N) got the largest votes in election. However, Pakistan people party won the 2008 election and ruled the country. PPP leader Yousaf Raza Gillani was nominated as the Prime Minister of Pakistan. In his era, gross domestic product (GDP) rate was 2.9% from 2008 to 2012. Investment fall from 23% to 12.5%.

1.2 Main research Problem:

Our main research problem is to analyze economic growth during the periods of Martial Laws (Dictatorship) and democracy so that the strengths and weakness of both forms of governments can be determined.

1.3 Objectives of study:

1.To analyze the performance of democracy in Pakistan

2. To analyze the performance of dictatorship in Pakistan

3. To measure the impact of democracy and dictatorship on Pakistan's economy.

1.4. Scope of study

The dictatorship government tries to improve economic development and economic growth. They effort to increase the productivity, hence employment level is increased. There are many problems in industrial sector strikes and wage agreement, all these problems are trying to be solved in dictatorship government. The dictator's effort about social reforms, because due to social reforms the nation becomes strong. They try to remove evils and improve education system and structure, improve health facilities in country. The dictatorial governments faced many political and economic problem. They took decisions about economic development and hire some able people to take decision and keep these decisions in secret.

In dictatorship government, people have no rights and freedom to take their decision. People are depressed to take any part in management. So, they have no interest in government. The dictators have faith in success, conflict and viciousness. As a result, nation was involved in war. The dictators were always in fear of uprising. In democratic government, individual taking part in government decision-making Democratic government is the active way to educate the people about political and economic activities. It helps to encourage nationalism between public. It also helps to promote development and economic growth and manage fluctuations in economy in a peaceful way. It gives freedom to public to speak independently. It ensures freedom that are essential for human progress.

Democratic government is the affluent way of government because it conducted elections for different offices. It is tough task to avoid and reduce corruption. Democratic government would not boost individual to give their opinion about the betterment of government. Various researchers work on democracy and dictatorship separately. They focused only one or two variables such as democracy and economic growth, dictatorship and economic growth etc. but in this analysis, we analyze the impact of democracy and dictatorship on Pakistan economy with different variables. Our analysis is beneficial for policy makers and government in such a way that it would compare the result of both democracy and dictatorship. We can easily understand the weak points of both governments.

2. LITERATURE REVIEW

Barro (1996) described many factors of economic growth. He used the panel data for 100 countries. The panel data time period was from 1960 to 1990. He took the variables were consumption, fertility, GDP per capita, Inflation, trade and life expectancy. The empirical result of this study was showed that growth was negative

impact on real per capita GDP while democracy had significant positive impact on growth.

Amjad and Kemal (1997) observed the poverty effect on Economic policies in Pakistan. They took the annual time series data which span over from 1963 to 1993. Trade, Inflation, Growth, employments, wags, production tax, sub sides, public expenditure, life expectancy, literacy and primary school enrolment were those variables that exist in this study to estimate the data. The source of data were Federal Bureau of statistics, Central statistical organization and Household income expenditure surveys and State bank of Pakistan. In this paper, the final result showed that growth rate had reducing while poverty level is rising.

W. Easterly, (2001) investigated the political and economic model without growth. He used the yearly time series data which consists of the period from 1950 to 1999. The data were collected from world development indicator (WDI) and World Bank. The study used the variables of population and per capita income, education, health income, GDP per capita and used the T-Test to estimate the data. The final result of this paper showed that government and foreign function are more contributed in economic Growth.

L. Artige, (2004) discussed the association among economic growth, stability and autocracy. They used the graphic technique, Cob-Douglas production function. The steady state model also used the first order Kuhn Tucker model to estimate the data. They had existed in East Asian and used primary data. They had taken the variable of investment, saving, income, capital stock, tax rate, population and wages. The conclusion of this article proved that economic growth had depended on the autocracy. The above model forced that autocracy and democracy rule.

Antic, H. (2004) supported the dictatorship versus democracy. They used time series data which covered the time period 1820 to 1950. He applied the econometric technique of ordinary least square (OLS). He took the variables of education, Trade Openness, population, GDP per capita and investigation. The final result showed that during previous fifty years, democracy had not positive impact on GDP per capita growth. In this time period, the democracy would be increased GDP per capita growth than dictatorship period. However, dictatorship does not beneficial for growth rate.

Gerring et al. (2005) investigated the links between economic growth and democracy. They had taken the growth rate as dependent variables and inflation, Illiteracy, Life expectancy, Investment, Oil shocks and population growth. The sources of collected data were from world development indicator (WDI) and peen world table. In this paper, the researcher used the ordinary least square (OLS), Bound test and also used the tabular technique. The final result showed that gross domestic product (GDP) had negative impact on democracy.

Drury, A. (2006) investigated relationship among economic growth, Corruption and Democracy. He protected the 100 countries using the annually time series data from 1982 to 1997 in this study. The data were collected from world development indicator and World Bank. In this study, dependent variable was GDP growth while trade openness, population growth, tropical climate; government spending, GDP per capita, life expectancy and Corruption were used as independent variables. The final result of this paper showed that democracy was vital role played in economic growth, although corruption had negative impact on economic growth.

2.2 Distinction of this Study

Basically, Dictatorship and democracy are two main systems of any economy. Many previous studies worked through primary data. After examining the previous studies, we conclude that democracy is better than dictatorship system because growth rate is slow due to Marshal Law. My research work is to be different from previous research work due to many reasons such like research gap, variables and techniques. We will take the time period of dictatorship 1990 to 2017 and democracy period 2008 to 2017. We will apply the OLS method to analysis the data.

3. CONCEPTUAL FRAMEWORK

Hayat et.al (2016) analyzed the performance of Pakistan economy under Democracy and Dictatorship in the period of 1951 to 2014. Pakistan is the mixture of democracy and dictatorship. This study is based on macroeconomic variables foreign direct investment (FDI), real gross domestic product (RGDP), inflation, unemployment and per capita income and estimated the result with OLS (ordinary least square). This study explained that dictatorship performed better in gross domestic product and inflation controlled. Democratic government performed in per capita income. Foreign direct investment and unemployment rate same in both economic systems. According to study, Democratic government performed better in field of growth and investment. Because democracy is based on citizenship while dictatorship was far away from public.

Real gross domestic product (RGDP) is dependent and foreign direct investment, unemployment, inflation and per capita income are independent variables. They took foreign direct investment as % of GDP. The result showed that foreign direct investment during democracy was lowered as compared to dictatorship. In 1960's foreign direct investment increased due to aid from united states, privatization and liberalization. Foreign direct investment was increased during Musharraf Government. In 2008, foreign direct investment also decreased due to political instability, crises, law and order situation.

Real gross domestic product (RGDP) during democracy was lower as compared to dictatorship. Under dictatorship, real gross domestic product was high. The reason was that in 1960's gross domestic product (GDP) growth increased due to industrialization and agriculture growth. President Musharraf was also successful to gain investor confidence, stable exchange rate and stability in prices. During democracy, unemployment rate was lowered and statistically insignificant as compared to military coups. During democracy, per capita income was higher than dictatorship period and also statistically significant. Per capita income was increased 4.54% and inflation raised 9.89% during democracy. While per capita income was increased at the rate of 3.125% and inflation 5.19% during military coups. Inflation is statistically significant and higher (4.457%) during democracy. Under Military, inflation was significant and controlled due to good governance, management and economic policies. The analysis shows that dictatorship government is better as compared to democratic government. Democratic government was not responsible all these problems. Our democratic leaders were responsible because they paid no attention toward energy crises, water shortage, and industrialization health and education condition.

3.1 Hypothesis

H₀: FDI under democracy was increased

H₁: FDI under democracy was not increased

H₀: Real GDP under democracy was increased

H₁: Real GDP under democracy was not increased

H₀: Inflation under democracy was increased.

H₁: Inflation under democracy was not increased

H₀: Per capita under democracy was increased

H1: Per capita under democracy was not increased

H₀: Unemployment under democracy was increased

H1: Unemployment under democracy was not increased

4. RESEARCH METHODOLOGY

4.1 Type of Data

This study is based on time series data from period 1999 to 2016. In this analysis, there are two periods one for dictatorship and second for democratic period. The time period of dictatorship is from 1999- 2007 and democracy is from 2008 to 2016.

4.2 Model Specification

Gross domestic product (GDP) is dependent variable while investment, inflation, population and trade are independent variables. Our Econometric model is given as under:

$$Y = f (X_1 + X_2 + X_3.....\mu)$$

 $GDP = \alpha + \beta_1 (INV) + \beta_2 (POP) + \beta_3 (INF) + \beta_4 (Trade) + \mu_t$

 $\alpha = intercept$

 β_1 to β_4 = Co-efficient of explanatory variables

 $\mu_t = \text{Error term}$

t = time

Independent variables = investment, inflation, population, trade.

4.3 Sample of study

Our study is based on time series data. Time period of democracy is from 2008 to 2016 and dictatorship period is from 1999 to 2007. All data is collected from world development indicators and SBP.

4.4. Selected variables

This analysis is based on gross domestic product, inflation, investment, population and trade. In this research, gross domestic product (GDP) taking as dependent variable and inflation, population, trade and investment taking as independent variables.

| Variables | Description of Variables | Units of Measurement |
|-----------|--------------------------|----------------------|
| GDP | Gross domestic product | Annual % |
| INF | Inflation | Annual % |
| INV | Investment | % |
| POP | Population | Annual % |
| Trade | Trade | Annual % |

Table 1: List of variables

4.5 Research Design

This analysis is based on time series data. We will first explain the time series data, then unit Root test and at the end we will explain the econometric technique.

4.5.1 Time series data

Collection of data according to time is called time series data. Time series data are organized in sequential order and have dissimilar time. Stock price, money supply and gross domestic product are example of time series data. Time series data are available annually, monthly, quarterly and weekly. Time series examined in different ways. Original time series explain definite movement in data. Cyclical effects in time series include regular variation in weekly, monthly and annual data. Seasonal variation occurs in data according to season.

4.6 Unit Root test

Unit root is error trend in a time series data. If time series has unit root, it displays a regular pattern that is irregular. Unit root is used to check the stationary between variable. If value of unit root is one (1) it means, there is problem of unit root in data.

Consider

$$\mathbf{y}_t = \mathbf{\Phi} \mathbf{y}_{t-1} + \mathbf{\mu}_t$$

Stationary condition is $|\phi| < 1$.

There are three test to check the stationary of time series.

4.7 Dickey Fuller test

Dickey and Fuller (1979-1981) presented the test to check non- stationary between variables. Non stationary is equal to unit root. The test is based on simple AR (1) form:

 $Y_t = \Phi y_{t-1} + \mu_t$

Null hypothesis is $H_0: \Phi = 1$ Alternative hypothesis is $H_1: \Phi < 1$

Dickey and Fuller (1979) presented two equations which are used to check unit root. The first consist of constant trend:

 $\Delta y_{t\text{-}1} \!= \! \alpha_0 + \beta y_{t\text{-}1} + \mu_t$

This is important case, such procedure demonstration definite movement in series when $\beta = 0$.

The second case is non- stochastic time trend in model:

 $\Delta y_{t\text{-}1} = \alpha_0 + \alpha_2 t + \beta y_{t\text{-}1} + \mu_t$

DF test is t statistic test with lagged dependent variable. If Dickey Fuller statistic value is smaller than critical value than reject null hypothesis of unit root.

4.7.1 Augmented Dickey Fuller test (ADF)

Dickey and Fuller again presented the extension of DF test which contain extra lagged of dependent variable to remove autocorrelation in model. The three possible equation of ADF test as follow:

$$\Delta y_{t} = \gamma y_{t-1} + \sum_{i=1}^{p} \beta \Delta y_{y-i} + \mu_{t}$$
$$\Delta y_{t} = \alpha_{0} + \gamma y_{t-1} + \sum_{i=1}^{p} \beta \Delta y_{t-i} + \mu_{t}$$
$$\Delta y_{t} = \alpha_{0} + \gamma y_{t-1} + \alpha_{2}t + \sum_{i=1}^{p} \beta \Delta y_{t-i} + \mu_{t}$$

ADF test is based on assumption that error terms are uncorrelated and variance is constant.

4.7.2 The Phillips-Perron test

Phillips and Perron (1988) presented the simplification of the augmented Dickey Fuller test (ADF) that allow slight assumption regarding the distribution of errors. PP test as follow:

$$\Delta y_{t-1} = \alpha_0 + \gamma y_{t-1} + \mu_t$$

In Phillips Perron test, the lagged term added in the left side of equation.

4.8 Ordinary Least Square Method (OLS):

Ordinary least square is the method that is used to minimize the sum of square of residuals. In ordinary least square (OLS), the unknown parameters of linear regression are estimated. Ordinary least square is used to estimate the impact of independent variables on dependent variable (how much change occur in dependent variable due to change in independent variables).

$$\mathbf{Y} = \mathbf{\alpha} + \mathbf{\beta} \mathbf{x}_{i} + \mathbf{\mu}$$

Where

Y = dependent variable

 X_i = independent variables ($x_1, x_2...x_n$)

 α = intercept

 $\beta = slope$

 $\mu = error term$

There are following important assumptions of Ordinary least square (OLS): Regression model must be linear.

$$\mathbf{Y} = \mathbf{\alpha} + \mathbf{\beta}\mathbf{x} + \mathbf{\mu}$$

The above model is linear regression model and α and β are linear parameters.

- Error term is a random variable. The error term value depends on probabilities.
- Expected mean value of error term must be zero. $E(\mu) = 0$
- Error term variance should be constant.
- Error term has normally distributed. The values of error term has bell shaped symmetrical distribution with mean zero.
- Error terms should not have correlated with each other. Cov $(\mu_i, \mu_j) = 0$
- There is no relationship between independent variables and error terms. Cov $(x_i\,,\,\mu_i)=0$
- There must be no relationship between error term and fixed independent variables.

5. DATA ANALYSIS

Here we explain the two models first represent dictatorship period and second is democracy period. Dictatorship period consist of 1999-2007 and democracy period is from 2008 - 2016.

| | • | | • | | |
|--------------|----------|----------|----------|----------|----------|
| | GDP | INF | INV | POP | TRADE |
| Mean | 5544330. | 154.4111 | 1022661. | 149.5244 | 32.04765 |
| Median | 4875648. | 131.6400 | 817062.0 | 149.3200 | 32.31996 |
| Maximum | 9239786. | 233.2400 | 1953388. | 162.9100 | 35.68173 |
| Minimum | 2938379. | 103.5400 | 457357.0 | 136.6900 | 28.12961 |
| Std. Dev. | 2088066. | 53.78285 | 504089.0 | 8.992897 | 2.464118 |
| Skewness | 0.635927 | 0.580977 | 0.849582 | 0.055126 | 0.076787 |
| Kurtosis | 2.203838 | 1.545108 | 2.363523 | 1.765131 | 2.056994 |
| | | | | | |
| Jarque-Bera | 0.844308 | 1.300069 | 1.234597 | 0.576396 | 0.342317 |
| Probability | 0.655633 | 0.522028 | 0.539400 | 0.749613 | 0.842688 |
| | | | | | |
| Sum | 49898973 | 1389.700 | 9203949. | 1345.720 | 288.4288 |
| Sum Sq. Dev. | 3.49E+13 | 23140.76 | 2.03E+12 | 646.9776 | 48.57503 |
| | | | | | |
| Observations | 9 | 9 | 9 | 9 | 9 |
| | | | | | |

Table 2 Descriptive Statistics of Dictatorship,1999-2007

In table 2, the mean value of gross domestic product is 5544330.0 and standard deviation is 2088066.0. Skewness is positive and kurtosis value is greater than 2 but less than 3 so it represents Meso kurtosis. JB test is used to check normality so gross domestic product value is normally distributed. Inflation mean value is 154.4111 and its standard deviation is 53.7828. Inflation is normally distributed. The skewness value of inflation is positive and it shows Plato kurtosis. Mean value of investment is 1022661.0 and standard deviation is 504089.0. It is also normally distributed, positive and Meso kurtosis. The average value of population is 149.5244 and its standard deviation is 8.99. It is positive and normally distributed. The mean

value of trade is 32.04 and its standard deviation is 2.46. It is Plato kurtosis and normally distributed.

Table 3: Results of Ordinary Least Square Method

Dependent Variable: GDP Method: Least Squares Date: 02/15/18 Time: 04:27 Sample: 1999 2007 Included observations: 9

| Variable | Coefficient | Std. Error | t-Statistic | Prob. |
|--------------------|-------------|-----------------------|-------------|----------|
| С | -8209162. | 2339186. | -3.509410 | 0.0247 |
| INV | 2.913062 | 0.240527 | 12.11118 | 0.0003 |
| INF | 319.6695 | 1015.426 | 0.314813 | 0.7686 |
| POP | 77993.64 | 16144.87 | 4.830861 | 0.0085 |
| TRADE | -29234.54 | 13580.12 | -2.152745 | 0.0977 |
| R-squared | 0.999415 | Mean dependent | | 5544330. |
| Adjusted R-squared | 0.998831 | S.D. dependent var | | 2088066. |
| S.E. of regression | 71400.11 | Akaike info criterion | | 25.49017 |
| Sum squared resid | 2.04E+10 | Schwarz criterion | | 25.59974 |
| Log likelihood | -109.7058 | Hannan-Quinn criter. | | 25.25372 |
| F-statistic | 1709.490 | Durbin-Watson stat | | 3.476131 |
| Prob(F-statistic) | 0.000001 | | | |

Table 3 shows dictatorship period estimation. Dependent variable gross domestic product (GDP) shows significant because its value is 0.02 which is less than 0.05. Investment and population are also significant, its values are 0.0003 and 0.0085. Inflation and trade both are insignificant. The value of R squared is 0.999. It means

99% variation occur in dependent variable due to change in independent variable. The Durbin Watson value is 3.47 which shows there is negative correlation.

| | GDP | INF | INV | POP | Trade |
|-------|---------|---------|--------|--------|--------|
| GDP | 1.0000 | | | | |
| INF | -0.4877 | 1.0000 | | | |
| INV | 0.9941 | -0.4139 | 1.0000 | | |
| POP | 0.9693 | -0.6555 | 0.9402 | 1.0000 | |
| TRADE | 0.6186 | -0.4439 | 0.6235 | 0.6498 | 1.0000 |

Table 4 Multi-collinearity

The table 4 shows the correlation between variables. The above is correlation matrix table. The relation between GDP and inflation is -0.4877 shows no multi-collinearity. The relation between GDP and investment is 0.9941. The association between GDP and population is 0.9693. The relation between GDP and trade is 0.6186. The relation between inflation and investment is -0.4139. The relation between inflation and population is -0.6555 and trade is -0.4439 shows no multi-collinearity. The relation between investment and population is 0.9402 and trade is 0.6235. The correlation between population and trade is 0.6498 shoes no multi-collinearity.

| | GDP | INF | INV | POP | TRADE |
|--------------|----------|-----------|----------|----------|-----------|
| Mean | 4316398. | 158.6915 | 791825.3 | 180.7930 | 31.47878 |
| Median | 27384.00 | 162.5700 | 4140.000 | 180.7100 | 32.80550 |
| Maximum | 14866996 | 211.0533 | 2431664. | 195.3867 | 35.59420 |
| Minimum | 18276.00 | 100.0000 | 2581.000 | 166.4100 | 25.13914 |
| Std. Dev. | 6526331. | 38.30840 | 1183353. | 9.927130 | 3.195792 |
| Skewness | 0.788641 | -0.151746 | 0.712193 | 0.019149 | -0.919984 |
| Kurtosis | 1.724884 | 1.737612 | 1.514169 | 1.768285 | 2.884417 |
| | | | | | |
| Jarque-Bera | 1.542652 | 0.632150 | 1.588715 | 0.569471 | 1.274567 |
| Probability | 0.462400 | 0.729005 | 0.451872 | 0.752213 | 0.528727 |
| | | | | | |
| Sum | 38847578 | 1428.223 | 7126428. | 1627.137 | 283.3090 |
| Sum Sq. Dev. | 3.41E+14 | 11740.27 | 1.12E+13 | 788.3833 | 81.70469 |
| | | | | | |
| Observations | 9 | 9 | 9 | 9 | 9 |

Table 5: Descriptive Statistics of Democracy, 2008-2016.

In table 5, the men value of gross domestic product is 4316398.0 and its standard deviation is 6526331.0 which measure variation in data. The GDP value is positive and normally distributed. The value of kurtosis is 1.724884 so that it is Plato kurtosis. The mean value of inflation is 158.6915 and variation occur in data is 38.3084. The inflation has negative value and normally distributed. It is Plato kurtosis because its value is 1.737612. The average value of investment is 791825.3 and standard deviation is 1183353.0. Investment is normally distributed and Plato kurtosis (1.514169). The value of investment is positive. The average value of population is 180.7930 and its standard deviation is 9.927130. Population has positive value. Population is normally distributed and Plato kurtosis. The mean and standard

deviation value of trade is 31.4787 and 3.195792. Trade has negative impact on GDP and is normally distributed. It is Meso kurtosis because its value is 2.884417.

Table 6 Results of OLS Method

Dependent Variable: GDP Method: Least Squares Date: 02/15/18 Time: 04:34

Sample: 2008 2016

Included observations: 9

| Variable | Coefficient | Std. Error | t-Statistic | Prob. |
|---|----------------------------------|---------------------------------------|---|----------------------------------|
| С | 99414296 | 95486152 | 1.041138 | 0.3566 |
| INF | 214003.4 | 165248.5 | 1.295040 | 0.0250 |
| INV | 6.382885 | 0.714352 | 8.935204 | 0.0009 |
| POP | -732415.4 | 642385.5 | -1.140149 | 0.0179 |
| TRADE | -53909.03 | 270766.6 | -0.199098 | 0.8519 |
| | | Mean dependent var | | |
| R-squared | 0.990427 | Mean depe | endent var | 4316398. |
| R-squared Adjusted R-squared | 0.990427 0.980854 | Mean depe S.D. deper | | 4316398. 6526331. |
| * | | S.D. deper | | |
| Adjusted R-squared | 0.980854 | S.D. deper | ndent var fo criterion | 6526331. |
| Adjusted R-squared S.E. of regression | 0.980854 903052.0 | S.D. depen Akaike inf Schwarz c | ndent var fo criterion | 6526331. 30.56513 |
| Adjusted R-squared S.E. of regression Sum squared resid | 0.980854 903052.0 3.26E+12 | S.D. depen Akaike inf Schwarz c | ndent var fo criterion criterion quinn criter. | 6526331. 30.56513 30.67470 |

Table 6 shows the democracy period findings. The dependent variable gross domestic product (GDP) is positive and insignificant because its value is 0.3566. The independent variables inflation, investment and population are significant i.e. 0.0250,

0.0009, 0.0179. Trade shows negative impact on GDP (gross domestic product) and also insignificant (0.8519). The R squared value is 0.99. It means 99% variation occur in dependent variable due to independent variable. Durbin Watson value is 1.47 which shows positive relation.

| | GDP | INF | INV | POP | Trade |
|-------|---------|---------|---------|---------|--------|
| GDP | 1.0000 | | | | |
| INF | -0.8071 | 1.0000 | | | |
| INV | 0.9920 | -0.8415 | 1.0000 | | |
| POP | -0.7787 | 0.9969 | -0.8114 | 1.0000 | |
| Trade | 0.4318 | -0.8084 | 0.4652 | -0.8396 | 1.0000 |

 Table 7 Correlation Matrix

We estimate the correlation matrix among variables gross domestic product (GDP), inflation, investment, population and trade. The above table shows that relationship between GDP and inflation is negative (-0.8071). The relationship between GDP and investment is 0.9920 that shows no multi-collinearity. The relationship between GDP and population is -0.7787 show no multi-collinearity. The correlation between GDP and trade is 0.4318. The relationship between inflation and investment is -0.8415. The correlation between inflation and population is -0.8084. The association between investment and population is -0.8114. The relation between investment and trade is 0.4652. The relation between population and trade is -0.8396. So, there is no correlation between variables.

6. FINDINGS AND RESULTS

Pakistan is basically the democratic economy. After 1947, Pakistan political system faced many ups and down. Pakistan has been ruled under four martial law. People always prefer democratic system because they think that in democratic system everyone has right to give his opinion.

Since 2008 democratic government is still working in Pakistan. Some people prefer democracy and some are in favor of dictatorship because in dictatorship period our economy perform better as compared to democracy. But in Pakistan, people and political party work for their personal interest. They do not work and perform activity for the development of country and people.

Our study is based on time series data and gross domestic product, inflation, investment, population and trade used as variables. Dictatorship period is from 1999 to 2007 and democracy period is from 2008 to 2016. For estimation purpose, we apply ordinary least square method. In dictatorship period, gross domestic product is statistically significant 0.02, investment and population are statistically significant at 5% and trade is statistically significant at 10% level. Inflation is insignificant.

In democracy period, gross domestic product is statistically insignificant, inflation is significant 0.0250 at 5% level and investment is statistically significant 0.00009. Population is statistically significant 0.017 and trade is statistically insignificant. Investment has positive impact on gross domestic product. When investment increase it will increase the employment opportunity and economic growth of economy. Population has negative impact on economic growth. Trade in Pakistan has also negative impact because import is greater than export. Pakistan economy perform better in dictatorship. But people prefer democratic system so government need new policy and regulation.

7. CONCLUSIONS

In dictatorship period, gross domestic product, investment and population are statistically significant while trade and inflation are not significant. Investment has positive impact on gross domestic product, the reason is that when investment increase then employment opportunities will also increase and wages of worker increase, this has positive impact on economy and growth will increase. Population has positive impact on growth. If in population, the number of working people increase the growth will increase otherwise not. Inflation has also positive impact on economy because when production increase. Unemployment will fall, demand for labor and wages increase than demand for consumer goods increase and all this has positive impact on GDP with high inflation. Trade has negative impact on GDP because when import of country increase this will not increase the GDP. In democratic period, inflation, investment and population are significant while GDP and trade are insignificant. Inflation and investment has positive impact on growth while population and trade has negative impact on gross domestic product.

8. POLICY IMPLICATIONS

The above discussion shows that in Pakistan economy there is need of good governance and stability in politics. In Pakistan economy, democratic leader work for his own interest. There is a need that elected leaders should work for public, pay attention to education and health sectors and reduce dependency on other countries and foreign aid. Government should take step to control imports and promote domestic goods so that investment will increase and this will create more employment opportunities.

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CONTRIBUTION OF AUTHORS AND CONFLICT OF INTEREST

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Both authors read the manuscript carefully and declared no conflict of interest with any person or institution.