ECONOMIC GROWTH IN CONTEXT OF INSTITUTIONS AND FISCAL POLICY

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Abstract. The aim of present study is to investigate the relationship between economic growth, institutional quality and fiscal policy over the period of 1984-2015, in the case of Pakistan. The unit root analysis reveals that all variables are non-stationary at level, but some are at first difference. The ARDL bounds testing approach to integration is employed to determine the long and short run relationship among the variables. Principal Component Analysis (PCA) is carried out to construct an index for institutional quality. It was found that institutional quality and government spending were positively affecting the economic growth of the country, while educational attainment and private investment were also significantly contributing to enhance the economic growth of Pakistan. It was suggested that government needs to improve the institutional quality and growth oriented spending to further boost the economic growth.

Keywords: Institutions, Economic Growth, Fiscal Policy, ARDL, PCA

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I. INTRODUCTION

Economic growth is raise in an economy's potential GDP and must be sustained for a developing economy. Economic growth is a fundamental instrument and indicator for sustainability and development of any economy. In long run, the focus of governments is to foster sustainable economic growth. The sustained growth of any country is helpful to improve the living standard of people in many ways like reducing the poverty, enhancing the infrastructure and educational facilities, combating increased inflation, and reducing the external vulnerabilities.

It may be observed that no society reaped towering echelon of economic growth without the intervention of government. Economies without interference of government face diverse hue of chaos that freezes their economic growth with passage of time. There is contentious debate regarding the role of government spending. Government expenditures allow government to reallocation of resources from elite to poor. The effectiveness of fiscal policy on economic activities has been on applied and theoretical research agenda for both policy makers and academicians since the emergence of macroeconomics. It is obvious that fiscal policy is a pre-condition to achieve macroeconomic permanence and sustainable economic growth that can have foremost impacts on income generation and poverty alleviation through taxation, optimal revenues generation, public borrowings and public expenditures. However, conversely; a bungling fiscal policy curbs the options for government for optimal tax collection, sustainable economic growth and economic performance.

Recently, role of public spending got a striking attention of the policy makers and researchers of the subject, especially after financial crisis of 2007. Endogenous and Keynesian growth theories proved the significant role of fiscal policy for economic development of an economy. The public spending may be helpful to raise the economic growth by developing the institutions like maintaining the law and order, protection of property rights, control over corruption, provision of public goods, and other social services that may lead to improve the aggregate demand and sustainability of economic growth.

The institutional role in growth route of economies got importance in decade of 1990, when two pioneer studies by Knack and Keefer's (1995) "Institutions and Economic Performance", and Mauro's (1995)

"Corruption and Growth" were published. By relying on new dimensions of property rights and institutions, these items ushered in a new generation of devoted research to prove importance of institutional framework in economic performance across the countries. Knack and Keefer (1995) considered the data of 97 economies from 1974 to 1989 and concluded that institutional quality is working as a protection of property rights and contract enforcement is an essential difference for investment and growth. In the same way, Mauro (1995) found that the corruption rates have negative association with economic growth and private investment. The other experimental evidence supports these preliminary results. For example, Alesina (1998) indicates that institutional quality plays a vital role for growth and this quality of institutions was measured by bureaucracy, corruption, property rights and law & order. As concerned for these results, it seems that literature provide pragmatic assistance to views of Douglass C North and Olson, who emphasized upon importance of contract enforcement and property rights in defining the prosperity and growth of economies.

According to new institutional economics, institutions play a pivotal role in determining the fate of the country. Unlike the neo-classical theories, it does not take institutions as given. The reason is claimed as that some countries may develop because of the institutional framework that enhances agents' efficient behavior, while others are facing problems because their institutional framework does not put off abusive behavior and methods that are ineffective, so there is frustration in investment and economic agents have hesitation to make contracts or agreements. "This negates some of the benefits of specialization, because agents are more vulnerable to others as they need to buy and sell products constantly" (North, 1990).

We consider that the two backward economies are very identical in human, technical and physical conditions and both are intended to acquire a plan to improve the economic performance. After adopting the recipes of neo classical theories, we would know about the main disadvantages of these economies, we applied the same models and there was expectation of similar outcomes in both economies. But results will not be to those as there were expectations in both countries where same models were implemented and similar countries meet the different fate as observed experimentally having very divergent paths of the countries that

have applied the same types of policy. Why this is a difficult question to answer. But we know that in addition to all issues that involve concentrating on a particular idea and direct support to a certain point; we should keep in view the conditions of existing institutions in these economies.

Pakistan is a developing country of the world depending on agriculture, industry, manufacturing and remittances. The trend in economic growth of Pakistan is presented in the following figure. The growth rates of Pakistan remained relatively higher and impressive in the decades of 1960's and 1980's. The next decade of 1990's remained worst, not due to poor economic performance but also due to poor governance, political instability (during the period of 1988-99, eleven governments were changed resulting loss of confidence of investors and growth), debt burden (accrued during the period of 1977-88, resulting in annual interest payments made equal to 60 percent of budget and 25 percent for defense, so development expenditures were reduced significantly), and imposed sanctions on Pakistan in the decade of 1990's relevant to nuclear propagation.

The last year of 90's decade (1998-99) was most difficult year in history of the country due to many significant domestic and regional events. These included the nuclear tests of Pakistan and India, later on dismissal of the voted political government in October that same year. In fact, the decade of 1990's, as a whole, was the decade of under development, as compared with previous decades. The nuclear tests caused to impose large variety of sanction on Pakistan by developed countries.

During the constitutional period of five years (2008-13) of Pakistan People Party, the fragile economy of Pakistan remained floundering, as the economic managers ineffectively made efforts to bridge the widening budget deficit year-after-year. Moreover, public debt was increased to a record level and other macro-economic indicators were on lowest ebb. The average GDP growth rate during this period was only three percent, industrial growth was near to zero, investment rate declined to 12.5% of GDP (lowest in the history of Pakistan), budget deficit was 7% of GDP on average and public debt became double. Corruption and poor governance were key factors that affected every sector of the economy.

The number of people living below the poverty line increased to 40 percent from 30% as compared with previous five years.

The fluctuating economic growth of Pakistan needs to be explored further. Realizing the importance and effectiveness of institutions and government spending from literature, it will be much concern of interest to know the impact of public spending and institutions on economic growth of Pakistan. This study is intended to determine the impact of fiscal policy and institutions simultaneously on economic growth of Pakistan which is a novel contribution in literature of economic growth. There is hardly any study investigated the effect of institutions and fiscal policy jointly on economic growth of the country.

After introduction, section 2 outlines the literature review and section 3 provides theoretical framework. Section 4 has details of data and variables. Methodology and empirical analysis are discussed in section 5 while section 6 concludes the chapter

II. LITERATURE REVIEW

Christie (2011) highlighted various aspects of the relationship between government expenditures and economic growth in long term. A model has been developed through the application of a general method of moments (GMM) to find the dynamic nature of relation between the described variables for 136 developing and developed countries during the period of 1971 to 2005. The conclusions of the study indicate that government spending beyond the threshold level affects the growth negatively. The findings of the study indicate that public spending at 26-32% of GDP is threshold level for developed economies and 33% of GDP for developing countries. Based on the findings, it was suggested to manage public spending; because 28 developed economies have the public spending more than 30% of GDP from 2001 to 2005.The expansion of public spending in these economies will have negative impacts on long term growth. The outcomes of research indicate that improving the quality of institutions may improve the economic growth in case of increasing public spending. It was also found that the threshold level of spending without imposing serious side effects between production and non-productive spending, which alleviate the potential gain of increased government expenditure.

Babalola and Aminu (2011) investigated the relationship between fiscal policy and economic growth in Nigeria over the period covering 1977-2009. Engle-Granger approach and Error Correction Model are applied to test the long and short run relationship among variables. GDP growth rate is taken as dependent variable while productive government expenditure, unproductive government expenditure, direct income tax and capital expenditure are considered as independent variables. The results show that both productive and unproductive expenditures have insignificant impact on economic growth. On the other side, contrary to economic theory, direct income tax has positive effect while capital expenditure has negative impact on economic growth of Nigeria. Improvement in government expenditure on health, education and economic services is recommended to boost economic growth.

Kakar (2011) determined the impact of fiscal variables on economic growth in Pakistan covering the period from 1980-2009. Johansen Cointegration, error correction and Granger causality techniques are applied to determine the relationship among the variables. In this study, GDP growth rate is considered as dependent variable while tax revenues, real interest rate, public expenditure, consumer price index, capital stock and population growth rate are taken as independent variable. The findings show that fiscal policy affects the economic growth in long run. In short run, economic development can be stimulated by controlling interest rate and government expenditure at the cost of inflation.

Benos (2009) disintegrated public revenues and government spending into subcategories and analyzed the impact of each category on GDP growth of 14 European Union economies for the period 1990 to 2006. In this study, public spending on health, recreation, education, housing, culture, economic affairs, religion, defense, public order safety, taxes on wealth, income, capital, imports, production, and fiscal deficit are considered as fiscal variables while private investment, population, secondary education, employment growth, imports and exports are treated as non fiscal variables. Panel data techniques and ordinary least square methods were applied to estimate the results. The empirical analysis reveals that public spending on human capital has not significant effect on economic growth while infrastructure spending affects the economic growth positively. It was also found that taxation affect

economic growth negatively while budget deficit has not a clear relation with economic growth.

Kneller, et.el (1999) determined the relationships between government expenditure and economic growth for a group of 30 OECD countries during the period 1970-2005. The obtained results show that there is a long-run relationship between government expenditure and economic growth. Furthermore, they also found a unidirectional causality from government expenditure to growth for 16 out of the 30 countries that support the Keynesian hypothesis. However, causality runs from economic growth to government expenditure in 10 out of the countries, confirming the Wagner's law. They also found the existence of feedback relationship between government expenditure and economic growth in four countries.

Glaeser (2004) observed that proposition about the positive impact of institutions on economic growth is ambiguous and variables used to measure the institutional quality is unsuitable for this purpose. He argued that these variables do not measure the quality of institutions which is claimed as constraints in theoretical literature but it is outcome of institutional variables. Author is of view that governance indicators are very volatile that do not reflect the actual position of political environment bit it varies with variation in per capita income. The established empirical relationship between institutions and economic growth in literature was questioned about the instrumental techniques and common measures by author and his collaborators. The study also raised some interesting analytical questions regarding the conceptualization of institutions, the uncritical use of institutions and governance as similar concepts and the nature of the theoretical link between governance, institutions and economic development.

Feng (2003) used the pattern of political economy theory of economic growth to investigate the economic development in Pacific Asian economies. The profound argument of the study is that institutions are very important to explain the economic growth of these countries. Yet, a closer look at his work unveils a more gradation situation. The author showed that variables such as political polarization, political stability and government repression were the political variables affecting growth in these countries. He also explored that political institutional

framework is an important factor for explanation of economic growth by restricting individual decisions in their marketplace.

Hall and Jones (1999) postulated one of first empirical research establishing the relation between economic performance and institutions. Social infrastructure is considered as institutional variable which was defined as "the institutions and government policies that determine the economic environment within which individuals accumulate skills, and firms accumulate capital and produce output." They mentioned the relation between the provision of protection to private productive units from confiscatory diversion and institutions. Yielding that a perfect measurement of social infrastructures is not in rehearsal, they choice a proxy gained by pooling two indexes: "an index of government anti-diversion policies" and "an index of openness to international trade". On the other hand, a fundamental basis to measure the institutions was provided in this study and adopted methodology to measure institutional variables was used in many studies to know the relation between institutions and economic performance in many studies later on.

These studies reinforce the argument that empirical outcomes are likely to differ from country to country and time to time, even by using same techniques and methods. It can be viewed also from literature that there is hardly any study in our observation which may explore the impact of government spending on quality of institutions and effects of government spending along with institutions on economic growth of Pakistan. This study will provide a baseline for further exploration of components of fiscal policy and their effects on the economy of Pakistan.

III. THEORETICAL FRAMEWORK

In this section, a framework is derived to investigate the impact of fiscal policy and institutions on economic growth in an economy.

According to Madni (2014), "endogenous growth models explain the growth differences of economies in long run. Some models, among them, highlight the effectiveness of public spending and taxation rate on growth of a country. Barro (1990) derived a model showing the utility level of infinite households living in a closed economy and want to maximize the utility as follows;

$$U = \int_0^\infty u(c)\, e^{-pt}\, dt \qquad (1)$$

Utility in above function is gained by consumption c of per person in the economy, and p>o is the constant rate of time preference. When population is assumed as constant then utility is;

$$u(c) = \frac{c^{1-\theta} - 1}{1 - \theta} \qquad (2)$$

Where $\theta > 0$, and negative value of $-\theta$ represents the constant marginal utility. Barro and Sala-i-Martin (1992) argued that households have real assets a(t) in the form of claims on internal loans or; physical or human capital. The real rate of return on assets, in units of future consumables per unit of current consumables per unit of time, is r(t). Thus, the household's budget constraint determines the change over time is assets to be

$$a = ra\text{-}c \qquad (3)$$

The term ra includes returns on human and physical capital. The growth rate of consumption per person is obtained by first order condition for maximization of utility in equation (1) subject to the budget constraint in equation (3)

$$\frac{c^*}{c} = \left(\frac{1}{\theta}\right)(r\text{-}p) \qquad (4)$$

It is assumed constant returns of capital following Rebelo (1991), so that

$$y = Ak \qquad (5)$$

Where A>0 is the constant net marginal product of capital. This production function can be modified to distinguish the human and non human capital. The function can be extended also to those sectors that produce physical and human capital. Now substituting r=A into equation (4), we get

$$f = \frac{c^*}{c} = \left(\frac{1}{\theta}\right)(A\text{-}p) \qquad (6)$$

Where f shows per capita growth rate and A>p>A (1- θ)

Now the analysis is incorporated with public sector. It is assumed that g is the quantity of public services provided to each household

producer and these public services can be considered as an input to private production. Production now exhibits constant returns to scale in k and g together but diminishing returns in k separately. Now production function can be written as

$$y = \Phi(k, g) = \Phi\left(\frac{g}{k}\right) \qquad (7)$$

It is assumed here that production function is Cobb-Douglass, and then it can be written as

$$\frac{y}{k} = \Phi\left(\frac{g}{k}\right) = A\left(\frac{g}{k}\right)^{\alpha} \qquad (8)$$

After simplifying, we get

$$y = Ak^{1-\alpha}g^{\alpha} \qquad (9)$$

Where y is per capita output, A is a productivity factor and k is per capita private capital. If the government expenditures are financed by a flat rate income tax

$$g = T = ty = t.\ \Phi\left(\frac{g}{k}\right) \qquad (10)$$

Where T is government revenue, t is the tax rate and g shows aggregate expenditure. But this equation has a constraint of balanced budget. In developing countries, it is hardly observed that government balances its budget so Kneller et al (1999) and Bleaney et al (2000) took a more practical view by assuming a non balancing government budget constraint in some periods. Now (10) can be re-write as,

$$n\,g + C + b = L + \tau\,n\,y \qquad (11)$$

Where b is the budget deficit/surplus in a given period. Both C and L are hypothesized to have zero effects on growth. The predicted sign of g and τ is positive and negative respectively. Similarly, b is zero as long as Ricardian equivalence holds, but may not be zero otherwise (Bleaney et al, 2000).

Theoretically, a proportional tax on output affects private investment but a lump sum tax does not. Subject to specified utility function, Barro (1990) and Barro and Sala-i-Martin (1992) derived the long run growth rate in this model as,

$$\gamma = \lambda\,(1-\tau)\,(1-\alpha)A^{1/(1-\alpha)}(g/y)^{\alpha/1-\alpha}-\mu \qquad (12)$$

Where λ and μ stand for parameters in the assumed utility function. This equation shows that growth rate is decreasing function of distortionary tax rate τ) and an increasing function of productive government expenditures (g).

Both fiscal (xit) and institutional variables (zit) in the spirit of Kneller et al (1999) are considered then growth equation becomes,

$$y_i = \alpha + \sum_{i=1}^{k} \beta_i z_{it} + \sum_{j=1}^{m} \gamma_j x_{jt} + \in_{it} \qquad (13)$$

If the budget constraint is fully specified, then

$$\sum_{j=1}^{m} x_{jt} = 0$$

So expenditures are equal to revenues. To avoid the perfect collinearity in the model, we have to omit at least one element of x (xm). Rewriting the equation (13), we get;

$$y_{it} = \alpha + \sum_{i=1}^{k} \beta_i z_{it} + \sum_{j=1}^{m-1} \gamma_j x_{jt} + \gamma_m x_{mt} + \in_{it} \qquad (14)$$

Following is general form to analyze the impact of fiscal policy and institutions on economic growth.

$$Y = \beta_0 + \beta_1 FP_t + \beta_2 Z_t + \mu \qquad (15)$$

Where FP represents the fiscal policy variables and Z shows the institutional and control variables.

IV. DATA AND VARIABLES

In this section, a framework is derived to investigate the impact of fiscal policy and institutions on economic growth in an economy.

This study is focused to determine the impact of government spending and institutions simultaneously on economic growth of Pakistan. For this purpose, economic growth is treated as a dependent variable while institutions and government spending along with control variables are independent variables. The data set of institutional quality is based on the

compilation of different institutional measures from ICRG (International Country Risk Guide), organized in twelve clusters namely as Bureaucratic Quality, Democratic Accountability, Ethnic Tension, Rule of Law, Religion in Politics, Military in Politics, Corruption, Government Stability, External Conflict, Internal Conflict, Investment Profile and Socioeconomic Condition. All of these variables range from 0-10. A higher score means higher condition and vice versa. By considering all these variables, an institutional quality index is developed by PCA (Principal Components Analysis). PCA is a statistical technique which uses an orthogonal transformation to alter a group of observations having a possible correlation of variables into an array of uncorrelated linear variables. The time span of data for this part is from 1984-2015.

Government expenditures are treated as a percentage of GDP to represent the fiscal variables. Economic growth is measured from real economic growth, education is primary and secondary enrolment as percentage of population, trade openness is ratio of sum of exports and imports while investment is considered as private investment as percentage of GDP.

V. METHODOLOGY AND EMPIRICAL ANALYSIS

To find the unit root and order of integration, ADF test is applied to all variables. The results indicate that some variables are stationary at level while others are stationary at first difference. The estimated results of the test are reported in the following table (1).

TABLE 1

Unit Root Tests Results (Augmented Dicky Fuller Test)

Variable	LEVEL		1st DIFF	
	Intercept	**Trend and Intercept**	**Intercept**	**Trend and Intercept**
INST	-1.73	-1.84	-4.71*	-4.63*
GEXP	-1.69	-2.28	-7.97*	-7.85*
EDUC	-0.88	-4.24*	-5.66*	-5.55*
OPEN	-2.52***	-2.72***	-6.43*	-6.24*
INVT	-1.72	-2.53	-3.74*	-3.99*
GDPG	-2.63	-3.89	-5.67**	-5.98**

Note: *, ** and *** shows significance at 1%, 5% and 10% level respectively

If variables have different integrating order, then ARDL approach is appropriate to find the long and short run dynamics of variables.

Now, the unrestricted vector auto regressive model is applied to determine the lag length of variables via Schwartz Bayesian Criterion. The minimum value of Schwartz Bayesian Criterion represents the order of lag length as shown in the following table (2).

TABLE 2

Lags Defined Through VAR-SBC

VARIABLES / LAGS	GDPG	GEXP	INST	EDUC	INVT	OPEN
0	1.55	2.97	3.26	0.56	0.54*	1.83
1	0.07*	1.39*	2.73	0.16*	1.93	1.27*
2	0.33	2.45	1.92*	0.71	2.59	1.99

NOTE: * Shows minimum Schwarz SBC

To find the presence of long run relation between variables, the value of F-statistics is calculated. The calculated value of F-statistics is 5.34 while the critical Bounds values are at 10% level of significance (2.035-3.153), at 5% are (2.365-3.553) and at 1% are (3.027-4.296) so it indicates the presence of long term relation between variables.

ESTIMATION OF LONG RUN ELASTICITIES

After finding the existence of long run relationship, ARDL technique is applied to estimate the long run and short run coefficients. The ARDL form of the growth equation will be as follows;

$$\Delta GDPG = \alpha_0 + \sum_{i=0}^{n} \alpha_1 \Delta GDPG_{t-I} + \sum_{i=0}^{n} \alpha_2 \Delta GEXP_{t-i} + \sum_{i=0}^{n} \alpha_3 \Delta INST_{t-i} + \sum_{i=0}^{n} \alpha_4 \Delta EDUC_{t-i} + \sum_{i=0}^{n} \alpha_5 \Delta INVT_{t-i} + \sum_{i=0}^{n} \alpha_6 \Delta OPEN_{t-r} + \beta_1 GDPG_{t-1} + \beta_2 GEXP_{t-1} + \beta_3 INST_{t-1} + \beta_4 EDUC_{t-1} + \beta_5 INVT_{t-1} + \beta_6 OPEN_{t-1} + \varepsilon_t$$

In this model, government expenditures (GEXP), institutions (INST), education (EDUC), private investment (INVT), trade openness (OPEN) are considered as independent variables while GDP growth is a

dependent variable. To test the efficiency of data, White heteroscedasticity test, serial correlation LM test, normality test and ARCH test were applied and output of tests indicate that data has not any econometric problem. The estimated results are pasted in the following table (3)

TABLE 3

Estimated Long Run Coefficients for Growth Equation

Dependent Variable GDP growth	ARDL Technique Order(1,1,2,1,0,1)			
Regressors	Coefficients	Std. Error	t-Statistic	Prob.
GEXP	0.27***	0.33	0.42	0.07
INST	0.47*	0.51	0.43	0.01
EDUC	0.65***	0.38	0.63	0.08
INVT	0.37**	0.28	0.51	0.04
OPEN	0.45	0.72	1.34	0.18
R^2 =0.92 Adjusted R^2=0.88 DW-stat =1.93 Serial Correlation LM Test=0.08(0.77) ARCH Test =2.53(0.38) White Heteroscedasticity =0.85(0.48) Jarque-Bera Test =0.44(0.70)				

Note: *, **and *** shows significance at 1%, 5% and 10% level of significance respectively.

This study examined the relationship between economic growth, government spending and institutions. The estimated results indicate that government spending has significant impact on economic growth of country and 1 percent increase in government spending will lead to economic growth by 0.27 percent. The increased government spending causes to improve the human capital, infrastructure and more facilitation for public that leads to increase the productivity of labor so economic growth is accelerated. The estimated result point out that institutional quality is more important than the government spending. The effectiveness of institutions on economic growth of Pakistan is significant and one unit increase in institutional quality will lead to improve the economic growth by 0.47 units. It is evident that with strong and effective institutional framework, people have inclusion in the development process as well as availability of equal opportunities. The

efficient judicial and law enforcement mechanism makes it convenient to reduce the transaction costs so the gains from economic activities increase. Education also plays an important role to increase the growth of Pakistan. Findings of empirical investigation reveal that on unit increase in educational level of people will boost the economic growth by 0.65 units. It is evident that literate person is more productive as compared with illiterate persons. In the same way, private investment has a significant and positive impact on economic growth. It indicates that increase in investment increases the productivity and there are more chances of employment so it accelerates the economic growth. The derived results show that trade openness has not significant impact on economic growth. One of the reasons of insignificance of trade openness may be the non-competitive prices of our production sector in international market due to energy crisis and inflation rate of the country while on the other side; our imports are higher than exports so Pakistan is not much beneficiary from free trade policies.

ERROR CORRECTION REPRESENTATION FOR THE ARDL MODEL OF ECONOMIC GROWTH

After estimating the long run relationship, we are able to estimate the error correction model for short run dynamics. The ECM form of growth model is following;

$$\Delta GDPG = \alpha_0 + \sum_{i=0}^{n} \alpha_1 \Delta GDPG_{t-I} + \sum_{i=0}^{n} \alpha_2 \Delta INST_{t-i} + \sum_{i=0}^{n} \alpha_3 \Delta EDUC_{t-i} + \sum_{i=0}^{n} \alpha_4 \Delta INVT_{t-i} + \sum_{i=0}^{n} \alpha_5 \Delta OPEN_{t-i} + \sum_{i=0}^{n} \alpha_6 \Delta GEXP_{t-i} + ECM_{t-1} + \varepsilon_t$$

Here ECM_{t-1} is the adjustment parameter. It shows the speed of adjustment while the other parameters represent the short run coefficients reported in the following table (4).

TABLE 4

Estimated Short Run Coefficients for Growth Equation

Dependent Variable GDP Growth	ARDL Technique Order (1,1,2,1,0,1)			
Regressors	Coefficients	Std. Error	t-Statistic	Prob.
ΔGEXP	0.27	0.31	0.42	0.09
ΔINST	1.10*	0.19	1.26	0.38
ΔEDUC	1.35	0.41	1.33	0.24
ΔINVT	2.54	0.62	0.48	0.08
ΔOPEN	0.19	0.18	0.38	0.46
ECM_{t-1}	-0.37**	-0.31	-1.22	0.05
R^2 =0.93 Adjusted R^2=0.89 DW-stat =1.92 Serial Correlation LM Test=0.15(0.66) ARCH Test =0.34(0.48) White Heteroscedasticity =0.16(0.38) Jarque-Bera Test =0.87(0.54)				

Note: * and ** shows significance at 1% and 5% level of significance

The estimated lagged error correction term ECM_{t-1} is negative and significant. The negative and significant error correction term indicates that there is a long run relationship among the variables. The feedback coefficient is -0.37. It indicates that 37 percent disequilibrium is corrected in the short run. In short run, public spending and private investment is significant for economic growth while institutional framework, education and trade openness are not significant in the short run.

VI. CONCLUSION

Institutional development and government spending are necessary to promote the economic growth and living standard of the country, has been proven in this study. In this analysis a number of competing hypotheses, on what contributes to Pakistan's economic performance, have been tested using econometric model. Subsequently, the factors of economic growth were investigated. This study is a first attempt to explore the factors of economic growth in context of institutional quality and fiscal policy in Pakistan. There is hardly any study that investigated the mentioned variables simultaneously for the said country.

This study used the time series data covering the time span from 1984-2015 and econometric techniques were applied to formulate the empirical results. The empirical findings come up with following results.

The estimated results suggest that the economic growth depends fundamentally on government expenditures. Government spending is contributing to improve the growth but it has very little share. There is an ample space to improve the productive efficiency of government spending to have major proportion in improvement of growth. The public spending establishes a relation of confidence between state and public. Higher the level of confidence builds higher quality of institutions. If government spending is not public oriented, the people prefer to be more corrupt and lose their confidence on institutions that leads to slow the growth of the country. To boost the economic growth of the country, government has to take steps to improve the efficiency of public spending as a major portion of public spending going to be preyed of corruption. According to report of transparency international, in the Corruption Perception Index (PCI), Pakistan stands at 117th position out of 168 countries where 1st position got the Denmark where corruption level is at lowest level while Somalia and North Korea remained at 167th position that reflects highest level of corruption in the world. The Corruption Perception Index (CPI) ranks countries and territories based on how corrupt their public sector is perceived to be. The public oriented and corruption free expenditures may increase the economic growth as well as institutional structure of the country.

Secondly, institutions play an important and significant role to explain the economic growth of the country. As the institutions are more efficient and, people have more trust on their governments and attraction for foreign investors but inefficient institutional structure degrades, overall, the economic system of the state. The institutional indicators of Pakistan are going towards better positions but there is still an ample space for their improvements to boost the economic growth of Pakistan.

Education is the backbone of a society for development. In Pakistan, education is significantly and positively affecting the economic growth. The literate people have more respect for the rules and regulations of the state. Government of Pakistan is trying hard to increase the level of education in the country but 100% literacy rate could not be gained up to now.

International openness has not a significant impact on economic growth of Pakistan. It may be due to many reasons. One of the reasons of insignificance of trade openness may be the non-competitive prices of our production sector in international market due to energy crisis and inflation rate of the country while on the other side; our imports are higher than exports so Pakistan is not much beneficiary from free trade policies.

By concluding, government spending fosters good institutions and high quality institutional framework is expected to be developed in equitable and open economies, with a sound fiscal contract in an educated population. If these conditions are met, then it is possible to attain remarkable and sustained economic growth. Overall, results propose that variables leading to explain the economic growth are in reach of government. Although it is not an easy task but there is room for policies aimed at improving the growth.

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