

GOVERNANCE, CORRUPTION AND ECONOMIC GROWTH: A PANEL DATA ANALYSIS OF SELECTED SAARC COUNTRIES

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Abstract. Present study examines the association among governance, corruption and economic growth in five selected SAARC countries including Bangladesh, India, Nepal, Pakistan and Sri-Lanka using panel data for the period 1996-2014. Panel regression was run using Fixed Effects Method of estimation based on Hausman specification test results. Fixed Effects Model with specific cross-section coefficient was also employed. Findings reveal that two institutional indicators of Governance, namely Government Effectiveness and Political Stability have positive and significant effect on Economic growth in selected SAARC countries. Corruption exerts adverse effect on Economic growth which is according to theory. Moreover, results show that among Governance indicators, Government effectiveness has greater influence on GDP growth in selected SAARC countries. Results of Education index have appeared to be significant predictors of growth of selected SAARC countries in the given time period.

Keywords: Governance, Corruption, Economic Growth, SAARC Countries, Panel Data, FEM

JEL Classification: C23, D73, O16, O40

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I. INTRODUCTION

Governance is a wide spread concept and defined by many scholars, researchers and policy makers but no satisfactory and precise definition of governance has been obtained. The definition by Kaufmann and Kraay covers all the components of governance. They describe governance as an authority working out through institutions and customs in a country. This broad definition of governance consists of three parts, first a procedure through which regimes are elected, examined and substituted, second potential of governments to originate and put into action the prescribed policies effectively and third is to have social and economic interface between civilians and state so as they should have respect for institutions (Mastruzzi et al., 2011).

Governance is the procedure of basic leadership and implementation. Governance is a tool of economic, political and administrative establishments to manage a nation's affairs (Chaudhry et al., 2009). Literature enlightens institutions as "a set of rules and regulations, procedures and ethical and moral behavioral norms which are shaped to restrict the actions of individuals to maximize utility of principals" (North, 1981 P. 201). According to United Nations Development Program (UNDP, 1997), Governance means the implementation of administrative, economic and political authority to control the affairs of a country at each and every level. Because all the institutions are considered responsible to perform their prescribed activities in order to fulfill the needs of common man. Furthermore, International Monetary Fund (IMF) gives more importance to the economic side of governance and those issues are focused which enhance the quality of resources available to public and to make the activities of private sectors more efficient. For investment and growth, government institutions are important mostly those ones which protect the property rights (Knack & Keefer, 1995). Kaufmann et al. (2002) and Chaudhry et al. (2009) argued that in order to achieve rapid economic growth, good governance plays effective role with the help of better and useful provision of resources including both the capital and labor.

Corruption is the misuse of public office for private advantages. Corruption is a global issue. In small developing nations it is considered as a key variable that influences all the economic and social facets of life.

The sale of government property by public administrators, misuse of public assets, bribery and discrimination are the examples of corruption. Due to corruption more than one trillion US dollars are vanished annually reflecting almost 5% of the world gross domestic product, reported by World Bank (2000). According to World Bank, the major hindrance in the way of economic and social progress is corruption. Institutional fundamentals are badly affected by corruption which leads to poor economic growth (Craigwell & Wright, 2012). Mostly corruption is linked to smuggling, remuneration exercises, rent seeking, and conspiracy (Milelli & Sindzingre, 2010).

Leff (1964) and Huntington (1968) defined corruption as an obligatory oil to grease up the solid wheels of rigid government organizations. It implies that corruption can be favorable in those nations where alternate parts of governance are frail. Prior empirical research shows that presence of corruption hampers economic growth of countries (Gupta et al., 2000; Mauro, 1995 and Tanzi, 1998). Corruption exists in several forms like dishonesty, fraud, bribery, embezzlement, blackmailing, nepotism and favoritism etc. it is divided into different sectors like judicial corruption, bureaucratic corruption, political corruption and electoral corruption etc.

In all South Asian countries, the subject of governance and issue of corruption have been observed since early 1980s. The concern of Internal and international (IMF, World Bank) agencies about corruption is now rising. Governance indicators like stability and property rights, the operation of judicial system and performance of democracy are closely related with the problem of corruption. Issue of corruption is getting more attention as it is considered an indicator of other failures of governance. During recent time periods, it is observed that by and large the economic growth and financial performance of South Asian countries has increased as compared to the era of 1980s. But political instability, poor quality of institutions bad governance and other crises are the key factors affecting South Asian countries to have further improvement in their economic growth and performance (Devarajan, 2005; Devarajan & Nabi, 2006 and Vadlamannati, 2009). Due to new rising issues in South Asian countries like political and economic pragmatism including some other cultural and social aspects, it needs attention to study the elements of economic growth in this area (Bhattacharjee & Haldar, 2015).

In recent time period SAARC countries are facing the issues of poor governance and worse conditions of corruption so there is utmost need to learn about the issue with the goal that strong measures might be taken for solutions. The current study is an addition to literature as it finds the specific effects of each governance indicator including control variables on economic growth of selected countries. The association among governance, corruption and growth has been widely studied, there is still a dearth of research exploring the same phenomenon in the SAARC region. The current research work is an attempt to fill this gap.

Rest of the study is organized as section 2 gives literature review that provides theoretical and empirical background. Section 3 explains data and methodology. In section 4 results and discussion of study are presented. Section 5 is about conclusion and policy implications.

II. LITERATURE REVIEW

This section presents a brief analysis of how empirically governance and corruption affect growth. The theories of growth given by classical and neo-classical school of thought consider labor and capital as conventional sources of growth. Governance was not given much importance in growth process. After economic reforms in 1990s, the importance of governance has been realized. Importance of Governance was even felt by Adam Smith (1776). He claimed that governance is a prerequisite for economic growth in an economy but mostly work on governance was done during 1990's. Several empirical and theoretical works have been done to check relationship between institutional and economic performance. Seminal work done by North (1990) indicates that institutions do matter for economic growth.

Deyshappriy (2015) checked the impact of corruption and peace on economic growth using panel data for 126 countries. To represent corruption and peace, Corruption Perception Index (CPI) and Global Peace Index presented by Transparency international and institute for finance and peace were used. Ordinary Least Square (OLS) estimates found that GDP growth per capita is negatively affected by corruption while peace encourages economic development of the selected countries.

Bhattacharjee and Haldar (2015) investigated the determinants of economic growth with particular emphasis on the role of institutions for

growth in four Asian countries over the period 1996-2010. The results depicted that voice and accountability and regulatory quality significantly affect economic development. Physical and human capital has positive impact on economic development.

Awan and Mustafa (2015) examined the relationship among institutional governance, aid and economic growth of South Asian nations. Findings showed that quality of institutional supremacy record and additionally singular indicators of governance have progressive effect on economic growth whereas aid has negative effect on growth.

Hall and Ahmad (2014) revisited the link between economic growth and institutions in developing countries specifically from East Asia, Africa and Latin American regions. They used panel data for sixty-nine developing economies of the said regions during the period 1985-2008. System-GMM technique was applied to counter the country heterogeneity problems. The results revealed that institutions affect economic growth positively. Security of property rights has significant impact on economic growth of all developing countries whereas efficient bureaucracy has not provided evidence for its strong impact on growth.

Nadeem, Nazir and Anwar (2013) conducted an empirical study to investigate the nexus between governance and economic growth in Pakistan using time series data for the period 1984-2010. The results depicted that all the variables significantly affect economic growth of Pakistan. The role of governance is very important in determining the economic growth of Pakistan.

Zidi and Dhifallah (2013) investigated the relationship among Corruption, governance and financial performance in thirty developing nations over the period 1998-2011. Generalized Least Squares model (GLS) was utilized for estimation. The results showed that enhancing the nature of political foundations is related with lessening the level of corruption and feasible economic development in emerging nations.

Picazo, Martin and Soriano (2012) explored the association among governance, entrepreneurship and economic growth for eleven developed countries. The findings revealed that there is a significant indirect association between Governance and economic growth.

Gani (2011) examined the importance of Governance in economic growth of developing nations. To check the effect of different indicators of governance on growth, panel data set was used for eighty four developing economies (low-middle income economies) during the period 1996-2005. Regression specifications were used for estimation and the findings of the study showed that political stability and government effectiveness have positive impact on growth whereas voice and accountability and corruption have negative association with economic progress. The regulatory quality and rule of law were found to have statistically insignificant impact on monetary progress.

Gazdar (2010) investigated correlation among the influence of corruption on economic progress and the superiority of governance in nineteen MENA countries using time period 1984-2010. Generalized Method of Moments (GMM-system) was used for estimation. The results indicated that corruption has positive relationship with economic growth when the quality of governance is very low.

Gamber and Scott (2007) built a threshold model to analyze the correlation between governance and economic development for seventy-seven nations during the period 1961-1994. The study estimated the pairs of regression to address the query whether the quality of governance equally influences economic growth across the nations with different levels of per capita income. The results affirmed that quality of governance is more crucial for poor countries, whereas education and region are considered more important for poorest and wealthiest countries relatively.

Kaufmann and Kraay (2002) investigated causal association among governance and income per capita in Latin America and Caribbean region. The study separated the said correlation into two categories, one showed the positive impact of good governance on per capita income and second showed the weak and negative impact of per capita income on governance. The study found two results, one finding supports the existing literature that the good governance affects economic development positively and the other result shows that higher level of income leads toward superior governance.

Above empirical analyses concluded that there exists positive association among governance and economic growth while negative

relationship between corruption and economic growth in different countries.

III. DATA AND METHODOLOGY

MODEL SPECIFICATION

To observe the impact of governance and corruption on GDP per capita, this study has followed the model used by Zidi & Dhifallah (2013).

$$GDP\ Per\ Capita = f(CORR, EI, GE, PS) \tag{1}$$

transforming the above function into equation

$$LnY_{it} = \beta_0 + \beta_1 Corrit + \beta_2 EI_{it} + \beta_3 GE_{it} + \beta_4 PS_{it} + \epsilon_{it} \tag{2}$$

Where Y_{it} is GDP per capita used as proxy for economic growth

$CORR_{it}$ = Corruption, EI_{it} = Education Index, GE_{it} = Government Effectiveness, PS_{it} = Political Stability, ϵ_{it} = Error term, the subscript ($i = 1 \dots n$) shows the country and subscript ($t = 1 \dots t$) indicates the time span.

Equation 2 estimates the impact of governance and corruption on Economic growth proxied by GDP per capita. GDP per capita is dependent variable while Corruption, Education index, Government effectiveness and Political stability are taken as independent variables. β_0 is intercept and β_1 , β_2 , β_3 and β_4 are slope coefficients of Corruption, Education index, Government effectiveness and Political stability, respectively.

SOURCES OF DATA

The current study has used panel data for five SAARC member countries: India, Bangladesh, Sri-Lanka, Pakistan and Nepal. Time span used in current study is 1996-2014. The relevant data for variables are taken from World Development Indicators (WDI), World Governance Indicators (WGI) and (HDI). Afghanistan, Bhutan and Maldives are also SAARC member countries but excluded due to non-availability of data for all the variables.

GDP per capita (constant 2010 US\$) has been taken from World Development Indicators (WDI). The World Governance Indicators

(WGI) compile and summarize information from over 30 existing data sources around the world, on the quality of various aspects of governance. The WGI includes six aggregate governance indicators. This study has used only three governance indicators. These governance variables are taken without log because their values vary between -2.5 to +2.5. Education Index is calculated by using mean years of schooling and expected years of schooling.

ESTIMATION TECHNIQUE

Fixed Effects Method (FEM) has been used for the estimation of prescribed model. In panel data analysis each cross section entity (individuals, firms, countries, etc.) may have its specific distinct characteristics. These individual characteristics may or may not affect the explained variables. Fixed Effect Model explores the association between independent and dependent variables inside an entity (individual, organization, country, etc.). Each entity has its own specific attributes that might possibly affect the explanatory variables (for instance, the political system of a specific nation could have some influence on GDP growth or trade). By utilizing FEM, it is presumed that something inside an entity may affect or bias the explanatory or explained variables which need to be controlled. FEM removes the effects of those time-invariant characteristics (religion, race, culture, etc.). So the net effect of independent variables on explained variables can be measured. FEM can be estimated using dummy variables. So it is also termed as Least Squares Dummy Variable Model (LSDVM) approach because dummy variables are utilized for time invariant attributes in Fixed Effects Model.

The second assumption of this approach is that time-invariant attributes are distinctive to individual unit and should not be connected with other individual characteristics. Every entity is dissimilar so the intercept which captures distinct characteristic and error term of each entity ought not to be interconnected with others. The Fixed Effects Model allows for heterogeneity among countries by allowing having different intercept terms and constant slopes for each cross section unit. The intercept term may differ across nations but it does not fluctuate over time. It is time invariant. The equation of Fixed Effects Model can be written as follow:

$$Y_{it} = \alpha_i + \beta X_{it} + \mu_{it} \quad (3)$$

Where: Y = Dependent variable, α_i = Intercept term for each cross section unit (person, company, country, etc.), X_{it} = Explanatory variables, μ_{it} = Error term, i = Each cross-section unit ,

t = Time period

General form of model used in current study is given below

$$\text{LnGDPpc}_{it} = \beta_0 + \beta_1 \text{Corr}_{it} + \beta_2 \text{EI}_{it} + \beta_3 \text{GE}_{it} + \beta_4 \text{PS}_{it} + \varepsilon_{it} \quad (4)$$

In above equation Ln is the logarithm form of GDP per capita and β_0 denotes intercept which differs across countries in fixed effects model. $\beta_1, \beta_2, \beta_3$ and β_4 are slope coefficients of corruption, education index, government effectiveness and political stability, respectively. These coefficients are taken as fixed/constant for each cross section in fixed effects model where as ε_{it} is error term for each cross section entity.

MODEL SPECIFICATION TEST

For the purpose of model specification among pooled, fixed and random effects model, different tests are available. Current study has used Redundant fixed effect test and the Hausman specification test.

REDUNDANT FIXED EFFECTS TEST

To check which model is better between pooled and fixed effect models, Redundant fixed effect test has been performed. This test is also known as F-test. It tests the hypothesis given below.

H_0 : = Pooled Model is appropriate.

H_1 : =Fixed Effects Model is appropriate

If F-statistic value is greater than probability value then we reject the null hypothesis that pooled model is appropriate model, thus in favor of the fixed effects model.

THE HAUSMAN TEST

For best model selection between fixed effects model and random effects model, the Hausman test is mostly used. The high value of Hausman chi- square statistics (that is, low p-value) favors fixed effect model and low value of Hausman chi-square statistics (that is, high p-value) favors random effects model. It tests the hypothesis given below:

H_0 : = Random Effects Model is appropriate.

H_1 : =Fixed Effects Model is appropriate.

If the Hausman statistics is greater than probability value then we reject the null hypothesis that random effect model is appropriate model, thus in favor of the fixed effects model.

The study has utilized growth specification equations including governance indicators individually in order to check the impact of each governance indicator on economic growth. Furthermore, fixed effects model with specific cross-section coefficient has also been used in current study.

IV. RESULTS AND DISCUSSIONS

To meet the objectives of present study, Fixed Effects Model and Random Effects Model are applied. Also results of Redundant fixed effect test and Hausman specification (Fixed effect versus random effect model) test are interpreted in this section. The current study has also applied Fixed Effects Model with specific cross-section coefficient in selected SAARC member countries.

TABLE 1

Variables Description and Summary Statistics

Variables	Mean	Maximum	Minimum	S.D.	Obs
GDPPC	2.97	3.54	2.61	0.24	95
Corr	-0.63	-0.01	-1.49	0.34	95
EI	0.44	0.74	0.26	0.14	95
GE	-0.45	0.11	-0.98	0.29	95
PS	-1.39	-0.15	-2.81	0.54	95

Source: Author's own calculation

Table 1 shows the descriptive statistics for all the variables used in current study. It comprises total no of observations available for all variables along with Mean, Maximum, Minimum and Standard Deviation values for each of them. Overall average mean score of GDP Per Capita in selected countries is 2.97. The total average score of corruption is -0.63 while the overall average score of Education index stood at 0.44.

The overall mean score of Government Effectiveness and Political Stability of the said countries is -0.45 and -1.39, respectively.

TABLE 2

Results of Fixed Effect Model Dependent variable: Ln GDPPC

Variables	Coefficient	Standard- error	t-value	p-value
C	1.91	0.05	33.00	0.000
Corr	-0.03	0.03	-1.17	0.241
EI	2.50	0.14	17.54	0.000
GE	0.12	0.04	2.92	0.004
PS	0.02	0.01	2.03	0.044
R^2		0.96		
F-statistic		117.26(0.000)		

Source: Author's own calculations

Table 2 depicts the fixed effect outcomes of the correlation among governance, corruption and economic growth in selected SAARC countries. The findings illustrate that Corruption is negatively linked with economic progress. The coefficient of corruption is statistically insignificant but according to theory that corruption impedes economic growth and development. Corruption coefficient indicates that one-unit increment in corruption level leads to 0.35 percent decrease in GDP growth in selected SAARC countries. The coefficient of Education index is statistically significant at one percent level of significance and positively correlated with GDP growth. The coefficient shows that one-unit increase in Education increases GDP growth at 2.50 percent in said countries. The Education index has been observed the major element of economic growth. The coefficient of Government effectiveness is statistically significant at one percent and has positive impact on GDP growth. The coefficient of Government Effectiveness indicates that one-unit increase in Government effectiveness leads to 0.12 percent increase in GDP growth of selected SAARC countries.

The coefficient of Political Stability is also significant at five percent level of significance. It is positively associated with GDP growth. The coefficient shows that one-unit increase in Political Stability raises the

GDP growth of selected SAARC countries by 0.02 percent. In Fixed Effects Model, value of R-Square is 0.96 which indicates that ninety-six percent variation in GDP growth is explained by explanatory variables. The F-statistic demonstrates the overall significance of the model. In above table, value of F- statistic is highly significant which indicates that our overall model is good fit.

TABLE 3

Results of Random Effect Model Dependent variable: Ln GDPPC

Variables	Coefficient	Standard- Error	t-value	p-value
C	2.26	0.02	80.09	0.000
Corr	-0.21	0.01	-11.08	0.000
EI	1.40	0.04	34.98	0.000
GE	0.42	0.02	20.56	0.000
PS	0.09	0.00	10.27	0.000
R^2		0.83		
F-statistic		110.68(0.000)		

Source: Author's own calculation

The results of Random effect model show that except corruption, all the variables are significant and have positive impact on GDP growth in selected SAARC countries. Corruption is statistically significant at one percent and negatively associated with growth. The coefficient of Education Index is significant at one percent level and has positive association with growth for selected countries. Government Effectiveness and Political Stability are positively significant, signifying the importance of these two institutional measures for economic growth. The R-square value is 0.83. It means that 83% variation in dependent variable is due to explanatory variables (Corruption, Education Index Government Effectiveness and Political Stability). F-statistic indicates the joint significance of all the coefficients in the model showing that the overall model is good fit.

TABLE 4
Specification Tests

Effects Test	Tested	Statistics	p-value	Selection
F-test	Pooled/Fixed	96.08	0.000	Fixed
Hausman test	Fixed/Random	384.34	0.000	Fixed

Source: Author's calculation

Table 4 presents the results of specification tests. First F-test was performed to make a choice between pooled and fixed effects model. F-statistics value is 96.08 and the p-value is less than 5%. It strongly rejects the null hypothesis that pooled model is appropriate model, thus in support of the fixed effects model. It indicates the presence of strong individual effects (country- specific effect). For best model selection between fixed effects model and random effects model, Hausman test is performed. The results reject the null hypothesis. The p-value (0.000) is highly significant and in favor of alternative hypothesis that fixed effects model is appropriate model. Both F-test and Hausman test show that the fixed effect model is most appropriate model.

GROWTH SPECIFICATION REGRESSIONS INCLUDING INDIVIDUAL GOVERNANCE INDICATORS

The study has estimated growth specification regressions containing separate governance indicators. Three models have been regressed to check the influence of every governance indicator including corruption, government effectiveness and political stability and absence of violence on economic progress. The results are given below.

Table 5 gives the fixed effect results for governance indicators individually. In all three models the influence of Education index on GDP growth is significant and positive. In model one the corruption variable has been regressed on GDP growth. The results in model one show that Coefficient of corruption is statistically insignificant but supports the economic theory as it leaves harmful effects on economic growth. In model two, government effectiveness variable is regressed on GDP growth. The findings depict that the coefficient of government effectiveness is significant at one percent and affects GDP growth positively. Political Stability variable is regressed on GDP growth in

model three. The findings show that the coefficient of political stability is significant at five percent level of significance and positively linked with GDP growth. The results of these three models show that among governance indicators Government effectiveness has maximum influence on GDP growth in selected SAARC member countries.

TABLE 5

Fixed Effect results for Governance Variables Dependent variable:
Ln GDPPC

Variables	Model 1	Model 2	Model 3
C	0.64* (0.000)	1.91* (0.000)	0.63* (0.000)
EI	4.90* (0.000)	1.26* (0.000)	5.11* (0.000)
Corr	-0.007*** (0.090)	-----	-----
GE	-----	0.13* (0.008)	-----
PS	-----	-----	0.05** (0.019)
R^2	0.89	0.96	0.89
F-Statistic	120.59	173.08	129.27
Total observations	95	95	95

Note. *, ** and *** indicate significance at 1%, 5% and 10% level accordingly. P-values are in parentheses.

FIXED EFFECTS WITH SPECIFIC CROSS-SECTION COEFFICIENT

The relationship among governance, corruption and growth has also been tested using fixed effect with specific cross-section coefficient. Results are given below.

TABLE 6

Fixed Effects results for corruption Dependent variable: Ln GDPPC

Variable	Coefficient	Std. Error	t-statistic	Prob.
C	1.92	0.06	31.04	0.000
BGD-Corr-BGD	-0.02	0.04	-0.54	0.586
IND-Corr-IND	-0.12	0.15	-0.86	0.391
NEP-Corr-NEP	-0.02	0.05	-0.39	0.695
PAK-Corr-PAK	-0.01	0.08	-0.16	0.871
SRI-Corr-SRI	-0.16	0.12	-1.27	0.204
R^2	0.96			
F-statistic	158.33			

Source: Author's calculation

TABLE 7

Fixed Effects results for Education Index Dependent Variable:
Ln GDPPC

Variable	Coefficient	Std. Error	t-statistic	Prob.
C	1.59	0.06	26.01	0.000
BGD-EI-BGD	2.15	0.20	10.68	0.000
IND-EI-IND	3.09	0.18	16.44	0.000
NEP-EI-NEP	1.52	0.22	6.86	0.000
PAK-EI-PAK	0.82	0.27	2.96	0.004
SRI-EI-SRI	5.25	0.40	13.10	0.000
R^2	0.98			
F-statistic	165.63			

Source: Author's calculation

Table 6 shows the fixed effect results for Corruption in selected SAARC countries. The coefficient of corruption is statistically insignificant for all selected countries but in accordance with economic theory that corruption retards economic growth.

Table 7 shows the fixed effects results for education in selected countries. Results illustrate that education is statistically significant at

one percent and positively interconnected with GDP growth in all selected countries. Among these countries coefficient of education has robust impact on GDP growth of Sri-Lanka.

TABLE 8

Fixed Effects Results for Government Effectiveness Dependent variable:
LnGDPPC

Variable	Coefficient	Std. Error	t-statistic	Prob.
C	1.90	0.06	29.71	0.000
BGD-GE-BGD	0.04	0.11	0.36	0.717
IND-GE-IND	-0.03	0.13	-0.23	0.814
NEP-GE-NEP	0.21	0.08	2.71	0.008
PAK-GE-PAK	0.07	0.07	1.09	0.275
SRI-GE-SRI	0.14	0.08	1.70	0.041
R^2	0.97			
F-statistic	176.15			

Source: Author's calculation

TABLE 9

Fixed Effects result for Political Stability Dependent Variable:
Ln GDPPC

Variable	Coefficient	Std. Error	t-statistic	Prob.
C	1.92	0.06	30.45	0.000
BGD-PS-BGD	-0.01	0.03	-0.52	0.598
IND-PS-IND	0.12	0.06	1.94	0.045
NEP-PS-NEP	-0.01	0.02	-0.70	0.480
PAK-PS-PAK	0.05	0.01	2.54	0.012
SRI-PS-SRI	0.04	0.02	1.90	0.059
R^2	0.97			
F-statistic	187.65			

Source: Author's calculation

Table 8 represents fixed effect results for government effectiveness in selected SAARC countries. The coefficient of Government effectiveness is statistically insignificant but positively associated with

growth for Bangladesh and Pakistan. In case of India, the coefficient of government effectiveness gives different results. It is statistically insignificant and negatively linked with growth as per data given where as in Sri-Lanka, the coefficient of Government effectiveness is significant at five percent and has positive impact on growth.

Table 9 presents the fixed effect results for Political stability and absence of violence in selected SAARC countries. The coefficient of Political stability is statistically significant and positive signifying that it is important determinant of economic growth in India, Pakistan and Sri-Lank, respectively while in Bangladesh and Nepal, coefficient of Political stability has been observed insignificant for the study period and given data set. It shows no effect of Political stability on growth in Bangladesh and Nepal.

The results are in line with theoretical explanations by Zidi and Dhifallah (2013) that governance and quality institutions are strongly associated with economic growth. Expanding the worth of governance, it prompts to lessen corruption and subsequently an expansion in growth rate.

V. CONCLUSION

Findings demonstrate that corruption exerts adverse effect on GDP growth of selected SAARC countries in the period. The findings are according to prior expectations and empirical results of (Ackey, 2002; Grabova et al., 2014; Lusztig et al., 2006; Mauro, 1995 and Tanzi, 1998). Education shows positive and significant influence on GDP growth. The results are inconsistent with findings of Rehman et al. (2013) that Education is viewed as one of the important indicators of human capital theory. Government effectiveness and Political stability are observed significant and positively linked with economic growth for selected countries. The findings are also inconsistent with Ghani (2011) and Awan and Mustafa (2015) and according to expectations.

The study concludes that Governance exerts positive impact on GDP growth in selected SAARC countries. Furthermore, it is found that among governance indicators, government effectiveness has maximum impact on growth in selected countries. Corruption is harmful for GDP growth as it retards economic growth. Corruption is considered the

failure of other indicators of governance. So improving the worth of governance will lead to reduced corruption and rate of GDP growth will rise. The results may have some implications for governments internationally when consideration is given to the issue of quality of governance and control of corruption. An important policy implication from the findings is that institutions play vibrant role in achieving economic growth in the region. This implies that there should be good governance for proper functioning of these institutions. There should be individual analysis of each indicator of governance for sampled countries in order to check which indicator has more importance for effective growth of that particular economy. From the empirical results, it is recommended that Government effectiveness (government's commitment to provide its civilians best quality services and keep their lives free from political pressures) needs vigilant attention of policy makers for enhancing growth in selected countries. Each selected country should formulate anti-corruption policies in accordance with nature and pattern of corruption in that economy. There should be legitimate system for policy implementation against fighting corruption. Better accountability mechanism can lead to lower the corruption level. Efforts should be made by governments to avoid corruption and for this purpose, governments should take appropriate actions to keep check and balance on all the monetary activities in their nations.

Major limitation of present study is the unavailability of data for other SAARC member countries like Afghanistan, Bhutan and Maldives for all variables. Due to this reason, the study has used five SAARC countries to check the effect of Governance and Corruption on economic growth of these nations. Anyway these limitations cannot deny the findings of current study that Governance has significant influence on growth and corruption hampers economic growth of selected SAARC countries.

REFERENCES

- Awan, F., & Mustafa, U. (2015). Institutional governance, aid and economic growth: A Case Study of South Asian Countries. Conference Paper presented at International Academy of Business and Economics IABE-2015 Orlando, Orlando Florida, USA,doi: 10.18374/EJBR-15-1.6
- Bhattacharjee, J., &Haldar, S. (2015). Economic growth of selected South Asian countries: Does institution matter? *Asian Economic and Financial Review*, 5(2), 356-370.
- Chaudhry, I. S., Malik, S., Khan, K. N., & Rasool, S. (2009). Factors affecting good governance in Pakistan: An empirical analysis. *European Journal of Scientific Research*, 35(3), 337-346.
- Devarajan, S. (2005). South Asian surprises. *Economic and Political Weekly*, 40(37), 4013-4015.
- Dr. Ahmed Zidi, S. M. (2013). Corruption, governance and economic growth in developing countries: Analysis by panel data. *International Journal of Management and Business Studies*,3(2), 2230-2463
- Gani, A. (2011). Governance and growth in developing countries. *Journal of Economic Issues*,45(1), 19-40.
- Gazdar, K. (2010). Does corruption “grease the wheels” of growth? *Laboratoire d’Economie et de Finance Appliquée*, 1-16.
- Huntington, S. (1968). Political order in changing societies. New Haven, CT: Yale University Press.
- Kaufmann, D., &Kraay, A. (2002). Growth without governance. World Bank Policy Research(Working Paper No. 2928). The World Bank.
- Kaufmann, D., Kraay, A., &Mastruzzi, M. (2010). The worldwide governance indicators: A Summary of Methodology, Data and analytical issues (Working Paper No. 5430).
- Kaufmann, D., Kraay, A., &Zoido, P. (2002). Governance matters II: Updated indicators for 2000-01. (Working Paper No. 2772). The World Bank.
- Khan, M. (2006 a). Corruption and governance in South Asia. London, United Kingdom: Europa Publications.
- Khan, M. (2006 b). Determinants of corruption in developing countries: The limits of conventional economic analysis. *International Handbook on the Economics of Corruption*, 216-244.

- Mauro, P. (1995). Corruption and growth. *The quarterly journal of economics*, 110(3), 681-712.
- Murphy, K. M., Shleifer, A., & Vishny, R. W. (1991). The allocation of talent: Implications for growth. *The quarterly journal of economics*, 106(2), 503-530.
- Nazir, R., Nadeem, M., & Anwar, M. (2013). Growth governance nexus: A case of Pakistan. *Journal of Economics and Behavioral Studies*, 5(8), 562-572.
- Sarwar, K., Afzal, M., Shafiq, M., & Rehman, H. (2013). Institutions and economic growth in South Asia. *Journal of Quality and Technology Management*, 9(2), 1-23.
- Sindzingre, A. N., & Milelli, C. (2010). The uncertain relationship between corruption and growth in developing countries: Threshold effects and state effectiveness (Working Paper No. 10). University of Paris West-Nanterre la Defense, Economics.
- Tanzi, V. (1998). Corruption around the world: Causes, consequences, scope, and cures. *IMF Staff Papers*, 45(4), 559-594.
- Vadlamannati, K. C. (2009). Indian economic reforms and foreign direct investment how much difference do they make to neighbours? *South Asia Economic Journal*, 10(1), 31-59.
- Wright, A. S., & Craigwell, R. (2012). Economic growth and corruption in developing economies: Evidence from linear and non-linear panel causality tests. *Journal of Business, Finance and Economics in Emerging Economies*, 8(2), 23-43.