

Governance, Economic Growth and Socioeconomic Development in Pakistan

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Abstract

The interrelationship of governance quality, economic growth and economic development is an important area of research in the development field. The previous studies are based on single equation estimation techniques and provide evidence on bidirectional relationship of these variables. Furthermore, most of the studies use a narrow concept of development using single variable or HDI as a measure of human capital or socioeconomic development. The present study constructs a broader socioeconomic development index by incorporating twelve indicators each for social and economic development. This study is an attempt to fill up this gap in existing literature by estimating tripartite relation of governance, economic growth and socio-economic development by applying system method of estimation. The study examines the relationship of governance, economic growth and socioeconomic development using 3SLS approach that yields low variance estimates than limited information method for Pakistan economy for the period 1990-2017. The results reveal bidirectional positive relation of governance- growth and growth-socioeconomic development nexus. As for as governance-socioeconomic development nexus is concerned, it shows that there exists a negative bidirectional relationship. It implies a weak capacity of the government in providing service delivery to the society. The study suggests an improvement in the quality of governance in Pakistan for the uplift of socioeconomic development conditions.

Key words: Governance, Economic growth, Socioeconomic development, Index, Pakistan.

Introduction

The development approach has gone through many changes. In 1950's economic growth was the main focus. In the 1950's the human resource development was considered the most important area (Anand and Ravallion, 1993). In 1970's both social and economic aspects were given more importance and it was given the name of socio-economic development. In this area, more emphasis was laid on eradicating poverty. Now-a-days, the central idea of development is the human development. It does not only include more commodities and wealth to the society but also more choices. Human development has been measured by United Nation Development Program utilizing HDI, the Human Development Index. It measures average success of a country in three aspects: a long and healthy life, access to knowledge and a decent standard of living (UNDP, 2011). Ayasrah (2012) has presented a critique of many researchers regarding the strength of HDI to measure development. HDI is the simple average of three equally weighted indices; the extreme values will affect the value of index. Furthermore all components of HDI are equally weighted, but it is desirable to assign weights to components according to their importance (Mahlberg and Obersteiner, 2001). According to Stapleton and Garrod (2007), assigning of different weights has been proven unnecessary. The HDI has also been criticized on the issue of variables selection and ranking (Panigrahi and Sivram Krishna, 2002). The present study contributes to the literature by developing an exhaustive measure of socioeconomic development in terms of an index. This index will show average achievement of Pakistan on variety of aspects of social and economic development.

The study of the economic history of developing countries has proved that mere economic growth is not enough for improving economic lives of the poor. Most of developing countries experienced spectacular growth intervals in recent decades but standard of living of the deprived segments of society failed to improve. This fact led to criticism by economists on the assumption of automatic trickle-down effect of the fruits of rapid economic growth. The economist started exploring the possible causes of the failure of trickle-down effect. The surge of interest in causes of failure of trickle-down effect resulted in renewed interest in the governance-growth-development nexus at international level. Multilateral Institutions have learned from their experience of projects in developing countries that good governance is not only a worthy goal in itself but acts as a catalyst in enhancing the positive effects of economic growth on broader socioeconomic outcomes (Gisselquist 2012). Poor governance in developing countries generates the menace of corruption which leads to increased tax evasion. This increased tax evasion results in the shortage of resources for financing pro-poor expenditure. Moreover, the sky-rocketing corruption in developing countries escorts diversion of funds that might be used for service delivery to the poor (Rajkumar and Swaroop 2008). Extremely poor administrative capacity of the state along with weak accountability of service providers to citizens mean that government expenditure in health, education and infrastructure are not spent effectively for poverty reduction and the achievement of broader development outcomes (World Bank 2004).

The concept of governance has become popular in recent decades. However, most of the empirical literature revolves around the importance of good governance in achieving higher levels of income (Kaufmann et al., 2009). On the other hand, there are very few studies encompassing the relationship between governance and broad socio-economic outcomes such as extreme poverty and deprivation, human development, education, gender based disparities, infant and maternal mortality and access to sanitation. Whether better governance leads to broader development outcomes over and above improvements in living standards is particularly relevant in the context of developing countries like Pakistan in Asia. Many countries have seen strong economic growth and an impressive expansion in public services in recent decades, but there is wide variation in governmental performance with regard to service delivery and in broader development outcomes such as infant and maternal mortality, schooling, and access to sanitation (Asian Development Bank 2013). Furthermore, developing countries in Asia have been characterized by weak and dysfunctional governance systems, relative to other regions of the world (Quibria, 2013). These countries are trapped in the vicious circle of poor governance leading to low growth resulting in poor socio-economic development again leading to poor growth performance.

There has been a great deal of research (Siddiqui and Ahmad, 2013) on bi-variate relationships among governance, economic growth and socio-economic development variables. But most of the previous studies are based on single equation estimation techniques and provide evidence on bi-directional relationship of these variables. Furthermore, most of the studies use a narrow concept of development using single variable or HDI as a measure of human capital or socioeconomic development. The present study is an attempt to fill this gap in existing literature as it first, develops an exhaustive measure of socioeconomic development and then estimates tripartite relation of governance, economic growth and socio-economic development by using system method of estimation.

Literature Review

One of the trite yet still burning questions in the development field is that why few economies are richer or growing at rapid growth rate as compared to others which have stagnant growth process. According to North and Thomas (1973), the fundamental cause of differences in the in-

comes across countries lies in the difference in the level of institutions. Moreover, Acemoglu and Zilibotti (1997) calls market imperfections as a cause for multiple equilibrium. Przeworski et al., (1995) argue that democratic economic structure and economic growth are deeply linked with each other. Rodrik (2000) shows that participatory democracy is a precondition for basic economic growth in the society. Rivera-Batiz (2002) focuses on the role of governance quality in affecting the long run economic growth. In another study, Rodrik *et al.*, (2004) confirm that per capita income can increase significantly if rule of law and level of governance improve in the societies. Khan (2006) examines the impact of governance on economic development since 1960. Khan quotes in this study that the relative importance of governance improvement in accelerating development is challenged by Sachs and others (2004) who empirically analyzes that the difference in development performance among African countries is not due to the difference in quality of governance. Keefer (2007) shows that good political governance is important for economic growth but rent seeking attitude of officials can hamper it. Siddiqui and Ahmad (2009) shows that institutions play a positive and significant role in the economic growth of Pakistan.

The impact of efficient governance in the development of an economy and society has been debated extensively in the theoretical literature where it is linked with social sector or provision of education and health as well apart from its economic implications. Al-Samarrai (2009) argues that poor governance level in Bangladesh has deeply affected the education sector. Similarly, Jasimuddin and Joya (2007) have provided the evidence with reference to recent literature that without improving the governance level it is not possible for developing economies to get satisfactory level of socioeconomic development in South Asia. Kauffman et al., (2003) also provide justification with their empirical work that governance and national income are significantly related. Haq and Zia (2009) conclude in their research work that improvement in political governance, economic governance and institutional governance is essential for pro poor growth in Pakistan.

Good governance can affect many others out comes especially economic growth and development. The governance quality is driving force and / or pre-requisite for economic and social development (Acemoglu and Robinson 2013). On the other hand social, economic and political factors can practically explain the changes in and level of institutional quality (Aron, 2000). Kunal Sen (2014) has analyzed and investigated the relationship of broad development indicators with the quality of governance for different regions of the world. According to the results, positive relation of better governance and better development outcomes hold true. Furthermore, the results are weaker for governance- development nexus in Asia. Law & Ismail (2013) show that institutional quality leads to economic development in the high income group of countries. On the other hand in low income countries, it is the economic growth or performance or development in terms of real GDP has a significant effect on quality of governance. Emara (2014) examines the inter-relationship between governance and economic growth. The author confirms the positive impact of good governance on per capita income. Siddiqui & Ahmed (2009) show a unilateral causality between growth and governance only in the long run in Pakistan.

There is difference of opinion among the economists regarding the view that poor development is caused by poor governance. Sachs et al. (2004) has regressed various measures of governance on GDP per capital and asserted by using the residuals that there is good governance in many countries of Africa and still the level of development is low. On the other hand Hausmann et al. (2008) maintains that governance might be one of the factors among many others in explaining the economic growth of a country. Jangraiz *et.al* (2015) have discussed the role of human capital in economic growth of Pakistan for the period 1971-2012. The causality between gross school enroll-

ment and GDP is unilateral. It shows positive impact of GDP on school enrollment. The enrollment in school has positively affected the elementary school enrollment. R&D has also caused the GDP growth in the economy.

From the above reviewed literature it may be inferred that the previous studies are based on single equation estimation techniques and provide evidence on bidirectional relationship of governance, economic growth and socio-economic development. Furthermore, most of the studies use a narrow concept of development. The present study constructs a broader socioeconomic development index by incorporating twelve indicators each for social and economic development. This study is an attempt to contribute to existing literature by estimating tripartite relation of governance, economic growth and socio-economic development by applying system method of estimation.

Construction of Socioeconomic Development Index and Measuring Governance for Pakistan

As development has many aspects, an ideal and acceptable measure must include economic, social and environmental indicators. In the present study, more representative indicators are being selected to assess the aspects of education, health, demography, trade and production sectors, energy, technology, mobile users and infrastructure etc. Table 1 shows selected variables of socioeconomic development index with source.

Social Development

Present research covers seven categories of social development. In the health category, life expectancy and mortality rate are included. Energy is the 2nd category of social development and it is measured by the use of electric power per capita. Infrastructure is the 3rd group of social development that includes safely managed potable water and use of mobile phone. A clean environment is the 4th type of social development and it is measured by the emission level of carbon dioxide from fossil fuel and industry. Social living standard is the 5th grouping and it consists of fertility rate, household consumption expenditure and total population. Gender equality, the 6th kind, has been measured by the seats held by women in national parliament. Education, the 7th category of social development, has been captured by (1) expected years of schooling, the time a 2 years old child can expect to spend in schooling and (2) mean years of schooling, the average number of years of education received by an individual by the age of 25 and older (UNDP).

Economic development

Agriculture sector is the 1st grouping of economic development. It is measured by the cultivable land in Sq-km and by the value added per worker of this sector. Economic policy is the 2nd group of economic development that includes the indicators of GDP per capita, inflation and exports of goods and services. External debt is the 3rd sort of economic development. The industrial and services sectors' development have been captured by manufacturing value added, services exports and services value added and it is 4th set. Science technology, 5th type, has been measured by high-technology exports. The 6th dimension of economic development is the energy sector that includes energy use (kg of oil equivalent per capita a. Financial sector, the 7th category of economic development, includes foreign currency and gold reserves in terms of US\$.

Table 1. Selected Variables of Socioeconomic Development Index

Social Development Indicators			
Health Life expectancy at birth, total (years) Mortality rate, infant (per 1,000 live births) Energy Electric power consumption (kWh per capita)	Infrastructure People using safely managed drinking water services (% of population) Mobile cellular subscriptions (per 100 people) Environment CO2 emissions (metric tons per capita)	Social Living Standard Fertility rate, total (births per woman) Households and NPISHs Final consumption expenditure, PPP (constant 2011 international \$) Population, total (billions)	Gender Development Proportion of seats held by women in national parliament (%) Education Expected years of schooling Mean years of schooling
Source of data: WDI			Source of data: UNDP
Economic Development Indicators			
Agriculture Agricultural land (sq. km) Agriculture, forestry, and fishing, value added per worker (constant 2010 US\$)	Economic Policy GDP per capita (constant 2010 US\$) Inflation, consumer prices (annual %) Exports of goods and services (constant 2010 US b\$) External debt External debt stocks, total (DOD, current US b\$)	Industry Manufacturing, value added (constant 2010 US b\$) Services Sector Services exports (BoP, current US b\$) Services, value added (constant 2010 US b\$)	Science Tech. High-technology export (current US b\$) Energy and mining Energy use (kg of oil equivalent per capita) Finance Total reserves (includes gold, current US b\$)
Source of data: WDI			

Social, Economic and Socioeconomic Development Indices

For the purpose of the study an index of socioeconomic development has been constructed by using 12 indicators each for social and economic development to capture a broader spectrum of socioeconomic development following the methodology of Ayasrah (2012). Table 2 shows the social, economic and socioeconomic development indices for Pakistan for the period 1990-2017. Each of the values of the relevant index shows average success of Pakistan in that relevant field and in a particular year.

Figure 1 depicts the trend of development achieved by Pakistan over the time span of 1990-2017. It is evident from the figure that the country is progressing in each types of development. There are fluctuations in the values of the indices but in general Pakistan is heading towards higher levels of social, economic and socio-economic development as graphs of all three indices are showing upward trend.

Table 2. Social, Economic and Socioeconomic Development Indices

Years	Social Development Index (0-1)	Economic Development Index (0-1)	Socioeconomic Development Index (0-2)
1990	0.22	0.19	0.40
1991	0.22	0.17	0.40
1992	0.24	0.21	0.45
1993	0.25	0.22	0.47
1994	0.25	0.22	0.47
1995	0.28	0.26	0.54
1996	0.3	0.33	0.63
1997	0.33	0.35	0.68
1998	0.35	0.36	0.71
1999	0.39	0.38	0.77
2000	0.4	0.4	0.80
2001	0.42	0.41	0.82
2002	0.44	0.5	0.94
2003	0.44	0.59	1.03
2004	0.47	0.54	1.01
2005	0.54	0.62	1.15
2006	0.56	0.67	1.22
2007	0.59	0.69	1.28
2008	0.63	0.58	1.21
2009	0.66	0.58	1.24
2010	0.67	0.63	1.3
2011	0.71	0.66	1.36
2012	0.74	0.69	1.43
2013	0.75	0.71	1.46
2014	0.76	0.74	1.5
2015	0.77	0.78	1.55
2016	0.75	0.78	1.53
2017	0.76	0.8	1.55

Source: Author's own calculated indices from WDI and UNDP data.

Governance

Governance refers to the process of decision making and then to implement them. The impact of these decisions and of implementation on the life of the masses is called quality of governance. To evaluate governance quality of Pakistan, data from International Country Risk Guide (ICRG) has been used. There are 12 political risk components (indicators) in the data (ICRG methodology, the PRS group www.prsgorup.com). Of which a set of five indicators, those are most common, have been chosen to construct a weighed average index to represent overall governance for the purpose of the study. These five components are: (1) Government stability that covers the ability of the government to stay in office and its strength to implement announced program. (2) Corruption in governance means the demand for payments and bribes when import and export licenses are

awarded. It is also related to exchange control, tax assessment, police protection, nepotism and secret party funding. (3) Law and order is a single component having two elements, law shows the power and equity of the judicial system while order shows the popular practice of observing law. (4) Democratic accountability assesses how the government rules. It takes into account judicial system, political parties, conduct of elections and protection of personal rights. (5) Bureaucracy quality assesses the quality of bureaucracy as of a shock absorber when there is change in government. As for as quality of governance or governance performance is concerned, Pakistan comes at the bottom of list of countries of south and central Asia, earning just less than 60% points score from 2014 to 2017 (<http://www.prsgourp.com>). Democratic and autocratic governments have been operating at different time periods in Pakistan since its independence in 1947. Table 2 explains the governance performance of Pakistan by showing average score points earned in terms of selected governance indicators and the governance index as weighted average of these five. It is evident from the table 3 that governance performance in terms of these five indicators and overall governance has been remained low in Pakistan during the period of the study.

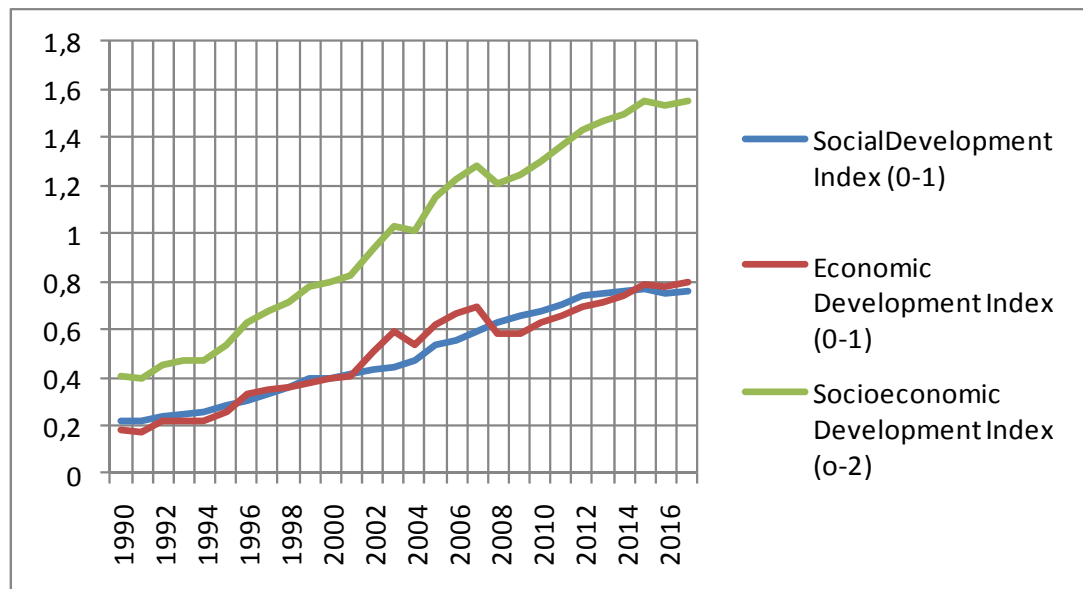


Figure 1. Social, Economic and Socioeconomic Development indices for Pakistan (1990-2017)
 Source: Based on author’s own calculated values from WDI and UNDP data.

Table 3. Governance Performance of Pakistan in Terms of Selected Indicators and Overall Governance (Four Years Average Values 1990-2017)

Years	Governance Indicators					Overall Governance
	Government Stability	Corruption	Democratic Accountability	Bureaucracy Quality	Law and Order	
1990-93	3.73	2.00	2.00	2.00	1.33	2.49
1994-97	7.94	2.23	4.19	2.00	3.35	4.76
1998-01	9.96	2.35	1.44	2.00	3.00	4.95
2002-05	9.51	1.50	1.01	2.00	3.00	4.56

Years	Governance Indicators					
	Government Stability	Corruption	Democratic Accountability	Bureaucracy Quality	Law and Order	Overall Governance
2006-09	6.91	1.86	1.32	2.00	3.00	3.76
2010-13	5.81	2.00	3.17	2.00	3.48	3.81
2014-17	7.02	2.00	4.63	1.98	3.10	4.22

Source: Author's own calculations based on ICRG data.

The trend lines in the Figure 2 are also showing the weak governance level. The overall picture of governance indicates that instability, high corruption level, weak democratic accountability, low quality of bureaucracy and deteriorated law and order situation have been prevailing in Pakistan. As a result, the political governance level has been remained at high risk during the period of the study.

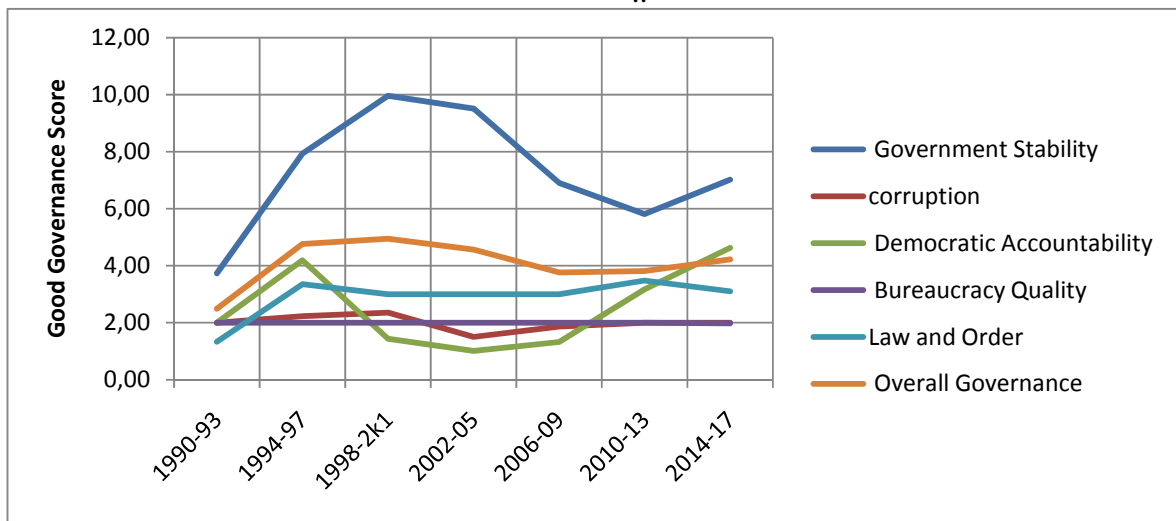


Figure 2. Governance Performance (Average Values 1990-2017)

Source: Author's own calculations based on ICRG data.

Methodology and data description

A better level of governance will lead to increase growth and higher growth is expected to raise the level of socioeconomic development. Similarly, a high level of socioeconomic development will increase economic growth and economic growth will enhance the quality of governance. So, all these three variables depend on each other (Kauffman et al., 2003 ; Kunal Sen, 2014; Siddiqui & Ahmed, 2009) and the interrelationship needs to be estimated collectively. The second aim of present study is to estimate this tripartite relationship among economic growth, governance and socio economic development through 3SLS approach. This approach was proposed by a Zellner and Theil (1962) to estimate simultaneous equations model. It involves least square method in three stages. It is a full information method and is preferable over 2SLS, which is a limited information method. The 3SLS approach estimates all structural equation at the same time where as a limited information method estimates simultaneous model on equation by equation basis. So, 3SLS being a

full information method, provides lower variance estimates than limited information methods like 2SLS.

Empirical Model

To accomplish the objective, an empirical model, comprising of the following three simultaneous equations, is used to measure the tripartite nexus of governance, economic growth and socioeconomic development as these three depend upon each other.

$$\text{Socio-economic development} = \alpha_0 + \alpha_1 \text{ Economic growth} + \alpha_2 \text{ Governance} + \alpha_3 \text{ Foreign development assistance} + \alpha_4 \text{ Urban population} + \varepsilon_1 \text{ (1)}$$

$$\text{Economic Growth} = \beta_0 + \beta_1 \text{ Socio-economic development} + \beta_2 \text{ Governance} + \beta_3 \text{ Foreign trade} + \beta_4 \text{ Youth dependency} + \varepsilon_2 \text{ (2)}$$

$$\text{Governance} = \gamma_0 + \gamma_1 \text{ Socio-economic development} + \gamma_2 \text{ Economic growth} + \gamma_3 \text{ Democracy} + \gamma_4 \text{ Government expenditure education} + \varepsilon_3 \text{ (3)}$$

The above model has been estimated in double log form. Table 3 shows, how independent variables are expected to affect the outcome variables. Equation 1 hypothesizes that socio economic development depends upon, economic growth, governance, foreign development assistance and urban population.

Table 4. Expected Effects of Independent Variables on Outcome Variables

Independent variables	Expected Effect on Dependent variables		
	Socio economic development	Economic growth	Governance
Socio economic development		+	+
Economic growth	+		+
Governance	+	+	
Urban population	+		
Foreign Development assistance	+		
Trade openness		+	
Youth Dependency (population under the age of 15)		-	
Democracy			+
Government expenditure on education			+

Equation 2 hypothesizes that economic growth is affected by socioeconomic development, governance, trade openness and youth dependency. Equation 3 hypothesizes that governance depends on socioeconomic development, economic growth, government expenditure, economic growth, government expenditure on education and democracy.

The study has carried out Hausman’s test of simultaneity to check weather problem of simultaneity exists in the model or not. It is found out that the problem exists at p= 0.000. Exogeneity test, to check whether the variables are truly endogenous or not, has also been performed. It confirms that economic growth and governance are truly endogenous variable at p= 0.000. Variance covariance matrices of residuals for three equations have also been calculated to confirm that these three are not diagonal matrices so the 3SLS model does not reduce to 2SLS. The model also satisfies

the identification conditions as each equation satisfies the condition of over identification. All this shows that the proposed model may be estimated through 3SLS method of estimation.

Data and variable construction

For the purpose of the study an index of socioeconomic development has been constructed following the methodology of Tha’r Mutlaq Mohammed Ayasrah (2012) in section 3. Following Albassam, 2012, GDP per capita has been used to represent economic growth and the data has been taken from WDI. Governance has been measured by the weighted average index of five indicators namely government stability, corruption, democrat accountability, bureaucracy quality and law and order. The data of this variable has been obtained from ICRG. Figure 3 shows the direction these three variables over the years. It is evident that governance is the variable which is showing more variations (instability).

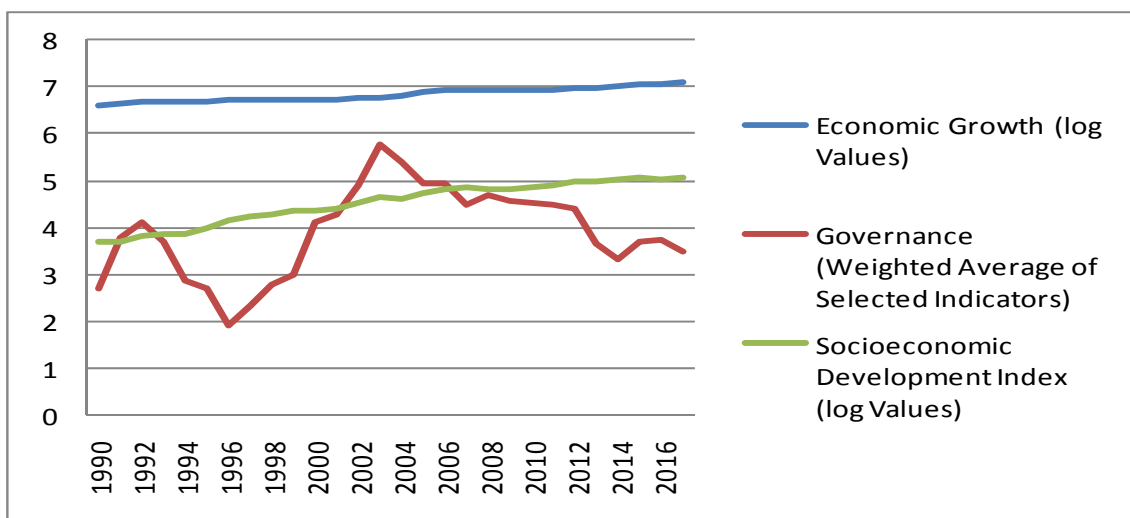


Figure 3. Governance, Economic Growth and Socioeconomic Development

Source: Based on authors’ own calculations from ICRG and WDI data.

All other variables used as independent variables in the model have been taken from WDI. These have been selected keeping in view their importance in affecting the outcome variables in the literature. While data on democracy level has been obtained from polity iv project.

Results

The results of the estimated model for socioeconomic development, economic growth and governance are presented below.

Socioeconomic Development

Table 5 presents the empirical result of the estimated relations of socio economic development with economic growth and governance level. Urban population and foreign development assistance have also been used as independent variables.

Table 5. Socio-Economic Development (SED)

Variables	Coef.	Std. Err	Z	P> z	[95% Conf. Interval]
Economic Growth	1.88539	0.567561	3.32	0.001	.7729909 - 2.997791
Governance	-0.16768	0.034191	-4.90	0.000	-.2347029 - .1006751

Variables	Coef.	Std. Err	Z	P> z	[95% Conf. Interval]
Urban Population	0.77246	0.345613	2.24	0.025	.0950719 - 1.449854
Foreign development assistance	-0.00761	0.020304	-0.37	0.708	-.0474087 - .0321818
Constants	7.24604	0.970738	7.46	0.000	5.343432 - 9.148656

Source: Author's own estimates

Regarding the economic growth and socioeconomic development relationship, the estimated value of regression co-efficient is 1.89 that shows a 1 percent increase in economic growth leads to 1.89 % increase in socioeconomic development index value. The sign of estimated coefficient is positive as it was hypothesized. With respect to the empirical evidence in support of argument, various studies have confirmed it. Ali Farooq and Chaudhary (2011), has shown that GDP growth leads to higher education in Pakistan. Pernia (2003) maintains that sustainable growth leads to poverty reduction in Asia. Muhammad Mabrouki (2016) studies the economy of Tunisia and finds positive relationship between GDP growth and socio economic development indicators. As for as the relation of governance and socioeconomic development is concerned, governance has a negative impact on socio economic development in Pakistan and it is opposite to the expected impact. The results show that a 1 % decrease in governance index value leads to 0.17% increase in socio economic development in Pakistan. This is a paradoxical result in case of Pakistan. It is explained in detail with the discussion on socioeconomic development and governance nexus under Table 7.

Urbanization has a positive and significant role in uplifting the socio economic development condition of Pakistan. Results show that a 1% increase in urban population leads to 0.77% increase in socio economic development index value. The empirical studies show a mix trend about the impact of urban agglomeration. Lucas (2004) shows a positive impact of accumulation of population in cities on economic growth through increased flow of ideas and knowledge. Yue-Jun et al., (2015) show a negative impact of migration to cities in the form of more CO₂ emission flow in terms of pollution in China. The estimated results of foreign development assistance show that it has a negative effect on socioeconomic development, although it is not significant statistically. Ishfaq and Eatjaz (2005) and Khan and Ahmad (2007) also find the same results for Pakistan regarding impact of foreign aid on economic growth.

Economic Growth

Table 6 describes the empirical results of the relationship of economic growth with socioeconomic development and governance while, youth dependency and trade openness have also been used as independent variables.

Table 6. Economic Growth (Per capita Income)

Variables	Coef.	Std. Err	Z	P> z	[95% Conf. Interval]
Socio-Economic Development(SED)	0.265277	.0353989	7.49	0.000	.1958965 - .3346577
Governance	0.054337	.0124419	4.37	0.000	.0299516 - .078723
Youth Dependency	-0.003163	.0019472	-1.62	0.104	-.0069795 - .0006532
Trade Openness	0.062927	.0375799	1.67	0.094	-.010728 1- .1365824
Constants	-0.621979	.5391984	-1.15	0.249	-1.678789 - .43483

Source: Author's own estimates

Openly accessible at <http://www.european-science.com>

According to the results 1% increase in the value of socioeconomic development index will increase economic growth by 0.26 %. So, socioeconomic development has a positive impact on economic growth as has been hypothesized. Table 5 shows that economic growth also positively impacts socioeconomic development index so; there is a positive bilateral inter-relationship between these two variables. Rajkumar and Swaroop (2008) also confirm that economic growth affects socioeconomic development positively through government expenditure. Foster and Rosenz (1995) maintains that education leads to growth of income. Economic growth and development, both promote each other, as it is evident from present study. This has been also confirmed by various researchers in the literature (Mabrouki, 2016). The relationship of good governance and economic growth shows that, in case of Pakistan, a 1% increase in the governance index leads to 0.54% increase in the economic growth. So, the results show a positive impact of good governance on economic growth and it is highly significant. This is quite in line with the hypothesized impact and the result of study by Kaufman et al., (2005) who conclude that “better governance has a significant positive effect on per capita income”.

The youth dependency shows a negative impact on economic growth. As youth dependency increases, higher income is used for education, health and other needs of the aging population, it will have an adverse impact on savings. Kogel T. (2005) establishes that in the countries with high youth dependency ratio, total factor productivity tends to be lower and hence economic growth. The present study shows that a 1% increase in youth dependency will tend to decrease economic growth by 0.003 % and it is significant at 10 % level of significance. Regarding trade openness, it has a positive impact on economic growth of Pakistan. According to the empirical results, 1% increase in trade openness will increase economic growth by 0.063% with 9% level of significance. The study by Mushtaq Ahmad Kalasra (2011) supports the obtained result.

Governance

Table 7 presents the relationship of governance with socio-economic development, economic growth (per capita income), govt.expenditure on education and democracy.

Table 7. Governance

Variables	Coef.	Std. Err	Z	P> z	[95% Conf. Interval]
Socio-Economic Development (SED)	-1.520709	.3786165	4.02	0.000	-2.262783-- -.7786339
Economic Growth (Per capita Income)	4.541184	1.268695	3.58	0.000	2.054587 -- 7.027781
Govt. Expenditure on Education	0.239423	.1131223	2.12	0.034	.0177074 -- .4611386
Democracy	0.0649882	.0088109	7.38	0.000	.0477192 -- .0822573
_cons	8.271086	1.87379	4.41	0.000	4.598525-- 11.94365

Source: Author's own estimates.

According to the results, 1% increase in socio economic development has a negative and significant impact on governance amounting to 1.5%. This is again a paradoxical result, as Table 5 also shows that governance influences socio-economic development negatively. The negative bidirectional causality can be explained in the form of low governance and high corruption levels, prevailing in Pakistan. According to World Bank there prevails weak governance level in Pakistan and it is a threat to macroeconomic stability and its ability to generate sustainable growth ([https:// Pakistan](https://Pakistan)

tantoday.com.pk). Aidt (2003) says that corruption is always with us and it is an indication of bad governance (Hellman et al., 2000). Mauro (1995) establishes that corruption increases investment and growth. Paul Bardhan (1997) is of the view that corruption proves to be a time saver in the investment projects those face administrative obstacles. Gray & Kaufman (1998) also discuss the bad governance in the form of corruption and are of the view that it “lubricates the mechanism” or it “greases the wheels”. Egger and Winer (2005) also show that bad governance in the form of corruption can have a positive impact on investment flows using data of transparency international and world bank from 1995-1999. Rock and Bonnet (2004) also find a positive and significant relationship between the level of corruption and growth and investment in Asian economies. This has been termed as Asian Paradox (Quibria, 2015). According to the report of transparency international (2017), Pakistan’s position is at 117/175 with a score of just 33/100. The rank of Pakistan, in terms of corruption, averaged 109.04 from 1995 to date reaching 144 in 2005 that is all time high and the second low is 39 in 1995. So, this empirical work may explain the negative sign of governance and development in the estimated model while, economic growth in terms of per capita income has a strong positive effect, as expected, on quality of governance. A 1% increase in economic growth leads to 4.54% increase in the quality of governance. From the results discussed with reference to governance and growth relationship under Table 6, it can be inferred that a two way positive relationship prevails between economic growth and quality of governance. Knack and Kafeer (1995) and Lee and Kim (2009) also confirm the results.

Expenditures on education are positively affecting quality of governance. According to the results, a 1% increase in government spending on education leads to 0.24% increase in the governance quality. Education is one of the most important determinant of governance quality. More educated people may demand for more transparent and progressive institutions. Cali, M., & Sen, K., 2011 also find that literacy rate affects good governance indicators positively. In Pakistan democracy has a positive and significant effect on governance level. Results from present study indicate that a 1% increase in democracy will enhance quality of governance by 0.065 %. It shows that democracy is positively and significantly affecting the quality of governance in Pakistan. Whether democracy leads to good governance or hinders it, there are mixed evidences. According to Stockemer & Sundström, (2014), in democratic countries there are higher levels of bureaucratic quality and a better regulatory frame work for efficient allocation of resources. This system works under more check and balance through elections (Saha et al. 2014). On the other hand autocratic governments in industrializing countries demonstrate superior governance practices relative to their democratic counterparts (Wintrobe, 2012).

Conclusion

Present study examines the tripartite relationship of three variables namely governance, economic growth and socioeconomic development through 3SLS method for Pakistan. It develops an exhaustive measure of socioeconomic development in terms of an index. It uses per capita income as a measure of economic growth and over all governance level for the period of 1990-2017 to empirically explore the interaction of governance, economic Growth and socioeconomic development in Pakistan. It also explores the effect other independent variables like urbanization and foreign development assistance on socio economic development, the effect of youth dependency and trade open ness on economic growth has also been investigated. It also looks into impact of government expenditure on education and democracy on quality of governance.

The econometric analysis shows that level of governance positively and significantly affects the economic growth in Pakistan during the period of the study. Similarly, economic growth also positively affects the governance quality. So, there is a two way positive relation between these two variables. Economic growth and socioeconomic development have also positive interlinks with each other. On the contrary and paradoxically, the study finds a negative bidirectional relationship between governance and socioeconomic development. Which shows that the fruits of growth have not been completely trickled down to the lives of the society in terms of socioeconomic development (Better education and health facilities, high living standard and macro economic stability) due to the missing link of good governance. Furthermore, weak governance in terms of high corruption level may enhance the level of socioeconomic development as it greases the wheels and lubricates the mechanism. The study also finds that socioeconomic development does not affect governance positively in Pakistan.

The study finds that urban population significantly and positively affects the socioeconomic development while development funds from abroad do not have a significant role in the uplift of socioeconomic condition in Pakistan. Present research concludes that a high youth dependency in population impacts economic growth of Pakistan negatively. The empirical results also show that expansion of international trade is linked to promote the economic growth in the economy. According to the results, increase in expenditure on education by the government in the country has a positive impact on enhancing the quality of governance. The study also concludes that more democratic ways of governance in the country also positively affect the quality of governance in Pakistan. The study suggests an improvement in the quality of governance in Pakistan for the uplift of socioeconomic development conditions.

References

- Acemoglu, D., & Robinson, J. A. (2013). Economics versus politics: Pitfalls of policy advice. *Journal of Economic Perspectives*, 27(2), 173-92.
- Acemoglu, D., & Zilibotti, F. (1997). Was Prometheus unbound by chance? Risk, diversification, and growth. *Journal of political economy*, 105(4), 709-751.
- Aidt, T. S. (2003). Economic analysis of corruption: a survey. *The Economic Journal*, 113(491), F632-F652.
- Albassam, B. A. (2012). Money Talks: The Influence of Economic Crisis on Global Governance. *Mediterranean Journal of Social Sciences*, 3(2), 117-128.
- Ali, S., Scholar, M. P., Chaudhry, I. S., & Farooq, F. (2011). *Human capital formation and economic growth in Pakistan* (Doctoral dissertation, BAHAUDDIN ZAKARIYA UNIVERSITY, MULTAN).
- Al-Samarrai, S. (2009). The impact of governance on education inequality: Evidence from Bangladesh. *Public Administration and Development: The International Journal of Management Research and Practice*, 29(3), 167-179.
- Anand, S. & Ravallion, M. 1993. Human Development in Poor Countries: on the role of private income and public services. *Journal of Economic Perspective* 7 (1): 135.
- Aron, J. (2000). Growth and institutions: a review of the evidence. *The World Bank Research Observer*, 15(1), 99-135.
- Asian Development Bank. (2013). *Empowerment and Public Service Delivery in Developing Asia and the Pacific: Policy Report*. Asian Development Bank.
- Bardhan, P. (1997). Corruption and development: a review of issues. *Journal of economic literature*, 35(3), 1320-1346.

- Cali, M., & Sen, K. (2011). Do effective state business relations matter for economic growth? Evidence from Indian states. *World Development*, 39(9), 1542-1557.
- Clark, A. K. (2017). Measuring Corruption: Transparency International's "Corruption Perceptions Index". In *Corruption, Accountability and Discretion* (pp. 3-22). Emerald Publishing Limited.
- Egger, P., & Winner, H. (2005). Evidence on corruption as an incentive for foreign direct investment. *European journal of political economy*, 21(4), 932-952.
- Emara, N., & Jhonsa, E. (2014). Governance and economic growth: The case of Middle Eastern and North African countries.
- Foster, A. D., & Rosenzweig, M. R. (1995). Learning by doing and learning from others: Human capital and technical change in agriculture. *Journal of political Economy*, 103(6), 1176-1209.
- Gisselquist, R. 2012. *Good Governance as a Concept, and Why This Matters for Development Policy*. UNU-WIDER Working Paper 2012/30.
- Gray, C. W., & Kaufman, D. (1998). Corruption and development.
- Hallerod, B., B. Rothstein, A. Daoud, and S. Nandy. 2013. Bad Governance and Poor Children: A Comparative Analysis of Government Efficiency and Severe Child Deprivation in 68 Low and Middle Income Countries. *World Development* 48: 19–31.
- Haq, R., & Zia, U. (2009). *Does governance contribute to pro-poor growth? Evidence from Pakistan* (No. 2009: 52). Pakistan Institute of Development Economics.
- Hausmann, R., Rodrik, D., & Velasco, A. (2008). Growth diagnostics. *The Washington consensus reconsidered: Towards a new global governance*, 324-355.
- Hellman, J. S., Jones, G., & Kaufmann, D. (2000). *Seize the state, seize the day: State capture, corruption, and influence in transition*. The World Bank.
- Ishfaq, M., & Ahmad, E. (2005). Aid effectiveness: The case of Pakistan. *Middle East Business and Economic Review*, 17(2), 40.
- Jangraiz, K. H. A. N., & Malik, Z. K. (2015). Education-Economic Growth Nexus: A Review. *Journal of Economic and Social Thought*, 2(2), 121-126.
- Kaufman, D., Kraay, A., & Mastruzzi III, M. (2003). Governance Matters III: Governance Indicators for 1996–2002. World Bank Policy Research Working Paper No. 3106.
- Kaufmann, D., Kraay, A., & Mastruzzi, M. (2005). *Governance matters IV: governance indicators for 1996-2004*. The World Bank.
- Kaufmann, Daniel, Aart Kraay, and Massimo Mastruzzi (2009). Governance Matters VIII: Aggregate and Individual Governance Indicators for 1996–2008. *World Bank Policy Research Working Paper* No. 4978. Washington, DC.
- Keefer, P. (2007). Clientelism, credibility, and the policy choices of young democracies. *American journal of political science*, 51(4), 804-821.
- Khan, M. (2006). Governance, Economic Growth and Development since the 1960s: Background paper for World Economic and Social Survey 2006. *New York, UNDESA*.
- Khan, M. A., & Ahmed, A. (2007). Foreign aid—blessing or curse: Evidence from Pakistan. *The Pakistan Development Review*, 215-240.
- Klasra, M. A. (2011). Foreign direct investment, trade openness and economic growth in Pakistan and Turkey: An investigation using bounds test. *Quality & Quantity*, 45(1), 223-231.
- Knack, S., & Keefer, P. (1995). Institutions and economic performance: cross-country tests using alternative institutional measures. *Economics & Politics*, 7(3), 207-227.

- Kögel, T. (2005). Youth dependency and total factor productivity. *Journal of Development Economics*, 76(1), 147-173.
- Kraay, A., & Kaufmann, D. (2002). *Growth without governance*. The World Bank.
- Law, S. H., Lim, T. C., & Ismail, N. W. (2013). Institutions and economic development: A Granger causality analysis of panel data evidence. *Economic Systems*, 37(4), 610-624.
- Lee, K., & Kim, B. Y. (2009). Both institutions and policies matter but differently for different income groups of countries: determinants of long-run economic growth revisited. *World Development*, 37(3), 533-549.
- Lucas, J.R.E., 2004. Life earnings and rural-urban migration. *Journal of Political Economy*, 112(S1): S29-S59. Available at: <https://doi.org/10.1086/379942>.
- Mabrouki, M. (2016). The sense of causality between growth and economic development: an essay on VAR modeling in the case of Tunisia.
- Mahlberg, B. & Obersteiner, M. (2001). *Remeasuring the HDI by Data Envelopment Analysis*. (International Institute for Applied Systems Analysis (IIASA) York: Praeger.
- Mauro, P. (1995). Corruption and growth. *The quarterly journal of economics*, 110(3), 681-712.
- North, D. C., & Thomas, R. P. (1973). *The rise of the western world: A new economic history*. Cambridge University Press.
- Panigrahi, R. & Sivramkrishna, S. (2002). An adjusted Human Development Index: Robust country rankings with respect to the choice of fixed maximum and minimum indicator.
- Pernia, E. M. (2003). Pro-poor Growth: What is it and How is it Important?.
- Przeworski, A., Limongi, F., & Giner, S. (1995). Political regimes and economic growth. In *Democracy and development* (pp. 3-27). Palgrave Macmillan, London.
- Quibria, M. G. (2015). Governance in Developing Asia: Concepts, Measurements, Determinant and a Paradox. *Governance in Developing Asia: Public Service Delivery and Empowerment*, 17.
- Rajkumar, A. S., and V. Swaroop. 2008. Public Spending and Outcomes: Does Governance Matter? *Journal of Development Economics* 86:96–111 *Review* 64(5): 748–765.
- Rivera-Batiz, F. L. (2002). Democracy, governance, and economic growth: theory and evidence. *Review of Development Economics*, 6(2), 225-247.
- Rock, M.T. and H. Bonnet (2004). The comparative politics of corruption: accounting for the East Asian Paradox in empirical studies of corruption, growth and investment. *World Development* 32, 999-1017.
- Rodrik, D. (2000). Institutions for high-quality growth: what they are and how to acquire them. *Studies in comparative international development*, 35(3), 3-31.
- Rodrik, D., Subramanian, A., & Trebbi, F. (2004). Institutions rule: the primacy of institutions over geography and integration in economic development. *Journal of economic growth*, 9(2), 131-165.
- Sachs, J., McArthur, J. W., Schmidt-Traub, G., Kruk, M., Bahadur, C., Faye, M., & McCord, G. (2004). Ending Africa's poverty trap. *Brookings papers on economic activity*, 1, 117-240.
- Saha, S., Gounder, R., Campbell, N., & Su, J. J. (2014). Democracy and corruption: a complex relationship. *Crime, Law and Social Change*, 61(3), 287-308.
- Sen, K. (2014). Governance and development outcomes in Asia. *GOVERNANCE IN DEVELOPING ASIA*, 78.
- Siddiqui, D. A., & Ahmed, Q. M. (2009). The causal relationship between institutions and economic growth: An empirical investigation for Pakistan economy.

- Siddiqui, D. A., & Ahmed, Q. M. (2013). The effect of institutions on economic growth: A global analysis based on GMM dynamic panel estimation. *Structural Change and Economic Dynamics*, 24, 18-33.
- Stapleton, L. M., & Garrod, G. D. (2007). Keeping things simple: why the Human Development Index should not diverge from its equal weights assumption. *An International and Interdisciplinary Journal for Quality-of-Life Measurement* 84(2): 179-188.
- Stockemer, D., & Sundström, A. (2014). Corruption and citizens' satisfaction with democracy in Europe: what is the empirical linkage?. In *(Dys-) Functionalities of Corruption* (pp. 137-157). Springer VS, Wiesbaden.
- Tha'r Mutlaq Mohammed Ayasrah (2012). The Social Economic Development Index: A New Measurement of Development (Indeks Pembangunan Ekonomi Social: Satu Pengukur Pembangunan Baru). *Jurnal Ekonomi Malaysia* 46(2) 2012 37 – 53
- Uddin, M. J., & Joya, L. A. (2007). Development through good governance: Lessons for developing countries. *Asian Affairs*, 29(3), 1-28.
- United Nations Development Program (2011). International data on Human Development *Indicators*, ECE report 6, 2011). *Journal of Human Development* 3(2): 301-311.
- Wintrobe, R. (2012). Autocracy and coups d'etat. *Public choice*, 152(1-2), 115-130.
- World Bank, (2004). World Development Report 2004: Making Services Work for Poor People. Washington, DC.
- Yue-Jun, Z., W.-C. Yi and B.-W. Li (2015). The impact of urbanization on carbon emission: Empirical evidence in Beijing. *Energy Procedia*.
- Zellner, A. and H. Theil. (1962). Three Stage Least Squares: Simultaneous Estimation of simultaneous Equations. *Econometrica* 30 (1), 54-78.
- Web Links
 Corruption Perception Index 2017- Transparency International. <http://www.transparency.org>
<http://pakistanoday.com.pk>
 ICRG Methodology, the PRS group www.prsgroup.com