Measuring the governance in Pakistan:
An introduction to KU Index

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Abstract. *The governance at the national level has commonly been measured as poor or good governance by researchers in the area of public sector reforms. They have rarely attempted the numeric estimation of the concept but used different socioeconomic indicators as proxies. Governance is a multidimensional concept that cannot be accurately elaborated by a single indicator. In the literature there exists a gap for gauging the governance in the form of an index. The current study has attempted to ameliorate different dimensions of governance by including forty two social, political, economic, demographic and environmental indicators. These indicators are firstly merged into thirteen sub-dimensions and then into five dimensions. The dimensions have been transformed in to governance index. The trend of the index shows that governance has not only progressed very slowly but it remained desperate in the study period. The contribution of this study is to provide governance index named KU index for Pakistan in annual time series for the years 1980-81 to 2010-2011. The index explained the level of governance in different eras and is ultimately connected with public sector reforms. It can be used by researchers as an explanatory factor for various political, socioeconomic and regional strategic phenomenon. Furthermore, the criterion of estimation of governance may be adopted for other economies and comparative analysis may be done.*

Keywords: safety and security, social development, economic governance, rule of law.

JEL Classification: F52, H11, H55, O15.
REL Classification: 13C, 13J.

1. Introduction

The concept of governance is enjoying high status after 1980s. It is an emerging issue in national and international public policies. The targets and achievements of Millennium Development Goals (MDG's) are concerned with national governance. These goals serve as the internationally shared agenda for development at global, regional, and national levels. This agenda encompasses inter-linked issues that cover all aspects of social and economic indicators ranging from absolute poverty, gender equality, social incorporation, health, population, employment and education to human rights, environmental sustainability and sustainable development. The issues at the national level are directly linked with national governance.

There are two schools of thought about measuring the governance. One argues that governance is a qualitative concept that cannot be measured. Other argues that governance is clearly measureable by suitable proxy indicators. World Bank and other international institutions argued that governance is an abstract concept that cannot be measured directly. By supplying the tools to monitor and measure governance, they have reshaped the framework of governance. This framework produces a better and deeper understanding of a nation's strength and weakness. By using this framework the nations can improve the quality of governance at national and sectoral level.

World Bank has also ranked countries with good governance to poor governance on the basis of KK index (Kaufmann, et al. 2005) that is based on cross-sectional variables. Drawback of such type of indices is that they neglect social, cultural, political, geopolitical and economic constraints that developing nations face. These constraints completely differ for the nations.

In the literature a variety of proxies has been used to measure the governance in Pakistan. They include voice and accountability, political stability, rule of law, regulatory quality, control of corruption and institutions (Staphen and Kafeer, 1999; Haq and Zia, 2009). However, some of the studies have constructed the indices. For instance, Qureshi (1999) and Roy (2005) constructed the Human Governance Index for Pakistan and Governance Index in time series for Bangladesh respectively.

We attempt to construct a time series index named KU (Khan and Ullah) index by covering five dimensions, 13 sub-dimensions and 42 indicators[1]. It is based on time series data of the dimensions of governance like political, economic, social, environmental and human development. The practical significance of the KU index would be to see the quality of governance in Pakistan in time series. It may be used to estimate its impact on socioeconomic indicators of the economy.

The major contribution of the study would be provision of a new index for researchers for further analysis in relevant areas.

2. Literature review

Governance and its relation with socioeconomic indicators have been analyzed by a number of studies. We are concerned with the literature relating methodologies for construction of governance index. Stephen and Kafeer (1999) discussed the theoretical justification of development in the perspective of good governance. The study concluded that institutions are mobilizing the economic governance and good governance is a crucial determinant of living standards. Hijazi (1999) identified different aspects of motivation for good governance in Pakistan. The study concluded that there is no use of motivational theories in the system as the work by public sector employees is administrative not managerial. Shafqat (1999) emphasized the crisis of governance in the perspective of bureaucracy of Pakistan. Qureshi (1999) also emphasized on governance in the perspective of bureaucracy. Institutional reforms were found basic mode by which bureaucracy can convert the governance into good governance (see also Shafqat, 1999). Roy (2005) estimated the impact of various governance dimensions in Bangladesh's development process using time series data. The study used an index of governance. Haq and Zia (2009) analyzed the link between governance and pro-poor growth in Pakistan. They divided the concept of governance into dimensions like political governance, economic governance and institutional governance. To see the effect of governance on income equality the voice and accountability, political stability, regularity quality, rule of law and control of corruption were used as proxies of governance. Zhuang et al. (2010) used institutional quality as a proxy of governance. The study concluded that institutional quality of Pakistan is lower than a number of developing economies. Akram et al. (2011) concluded that one of the factors of the poverty in Pakistan is poor governance and inequity in income distribution. The study used the International Country Risk Guide as indicator of quality of government. Islam (2012) represented the urban governance by municipality system.

The literature lacks the comprehensive estimation of governance in Pakistan, including all the dimensions of the governance in time series.

3. Conceptual framework and methodology

The annual time series data for the years 1980-2010 taken from World Development Indicators (World Bank), Pakistan Economic Survey by Government of Pakistan (GOP various issues), Statistical Year Book by Federal Bureau of

Statistics (FBS various issues), Annual Reports by State Bank of Pakistan (SBP various issues) and Asian Development Bank (ADB various issues) has been used. The missed observations are filled by using interpolation through the compound average rate formula, also called as mean substitutions (see also, Jalil and Iqbal, 2009; Rotberg and Gisselquist, 2009 for using the same technique).

The objective of the study is to create an index covering a variety of socioeconomic indictors. The conceptual framework for the contribution of the indicators in sub-dimensions and ultimately the dimensions has been shown in Table 1.

Table 1. *Conceptual Framework of KU Index for Governance in Pakistan*

KU Index	Dimensions	Sub-dimensions	Indicators	Hypothesized Effects
G O V E R N A N C E	Safety and Security	National security	Armed forces	+
			Tourists arrivals	+
			Military expenditures	+
			Refugee population	-
		Public security	Battle deaths	-
			Crimes	-
	Rule of law and Institutional Quality	Ratification of legal norms	Newspaper and periodicals	+
			Trademark applications	+
			Foreign direct investment	+
		Judicial efficiency	Supreme court petitions	-
	Social and Environmental Governance	Participation in general elections	Opposition boycotts	-
			Political stability	+
		Human rights	Labor unions	+
			Films released	+
			Women participation in National Assembly	+
		Environmental governance	CO_2 emission	-
	Economic Governance	Wealth formation	GDP per capita, PPP	+
			GDP per capita growth	+
		Macroeconomic stability and financial integrity	Inflation	-
			Foreign reserves	+
			Budget deficit	-
			Trade balance	+
		Facilities for commerce and trade	Roads	+
			Electricity	+
			Mobile phones	+
			External debt	-
	Social Development	Poverty and inequality	Poverty	-
			Inequity	-
		Health and sanitation	Life expectancy	+
			Infant mortality	-
			Fertility	-
			Immunization of DPT	+
			Immunization of measles	+
			Medical physicians	+
			Sanitation	+
			Nurses	+

KU Index	Dimensions	Sub-dimensions	Indicators	Hypothesized Effects
		Education	Primary education	+
			vocational education	+
			Gender disparity in tertiary enrollment	-
			Gender disparity in primary enrollment	-
			Public spending on education	+
			Pupil teacher ratio	-

The measurement of the indicators has been shown in Table 2.

Table 2. *Measurement of Indicators*

Dimensions	Sub-dimensions	Indicators	Measurement
Safety and Security	National security	Armed forces	Total armed forces personnel in a year[i]
		Tourist arrivals	Tourist arrival in Pakistan in a year (thousands)[ii]
		Military expenditures	Military expenditure as percentage of GDP[i]
		Refugee population	Refugee population as percentage of total population of Pakistan[i]
	Public security	Battle deaths	Battle-related deaths in a year[i]
		Crimes	Total FIRs registered in a year in police stations[ii]
Rule of law and Institutional Quality	Ratification of legal norms	Newspaper and periodicals	Newspapers and periodicals circulation in a year[ii]
		Trademark applications	Total trademark applications in a year[ii]
		Foreign direct investment	Net annual foreign direct investment in $US[i]
	Judicial efficiency	Supreme court petitions	Total petitions in supreme court in a year[ii]
Social and Environmental Governance	Participation in general elections	Opposition boycotts	Dummy variable: 1 if even a single party has boycotted the elections; otherwise 0
		Political stability	Dummy variable: 1 if elected government; otherwise 0
	Human rights	Labor unions	Number of labor unions registered in a year[iii]
		Films released	Number of featured films released in a year[ii]
		Women participation in National Assembly	Percentage of women seats (both elected and special) in National Assembly[ii]
	Environmental governance	CO_2 emission	CO_2 emission in matric tons per-capita[ii]
Economic Governance	Wealth formation	GDP per-capita, PPP	GDP per-capita in current US$[i]
		GDP per-capita growth	GDP per-capita annual growth rate[i]
	Macroeconomic stability and financial integrity	Inflation	Consumer Price Index[i]
		Foreign reserves	Total reserves in current US$ including gold[i]
		Budget deficit	Budget deficit in local currency[i,iv]
		Trade balance	Trade balance in local currency[ii]
	Facilities for commerce and trade	Roads	The length of total paved roads[ii]
		Electricity	Electricity production per-capita in KwH[i]
		Mobile phones	Number of cellular phone subscriptions per 10,000 people[i]
		External debt	External debt stock in US$

Dimensions	Sub-dimensions	Indicators	Measurement
Social Development	Poverty and inequality	Poverty	Head count ratio[iv]
		Inequity	Gini Index[v]
	Health and sanitation	Life expectancy	Average life expectancy[i]
		Infant mortality	Infant mortality rate per 10,000 live births[i]
		Fertility	Fertility rate
		Immunization of DPT	Immunization (DPT) of children in percentage[i]
		Immunization of measles	Immunization (Measles) of children in percentage[i]
		Medical physicians	Medical physicians per 10,000 people[i,ii]
		Sanitation	Percentage of population with access to improved sanitation facilities[i]
		Nurses	Number of nurses per 1,000 people[ii]
	Education	Primary education	Gross primary school enrolment rate[i,ii]
		Vocational education	Secondary and vocational students[i,ii]
		Gender disparity in tertiary enrollment	Ratio of male to female tertiary enrolment in percentage[i,ii]
		Gender disparity in primary enrollment	Ratio of male to female primary enrolment in percentage[i,ii]
		Public spending on education	Public spending on education as percentage of GDP[i]
		Pupil-teacher ratio	Pupil-teacher ratio at tertiary level

Source of data: [i] World Development Indicators, [ii] State Bank of Pakistan, [iii] Federal Bureau of Statistics, [iv] Planning Commission and MCHD/UNDP, [v] Zaidi (2002) and Anwar and Qureshi (2002).

4. Normalization of data and dimensional indices

The data has been normalized through the formula as:

SNV = (X$_t$ - Minimum X$_{it}$) / (Maximum X$_{it}$ - Minimum X$_{it}$)

Where SNV is same scaled and normalized variable. X$_t$ is raw value of each indicator what so ever its scale and measure. Minimum X$_{it}$ is smallest value of raw data from each indicator and maximum X$_{it}$ is largest value of raw data. The high values of SNV indicate good performance for some indicators (for instance GDP growth rate) but sometimes low values explain good performance (for instance crime reported). After normalizing each indicator, the simple average of indicators of sub-dimensions is taken. Then the simple average of sub-dimensions provides the value of dimensions (exception is the dimension of safety and security where weight for sub-dimension differs). Ultimately the average value of dimension is the value of KU index. Applying the above mentioned formula for all indicators we have obtained values ranging from zero to 100 (by multiplying the ratio by 100). For the indicators having negative effect, these values are subtracted from 100, so that the best performers receive the highest and positive

values. On the other hand, the worst performance receives the lowest values (see also Rotberg and Gisselquist, 2009; Ibrahim, 2013).

To check the internal consistency, the weight distribution has been done from indicators to sub-dimensions, sub-dimension to dimensions and finally from dimensions to index. The correlation between KU index and dimensions has been estimated through Pearson correlation. The results of the correlation are shown in Table 3.

Table 3. *Weight Distribution and Results of Correlation between KU Index and Dimensions*

KU Index	Dimensions	Sub-dimensions	Indicators	Correlation between KU Index and Dimensions
G O V E R N A N C E	1/5 Safety and Security	National security	Armed forces	-0.856681
			Tourist arrivals	
			Military expenditures	
			Refugee population	
		Public security	Battle deaths	
			Crimes	
	1/5 Rule of law and Institutional Quality	Ratification of legal norms	Newspaper and periodicals	0.430571
			Trademark applications	
			Foreign direct investment	
		Judicial efficiency	Supreme court petition	
	1/5 Social and Environmental Governance	Participation in general election	Opposition boycott	0.782463
			political stability	
		Human rights	Labor union	
			Films released	
			Women participation in National ssemble	
		Environmental governance	CO_2 emission	
	1/5 Economic Governance	Wealth formation	GDP per capita, PPP	0.793118
			GDP per capita growth	
		Macroeconomic stability and financial integrity	Inflation	
			Foreign reserves	
			Budget deficit	
			Trade balance	
		Facilities for commerce and trade	Roads	
			Electricity	
			Mobile phones	
			External debt	
	1/5 Social Development	Poverty and inequality	Poverty	0.958710
			Inequity	
		Health and sanitation	Life expectancy	
			Infant mortality	
			Fertility rate	
			Immunization of DPT	
			Immunization of measles	
			Medical physicians	
			Sanitation	
			Nurses	

KU Index	Dimensions	Sub-dimensions	Indicators	Correlation between KU Index and Dimensions
		Education	Primary education	
			Vocational education	
			Gender disparity in tertiary enrollment	
			Gender disparity in primary enrollment	
			Public spending on education	
			Pupil-teacher ratio	

The statistics in Table-3 show that all the dimensions have positive association with index except safety and security. The explanation may be that during the last three decades there has been heavy inflow of refugees in Pakistan. The afghan migration increased this inflow to Pakistan. On the other hand the tourists' arrival has been drastically decreased due to same type of factors. The results explain positive association between index and rule of law and institutional quality, social and environmental governance, economic governance and social development.

We have estimated the correlation between sub-dimensions and dimension. The results are shown in Table 4.

Table 4. *Weight distributions and correlation results between dimensions and sub-dimensions*

Dimensions	Sub-dimensions	Indicators	Correlation between Dimension and Sub-dimension
Safety and Security	1/3 National security	Armed forces	0.953541
		Tourist arrivals	
		Military expenditure	
		Refugee population	
	2/3 Public security	Battle deaths	0.958699
		Crime	
Rule of Law and Institutional Quality	1/2 Ratification of legal norms	Newspaper and periodicals	0.848050
		Trademark applications	
		Foreign direct investment	
	1/3 Judicial Efficiency	Supreme Court Petition	0.476864
Social and Environmental Governance	1/3 Participation in elections	Opposition Boycott	0.088370
		Political stability	
	1/3 Human rights	Labor union	0.994487
		Films released	
		Women participation in National Assembly	
	1/3 Environmental governance	CO_2 emissions	-0.584880
Economic Governance	1/3 Wealth formation	GDP per capita, PPP	0.298542
		GDP per capita growth	

Dimensions	Sub-dimensions	Indicators	Correlation between Dimension and Sub-dimension
	1/3 Macroeconomic stability and financial integrity	Inflation	-0.158379
		Foreign reserves	
		Budget deficit	
		Trade Balance	
	1/3 Facilities for commerce and trade	Roads	0.935377
		Electricity	
		Mobile phones	
		External debt	
Social Development	1/3Poverty and inequality	Poverty	-0.407229
		Inequality	
	1/3 Health and sanitation	Life expectancy	0.993625
		Infant mortality	
		Fertility	
		Immunization of DPT	
		Immunization of measles	
		Medical physicians	
		Sanitation	
		Nurses	
	1/3 Education	Primary education	0.879224
		Secondary education	
		Gender disparity in tertiary enrollment	
		Gender disparity in primary enrollment	
		Public spending on education	
		Pupil-teacher ratio	

Table 5. *Results of correlation between sub-dimensions and indicators*

Dimensions	Sub-dimensions	Indicators	Correlation between indicators and Index
Safety and Security	National security	1/4 Armed forces	0.182248
		1/4 Tourist arrivals	0.285915
		1/4 Military expenditures	-0.18717
		1/4 Refugee population	-0.12673
	Public security	1/2 Battle deaths	0.464728
		1/2 Crime	0.055766
Rule of law and Institutional Quality	Ratification of legal norms	1/3 Newspaper and periodicals	0.575377
		1/3 Trademark applications	0.004146
		1/3 Foreign direct investment	0.331302
	Judicial efficiency	Supreme Court Petitions	0.538379
Social and Environmental Governance	Participation in general elections	1/2 Opposition Boycott	0.421104
		1/2 political stability	0.25667
	Human rights	1/3 Labor union	-0.13184
		1/3 Films released	0.237028
		1/3 Women participation in National Assembly	0.03191
	Environmental governance	CO_2 emission	-0.16935

Dimensions	Sub-dimensions	Indicators	Correlation between indicators and Index
Economic Governance	Wealth formation	1/2 GDP per capita, PPP	0.22287
		1/2 GDP per capita growth	0.006824
	Macroeconomic stability and financial integrity	1/4 Inflation	-0.06385
		1/4 Foreign reserves	-0.13184
		1/4 Budget deficit	0.045565
		1/4 Trade balance	0.018507
	Facilities for commerce and trade	1/4 Roads	0.301023
		1/4 Electricity	0.336795
		1/4 Mobile phones	-0.29503
		1/4 External debt	-0.03335
Social Development	Poverty and inequality	1/2 Poverty	0.457286
		1/2 Inequality	-0.26688
	Health and sanitation	1/8 Life expectancy	0.200076
		1/8 Infant mortality	0.164934
		1/8 Fertility rate	0.102396
		1/8 Immunization of DPT	0.218357
		1/8 Immunization of measles	0.102396
		1/8 Medical physicians	-0.18514
		1/8 Sanitation	0.294717
		1/8 Nurses	0.144399
	Education	1/6 Primary education	0.364173
		1/6 Vocational education	-0.18669
		1/6 Gender disparity in tertiary enrollment	0.006824
		1/6 Gender disparity in primary enrollment	0.05789
		1/6 Public spending on education	-0.14045
		1/6 Pupil-teacher ratio	-0.23989

5. Discussion

The range of the index is 0 to 100. We will discuss here the dimensions and KU index.
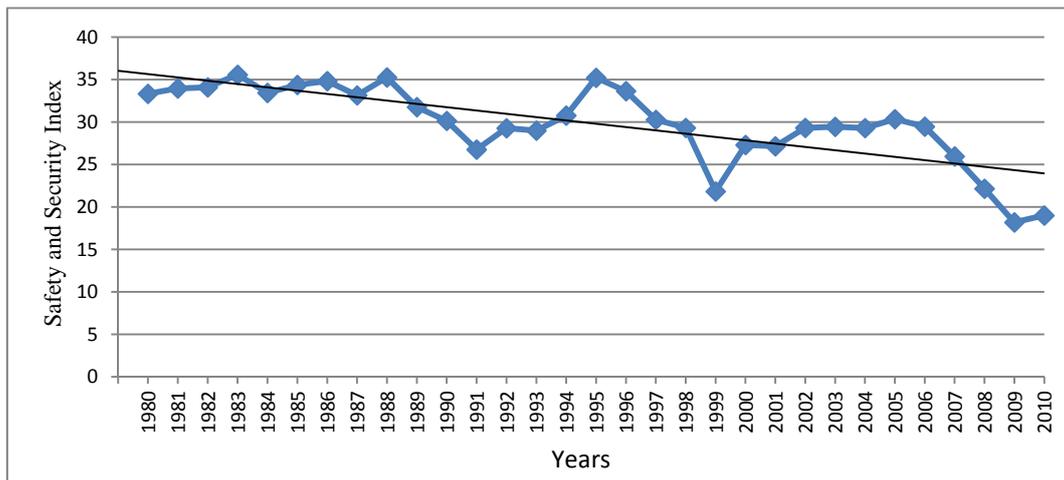
5.1. Safety and security

The dimension of safety and security has two sub-dimensions, i.e. national security and public security having weights of 2/3 and 1/3 for national security and public security respectively (see also Rotberg and Gisselquist, 2009; Ibrahim, 2013). National security is measured by four variables, i.e. armed forces personnel, tourist arrivals, military expenditures and refugees' population. Military expenditures, tourists' arrival and armed force personnel represent increased safety and security. Refugees' population represents aggravated safety and security and ultimately governance. The quantitative relationship in the form

of correlation between dimensions and sub-dimensions shows a high association between national security and dimensions of safety and security (r = 0.953541).

Public security that is second sub-dimension of safety and security is proxied by two variables, i.e. battle related deaths and crimes reported. Battle related deaths has also negative impact on safety and security. The increase in crimes decreases the public security and ultimately the dimension of safety and security. Public security (sub-dimension) has shown high association with dimension of safety and security (r = 0.958699). The trend of safety and security dimension is expressed in Figure1.

Figure 1. *Trend of safety and security dimension*

The trend line of safety and security is negatively sloped. It explains the phenomenon of terrorism resulting into refugees arrivals along with battle deaths. Due to the same phenomenon the tourist arrivals has also been drastically decreased. In the last decade of the analysis, the safety and security has remained lowest and has shown negative trend. The crimes rate also explained the trend. It is again related with terrorism and sectarian violence which has remained highest in these years. The era also represents the effect of the 9/11 incidence.
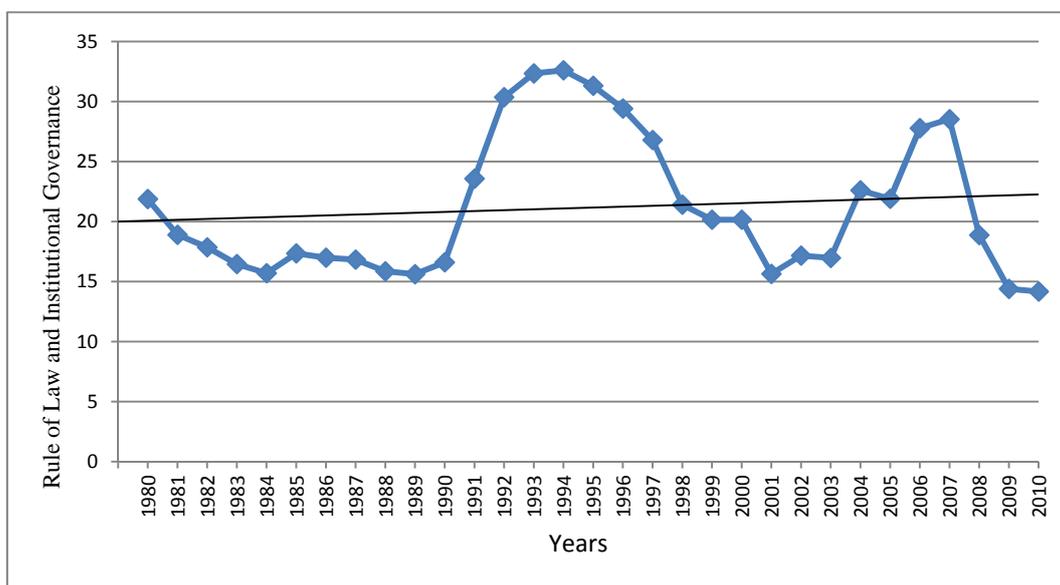
5.2. Rule of law and institutional quality

Rule of law and institutional quality is the second dimension of KU Index. It is composed of two sub-dimensions, i.e. ratification of legal norms and judicial efficiency and four indicators. Equal weights have been given to each indicator in a sub-dimension and equal weight to each sub-dimension. The association

between the dimension of rule of law and institutional quality and its sub-dimensions, i.e. ratification of legal norms and judicial efficiency are r = 0.848050 and r = 0.476864 respectively. The values show high positive association between dimension and sub-dimensions.

Figure 2 expresses the situation of rule of law and institutional quality in Pakistan from 1980 to 2010.

Figure 2. *Trend of rule of law and institutional quality*

The rule of law and institutional quality in Pakistan remained too much fluctuated during the study period, however the trend is positive.

5.3. Social and environmental governance

Social and environmental governance is the third dimension of KU Index with three sub-dimensions and six variables. The three sub-dimensions are participation in general elections, human rights and environmental governance. The participation in general elections is measured by dummy variables. If opposition boycotts in election even by a single party the variable has the value one, otherwise zero. The second variable included in same sub-dimension is political stability. Political stability is measured by dummy variable, i.e. one for democratic government, otherwise zero.

Human rights is the second sub-dimension that is measured by three variables. They are labor unions registered, films released per year and women seats in national assembly.

Environmental governance is third sub-dimension of social and environmental governance. It is measured by a single indicator that is carbon dioxide (CO_2) emission. Each sub-dimension is allotted same weightage that is 1/3. In all the sub-dimensions equal weights have been given to the indicators.

The association between dimension of social and environmental governance and sub-dimensions of participation in general elections, human rights and environmental governance is represented by r = 0.088370, r = 0.994487 and r = -0.584880 respectively. The trend of the social and environmental governance is expressed in Figure 3.

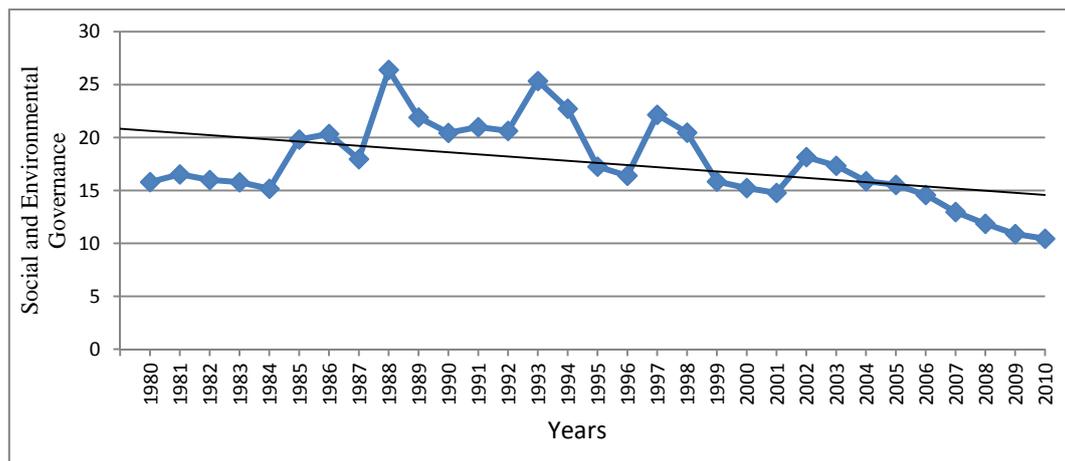**Figure 3.** *Trend of social and environmental governance*

Figure 3 shows the situation of social and environmental governance in Pakistan from 1980-2010. In the early period of study, i.e. 1980-1984 and the last twelve years, i.e. 1998-2010 the situation remained very poor.

5.4. Economic governance

Economic governance is an important part of overall governance. Economic governance is fourth dimension of KU Index. It contains three sub-dimensions and ten indicators. Three sub-dimensions are wealth creation, macroeconomic stability and financial integrity, and facilities for commerce and trade. Each sub-dimension has equal weight and all the indicators have also equal weights.

The association between dimension and sub-dimensions is represented by r = 0.298542, r = -0.158379 and r = 0.935377 respectively for wealth creation, macroeconomic stability and financial integrity, and facilities for commerce and trade. The trend of the economic governance in Pakistan is shown in Figure 4.
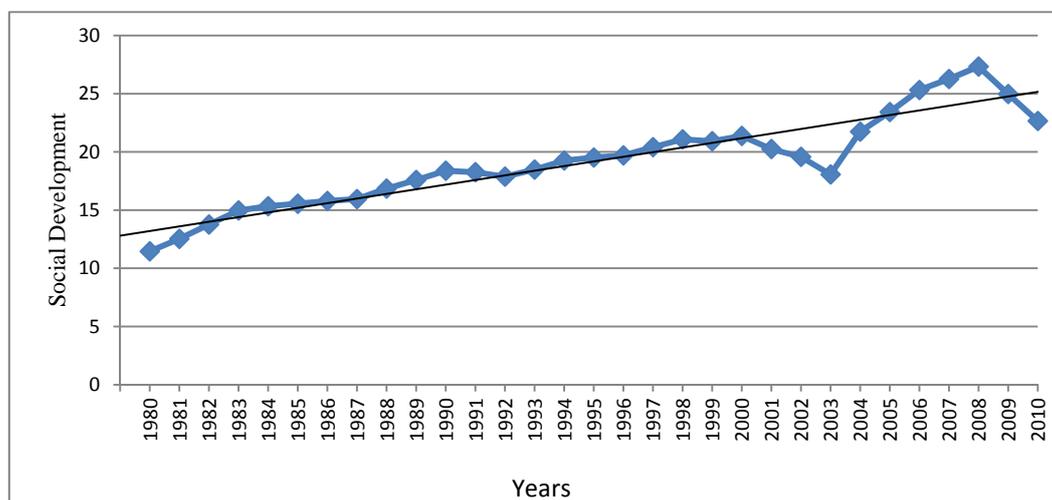
Figure 4. *Trend of economic governance*
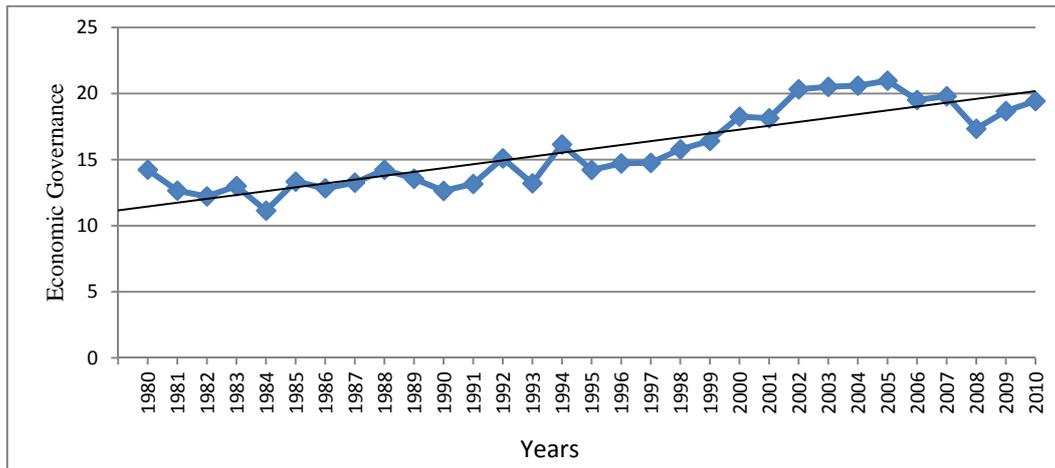
The trend of the economic governance is positive. The phenomenon is based on the fact that Pakistan has a good record of GDP growth rate along with expansion of roads and particularly mobile phones. The capital inflow has also remained good in most of the years under study.

5.5. Social development

The social development is the last dimension of KU Index. It has three sub-dimensions and sixteen indicators. Three sub-dimensions are poverty and inequality, health and sanitation, and education. Poverty and inequality has two indicators, i.e. income inequality and poverty. In education sub-dimension the indicators are primary education, vocational education, gender disparity in tertiary enrolment, gender disparity in primary enrolment, public spending on education and pupil-teacher ratio. In the health and sanitation, the indicators included are life expectancy, infant mortality, fertility, immunization of DPT, immunization of measles, medical physicians, sanitation and nurses. Results have shown highly positive association between health and sanitation, and education (r = 0.993625, r = 0.879224 respectively). Social development has shown negative association with poverty and inequality sub-dimension (r = -.407229). The trend of social development has been shown in Figure 5.

Figure 5. *Trend of social development dimension*

The trend line of social development has positive slope. It is the dimension which has shown good progress in the study period. The progress is related with the trend of dimension of economic governance.

5.6. KU Index of Governance in Pakistan

The averages of the dimensions results into KU Index of governance in Pakistan for the period 1980-2010.

Table 5. *KU Index of governance in Pakistan*

Years	KU index for governance Pakistan	Years	KU index for governance Pakistan
1980	18.97001	1996	22.54059
1981	18.53746	1997	22.73136
1982	18.36113	1998	21.56042
1983	18.72229	1999	19.05628
1984	17.68457	2000	20.59284
1985	19.58081	2001	19.36876
1986	19.62893	2002	21.1621
1987	18.88256	2003	20.77199
1988	21.18956	2004	22.06966
1989	19.58047	2005	22.38866
1990	19.16846	2006	23.2269
1991	20.08016	2007	22.60605
1992	22.18379	2008	19.43731
1993	23.25907	2009	17.62593
1994	23.95388	2010	17.37079
1995	23.2098		

The trend of the governance has been shown in Figure 6.

Figure 6. *Trend of KU Index of governance in Pakistan*
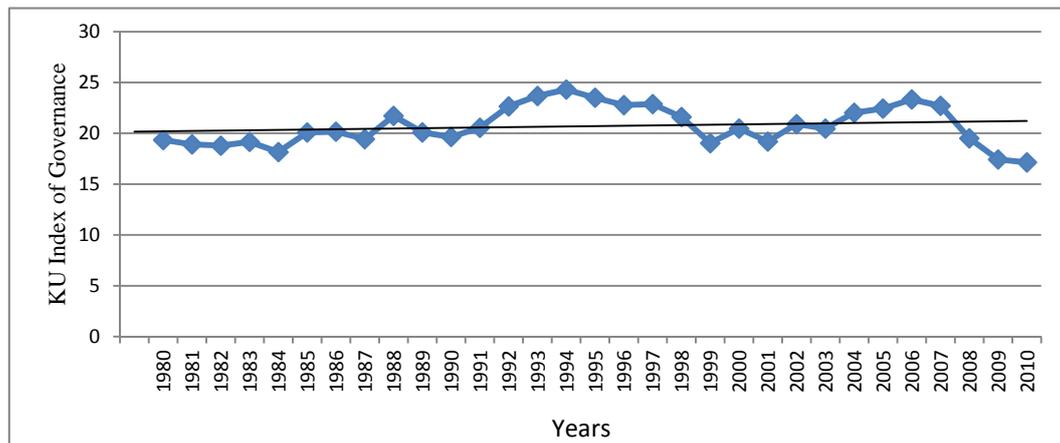
The index explains the comparatively good level in 1988, 1992-98 and then 2002-07. There is a declining trend from 2008 onwards and lowest level of governance remained in 2010. The overall trend of KU index is not encouraging as it has very low positive slope and low value ranging from 17 to 23. It explains that the situation of governance is not only poor but has not been improved significantly in the last thirty years.

6. Conclusions

Governance cannot be measured directly as it is a multidimensional concept. The aim of this paper was to construct a comprehensive index that would be comprised of all the dimensions and more reliable.

The index is open for the further research to see its contribution in different macroeconomic and socioeconomic variables like urbanization, employment, food security, nutrition, child labor and regional disparity. Applying the same technique, the governance may be estimated for other developing economies particularly for those economies which are at the same level of development. In this way a comparison may be done among the economies.

It is concluded that governance in Pakistan is not in a good shape and it has not even improved in a good way. The three dimensions of governance, i.e. safety and security, rule of law and institutional quality, and social and environmental governance has contributed negatively to the overall governance. These areas need the focus of public sector reforms. Although the dimension of safety and

security has higher index values as compared to the other dimensions but it has declining trend. Furthermore the trend is very sharp. On the other hand economic governance and social development have contributed positively, but the values of the indices of these dimensions are comparatively lower to the other dimensions.

It may further be concluded that proxies of the governance used by various studies represents the partial picture of the governance at the national level. It is based on the fact that dimensions included in this study have different levels and trends in the study period.

Note

[1] We used the term dimension, sub-dimension and indicators instead of category, sub-category and sub-sub-category used by Rotberg and Gisselquist (2009). The terms of pillar and sub-pillar of governance have been used by Ibrahim (2013) for Africa.

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