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Governance and Development Performance in Northern States of India

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Abstract:
A basic issue that arises in relation to governance is the proper role of government in economic management. The present study attempts to find how governance be conceptualised and in what way could the concept be given an operational meaning to examine the status of governance various constituents of governance and development and how various constituents of governance affect the various aspects of development. So, the objectives of the study are two-fold - first, to identify the relevant variables that indicate the level of governance and development in these states; and second, to examine the relationship between the state of governance and the position of development. The results indicate that composite index of governance is quite significant and speaking in respect of development on the whole, health, literacy and infrastructure. But the relationship with growth is much lesser than these aspects. As a whole there is a strong positive relationship between governance and development in northern states of India.

Introduction

In the present world there is a growing consensus among economists and multilateral development funding agencies that good governance is one of the key determinants of development. For last two decades governance has acquired a great importance in the development debate because there is now a considered view that efficient use of available resources is more important than the resources itself in an economy. This is why it is said that good governance, by promoting productive investment and faster implementation of economic and social policies, leads to higher economic ends. Some international institutions have made good governance a pre- condition for development assistance as it makes them deem that assistance or the grant given to the economy will be better utilized in that case and there will be a lesser possibility of vital resources being wasted away. Today many international development institutions are emphasizing on governance or administrative reforms in less-developed countries in order to achieve sustainable development in these economies. Good governance is being viewed as a pre-requisite for economic growth and well-being of people (being measured in terms of human development or economic development) which have been at the center of economic writings and enquiries (Asian Development Bank, 1995; Olson, Sarna and Swamy 2000; Basu, 2004).

Any institution such as government, bureaucracy, judiciary, society or economic structure that constitutes governance is ultimately desired for the welfare of people. Governance expresses the interrelationships among capabilities, values and interests of citizens, legislative choice/s, political decision making, executive and organizational structures, and rules in an economic society and judicial system that have significant consequences for economic performance. Development is associated with good policies such as fiscal management, competitive and open enterprise system that rewards initiative and performance, broad-based education and support for the rule of law.

By and large accountability, rule of law, predictability, transparency, openness, strong civil society, and democratic practices are said to be rudiments of good governance (Brautigam, 1991; Campos and Nugent, 1999). These elements in a system (economic, political and social) increase efficiency and performance of various participants and result into not only the growth of income and capital but also the quality of life which is inclusive of knowledge, health, harmony and better environment for further growth (Hyden and Court, 2002). Such conditions give way to reduction in inequality and incidence of poverty as they ensure a minimum of the basic amenities to the entire population and also make sure that those who do not have sufficient to pay for their needs happen to be larger beneficiaries of government's intervention.

In such an environment the role of the state gets transformed from being a regulator to a facilitator or promoter, i.e., the one that encourages and optimizes the factor use (Adsera et al.,2000). It directs an economy to be based on merit and productivity, and dampens rent-seeking behaviour of the government agents or the private parties (Detheir, 1999). The governance related differences can be observed in productivity of capital or labour or total factor. It affects the quality of social capital immensely besides that the quality of personal capital the enhancement of which also depends on the general economic and political environment that may or may not provide an appropriate environment for the growth of capital. The social capital here includes infrastructure which in turn has very deep impact on horizon and magnitude of investment.

Governance plays a very significant role in determining the levels infrastructure, cumulative investment, incremental capital-output rate, changes in the quality of human capital etc.¿¡ and it is crucial for the size of present investment as well because the perspective acquires a central role in decision making. An economy which experiences low level of infrastructure suffers from lesser attraction for investment, especially the one that depends on private initiative and perception.

Now a days market enhancing approach is considered growth enhancing as well and it promotes growth much more than the approach that is not as much market friendly. Market related interventions such as deregulation, privatization and globalisation are to be viewed in this context. Now-a-days a really politically democratic system demands economically less regulatory regime (Aysan et al., 2007). In a well governed system, principals and agents need to be clearly conceptualised so that political and bureaucratic accountability could be fixed and its direction decided. Usually developed economies demonstrate maturity in understanding the relationship between political executives and public, and bureaucrats and people. The consummate period of exposure (Pellegata, 2009) to the democratic existence has made them appreciate the obligatory principal-agent relationship. Problems arise in developing economies when their political executives and bureaucrats behave as if they are the principals and not the agents while they are expected to conduct in entirely contrary manner. It leads to a structure that is intentionally carved to be deficient of accountability and lacks macroeconomic management. The primary status to self-interest makes it mostly divergent to the public interest (welfare). It provides an apt environment for corruption to flourish and to force the system to do very little about the basic issues of concern to the common people such as poverty, health and education. In such conditions the realized growth rate is generally lower than the potential rate; and there persists a low rate of poverty reduction and high rate of disparity (Mundle, 2001; Laxman, 2003). This type of situation typically discourages investment, both domestic and foreign, reduces the quality of infrastructure, adversely affects the collection of taxes, increases revenue expenditure disproportionately to capital expenditure, reduces the overall quality of public expenditure and increases arbitrariness in decision making (Chetwynd, Chetwynd and Spector, 2003). People's participation, in such an environment, in decision making remains depressed and the marginalised population, for which most of the decisions and policies are believed to be made, hardly gets an opportunity to decide about itself and be a part in the execution of those decisions .

The conditions that cause variations across the economies are considered fit to provide reasons for inter-state differences within an economy, especially when the size of the economy is quite large to

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bring about inter-state variations in governance and development. Different aspects of governance, namely political, bureaucratic, civil society, legal and market, are present in varied degrees in different states of an economy as big as India (Purfield, 2006; Court, 2002). The differences in the governance aspects influence the various indicators of development (Kaufmann, Kraay and Zoido-Lobaton, 1999). The differences also determine the degree of divergence among development indicators across regions. Since India is a country characterized by phenomenal magnitude of diversity, its states are said to have huge dissimilarities with regard to the aspects of governance which might be manifested in terms of development indicators. It is well known that Indian states vary a great deal in terms of development indicators but how these states are divergent from one another on governance aspects requires enormous efforts before saying anything convincingly. It is undoubtedly an area which needs the right amount of the thrust.

Some Steps in the Direction

Since late 1980s and early 1990s a good number of individuals and international institutions have done a good amount of research work on the relationship between governance and development and have made efforts to improve the institutional working in different economies and parts thereof. Multilateral development (funding) agencies led by the World Bank have shown concerns about the role of governance for the efficacy of aid programmes in less-developed countries. Some of such development (aid) agencies have conducted or sponsored studies pertaining to the role of governance in the development of an economy.

Many organizations at international and national levels have been involved in collection/preparation of data relating to various aspects of governance, such as element of risk in an economy, political and economic stability, business environment, degree of freedom, political participation, transparency, etc. Many studies have used the secondary data prepared by different international

institutions, such as Political Risk Service (International Country Risk Guide), Business Risk Service (Business Environment Risk Intelligence), Freedom House, Polity IV, Transparency International, etc., and individuals for their own studies or for some international organisation. Kaufman, Kraay and Zoido-Lobaton made such an effort in 1999 when they took initiative to prepare aggregate governance indicators from the year 1996 and onwards. They have compiled the data from thirty different sources and clustered the data into six aspects of governance to provide aggregate governance indicators. They have prepared aggregate governance indicators on biennial basis for the period 1996 to 2002 and on annual basis for the post 2002 period.

In the year 2000, United Nations University, Tokyo started a project named World Governance Assessment (WGA) project in 22 transitional economies. Under this project, governance in an economy was assessed on the basis of a survey. The survey was conducted in 16 economies in its first phase during the period 2000-2002. Thereafter the project entered its second phase and covered 10 economies only.

Importance of the Present Study

Given the importance of governance for a good number of reasons discussed above, there is a need to study different aspects of governance and their relative importance in the context of development across Indian states. India is a country of diversity and complexity where diversity offers its own complexity in terms of variations across the states and also for the reason that vast amount of gaps and unequal conditions offer their own challenges in the context of feasibility, data availability, and overall definiteness. Since there is no final word thus far with regard to the measurement of governance, every effort in this direction is a step in the direction of emerging understanding about

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the level of governance and its possible relationship with development outcomes expressed through different indicators.

Good Governance

Broadly speaking, the term governance encompasses all aspects of the way a country is governed. Good governance has several characteristics. It is participatory, consensus oriented, accountable, transparent, responsive, effective, efficient, equitable, and inclusive and follows the rule of law. At a minimum, good governance requires fair legal frameworks that are enforced impartially by an independent judiciary and its decisions and enforcement are transparent or carried out in a manner that follows established rules and regulations. Since accountability cannot be enforced without transparency and the rule of law, accountability is a key requirement of good governance. Not only governmental institutions, but also private sector and civil society organizations must be accountable to the public and to their institutional stakeholders. Moreover, given that a society's well-being depends on ensuring that all its members feel that they have a stake in it, good governance requires that institutions serve all stakeholders fairly.

A number of multilateral organizations e.g., the United Nations Development Programme (UNDP) and the Organisation for Economic Cooperation and Development (OECD) have reflected on the elements of good governance, and on their relation to development.

The United Nations Millennium Project, the United Nations Development Programme's Human Development Reports, and the World Bank's annual World Development Reports each list over one hundred "must do" items for countries to achieve good governance.

The World Bank regards governance as synonymous with sound development management. It therefore relates governance to the effectiveness with which development assistance is used, the impact of development programs and projects (including those financed by the Bank), and the absorptive capacity of borrowing DMCs.

Accordingly, like the World Bank, the Bank, too, is concerned directly with the manner in which the public sector is managed in DMCs, and with the legal framework for development. However, in formulating an analytical framework for addressing governance issues, the Bank prefers to draw a distinction between, on the one hand, elements of good governance and, on the other, the specific areas of action (e.g., public sector management) in which they could be promoted or their existence enhanced. In line with this reasoning, and building upon the approach of the World Bank, the Bank has identified four basic elements of good governance: (i) accountability, (ii) participation, (iii) predictability, and (iv) transparency.

Measurement of Governance and Development Aspects

Different indicators are used to measure the quality of governance and its various aspects. In this study, for political quality, the rate of participation in election (in Lok Sabha as well as state assembly elections), the degree of representation by the largest party in the assembly in terms of number of seats, the number of women candidates as percentage of total candidates who contested the election, and the percentage of elected women candidates among the total candidates who won the election have been considered.

The quality of bureaucracy has been measured through the total number of corruption cases for investigation, rate of disposal of corruption cases for investigation, expenditure on administrative services on per-capita basis, per capita planned expenditure, and the ratio of planned expenditure to non--planned expenditure in these states. There appears to be a kind of overlap between some indicators of quality of legal system and the quality of bureaucracy such that certain indicators which are expected to explain the quality of bureaucracy mainly because of data deficiency on separate indicators. Such indicators may include total cases of corruption, score of a state on corruption index or transparency index. Here, it is being assumed that a more efficient and transparent bureaucracy would lead to higher extent of charge-sheeting and completion of trial cases and it would also be inclined to incur a higher degree of planned expenditure to non-planned expenditure. There is a view that higher per-capita expenditure on administrative services would improve the quality of bureaucracy and would compel bureaucracy to work for development and welfare of the people.

For the purpose of assessing the quality of legal system, the number of cognizable crimes on per 10000 basis, number of complaints against police personnel on per 10000 basis, the rate of disposal of crimes cases by police, rate of disposal of criminal cases by courts, value of property stolen on per 10000 basis, the rate of property recovered to the property stolen and the incidence of most violent crimes (murder, attempt to commit murder, rape, dowry deaths, kidnapping and abduction) on per 10000 basis have been used.

The quality of civil society has been noticed through gender ratio (female on per thousand of males), public expenditure on education as percentage of total expenditure in the state in a financial year, public expenditure on health as percentage of total expenditure in the state, female-male literacy ratio, child sex ratio, and incidence of riots per thousand of the population in the state.

Market quality has been measured through the degree of industrialization observed by the share of industrial output as percentage of GSDP, number of factories per 10000 of population and capital invested in industry, the degree of tertiarisation of the state economy, per capita deposit of scheduled commercial banks, per capita credit of scheduled commercial banks, and per capita credit to deposit ratio of scheduled commercial banks.

Development has been measured in terms of growth which includes rate of growth of Net State Domestic Product (NSDP) and growth rate of per-capita NSDP, health which includes infant mortality rate and life expectancy at birth, literacy represented by its rate in a state, and infrastructure development represented by per capita electricity consumption, and per capita road length. So, development has been considered as one equally constituted by these four aspects and the constituents have also been separately viewed for the effects of different dimensions of governance.

The Coverage

For the purpose of analysing the relationship between governance and development, a panel dataset of governance indicators and development performance has been constructed. A time series analysis for the period 1993-94 to 2013-14 which relates to the reform period has been done. The study covers all the northern states of India excluding Jammu and Kashmir due to the data constraints as all the surveys conducted could not be held in J&K, and hence, data on all the aspects of governance and development for this state is not available. The study includes Uttar Pradesh, Punjab, Haryana, Himachal Pradesh, Uttarakhand, and Delhi.

Index Construction

To analyse the relationship between governance and development, indices of different aspects of governance and of development have been constructed. Development has been measured in terms of growth rate of Net State Domestic Product (NSDP), per capita growth rate of NSDP, infant mortality rate, literacy rate, life expectancy at birth, per capita electricity consumption, and per capita road length (to measure infrastructural development).

For assessing the quality of governance, variables spread over the five aspects of the governance, namely, political quality, bureaucratic quality, quality of legal structure, quality of civil society and the quality of the market have been used. Indexes of political quality, bureaucratic quality, legal quality, civil society quality and market quality have been constructed using the above mentioned constituents or variables.

All indexes have been constructed on a scale of 0 -100 so that those could be easily compared with one another. The highest rates during the entire time period have been considered equal to 100 and all other rates have been accordingly constructed. Since, an upward movement in negative indicator of health or development conditions reflects deterioration its index has been constructed in three stages. First, these values have been scaled by considering the highest value as 100; second, these values were deducted from 100 to make those values and the statistics positive and unidirectional; third, maximum positive value being considered as 100 and all other values converted accordingly.

The Relationship between Governance and Development

For understanding of the relationship between governance aspects and level of development in northern India over the period 1993-94 to 2013-14, the correlation and regression have been applied. In the effort to examine how the indicators of governance influence the development in northern Indian states, index of development is the dependent variable while the indices of different aspects of governance, namely, political quality, bureaucratic quality, quality of legal system, quality of civil society, and market quality have been used as independent determinant/s. All aspects of development, namely, growth, health, literacy and infrastructure have been separately regressed on the mentioned dimensions of governance.

Constraints of the study

Lack of the required data is a major problem that the study encountered during the course of the work. Data at the state level is far lesser available than at the national level. Data on major states is easily available as compares to smaller states like Uttarakhand. Data on various aspects like average years of schooling (an indicator of development) that we wish to include in the present study is not available at the state level. The time periods with regard to statistics also vary, so, the required adjustments had to be done in data to it more consistent and comparable. The property rights and transparency related statistics are also not available at the state level. Since governance and its aspects are mostly qualitative in nature and proxy variables have used to measure the quality of governance on different aspects. But the use of proxies for different aspects of governance may have their limitations as is the case in any other research work of such nature. Nevertheless, it is believed that if regression results significantly explain the relationship between independent and dependent variables, here governance and development, the study acquires some meaningfulness as the extent and significance of the relationship would be able to primarily explain the importance of the variables and sub-variables, including proxy variables, identified to explain the said relationship.

Results

To assess the effect of governance indicators on development performance, we have used Ordinary Least Squares (OLS) method of regression. To observe the influence of governance on the development in the northern states of India, the Index of development performance has been used as the dependent variable and the indices of governance quality which includes political quality, bureaucratic quality, legal quality, civil society quality and market quality have been taken as the independent variables. The following Equation (1) which has development as dependent variable and the various dimensions of governance as independent variables has been used to measure the effects of these dimensions of governance on development:

$Dev = a + b1\ PQ + b2\ BQ + b3\ LQ + b4\ CS + b5\ MQ + u$ ……... (1)

Where

Dev = Development
PQ = Political Quality
BQ = Bureaucratic quality
LQ = Legal Quality
CS = Civil Society
MQ = Market Quality

Above equation explains that development depends upon the five dimensions of governance, namely, political quality, bureaucratic quality, legal quality, civil society and the market quality. OLS regression method has been applied to estimate the above equation for a panel dataset covering six states of northern India for the period 1993-94 to 2013-2014. OLS estimates of the equation (1) explain around 89 per cent variation in the composite development index. All indicators of governance are positively related to development index, which implies that an improvement in the quality of governance indicators leads to a rise in the level of development performance. But all the dimensions of governance vary with respect to significance in explaining the extent of relationship. Among these dimensions, civil society, political quality and the market quality have relatively greater influence on the state of development while bureaucratic quality and legal quality do not have such a significant effect on the state of development. The values of their coefficients are also quite high as civil society has 0.91, market quality has 0.30 and political quality has 0.25 while on the lesser side of coefficient values, legal quality has 0.10 and bureaucratic quality has 0.04. Their p-values suggest that civil society, market quality and political quality are significant at 1% level which further reinforces the high degree of relationship reflected through both - values of coefficients and the degree of significance.

Table: Regression Results: Governance and Development

Regression Statistics				
Multiple R	0.94			
R Square	0.89			
Adjusted R Square	0.88			
Standard Error	4.27			
Observations	118			
	Coefficients	**Standard Error**	**t Stat**	**P-value**
Intercept	-45.71	6.08	-7.52	0.00
PQ	0.25	0.05	5.00	0.00
BQ	0.04	0.05	0.91	0.36
LQ	0.10	0.11	0.94	0.35
CS	0.91	0.08	12.19	0.00
MQ	0.30	0.05	6.38	0.00

The problem of multi-collinearity which might emerge in the condition of high degree of mutual association among the independent variables has been resolved through dropping of variables. The level of significance of the variables measured through the p-value determines the confidence level up to which an independent variable can explain the variability in the dependent variables. In OLS

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regression model this level of significance is measured through the p-value and it is clear from the p-value of bureaucratic quality and legal quality that these two are not quite significant in respect of having influence on development outcomes. Therefore, in the next part the regression is being applied without the inclusion of these two dimensions (bureaucratic quality and legal quality).

Regression Results: Significant Dimensions of Governance and Development

Regression Statistics

Multiple R	0.94
R Square	0.88
Adjusted R Square	0.88
Standard Error	4.25
Observations	118

	Coefficients	Standard Error	t Statistics	P-value
Intercept	-41.56	4.34	-9.57	0.00
PQ	0.25	0.05	5.08	0.00
CS	0.94	0.07	13.46	0.00
MQ	0.33	0.04	7.80	0.00

The results of this regression reveal that only three dimensions of the governance, namely, political quality, civil society and the market quality can explain nearly as much variation in development outcomes as is explained by all the five dimensions of governance considered so far in the study. In the earlier table the value of R square is 0.89 and in this table it is 0.88. Since the indicators of bureaucratic quality and legal quality have not been influencing the development aspects considered in the study, so, even dropping of the two does not result into much change in explaining the degree of variability.

To notice how different dimensions of governance influence various aspects of development, the different constituents of development have been separately regressed on the governance dimensions. So, these aspects of development, namely, growth, health, literacy and infrastructure are being separately regressed on the five dimensions of governance. The resultant equation is as follows:

Growth = $a + b1\ PQ + b2\ BQ + b3\ LQ + b4\ CS + b5\ MQ + u$ .... (2)

The results are –

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Regression Results: Growth and Governance

Regression Statistics				
Multiple R	0.60			
R Square	0.36			
Adjusted R Square	0.34			
Standard Error	14.51			
Observations	118			
	Coefficients	**Standard Error**	**t Statistics**	**P-value**
Intercept	-54.22	14.99	-3.62	0.00
PQ	0.04	0.17	0.26	0.80
BQ	0.07	0.16	0.41	0.68
LQ	-0.04	0.23	-0.16	0.87
CS	0.90	0.30	3.01	0.00
MQ	0.41	0.16	2.46	0.02

The regression equation for growth explains only 36 per cent variability which implies that these indicators of governance explain only 36 per cent of variation in growth which further conveys that growth is not explained to the extent by these dimensions of governance as other aspects of development are explained.

Civil Society (+0.90 value of beta coefficient with a p-value 0.00) and market quality (+0.41 value of beta coefficient with a p-value 0.02) have been found to be the most significant governance indicators that influence the growth related aspect of development in an economy. The other dimensions of governance do not have such a significant effect on growth of an economy as the values of their coefficients are very small and statistically insignificant also as their p-values do not come within 10% level even.

The regression equation which was used to explain the effect of governance on growth has also been used to measure the effects of different governance indicators on the health related aspect of development. Therefore, the resultant equation is -

$$Health = a + b1\ PQ + b2\ BQ + b3\ LQ + b4\ CS + b5\ MQ + u \qquad \text{………} (3)$$

The results are as follows:

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Regression Results: Health and Governance

Regression Statistics	
Multiple R	0.94
R Square	0.89
Adjusted R Square	0.89
Standard Error	4.45
Observations	118

	Coefficients	**Standard Error**	**t Statistics**	**P-value**
Intercept	-23.12	4.60	-5.03	0.00
PQ	0.30	0.05	5.58	0.00
BQ	-0.06	0.05	-1.18	0.24
LQ	0.21	0.07	2.95	0.00
CS	0.83	0.09	9.04	0.00
MQ	0.33	0.05	6.61	0.00

On applying the same dimensions of governance on health related aspect of development, the study has observed a considerable effect of governance on health aspect of development. In the context of health the variability explained by our governance indices is quite high in terms of R-square value (0.89) and the p-values also reveal the significance of the results as most of the p-values, barring that of bureaucratic quality, tend to be 'zero' which indicates quite high degree of significance. However, the bureaucratic quality (of which the beta coefficient is -0.06) does not have a significant influence on health conditions in the selected states as its p-value 0.24 makes it insignificant. The civil society (with a coefficient value of +0.83) is found to be the most explanatory dimension of governance to explain the condition of health in the chosen states and it is followed by market quality (+0.33). The political quality (+0.30) and legal quality (+0.21) also have reasonable effects on health related aspect of development.

The relationship between governance dimensions and literacy as a constituent of development has also been estimated with the help of the same equation as has been applied to growth and health separately here above. The equation is -

$$Literacy = a + b1\ PQ + b2\ BQ + b3\ LQ + b4\ CS + b5\ MQ + u \qquad .....(4)$$

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The results are as follows:

Regression Results: Literacy and Governance

Regression Statistics	
Multiple R	0.96
R Squared	0.91
Adjusted R Square	0.91
Standard Error	3.37
Observations	118

	Coefficients	**Standard Error**	**t Statistics**	**P-value**
Intercept	-18.69	3.48	-5.37	0.00
PQ	0.30	0.04	7.41	0.00
BQ	0.19	0.04	2.58	0.01
LQ	0.14	0.05	2.64	0.01
CS	0.91	0.07	13.13	0.00
MQ	0.04	0.04	1.14	0.26

In the case of literacy the results of the study are found to be quite impressive as is quite obvious from the R squared value of the regression equation, beta coefficient values and level of significance defined by the p-values. The regression equation used in the study explains 91 per cent variability in the literacy rate which is quite high even when compared with the results of the researches focussing same kind of relationship. All the dimensions of governance except than the market quality have a substantial positive effect on literacy in selected Indian states. The civil society (+0.91) has the highest degree of effect on literacy followed by the political quality (+0.30), bureaucratic quality (+0.19) and legal quality (+0.14). All these values are also supported by high degree of significance in the above referred four dimensions of governance. The market quality does not show a good degree of relationship with literacy in respect of the chosen states of India as beta coefficient value for market quality is +0.04 and the concerned p-value is 0.26. So, lesser value of market quality coefficient is rendered insignificant as well.

The effects of governance on infrastructure development have also been measured through the same regression equation. Infrastructure is one of the most prominent

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indicators of development especially modern advanced life has become synonymous with infrastructure which also represents technological advancement of a substantial extent. The equation used to measure the effects of different dimensions of governance on infrastructure is as follow:

$$Infrastructure = a + b1\ PQ + b2\ BQ + b3\ LQ + b4\ CS + b5\ MQ + u \ \ldots.. \qquad (5)$$

The regression results are as follows:

Regression Results: Infrastructure and Governance

Regression Statistics				
Multiple R	0.81			
R Squared	0.65			
Adjusted R Square	0.64			
Standard Error	9.79			
Observations	118			
	Coefficients	**Standard Error**	**t Statistics**	**P-value**
Intercept	-67.87	10.12	-6.71	0.00
PQ	0.35	0.12	3.02	0.00
BQ	0.10	0.11	0.97	0.33
LQ	0.06	0.16	0.38	0.71
CS	0.82	0.20	4.05	0.00
MQ	0.39	0.11	3.54	0.00

The different dimensions of governance explain the 65 per cent variation in the infrastructure development. While in terms of beta coefficient the different governance dimensions have relatively higher values. Here the civil society (+0.82 value of beta coefficient with a p-value of 0.00) continues to be the most explanatory dimension of governance which is followed by market quality (+0.39 value of beta coefficient with a p-value of 0.00) and political quality (+0.35 value of beta coefficient with a p-value of 0.00) while bureaucratic quality and legal quality have low values of beta coefficients (0.10 and 0.06 respectively) and both are insignificant as well. It implies that civil society, market quality and political quality influence the infrastructural development in the India states being studied quite significantly while bureaucratic quality and legal quality do not have a significant role to play in the infrastructural development of these states during the study period.

In the end we have attempted to consider total development as one which is here believed to be composed of the above discussed aspects, namely, growth, health, literacy and infrastructure and regressed it on the dimensions of governance.

Regression Results: Development and Governance

Regression Statistics	
Multiple R	0.93
R Squared	0.86
Adjusted R Square	0.86
Standard Error	5.10
Observations	118

	Coefficients	**Standard Error**	**t Statistics**	**P-value**
Intercept	-21.46	3.39	-6.33	0.00
Governance	1.50	0.06	23.81	0.00

The composite value of governance index explains 86 percent variability in the overall development. The beta coefficient (+1.50) is quite high which explains that a one unit change in governance index leads to one and half unit change in the value of development index. This relationship is found to be quite significant in terms of p-value also as it tends to be 'zero', which stands for high degree of significance.

Therefore, the importance of governance for development in India is quite perceptible from the results of the study. Development in Northern Indian states up to large extent is explained by the governance situation in these states. However, some dimensions of governance such as bureaucratic quality and legal quality are found to be less significant in explaining the variation in development situation in comparison with the other dimensions of governance such as the civil society, political quality and the market quality. On the whole, governance situation, as measured by various dimensions and sub-dimensions, is very important for explaining development in the chosen states of northern India as 86 per cent of variation in development could be understood by these variables of governance.

Concluding Remarks

The composite index of governance is quite significant and speaking in respect of development on the whole, health, literacy and infrastructure. But the relationship with growth is much lesser than these aspects.

In the northern states of India and in respect of development as one unit and also most of the development aspects, civil society quality has emerged to be the most important determinant (with a high value of coefficient and significance). Its position in explaining various aspects of development, i.e., growth, health, literacy and infrastructure remains intact at apex. Market quality provides the next best explanation for development as a unit and growth, health and infrastructure aspects of development. In case of literacy, it becomes insignificant and its position is replaced by political quality which has appeared as the next best indicator of development and its various aspects. These three dimensions, namely, civil society quality, political quality and market quality, together explain the larger extent of variation explained by all the dimensions taken together. Bureaucratic quality and legal quality turn significant in the context of literacy while bureaucratic quality remains somewhat significant in case of health aspect.

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