Does Devolution Enhance Responsiveness to People's Needs? Empirical Evidence from Pakistan

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ABSTRACT

The paper aims at investigating the impact of Devolution Plan on social service delivery in Pakistan. A large scale Devolution reform policy was launched in 2001 that devolved substantial fiscal and administrative powers to the local governments after restructuring them. The paper uses a panel dataset from 1975 to 2008 from four provinces of Pakistan in order to detect the efficacy of local governments in providing the essential social and economic services the common people particularly to the poor. The empirical results suggest that after the Devolution Plan expenditures on social and economic services increased manifold. This, therefore, indicates that the Devolution Plan despite its loopholes was an essential structural reform with positive impact on sectors and subsectors that believed to be pro-poor.
**KEYWORDS*:* Devolution Plan; Social Services Delivery; Pakistan.

1. INTRODUCTION

The Devolution Plan launched in 2001 brought large scale changes to the governance and the public finance of Pakistan, where several important social and economic services were devolved to the local governments. Such drastic changes were expected to bring a widespread transformation in nature, extent and magnitude of essential social and economic services' delivery to common people. Presumably, the local governments because of their proximity and accountability to local people were more efficient and effective in increasing those services that should benefit the local community particularly the poor and disadvantaged social groups. Nonetheless, in spite of the importance of the matter, to best of our knowledge, the related literature has not provided a systematic research to evaluate the efficacy of the Devolution Plan in critical services provision in Pakistan. This paper aims to fill this gap in the literature.

After brief description of the local government system and its evolution in Pakistan, the paper provides an empirical evaluation of the effectiveness of the Devolution Plan in terms of improved social service delivery. Asystematic empirical method is employed by using a panel dataset from four provinces of Pakistan. Various regression techniques such as the standard ordinary least squared(OLS), fixed effect(FE) and random effect(RE) models, and the Tobit model are used to assess the impact of Devolution Plan on social services. The empirical results show that after the Devolution when these social and economic services were devolved to local governments, their provisions were augmented and improved.

Rest of the paper is organized as follows: Second Section provides a historical discourse on the development of local governments and their evolution in Pakistan. Third Section discusses the impact of Devolution Plan on social services provision. Fourth Section presents the data, methodology and hypothesis. Fifth Section five describes empirical results. Sixth Section concludes.

2.   Historical Background of Local Government System In Pakistan

The local government system was first introduced in the Sub-Continent in 19th century by the British India government aimed primarily to privilege local elites. The local government under the British *Raj* was not empowered, as it was not democratically elected. Instead the representatives of the local governments were nominated by the central bureaucracy (Venkatarangaiya and Pattabhiram, 1969). The system was run through an extreme 'top-down manner' with circumscribed functions of local representatives. The key administrative role at the local level was performed by the agents of the central bureaucracy, the Deputy Commissioner, and other bureaucratic operatives, such as the Assistant Commissioner, *Tehsildars, Naibdehsildars and Patwaris* (Tinker, 1968; AERC, 1990).

After the independence, numerous social and economic problems such as a dysfunctional economy, primitive agriculture, communal tensions and massive influx of refugees, necessitated the country to adopt a strong central governance system. This state of affairs later on cemented the tendency towards a strong central government at the expense of sub-national governments. Hence, during late 1940s and entire 1950s an ever

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increasing centralization gave birth to a powerful military bureaucracy that diluted the already limited sub-national governments (Waseem, 1994; Jalal, 1995; Talbot, 1998).

In 1959 the military regime of Ayub Khan (re)introduced the local governments after the dissolution of both central and provincial governments. Similar to pre-partition style, local bodies system in Ayub era was overwhelmingly controlled by the central bureaucracy through its appointed officials at the local level who had the discretionary power to restrict any kind of action the elected representatives might desire to pass or implement. During 1971-1977 when the federal and provincial level governments were run through elected representatives, the local governments however were pushed to the background and remained dysfunctional.

With the arrival of the military dictatorial regime again in 1979, the local government system was revived with the political and administrative structure similar to the 1960s of over centralisation of administrative and economic power at the provincial and federal levels. The new Local Government Ordinance was promulgated simultaneously in 1979 from Punjab, Sindh and KP, while in Balochistan the same ordinance was implemented in 1980 (Cheema and Mohmand, 2003). During 1990s the local governments remained in dormancy and were dysfunctional.

However, after the 1999 military coups d'état, the local government system was once again reinstated but this time with entirely different structure, functions and responsibilities under the auspices of the Devolution Plan of 2000-01.

2.1. The Devolution Plan

The Local Government Ordinance of the Devolution Plan clearly spells-out the expenditure and revenue raising powers and responsibilities of all three tiers of local governments. They were entitled to allocate and disburse resources according to their own priorities ostensibly without strong interference or direction from the upper tiers of governments (federal and provincial). However, Bahl and Cyan (2009) believe that in practice the provincial governments very often exercised control over certain expenditure areas, particularly on expenditures which were undertaken by the conditional transfers from the provinces.

Another significant change accompanying the Devolution Plan was the introduction of a formula-based system of resource sharing between the provincial and local governments. All four provinces constituted their respective Provincial Finance Commission (PFC) in 2001 to formulate the resource transfer mechanism and distribution of finances between provincial and local governments. The PFC is a formula-based resource distribution mechanism which differs from one province to another. Each province constitutes its PFC according to the financial conditions of the local governments and the socio-economic and political needs (Ahmed and Lodhi, 2008). The PFC was a statuary body. The PFC having both development and recurring transfers ensured the allocations of resources between the provincial government and local governments. Under which the provincial governments disbursed resources to local governments out of the proceeds of the Provincial Consolidated Fund (PCF) and Provincial Allocable Amount (PAA).

The PAA was distributed under the PFC ruled-based transfer mechanism in a similar head of the account, while the PCF was not defined (Cheema and Ali, 2005).The PAA fixed for local governments were determined and distributed on the basis of the criteria elaborated in Table 1.

Table1: Intergovernmental Resource Transfer Criteria

Total pool and distribution criteria	Punjab	Sind	NWFP	Balochistan
Local share of the Provincial Divisible Pool	39.8%	40%	40%	31%
Formula factors with weights	100%	100%	100%	100%
Population	75%	50%	50%	50%
Backwardness of district	10%	17.5%	25%	
Tax collection effort	5%	7.5%		
Fiscal austerity	5%			
Area				50%
Development incentive/ infrastructure deficiency	5%		25%	
District governments' deficit transfers		25%		
Source: Shah (2004) and Sindh (2004)				

As illustrated in Table 1 population was the most important criterion used by all provinces in resource distribution. Under the Local Government Budget Rules (2002) the local governments had the power to formulate their budgets and priorities public expenditures without the legal consent of the provincial governments.

A substantial descriptive literature is available that addresses the effectiveness of the Devolution on social services' provision. Parallel to this there is a need for a systematic empirical research. However, to evaluate the efficacy of local governments in services delivery after the Devolution Plan is a critical question that warrants an empirical investigation. Hence, the scope of this paper is to critically evaluate whether the performance of key public sectors that directly or indirectly affect the livelihood of people especially the common.

3.   Social Service Provision and The Devolution Plan

Expenditure on social services particularly on education and health has been recognised as an important source for the human development and poverty reduction. Countries like Pakistan with compelling fertility rate, widespread and chronic poverty and increasing rate of unemployment need to enhance efficiency of its public expenditure on social services.

Despite having relatively a decent economic growth over the last five decades human development record of Pakistan has been very dismal. Many social sector indicators, chiefly health and education, lag far behind some of the neighbouring South Asian and South East Asian countries. For instance, in 2009 indicates except Bangladesh, Pakistan records the lowest HDI (0.499) amongst all seven countries in the region included in the sample (table 2). Pakistan spent only 0.9% and 1.8% of GDP on health and education which is far below than other regional countries. For example, on health and education Iran spent 2.9% and 4.685% of her GDP, Malaysia 2% and 5.789%, and Bangladesh 2.234% of the GDP on education. Similarly literacy rate in Pakistan (56.53%) was less than the average rate of Least Developing Counties (60%). And the Infant Mortality Rate (IMR), a barometer for healthcare facility, was high compare to other countries included in table 2. Part of the reason for this abysmal social sector performance was the inadequate and ill-targeted public sector expenditures on social services.

Table2: Selected Social Indicators (2009)

Indicators	Pakistan	Bangladesh	India	S. Lanka	Iran	Malaysia	Thailand
Life Exp.	63	65	64	71	71	74	68
IMR	78	48	55	15	35	35	55
Health Exp. (% of GDP)	0.9	0.8	1.4	1.8	2.9	2	3.1
Literacy Rate (%)	56.53	55	N/A	90.6	85.02	92.1	96.2
Pupil-Teacher Ratio	39.69	45.76	N/A	23.15	20.34	13.25	18.44
Education Exp. (% of GDP)	1.8	2.234	4.1	2.08	4.685	5.789	4.126
Human Dev. Index	0.499	0.448	0.542	0.538	0.703	0.658	0.673
Source: WDI, World Bank (accessed on 3/07/2012)& UNDP (accessed on 3/07/2012). N/A: Not available							

4.   Hypothesis, Data And Methodology

4.1.   Hypothesis

We postulate that since the local governments are more responsive to local people needs because of being accountable to the people, the pattern of investment may be in the favour of those sectors that can incur benefits to the society in general and the poor in particular. Given this the paper empirically tests the following hypothesis:

> **Hypothesis:** *Ceteris paribus,* after the Devolution pattern of public investment changes and sectors related to social services provision receive more expenditure.

4.2.   Data

Data are reported in Table 3. Data for most of variables are drawn from the FBS (various issue); provincial governments budget documents (various years); SPDC (2000; 2007; 2012); State Bank of Pakistan (2010); Pakistan (various Issues). At the provincial level population estimates are obtained by dividing the total population on all four provinces based on their share in the 1998 census. Provinces in Pakistan are largely demarcated on ethnic/linguistic bases and inter-provincial migration is negligible. Thus, it is plausible to expect that the population share of the provinces is virtually time-invariant. Besides the population being incorporated as an independent variable, the same variable is used to obtain per capita expenditures of the provinces.

In order to get public expenditures, per capita income and other variables in real terms, their nominal values are deflated by the Consumer Price Index (CPI). An annual time series dataset from 1975 to 2008 is constructed. The reason for using 2008 as the end point of data point is that the local governments completed their four year tenure in 2008 and next elections have been suspended till the time of writing. The reported data are annual because budgetary allocations to both provincial and local governments were undertaken annually therefore concerned data were made available on annual basis. The cross section comprises all four provinces of Pakistan. The data limitation at district level and beyond restricted our analysis to provincial level. But the local governments' expenditures are aggregated at provincial level, so the latter reflects former's expenditure. Further, and expenditure at provincial level provided similar information for both pre and post Devolution thus enabling us in detecting the impact of the Devolution Reform on social services delivery.

Table 3: Descriptive Statistics

Variables	Obs.	Mean	Std. Dev.	Min	Max
Devolution reform (dummy)	136	0.235294	0.425751	0	1
Population (in millions)	136	28.08185	23.86578	3.59	90.07
Per Capita GDP	136	4008.559	1264.578	2239	7686
Agri. Value Add.*	136	1136.948	288.9449	696.9466	1948.867
Civil Work *	136	20.8603	85.585	0.3527	842.806
Pop. Per Bed	136	1508.684	171.6524	1269	1963

Welfare Expenditure*	136	0.731106	1.011983	0.00322	6.941837
Public Health Expenditure*	136	2.116858	3.431105	0	19.11971
Social Sector Expenditure*	136	43.49989	50.24139	1.191492	249.2615
Education Expenditure*	136	44.64446	47.66713	0.126267	223.6559
Health Expenditure*	136	9.672765	10.01052	0.231037	40.75399
Irrigation Expenditure*	136	5.469899	4.801413	0.177114	24.1072
Rural Development Expenditure*	136	1.794452	5.016514	0	39.68176
* Value Expressed in Per Capita term					

4.3.   Methodology

Following Faguet (2004), Faguet and Sanchez (2008), and Aslam and Yilmaz (2011), we identified nine sub-sectors of public sector which could impact the living standard of local communities in general and the poor and marginalised social groups in particular. (These sectoral variables are described in appendix A).Normally the social service/public good provision is 'measured in quality adjusted units of output, separated by the type' (Faguet, 2004: 876). Given the data constraint we measured the real investment quantity in terms of public expenditures on these sectors. This approach, although restricts us from analysing whether the Devolution enhanced the quality of delivery of the public goods (for example, in case of education, adequate supply of school text books, teaching equipments and teacher training courses), it enables us in comparing pre and post Devolution in terms of the inter-sectoral resource allocations, as well as the pattern of public sector investments.

The dependent variable is the inflation-adjusted annual per capita amount of investments undertaken in each sector. 'Population per bed' variable is not expressed in per capita term. The primary independent variable is the Devolution reform, which is captured by a dummy variable that takes 1 on 2001 and afterward (2001 to 2008) and 0 otherwise (i.e. from 1975 to 2000). Following Neyapti (2010), per capita GNP is used to proxy for the overall level of development. Arguably population, which is an important time-variant factor, can affect the extent and magnitude of the social services (Aslam and Yilmaz, 2010), and regions/provinces with larger population receive better treatment than less populated ones.

Variables institutionalization and distribution of land and tenancy reforms, equality among the various communities, ethnic harmonisation and openness to trade are likely to increase the accessibility of the communities to social services (Ali et al., 2005). But due to data limitations these variables are treated time-invariant so they are not included in analysis. It is important to note that the socio-economic structure remained almost same during both dictatorial and democratic regimes, thus the findings of this paper may not be affected because of not including these variables.

Any systematic change in politics or economic system in Pakistan, such as external shocks, donor funding or any national policy initiatives that have similar effect on all provinces or any other time-specific variations are captured by the year dummies. Punjab and Sindh's with much higher share in federal resource allocations to provinces may have a better fiscal capacity to allocate resources to local governments after the Devolution and hence more funds for social service sector. Following this proposition a dummy variable is used to capture the Punjab and Sindh effect.

The following model is constructed and statistically estimated using a panel dataset (34*4):

$$\textbf{Sec}_{\textbf{it}} = \alpha + \beta(\textbf{PDum}_{\textbf{it}}) + \beta_2(\textbf{YDum}_{\textbf{it}}) + \beta_3(\textbf{Dev}_{\textbf{it}}) + \beta_3(\textbf{Pop}_{\textbf{it}}) + \beta_3(\textbf{GDP}_{\textbf{it}}) + \textbf{e}_{\textbf{i}} + \mu_{\textbf{it}} \ (1)$$

The subscripts(it) stand for province i at time t. (Sec_{it}) alternatively represents all sectors included in our analysis. ($PDum_{it}$) is the provincial dummy and ($YDum_{it}$) is the year dummy. The provincial and time dummies are supposed to capture all of the characteristics associated with the provinces at a given time. (Dev_{it}) is the dummy variable for the Devolution. The Devolution dummy (Dev_{it}) represents the role of local governments and other institutions that came into effect after the Devolution. (Pop_{it}) is the population of the provinces expressed in million and (GDP_{it}) is real per capita GDP described in 1980 constant price terms. The per capita GDP of provinces is expected to control for the overall economic condition of the provincial economy among other things. The relationship of province level per capita GDP and expenditure on social and economic services is expected to be positive: higher average per capita income of one province may lead to increase the expenditures on above services because of the additional resource availability to that province from own revenue sources.

In above equation the positive coefficient of $Dev_{it}(\beta_3)$ suggests that the expenditure on that service have increased at a faster rate in the post Devolution period than the pre Devolution period, *ceteris paribus*. This leads us to conclude that the Devolution has been effective in terms of increasing the expenditures on social and economic services. Conversely, the negative coefficient suggests an adverse impact and the zero or very close to zero shows no impact. In other words, the expenditures on these services which thus far were undertaken by the provincial governments remain persistent and increasing with the same rate irrespective of being devolved to local governments.

We may have unobservable province specific time-invariant characteristics with independent effect on the level and magnitude of the social and economic services delivery. Then the use of the standard OLS would cause unobserved heterogeneity and produce biased results. Thus, a firsthand remedy comes to mind is the FE

and the RE estimations method that allows us to account for unobservable province-specific effects. For the sake of comparison we report the OLS results alongside FE and RE models in Table 4, 5 and 6. As the majority of the right side variables are in dummy form (including year dummies), Tobit estimation method is also used to strengthen our regression analysis and check for robustness. Tobit estimation results are reported in the last column of the output tables. Another major threat to validity of our outcomes could come from the time-variant factors that simultaneously correlate services and the Devolution indicators, which may create the problem of endogeneity. This would occur if the federal and provincial governments' choices of Devolution were purposely based on quality and quantity of social and economic indicators of localities. As the DevolutionPlan was a nation-wide policy, applied to all local governments in Pakistan, endogeneity should not be a major issue.

5.   Empirical Results and Discussion
For each service four models (standard OLS, Random and Fixed effects and Tobit) are estimated separately and their results are reported in Table 4 though 6. We find that the Devolution indicator is significant and positive (negative sign for population per bed as expected) across all social and economic indicators in all models. It therefore suggests that the Devolution on average has been effective in provision of social and economic services to local communities. Thus, it is plausible to conclude that following the Devolution, the magnitude of all nine vital socio-economic services has increased.

As the major objective of the Devolution was to make the local public services accessible to the local people and the improvement of social infrastructure, it is reasonable to group the included services into two broad categories: 1. economic services and2. social services. The economic services include development expenditures on sectors such as agriculture, civil work, water management and rural development, whereas the social services include health, education, water supply and sanitation facility, and social welfare and recreational services.

The public expenditure on education is strongly correlated with the Devolution indicator with positive coefficient significant at less than 1%. It is important to highlight that the level of significance and the sign of coefficient remains persistent regardless of the model, though the magnitudes of differ with different model. Healthcare variables (annual expenditures on healthcare and population per bed) maintain positive (negative) and strongly significant coefficient vis-à-vis the Devolution reform variable, suggesting that health services have increased in both quantity –proxy by expenditures - and quality – proxy by population per bed after the Devolution.

The impact of Devolution is not limited to the social services alone. Rather the economic services such as agriculture, infrastructure development (proxy by the civil work) and water management have registered a mark improvement after the Devolution. Similar to the social indicators, the Devolution coefficient has a strong and positive association with the agriculture value addition, expenditure on civil work and others. Again, the nature of the relationship and the level of significance are not changing while applying different models.

Interestingly, these outcomes are in accordance with our theoretical prediction; that is, socio-economic services may be better-provided by the sub-national government than provincial and federal governments. In the same vein it is also in the line of the empirical literature (for instance, Faguet, 2004) that shows local governments because of the better local knowledge are more effective in providing these social services.

 Per capita GDP is positively correlated to education expenditures, although with the coefficient close to zero. However, the association of the per capita GDP and the health indicator is mixed. For instance, for the OLS and GLS (RF) the relationship between the population per bed and the GDP per capita is negative which is of course what was predicted. Nevertheless, when it comes to the GLS (FE) and Tobit estimations – that basically are the actual models for final analysis based on the explanation given above – the coefficient of per capita GDP maintains a positive and statistically significant slope vis-à-vis health indicator.

Similar to the education and health indicators, the GDP per capita's association with other included outcomes variables – economic and social alike – is mixed. The variable either appears irrelevant in explaining any change in the services or if relevant in some of the cases, the agriculture for instance, is not consistent across different models or if both significant and consistent then retains a coefficient that is close to zero. But the relationship between the per capita GDP and the services is somewhat not unexpected. Because considering the geographical conditions and the demographic composition of the provinces in Pakistan the per capita GDP is unlikely to capture the overall development level of provinces. Hence, the expenditures on these services may not follow an identical trend. For example, Balochistan and Sindh due to the numerous political and economic reasons witnessed a sharp decline in relation to the per capita GDP than Punjab (Bangali and Sadaqat, 2000). However, the rate of change in public expenditures on socio-economic services has increased more or less with the similar rate as in other two provinces.

Of the other control variables, the population either shows unexpected (negative) sign or appears insignificant vis-à-vis all socio-economic services except health indicators. The negative coefficients of the population in relation to services like education, water & sanitation and civil work suggest that the per capita investments on such services are higher in Balochistan. This may explain that in Balochistan with very vast land

and disperse population the per capita cost of providing a certain social or economic service remains much higher than other provinces.

Similarly, the Punjab-Sindh dummy variable is positive and statistically maintains a significant association with most of the outcomes variables. For those services they have a negative relationship, its coefficients are not reported. This finding perhaps reflects the differential effects of the Devolution between bigger (more populous), socio-economically better developed and more influential in national polity province(s) compared to the other two provinces, particularly Balochistan where the Devolution has not been as affective as in its counterparts.

In general, the overall fit of the regression models is consistent with the decentralization literature because it explains up to 70% or more of the variation in social service delivery (reflected by the R-squares of each model.

Table4: Determinants of Public Expenditures on Rural Development, Agriculture and Civil Work

Variables	Public Exp. on Rural Development @Δ				Agriculture Valued Addition Δ				Annual Public Exp. on Civil Work@Δ			
Models	OLS	RE	FE	Tobit	OLS	RE	FE	Tobit	OLS	RF	FE	Tobit
Devolution Reform (Dummy)	9.951*	8.918**	10.69**	26.10**	0.288***	0.288***	0.303***	9.934**	3.770***	3.770***	5.434***	4.236***
	(5.323)	(4.353)	(5.068)	(12.917)	(0.090)	(0.078)	(0.093)	(4.929)	(1.095)	(0.758)	(1.036)	(0.897)
Punjab-Sindh (Dummy)					0.748***	0.748***		4.625	2.060**	2.060**		0.780
					(0.090)	(0.092)		(18.290)	(0.838)	(0.902)		(1.131)
Population	-0.126**	-0.128*	0.0474	-0.0917	-0.0138***	-0.0138***	-0.00694***	-0.159	-0.0510***	-0.0510***	-0.00701	-0.0247
	(0.056)	(0.074)	(0.379)	(0.073)	(0.002)	(0.002)	(0.002)	(0.365)	(0.018)	(0.018)	(0.021)	(0.022)
Per Capita GDP	0.00524***	0.00507***	0.00148	0.00330*	0.000195***	0.000195***	0.000134***	0.00357	0.000131	0.000131	-0.000803**	-0.000244
	(0.002)	(0.002)	(0.004)	(0.002)	(0.000)				(0.000)	(0.000)	(0.000)	(0.000)
Constant	9.418	7.480	2.213	22.64*	6.342***	6.342***	6.588***	-1.897	2.878***	2.878***	5.346***	3.835***
	(5.803)	(6.675)	(12.901)	(12.642)	(0.066)	(0.068)	(0.087)	(10.137)	(0.468)	(0.663)	(0.963)	(1.067)
Year Dummy	Included	Included	Included	Included	Included	Included	Included	Included	Included	Included	Included	Included
N	136	136	136	136	136	136	136	136	136	136	136	136
R^2 (Within)		0.1633	0.1678			0.8656	0.8807			0.5538	0.5832	
R^2 (Between)		0.9968	0.1693			0.8848	0.0121			0.7878	0.2980	
R^2 (Overall)	0.213	0.2202	0.1693		0.866	0.8658	0.4461		0.575	0.5752	0.4475	
F/WaldChai2	2.544 (0.0000)	33.88 (0.005)	1.57 (0.09)	79.23 (0.000)	39.14 (0.000)	638.70 (0.000)	20.45 (0.0000)	37.61 (0.0044)		134.04 (0.0000)	3.88 (0.000)	176.12 (0.000)

@ Value expressed in log form; Δ values are in million Rs.; Panel regressions robust standard error in parentheses
*$p< 0.10$, **$p< 0.05$, ***$p< 0.0$

Table5: Determinants of Expenditures on Education, Basic Healthcare Indicators

Variables	Annual Public Exp. Education@Δ				Annual Public Exp. on Basic Health@Δ				Population Per Bed			
Models	(OLS)	(RE)	(FE)	(Tobit)	(OLS)	(RE)	(FE)	(Tobit)	(OLS)	(RE)	(FE)	(Tobit)
Devolution Reform (Dummy)	1.926***	1.926***	3.733***	0.886***	3.484***	3.454***	3.094***	3.124***	-282.0***	-125.5***	-297.3***	-353.4***
	(0.490)	(0.233)	(0.192)	(0.186)	(0.217)	(0.172)	(0.159)	(0.138)	(28.142)	(29.124)	(12.401)	(11.922)
Punjab-Sindh (Dummy)					0.0624	0.000629		-0.679***				
					(0.121)	(0.123)		(0.247)				
Population	-0.00439*	-0.00439	-0.0176***	-0.00558	-0.00805***	-0.006***	0.0086***	0.00740**	4.211***	3.721***	-2.569***	-3.208***
	(0.003)	(0.003)	(0.006)	(0.007)	(0.002)	(0.002)	(0.003)	(0.003)	(0.171)	(0.458)	(0.326)	(0.337)
Per Capita GDP	0.000128**	0.000128**	0.000183**	0.000501***					-0.0269***	-0.0453***	0.0206***	0.0410***
	(0.000)	(0.0433)	(0.0334)	(0.0000)					(0.002)	(0.010)	(0.005)	(0.005)
Constant	4.078***	4.078***	2.538***	3.286***	1.720***	1.714***	1.452***	1.644***	1767.2***	1642.9***	1750.1***	1719.2***
	(0.510)	(0.278)	(0.217)	(0.456)	(0.088)	(0.117)	(0.113)	(0.133)	(23.967)	(39.431)	(12.910)	(25.089)
Year Dummy		Included	Included	Included	Included	Included	Included	Included		Included	Included	Included
N	136	136	136	136	136	136	136	136	136	136	136	136
R^2 (Within)		0.7452	0.9563			0.9696	0.9753			0.7330	0.9875	
R^2 (Between)		0.0282	0.492			0.8594	0.8590			0.9132	0.9007	
R^2 (Overall)	0.73	0.729	0.9027		0.966	0.9659	0.8628		0.970	0.7843	0.2553	
F/WaldChai2	185.04 (0.000)	296.77 (0.000)	81.34 (0.000)	822.3 (0.000)	165.3 (0.000)	2893.90 (0.000)	114.02 (0.000)	5212.60 (0.000)	84.82 (0.000)	357 (0.000)	293.. (0.000)	10430 (0.000)

@ Value expressed in log form; Δ values are in million Rs; Panel regressions robust standard error in parentheses
*$p< 0.10$, **$p< 0.05$, ***$p< 0.01$

Table6: Determinants of Expenditures on Water and Sanitation, Social Welfare and Water Management

Variables	Annual Public Exp. On Water and Sanitation@Δ				Annual Public Exp. On Social Welfare@Δ				Annual Public Exp on Water Management@Δ			
Models	(OLS)	(RE)	(FE)	(Tobit)	(OLS)	(RE)	(FE)	(Tobit)	(OLS)	(RE)	(FE)	(Tobit)
Devolution Reform Dummy	39.55***	39.55***	55.79***	87.19	4.499***	4.499***	5.272***	0.606***	2.513***	2.513***	3.079***	3.039***
	(10.151)	(7.309)	(10.083)	(944.591)	(0.505)	(0.443)	(0.527)	(0.217)	(0.217)	(0.167)	(0.225)	(0.151)
Punjab-Sindh Dummy	44.67***	44.67***		30.05*	0.760	0.760		2.664**	0.953***	0.953***		1.077***
	(7.705)	(8.692)		(17.874)	(0.583)	(0.527)		(1.057)	(0.192)	(0.199)		(0.159)
Population	-1.231***	-1.231***	-0.846***	-0.976***	-0.0204*	-0.0204*	0.0236**	-0.0510***	-0.016***	-0.0161***	-0.0164***	-0.0176***
	(0.175)	(0.175)	(0.209)	(0.344)	(0.011)	(0.011)	(0.011)	(0.017)	(0.004)	(0.004)	(0.005)	(0.003)
Per Capita GDP	0.0012	0.0012	-0.007**	-0.001	0.0001	0.0001	-0.0005***	0.0007***	0.0002***	0.00020***	0.000015*	0.000036*
	(0.001)	(0.002)	(0.004)	(0.004)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)
Constant	6.589	6.589	36.54***	-34.03	-1.956***	-1.956***	-0.707	-0.882	1.057***	1.057***	1.861***	1.590***
	(4.897)	(6.390)	(9.369)	(944.605)	(0.481)	(0.388)	(0.489)	(0.649)	(0.193)	(0.146)	(0.209)	(0.159)
Year Dummy	Included	Included	Included	Included	Included	Included	Included	Included	Included	Included	Included	included
N	136	136	136	136	136	136	136	136	136	136	136	136
R^2 (Within)		0.6918	0.7105			0.8829	0.9003			0.9427	0.9490	
R^2 (Between)		0.9761	0.8347			0.5224	0.120			0.9096	0.6256	
R^2 (Overall)	0.788	0.7885	0.6430		0.85	0.8586	0.6458		0.9419	0.9419		
F/WaldChai2	14.09 (0.000)	369.00 (0.000)	6.80 (0.000)	320.79 (0.000)	31.91 (0.000)	601.30 (0.000)	25.03 (0.000)	104.46 (0.000)	94.02 (0.000)	1604.82 (0.000)	51.62 (0.000)	2558.94 (0.0000)

@ Value expressed in log form; Δ values are in million Rs; Panel regressions robust standard error in parentheses. *$p< 0.10$, **$p< 0.05$, ***$p< 0.01$

6. Conclusion

After outlining a brief history of the system of local government in Pakistan, the paper discussed the Devolution Plan in Pakistan. This was followed by a critical examination of the impact of the Devolution on selected number of the essential social and economic services.

The empirical evidence shows that the Devolution significantly changed the size and magnitude of social and economic investment. The relationship between the Devolution indicator and the majority of socio-economic variables is robust and insensitive to the use of different specification techniques, implying that the public investment in human and social services that by and large improved the living conditions of poor have increased significantly following the introduction of the Devolution since 2000-01.

To sum up, the regression results show that the Devolution has increased the overall delivery of services. The efficacy of the Devolution is evident much more in services like rural development and water management facilities than the education. This indicates the presence of the local elite capture on which a whole range on fiscal federalism literature (permanent among them is Bardhan and Mookherjee, 2005) suggests. Because establishments in the shape of irrigation projects and small size physical infrastructure investments in rural areas may be given to local elites from the local representatives as "political patronage".

Constraint, experienced with the data made it difficult for this research to draw a definite conclusion on the skewness of the social service provision. The data issue also limited this research from measuring and analysing the quality of these services in terms of "units of output" rather than sticking only to the supply of such services measured through the public expenditures. More research is required to investigate the effectiveness of the DevolutionPlan in enhancing the quality of 'untargeted services' that potentially affect the local communities without any differentiation. Theoretically not skewed and untargeted pattern of service distribution is likely to impact positively on the poor and disadvantaged communities more than their rich counterparts.

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APPENDIX A

Table A: Variables Used to Determine Sectoral Allocation Public Resources

1	Police	7	Agriculture
2	Public health	8	Irrigation
3	Social Services	9	Rural Development
4	Education	10	Transport and Communication
5	Health	11	Civil Work
6	Social Security and Welfare		

Ahmed, 2014