



(78-87)

Volume 4 | No. 1 | 2018

SALU-Commerce &
Economics Review
www.cer.salu.edu.pk

Federalism, Decentralization and Economic Growth in Pakistan

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Abstract

This research discovers the influence of fiscal decentralization on economic growth in Pakistan. The secondary data for the period of 33 years from 1980 to 2012 has been used. Regression has been used with the support of Eviews6.1 software. The chief variables like Central Transfers to its provinces, literacy and tax to Gross Domestic Product have significant influence on economic expansion of country. This research has analyzed the horizontal distribution of resources based on population density. The horizontal resources distribution mechanism has been extended through including other elements i.e. inverse population density, poverty, revenue generation, revenue collection and backwardness. The minor weightage has been given to these factors. The study recommends that the horizontal resource distribution must be broadened in real sense by giving appropriate weightage to other factors.

Key Words: Fiscal Decentralization, Economic Growth, Estimation

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1. Background

Fiscal decentralization and its influence on economic development has turned into an interesting subject until today since studies regarding fiscal decentralization are not only considered from the economic viewpoint, but also another perspective such as politics, graphic, and other subjects. Decentralization, or decentralizing governance, refers to the restructuring or reorganization of authority so that there is a system of co-responsibility between institutions of governance at the central, regional and local levels according to the principle of subsidiary, thus increasing the overall quality and effectiveness of the system of governance, while increasing the authority and capacities of sub-national levels. Decentralization could also be expected to contribute to key elements of good governance, such as increasing people's opportunities for participation in economic, social and political decisions; assisting in developing people's capacities; and enhancing government responsiveness, transparency and accountability (UN & UNDP). The reason to conduct this study about fiscal decentralization and its impact on economic growth is that sometimes the findings do not give the same conclusions among the researchers about the effect above topic. It has been usually supposed that Fiscal decentralization has inspiring influence on economic growth and stability because that supports in healthier and fitting execution of public policies. In decentralized system, the governments are in great position to identify about the essential necessities and difficulties of masses. They have no any problem in gathering the valuable facts and figure for mapping out any results oriented strategies for poor and backward areas of country. "The decentralization theorem upholds that if there are various preferences for public goods amongst dominions of similar endowment of these products by central government will generally achieve a lower level of efficiency than one that can be attained by a decentralized provision that allows for differences across jurisdictions, Oates, 1972". Fiscal devolution can be handy in shaping out suitable policies, strategies and can get rid of needless activities of the state. This further elaborated by Bird and Smart, (2002) they discussed that the services to be effectively provided, the receiving transfers need a clear mandate, ample resources and abundant flexibility. Rondinelli (1981) further discussed Fiscal decentralization is a progression by which the tasks and resources from state to provinces are delegated. Therefore, in decentralization, federal administration authorizes the provincial administrations in the way that would certainly assistance in healthier use of funds, enhance the quality of life of the masses and meanwhile divide the responsibilities, Gordin, (2004).

However, from the monetary aspect, decentralization might consequence danger if that has been inadequately designed so that units of federation are able to externalize their costs to others Rodden et al, (2002). Our country is centralized state with central commended tax collection system. The central authority accumulates the majority of income and after that reallocates the income between the central and its units to balance together the horizontal and vertical differences. The financial resources allocation scheme in Pakistan is fortified with a rule and an independent organization, the National Finance Commission, subsequent to every five years, to make sure the fair and careful resources division.

In Pakistan at various occasions and time to time different issues perturbed the method and existing economic resources sharing and that could not prove productive. Deadlocks were practiced time to time and therefore National Finance Commission and horizontal resource sharing breaches. Further, this study intends to discover the strong points and fragilities of the present financial source allocation structure in the

country, in the course of the compilation of its past trends. The accurate and suitable information about the existing resource sharing is supposed to consequence in improved strategy construction and therefore might eventually assist the nation to grab the progression track better and quick. It is therefore very essential to check out the impact of present resources sharing on economic expansion of the nation. Consequently, this research assists in pinpointing the scale of monetary sovereignty of the provincial governments and increases its long run outcomes.

2. Literature review

Justin Yifu Lin and Zhiziang Liu (2000) worked on the fiscal devolution and its impact on economic progress in Republic of China. The researchers used the panel data from twenty-eight of the thirty federating units, including three municipalities Beijing, Shanghai and Tianjin for the period of 1970-93. They used “production function” centred estimation framework, which has been broadly utilized during many pragmatic literature on economic progress by a number of economists. The significant association between fiscal devolution and economic progress was observed in the Republic of China by this pragmatic study. They further found the rural modification, capital accretion, and non-state sector expansion were the chief driving factors of economic progression in China over the past 20 years or so. Further, researchers drew two conclusions, 1st and more generally, is that institutional measures matter. Besides fiscal decentralization, other reforms (the household responsibility system in rural sector and the privatization of institutional sector by the way of expanding the non-state owned enterprises) have also been encouraging to economic progression in China. 2nd according to the data set, fiscal devolution has raised the progression rate in China, chiefly by humanizing the production of the means of production distribution relatively than encouraging additional venture.

Nadir Habibi et al (2001) pointed out the devolution in Argentina by using the set of panel data containing of fiscal factors and socioeconomic for the twenty-three provinces for the period of twenty five (25) years, 1970 to 1994. The Fixed effect model is used in this study. The analysts empirically traced out that armed leaders that lead the growing use of unrestricted resource reduced the sub-national government (provincial governments) finance. While this tendency was reversed as soon as democratic governments came into power and the financial share of the federating units extended all-times tall in 1991. Furthermore, the consequence of political responsibility for progressing in human capital formation has been seen through the considerable insignificant impact of the imitation for dictatorship in accordance with both the processes. In general, during this whole phase (1970-94) many long-term trends, including fiscal devolution and democratization in the end, which strengthened district, federating units’ administrations in a centralized system, had led to a significant reduction in regional inequalities and a significant upsurge in the degree of human development across all regions. Comparing the patterns of devolution across lower-and higher-income federating units, researchers noted that both ration of regionally controlled means of production to all the means of production and fraction of controlled factors of production, which are generated regionally in higher income federating units. However, with the passage of time, the gap of production and progression has been reduced and high economic progression has been observed in locally controlled resources in the less developed federating units. The economists also observed that the disparity in educational benefits and the rate of death for children between low-and high-income federating units has reduced considerably over the

period 1970-94. That is partly due to a speedy increase of an individual's health return and education expenditures in low income federating units. Two indicators of human development "newborn death rate and retention of primary to secondary education" for the insight into the relationship between human development and fiscal devolution are used with some other control variables. Further, the findings of this study show that the toddler death rate is positive and inverse relation with the percentage of income, which is generated regionally. Moreover, both the indicators of devolution were observed positive and considerably connected with dependent variable through the regression results of educational output.

Ebel and Serdar Yilmazl (2002) empirically studied the measurement and influence of fiscal decentralization in OECD by using cross country GFS (Government Finance Statistics) data of the IMF (International Monetary Fund). It was noted that there was a tremendous deal of political devolution in the 1990s, appealing to the fiscal devolution in the next step was a bit mysterious. This can be explained in huge fraction by the truth that it takes time for systems to change from a long history of centralization to devolution. This can be explained in large part by the fact that it takes time to change a long history of centralized devolution. However, the prerequisites for political devolution in several nations, and promises of the current contract are good or ill, to build real government reform.

Atsushi Iimi (2004) empirically investigated devolution and economic progression in 51 countries by using ordinary least square OLS and instrument variable (IV) technique the cross-country data for the period of from 1995 to 2001 in twenty-two very high income, twelve well upper middle, ten lower middle and seven well low-income nations. In this research the Endogenous Progression Model of Davoodi and Zou has been in order to check empirically the outcomes of fiscal devolution on economic progress. The coefficient of fiscal devolution is positive and statistically imperative suggesting that the shift of fiscal tasks to the provincial authorities favourable to economic enhancement.

Naeem Ur Rehman Khattak (2010) empirically investigated the fiscal devolution in Pakistan by using the time series annual figures for the required duration from 1980 to 2007. Since the primary purpose of this study was to have an acquaintance with fiscal devolution and its effects on economic wellbeing of the economy for long period of time, therefore it remained focused on fiscal resources distribution mechanism of Pakistan and for this purpose all the major thoughts and structures working in country were brought under the debate at the beginning of this study. As the issue of resources distribution among centre and provinces is very intricate so this work pointed out multiple issues in fiscal resources distribution process of the country. Criticizing the national finance commission's adaptation of a single criterion that is population for distributing resources among federating units this study has strongly recommended that other noteworthy factors including, "1, inverse population density", "2, revenue generation", "3, backwardness", "4, poverty" and "5, infrastructure" must be considered so that economic discrepancies in resource distribution among provinces may be minimized.

Muhammad Zahir Faridi (2011) focused upon the effect of fiscal devolution on economic expansion in the country Islamic Republic of Pakistan through utilizing the time series yearly data for duration 1972 to 2009. This scholar has used the autoregressive model for ordinary least square estimation. The government's revenue capacity, expenditures and fiscal devolution factors, i.e. tax power have been encouraging and major effect on economic progression says the research. The study

found the complicated and hard circumstances regarding the resources utilization among the central government and sub-national governments in Pakistan. This research favours more power and sovereignty of local and provincial governments in fiscal matters. Fiscal authority will create additional revenue, boost self-reliance and as well build federation units more answerable. Fiscal devolution would not only minimize the dependency of the federating units on centre and would speed up the process of development at grass root levels, but it would also help in increasing the focus of central government on major national issues resulting in boosting the pace of economic development. This would solve the much pestering problem of economic loss due to scarcity of capacity building and unwanted involvement of centre in provincial matters.

3. Research Methodology

This study has used the economic growth of the nation as a dependent variable. The per capita real gross domestic product variable has been reset at the market price 2005. For showing the real performance of economic expansion over a period, the above-defined variable has been uttered in real term gross domestic product deflator based on 2005 year. The income or earning of sub national governments has been captured by utilizing couple of variables. The proportion of federation units' tax income to the Central Government's tax revenue is the initial variable that will show the actual taxation supremacy of federating units and fiscal independence of the sub-national governments. In the same way, central transfers to the provinces have been used for reflecting fiscal devolution. The variable has been taken as the percentage of Gross Domestic Product to be acquainted with the incremental augment and real behaviour of the federal transfer to the provinces. Consequently, these both procedures of fiscal devolution could symbolize the enhancement in development or worsening of the devolution degree. The investment has been captured through the "gross fixed capital formation" and the extent for liberalization of trade has been utilized in the regression. This factor or determiner has been explained through summing up exports and imports. Then it has been divided by gross domestic product at market price. The last two variables that are included in the model are literacy rate and unemployment rate. Moreover, these variables are explained by the human development index.

4. Analysis and Results

For this study, the theoretical model of Davoodi and Zou (1998) has been used. This is well clear and healthy developed model encircling the pressure of resources decentralization over economic progress and expansion. This renowned model has been used by various scientific researches all over the world. The endogenous growth model of Barro's 1990 endogenous progression mode had been extended by them that explain the production function has couple of inputs like (1) public spending, (2) capital. By looking at the economic and fiscal affairs of country, it has been acknowledged that over the period, the couple of tiers of the authorities like perform public expenditures, (1) federal and (2) provincial. These variables are part of this experimental study (1) Log Per capital Gross Domestic Product (LPCGDP), (2) Sub National Government Revenues (SNGR), 3, Federal Transfer to the Provinces (FTTPROV), 4, Trade Openness (TRDOPEN), Tax to Gross Domestic Product (TTGDP), Gross Fixed Capital Formation (GFCF), Literacy Rate (LITR) and Unemployment Rate (UNEMP). For checking out the influence of fiscal decentralization on economic growth LPCGDP has been taken as dependent variable

and all other variables as independent variables in this research. Secondary data has been taken from the reliable source the various issues of Economic Survey of Pakistan. The following equation has been developed and used.

$$\text{LPCGDP} = \beta_0 + \beta_1 \text{SNGR} + \beta_2 \text{FTTPROV} + \beta_3 \text{TRDOPEN} + \beta_4 \text{TTGDP} + \beta_5 \text{GFCF} + \beta_6 \text{LITR} + \beta_7 \text{UNEMP} + \mu_i$$

Here, LPCGDP “Log Per capita Real Gross Domestic Product”, SNGR “Sub National Government Revenues”, FTTPROV “Federal Tax transfer to Provinces”, TRDOPEN “Trade Openness”, TTGDP “Tax to Gross Domestic Product”, GFCF “Gross Fixed Capital Formation”, LITR “Literacy Rate”, UNEMP “Unemployment Rate”, μ_i “Error term” and β “Coefficient”

In Econometric analysis, we have tested the fitness of our model for that the term R square has been used, if R square value lies near to 01 (one) it shows more fitness of the model, but if it is near to 0 (zero) shows weak relationship between the variables of the model. While for checking out the significance, the F-Statistic Test and t Statistic Test have been used.

Table No 01 Regression Results

Regression Results			
“Variables”	“Coefficient”	“Std. Error”	“t-Statistic”
C	4.4932	0.6657	6.7494
OG_GFCF	0.1109	0.0727	1.5248
FTTPROV	0.0721	0.0091	7.9053
LITR	0.0744	0.0080	9.2124
SNGR	0.0520	0.3931	0.1323
R-squared	0.9979	Mean dependent var	9.7510
Adjusted R-squared	0.9974	“S.D. dependent var”	1.0736
S.E of regression	0.0543	“Akaike info criterion”	-2.7793
Sum of squared resid	0.0736	“Schwarz criterion”	-2.4165
Log likelihood	53.8594	“Hannan-Quinn criter.”	-2.6572
F-statistic	1780.048	“Durban-Watson stat”	1.4066
Prob (F-statistic)	0.000		

Results

It can be noticed that the value of R-square is 0.997 near to 01 which shows a strong relationship among the variables and this value tells that 99.7% of the dependent variable is expressed by independent variables, which shows less, very much less amount of the error term. Further, we have tested Multicollinearity for higher value of R^2 and found no Multicollinearity.

Equation:

$$\text{LOG_LPCGDP} = 4.493238 \text{ C} + 0.110970 \text{ LOG_GFCF} + 0.072149 \text{ FTTPROV} + 0.074434 \text{ LITR} + 0.052022 \text{ SNGR} - 3.397956 \text{ TRDOPEN} + 3.111846 \text{ TTGDP} - 0.010736 \text{ UNEMP}$$

The above equation shows that unemployment and trade openness affect negatively on real GDP and while other all variables affect positively. Figures show that one percent

change in gross fixed capital formation affects 11.9% positively on real GDP, 1% change in Federal Tax transfer to the Provinces affects 7.2% positively on real GDP, 1% change in literacy rate affects 7.4% positively on real GDP, 1% change in Sub National Government Revenue affects 5.2% positively on real GDP, 1% change in trade openness affects 33.9 % negatively on real GDP, 1% change in Tax to GDP affects 31.1% positively on real GDP and 1% change in unemployment rate affects 1% negatively on real GDP in country. For the probability, the p-values have been compared with standard values 0.05, so if the p-value lies below 0.05 the null hypothesis would be rejected and if p-value is above 0.05 the null hypothesis would be accepted.

Unit Root Test (ADF)

In this study researchers have tested stationary with the support of (ADF) Augmented Dec fuller test. In this process for stationary unit root is analysed at various levels

1. Without Constant and Trend.
2. With Constant.
3. With Constant and Trend

Decision Rules: If $t_{cal} > ADF$ critical value, null hypothesis cannot be rejected, i.e., means unit root exists. If $t_{cal} < ADF$ critical value, null hypothesis will be rejected, i.e., means unit root does not exist.

Without intercept, At Lag 1 Table No 02 ADF Test

	t- Statistic	prob. *
Augmented Dickey-Fuller test statistic	-4.9148	0.0004
Test critical values:	1% Level	-3.661661
	5% level	-2.960411
	10% level	-2.619160

Method: Least Squares

Variable	Coefficient	Std. Error	t-Statistic	Prob.
AD(LOG_PCGDP(-1))	-0.909890	0.185129	-4.914894	0.0000
sC	0.102350	0.022690	4.510791	0.0001
R-squared	0.454438	Mean dependent var		0.002106
Adjusted R-squared	0.435625	S.D. dependent var		0.058895
S.E. of regression	0.044245	Akaike info criterion		-3.335826
Sum squared resid	0.056770	Schwarz criterion		-3.243311
Log likelihood	53.70531	Hannan-Quinn writer.		-3.305669
F-statistic	24.15619	Durbin-Watson stat		1.961585
Prob(F-statistic)	0.000032			

Computed ADF test-statistics (-4.91) is less than the critical values -3.66, -2.96, -2.61 at 1%, 5% and 10% significant level, respectively), we can conclude to reject H_0 . That means LPCGDP has no unit root problem and the LPCGDP is a stationary series.

5. Conclusions and Recommendations

This study mainly concentrated the fiscal resource distribution mechanism of Pakistan and its impact on economic growth. The issue of resource distribution between federal and provinces and among the provinces never proved to be simple and is always considered a much complex. The resources are distributed among the provinces based on population except seventh NFC, but again the lion weightage 82% has been given

to population and minor weightage to other factors. The core variables of this research that explain the fiscal decentralization and its impact on economic progression are Federal transfers to the provinces and Sub National (provincial) Governments' revenue. The results of both variables are positive. The coefficient of FTTPROV is 0.072 means 7.2% and the coefficient of SNGR is 0.0520 means 5.2%. The other variables GFCF, LITR, TTGDP and their coefficient have 0.110, 0.074 and 3.111 respectively. In the light of the results of different variables, it can be suggested that if more financial resources are transferred to the provinces and they are authorized to generate more revenue that will enhance the Economic progression in Pakistan. The financial position of government becomes very strong to take new projects, invest in education, health, security, communication and other main sectors of the economy. High literacy rate is assured of a high productivity level of human capital and other factors of production. Better position of security and communication attracts to the foreign and local investors to invest in the various sectors of the economy where high returns are expected. This all have a positive impact on economic and social position of the masses in the country. The variable that has high impact on GDP is tax so if the tax collection ratio to GDP is increased that will help to boost the Economic development. Unfortunately, Pakistan is a country that collects fewer taxes due to some reasons. All the people either rich or poor are equally responsible to pay their taxes if not than authority must exercise its power. Less tax collection creates imbalance between governments' expenditures and income. Than government starts borrowing from local and international financial institutions with high interest rate and other conditions. Further, some variables affect negatively, i.e. trade openness and unemployment. It is an open secret that most developing countries face trade deficit and unfavourable balance of payments because they are quite backward in technology. While developed countries are enjoying the advantage of modern technology to produce cheap and high quality products, which attract to all the consumers of the world and in resulting developing countries face trade deficit and unfavourable balance of payments and advanced countries enjoy trade surplus and favourable balance of payment positions. With the passage of time the issue of trade deficit can be resolved when economy grows and use modern technology.

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