

The Effect of Fiscal Decentralisation on the Expenditure of Urban Local Bodies: An Econometric Evidence from Mangalore City Corporation-India

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Abstract:-Fiscal decentralisation refers to the enactment of laws to empower local bodies to collect their own taxes, embark on expenditure and investment activities among others independent of the central or state government. Thus given the enormous challenges such as inadequate infrastructure, unemployment, poverty among others that confront central governments as well local bodies, fiscal decentralisation is advocated to empower local bodies financially to be able to take initiatives to solve most of the challenges at the local level and therefore taking some burden from the central government. Given this backdrop, several countries including India have adopted fiscal decentralisation at varying degrees. This study therefore used time series data from 1987-2015 as well as the OLS econometric regression technique while testing for heteroskedasticity using the Breusch-Pagan / Cook-Weisberg test to investigate the effect of fiscal decentralisation on the expenditure or payments of Mangalore City Corporation in India. The study found fiscal decentralisation to have statistically positive significant effect on payments, capital payments and total expenditure of Mangalore City Corporation. Further, gross domestic income was revealed to have positive significant effects on payments and capital payments of Mangalore City Corporation. Thus, factors that enhance fiscal decentralisation and economic growth need to be instituted by policy makers in India in order to boost expenditure towards curbing the various challenges that confront Local Urban Bodies (ULBs).

Keywords:-Fiscal Decentralisation; Payments; Capital Payments; Total Expenditure; Mangalore City Corporation; India

Introduction:

Fiscal decentralisation simply means empowering local bodies to collect their own taxes, embark on expenditure and investment activities among others independent of the central or state government, with the degree of autonomy varying from country to country.

Thus since globally, governments are being faced with several problems spanning from poverty, unemployment, inadequate access to potable drinking water, poor sanitary and hygienic conditions, poor roads and insufficient supply of

health facilities among others, the argument has been that, central governments should empower local bodies to embark upon certain functions in order to ease the burden on it (the central government). Among local bodies that are given such delegated powers are Urban Local Bodies (ULBs). Thus, the argument has been that, local bodies such as ULBs are much more closer to the local people and therefore have a better understanding of their preferences and challenges as compared to central governments and hence the

need to provide local bodies with some level of autonomy with respect to taxes, expenditure, investment and other activities or responsibilities.

Regarding ULBs, it is opined that, the quest for fiscal decentralisation is very essential given that they are confronted with lots of problems- poverty, unemployment, poor sanitary and hygienic conditions, inadequate access to potable drinking water, insufficient supply of health facilities and poor roads among others- due to rising population.

Based on this backdrop, several countries with India not being an exception have embarked upon some levels of fiscal decentralisation. Thus in 1992 through the 74th Constitutional Amendment Act (CAA), India begun devolution of powers to ULBS. The CAA therefore offered the status of the third level of government to local bodies and hence giving them some sort of power to embark upon financial and administrative duties- to raise their own revenues and make expenditure and investment decisions.

Moreover, given that the 74th CAA has been enacted for more than twenty years now, it is surprising to note that very little is known about its effect on the expenditure as well as revenue of local bodies especially ULBs. It therefore becomes very essential to find out the effect of the enactment on the financial, especially the expenditure performance of ULBs since no developmental project can be embarked upon without spending.

This study therefore investigated the effect of fiscal decentralisation on the expenditure of Mangalore City Corporation in Karnataka State of India.

Theoretically, the Classical theory argues that tax competition and decentralisation between various tiers of government would reduce the quality of public goods and in the end, decrease social welfare (Makreshanska & Petrevski, 2016). Notwithsatnding, the Neoclassical theory argues that, the proximity of decentralised governments to electorates leads to a more sensitive designing of public services taking in to consideration the interregional variations in preferences as well as ensuring a higher responsiveness and accountability of policymakers (Musgrave & Musgrave, 1976 as cited in Beer-Tóth, 2009).

Empirically, Feld, Kirchgässner and Schaltegger (2003), Freinkman and Plekhanov (2009), Jiménez-Rubio (2010), Valaris (2012), Jumadi, Pudjiharjo, Maski and Khusaini (2013), Samadi, Keshtkaran, Kavosi and Vahedi (2013), Moche, Monkam and Aye (2014), Suwandi and Warokka (2013), Devkota (2014) and Soejoto, Subroto and Suyanto (2015) have conducted related studies in other countries.

Precisely on India, Rao (2000), Babu (2009), Bahl, Sethi and Wallace (2010), Kalirajan and Otsuka (2010), Jha, Kang, and Nagarajan (2011), Mohapatra (2012), Govil (2014), Paul (2014) and Gaur (2015) have conducted related studies.

Notwithstanding, none of the above studies solely concentrated on Mangalore City Corporation (ULB) in India. Also most of the studies on India used descriptive or conceptual analysis which may not reveal the actual effect of fiscal decentralisation while those who used econometric models used comparatively older data. This study therefore contributed immensely to literature by being the first to the best of the authors' knowledge to use a comparatively recent data (1987-2015) as well as a time series econometric approach to analyse the effect of fiscal decentralisation on the expenditure or payments of Mangalore City Corporation.

Data and Methods:

This study used data from Mangalore City Corporation and the World Development Indicators of the World Bank (2018). Therefore, the study used time series data from 1987-2015. Concerning the empirical estimation techniques, since the data was time series, the study employed the Ordinary Least Square (OLS) regression as the empirical econometric estimation technique with the Breusch-Pagan / Cook-Weisberg test used to test for heteroskedasticity. Therefore the empirical models used by the study were specified below:

$$\ln EL_t = \alpha_0 + \alpha_1 FD_t + \alpha_2 \ln GDI_t + \alpha_3 \ln INF_t + \alpha_4 \ln POP_t + \varepsilon_t \quad (1)$$

$$\ln CEL_t = \alpha_0 + \alpha_1 FD_t + \alpha_2 \ln GDI_t + \alpha_3 \ln INF_t + \alpha_4 \ln POP_t + \varepsilon_t \quad (2)$$

$$\ln TEL_t = \alpha_0 + \alpha_1 FD_t + \alpha_2 \ln GDI_t + \alpha_3 \ln INF_t + \alpha_4 \ln POP_t + \varepsilon_t \quad (3)$$

Where the dependent variables were payments ($\ln EL$), capital payments ($\ln CEL$), and total expenditure ($\ln TEL$), all obtained from Mangalore City Corporation. Thus we used payments ($\ln EL$),

capital payments (*lnCEL*) and total expenditure (*lnTEL*) as proxies for expenditure.

Also, the main independent variable-fiscal decentralisation (FD)-was a dummy variable (1/0). Hence 1 referred to during fiscal decentralisation (1992-2015) while 0 referred to pre- fiscal decentralisation (1987-1991) period.

Concerning the control variables- gross domestic income (*lnGDI*), inflation (*lnINF*) and population size (*lnPOP*) - were sourced from the World Development Indicators of the World Bank (2018). Also α_0 represented the intercept of the regression equations, α_s represented the coefficients of their respective variables and ϵ_t showed the error term at time t.

In addition, all the variables except financial decentralisation that was a dummy variable were expressed in natural logarithm (*ln*) forms in order to bring them to the same unit.

Results and Discussion:

This section presented and discussed the OLS regression results concerning the effect of fiscal decentralisation on the payments, capital payments and total expenditure of Mangalore City Corporation.

Table 1: Regression Results on Effect of Fiscal Decentralisation on Payments of Mangalore City Corporation:

Variable	Coefficient	Standard Error	P-value
FD	.7330359	.1653337	0.000
<i>lnGDI</i>	3.755473	1.175561	0.004
<i>lnINF</i>	-.0549973	.0917415	0.554
<i>lnPOP</i>	10.67462	6.670591	0.123
Constant	-150.4415	60.27303	0.020

Source: Author’s Computation from World Bank (2018) and Mangalore City Corporation. **N=29, Prob >F= 0.0000, R-squared = 0.9791, Adj R-squared = 0.9756**

In Table 1 regarding the effect of fiscal decentralisation on the payments of Mangalore City Corporation, it was revealed that, fiscal decentralisation had a 1% significant coefficient of .7330359 given that its p-value of 0.000 was below 0.01. Thus, a 1 percent rise in fiscal decentralisation was revealed to lead to a 0.73% rise in payments of Mangalore City Corporation.

In addition, gross domestic income had a 1% significant coefficient of 3.755473 given that its p-value of 0.004 was below 0.01. Hence a 1 percent rise in gross domestic income was revealed to lead to a 3.76% rise in payments of Mangalore City Corporation.

Further, both population and inflation had respective coefficients of 10.67462 and -.0549973 though they were not significant since their p-values were more than 0.01, 0.05 and 0.1. Therefore both population and inflation were found to have no statistically significant effects on payments of Mangalore City Corporation.

Table 2: Breusch-Pagan / Cook-Weisberg test for heteroskedasticity:

Ho: Constant variance	
Chi2(1)	Prob > chi2
1.15	0.2827

Source: Author’s Computation from World Bank (2018) and Mangalore City Corporation

Also, results of the Breusch-Pagan / Cook-Weisberg test for heteroskedasticity in Table 2 revealed the absence of heteroskedasticity in the effect of fiscal decentralisation on payments of Mangalore City Corporation model.

Table 3: Regression Results on Effect of Fiscal Decentralisation on Capital Payments of Mangalore City Corporation:

Variable	Coefficient	Standard Error	P-value
FD	.6647787	.2159497	0.005
<i>lnGDI</i>	3.086045	1.535453	0.056
<i>lnINF</i>	.0319036	.1198277	0.792
<i>lnPOP</i>	7.86504	8.712757	0.376
Constant	-120.1173	78.72529	0.140

Source: Author’s Computation from World Bank (2018) and Mangalore City Corporation. **N=29, Prob >F=0.0000, R-squared = 0.9567, Adj R-squared = 0.9494**

In Table 3 regarding the effect of fiscal decentralization on capital payments of Mangalore City Corporation, it was revealed that, fiscal decentralization had a 1% significant coefficient of .6647787 given that its p-value of 0.005 was below 0.01. Hence, a 1 percent rise in fiscal decentralization was revealed to lead to a 0.66% rise in capital payments of Mangalore City Corporation.

Also, gross domestic income had a 10% significant coefficient of 3.086045 since its p-value of 0.056 was below 0.1. Therefore a 1 percent rise in gross domestic income was revealed to lead to a 3.09% rise in capital payments of Mangalore City Corporation.

In addition, both population and inflation had respective coefficients of 7.86504 and .0319036 even though they were insignificant since their p-values were more than 0.01, 0.05 and 0.1. Thus both population and inflation were found to have no statistically significant effects on capital payments of Mangalore City Corporation.

Table 4: Breusch-Pagan / Cook-Weisberg test for heteroskedasticity:

Ho: Constant variance	
Chi2(1)	Prob > chi2
2.63	0.1050

Source: Author’s Computation from World Bank (2018) and Mangalore City Corporation

Further, findings of the Breusch-Pagan / Cook-Weisberg test for heteroskedasticity in Table 4 revealed the absence of heteroskedasticity in the effect of fiscal decentralisation on capital payments of Mangalore City Corporation model.

Table 5: Regression Results on Effect of Fiscal Decentralisation on Total Expenditure of Mangalore City Corporation:

Variable	Coefficient	Standard Error	P-value
FD	.7806273	.2147625	0.001
lnGDI	2.594287	1.527012	0.102
lnINF	.1531988	.119169	0.211

lnPOP	4.867743	8.664858	0.579
Constant	-94.43912	78.29249	0.239

Source: Author’s Computation from World Bank (2018) and Mangalore City Corporation **N=29, Prob >F= 0.0000, R-squared = 0.9596, Adj R-squared = 0.9529**

In Table 5 concerning the effect of fiscal decentralization on total expenditure of Mangalore City Corporation, it was revealed that, fiscal decentralization had a 1% significant coefficient of .7806273 since its p-value of 0.001 was less than 0.01. Thus, a 1 percent rise in fiscal decentralization was revealed to lead to a 0.78% rise in total expenditure of Mangalore City Corporation.

Also, inflation, gross domestic income and population had respective coefficients of .1531988, 2.594287 and 4.867743 with none of them being significant. Thus inflation, gross domestic income and population were revealed to have no statistically significant effects on total expenditure of Mangalore City Corporation.

Table 6: Breusch-Pagan / Cook-Weisberg test for heteroskedasticity:

Ho: Constant variance	
Chi2(1)	Prob > chi2
0.83	0.3610

Source: Author’s Computation from World Bank (2018) and Mangalore City Corporation

Moreover, results of the Breusch-Pagan / Cook-Weisberg test for heteroskedasticity in Table 6 revealed the absence of heteroskedasticity in the effect of fiscal decentralisation on total expenditure of Mangalore City Corporation model.

Conclusion:

This study investigated the effect of fiscal decentralisation on the expenditure (payments, capital payments and total expenditure) of Mangalore City Corporation from 1987-2015 using the OLS regression technique. The study found fiscal decentralisation to have statistically positive significant effect on payments, capital payments and total expenditure of Mangalore City

Corporation. Further, gross domestic income was revealed to have positive significant effects on payments and capital payments of Mangalore City Corporation. Therefore it can be concluded that, fiscal decentralisation increased the payments, capital payments and total expenditure of Mangalore City Corporation. Also, it can be concluded that, as gross domestic income increased, payments and capital payments of Mangalore City Corporation increased. Thus, factors that enhance fiscal decentralisation and economic growth need to be instituted by policy makers in India in order to boost expenditure towards curbing the various challenges that confront ULBs.

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