

An investigative analysis about the understanding and determinants, if any, of the Self Economic Dependency Ratio (SEDR) in the select Gram Panchayats of West Bengal: A case study in the district of Bankura

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Abstract

Objectives: (1) Compare and contrast the status of Self Economic Dependency Ratio (SEDR) in between two ideologically different political set up of fifteen select GPs in the district of Bankura in West Bengal. (2) Panel data regression analysis was carried out to unravel and explain, if possible, the variations of Self Economic Dependency Ratio (SEDR) by the select Politico- Socio-Economic factors of the select village Panchayats, (2) and also to understand the relationship, if any, between the Grants-in-aid and the Self Economic Dependency Ratio (SEDR) of the Village Panchayats under study for verifying the existing literatures about the relationship between Grants-in-aid and Own Source Revenue (OSR) / economic development albeit with an alternative indicator namely, Self-Economic Dependency Ratio (SEDR) and finally (4) prescribing ways and means especially to the Government of West Bengal for bringing about more participatory and inclusive in nature traits into the system of Panchayat financing.

Methodology: In addition of conventional Desk research, field survey, Interview and Focus Group Discussions use of Panel data regression analysis with suitably chosen models using both STATA and SPSS software were meticulously used to arrive at important observations at the end.

Findings: In majority sample Panchayats (53.33%) growth rates in Total expenditure during the TMC ruled government became negative which was one of the important reasons for higher self-economic dependency ratio during the TMC ruled government in comparison to the Left front led government. On the issue of self-economic dependency ratio as an important indicator for strengthening own source revenue generation capacity to meet their own basic needs or as a signal of improvement in gram Panchayat finance has been witnessing marginal improvement over time and the change in political set up could only alter the situation marginally. Our panel data regression analysis found that SEDRs were negatively influenced by the percentage of Below Poverty Line Households and positively by the Political regimes. Thus a sign of improvement in terms of own source revenue generation capacity of the select village Panchayats was at least ushered in during the TMC ruled government. The relation between SEDR and Grants-in-aid was found to be negative and significant. Thus result (significant negative relation between SEDR and Grants-in-aid) did not support the earlier findings in the literature of Panchayat financing.

Application/Improvement: Using Panel data regression analysis to explain the variations of Self Economic Dependency Ratio (SEDR) by the select Politico- Socio-Economic Indicators, if any, of the select village Panchayats was undoubtedly a significant departure from the earlier studies. Elaborative study on the nature and pattern of own resource mobilization, Total expenditure and finally via an alternative and more effective indicator namely, Self-Economic Dependency Ratio (SEDR) under ideologically different political dispensations was also another distinctive feature of the study.

Keywords: Panchayati Raj Institutions, Self-economic Dependency Ratio, Panel data, Politico-socio-economic factors.

1. Introduction

West Bengal was one of the foremost pioneering states in Indian federalism made a humble beginning of a three-tier Panchayati Raj System (PRI) for grassroots local governance and development. To achieve these desired goals, the state has been continuing its rural decentralization effort by ensuring compulsory regular elections to PRIs, allowing them to deliver minimum services at the grass roots with increasing responsibility by implementing various rural development oriented of both the state and central government programmes and finally targeting the development goals as an inalienable bureaucracy part of the Panchayati Raj Institutions. Undoubtedly the PRIs in the state have grown and matured over the years but its credibility of delivering inclusive growth via all round participatory approach through involving the rural people at least to generate their own resources to meet their own minimum day to day needs without relying on central government schemes is still a serious issue needed further in-depth serious research.

The issue of low collection of Own source Revenue (OSR) at Village Panchayats has been the main theme of numerous research studies which have examined the various issues for its cause and come out with various recommendations. But in short its impact and implementation at the ground level was of minimal, feeble and selective in nature. Reluctance on the part of the GPs to mobilize own revenue has been seen as a main reason for low OSR. Also gram Panchayat's (GPs) involvement in implementation of several developmental schemes of the state and central governments is stretching their already scarce resources and also making them insensitive and irresponsible local body and thus adversely affecting their capacity to collect own revenues. Nonetheless, some GPs seem to do better in collecting revenues than others [1]. Some studies have found a positive correlation between economic development and the level of OSR but studies relating to politico- socio-economic indicators and collection of own source funds are rarely available. This article is perhaps the first of its kind an investigative attempt to identify the determinants of Self Economic Dependency Ratio (SEDR) with the select Politico-socio-economic factors, if any, its relation with Grants-in-aid.

The article is organized into five sections. The first section reviews the important studies on trends and magnitude of local government expenditures, state-local financial transfers and the nature and pattern of own source revenue mobilization under Panchayati raj institutions across India over time. Database and methodology are analyzed in the second section. The third section throws light on the Panel data regression analysis regarding Self-economic dependency ratio (SEDR) and Grants-in-aid and the relationship, if any, between the select Politico-Socio-Economic factors and Self-economic dependency ratio (SEDR) of the fifteen select Panchayats at the district of Bankura in West Bengal. The last section is about concluding observations and policy prescriptions.

2. Literature survey

The important studies are encapsulated below:

The book [2] explained elaborately that there was lack of integration among the institutions of local self-government in the broader federal system in India and this aspect was never seriously taken into account before launching social welfare schemes to the rural poor. In a study [3] based in Kerala concluded that the pressure to spend on social welfare and development programmes has outpaced the growth of its own revenue generation capacity. Another important study [4] in West Bengal has found and concluded that that its own source revenue collection and administration machinery were continuously unimportant endeavor of the Panchayats. On the other hand a land mark study [5] in the state of Karnataka corroborated the now generally held position that economic development plays an important part in a GP's ability to enhance its own source revenue base. Here it was found that population, proportion of the SC/ST, proportion of BPL households and proportion of marginal workers could significantly explained the variations of OSR collections.

Another article [6] concluded that the capacity and ability of their own resource generations to meet their own expenditures was the only precondition to declare themselves as financially empowered institutions. Based on an analysis of three villages in Tamil Nadu, the article [7] concluded that positive outcomes could be witnessed if the element of competition was introduced among Panchayats, prized them financially and instituting a viable rural development funds to get access to the debt capital. But if a country wishes to spend meaningful expenditures through local governments, then the local governments needed access to some significant revenues for which they were politically responsible [8].

Another relevant study [9] made it clear that though participatory approach in fiscal decisions at the community level was a constitutional pre-condition for bringing about inclusive growth at the grass roots, but in real practice it was the subversion of constitutional provision in rural areas. The system of government finance was so skewed and even more centralized on the financing side of the budget equation: 96% of all revenues raised are at the state government level, and rural local governments account for less than one percent of all own-source revenues raised. The study by [10] corroborated the fact even in West Bengal where the picture was more or less same. Another important study [11] concluded that financial autonomy of rural local governments was very weak because they were mainly depended on the quantum of untied grants they received from the governments.

The study [12] came out with the same conclusion and concluded that the assigned tax rights were not fully explored and used by the Panchayats and non-tax revenue was the main source of their own revenue. Thus from the above brief literature studies we could infer that discourses on trends and magnitude of local government expenditures and state-local financial transfers had dominated the field. But studies on own resource mobilization via Self-economic dependency ratio under ideologically different political dispensations, on the relationship between Self-economic dependency ratio and grants-in-aid and also with the important Politico-Socio-economic indicators especially at the level of Panchayats (i.e., at the disaggregated level) had received lesser attention so far. Besides the earlier studies as mentioned above covered very short period of time series data only and in most of the cases not exceeding 5-6 years.

3. Objective

The objectives of the present study are manifold which are as follows:

(1) Compare and contrast the status of Self Economic Dependency Ratio (SEDR) in between two ideologically different political set up of fifteen select GPs in the district of Bankura in West Bengal, India. (2) Panel data regression analysis was carried out to unravel and explain, if possible, the variations of Self Economic Dependency Ratio (SEDR) by the important select Politico- Socio-Economic factors of the select village Panchayats, and (2) to understand the relationship, if any, between the Grants-in-aid and the Self Economic Dependency Ratio (SEDR) of the Village Panchayats under study for verifying the existing literatures about the relationship between Grants-in-aid and Own Source Revenue (OSR) / economic development albeit with an alternative indicator namely, Self-Economic Dependency Ratio (SEDR) and finally (4) prescribing ways and means especially to the Government of West Bengal for bringing about more participatory and inclusive in nature traits into the system of Panchayat financing.

4. Database and Methodology

1. Selection of sample size and data sources

Bankura district consists of 23 blocks and total 190 gram Panchayats. We have selected fifteen Panchayats out of six blocks using multi-stage random sampling method. The annual and periodical reports of the Examiner of Local Audit Report, State Finance Commission's Reports of the State, Central Finance Commission Reports, Annual Administrative Reports, Panchayat and Rural Development, Government of West Bengal, Annual Technical Inspection Report on Local Bodies in the State were used to collect data relevant to our study.

2. Methodology

Both desk research and field survey were adopted to provide valuable observations in the above mentioned study.

1. Desk Research: This included the following: An elaborate study was undertaken of the state of fiscal decentralization in India, in general, and some selected states including West Bengal in particular.
2. Field survey: A questionnaire based survey was conducted in a sample of 15 gram Panchayats to collect data on the practical issues of revenue collection faced by the existing revenue collection machinery, Self-economic dependency ratio of the select Panchayats and also on their politico-socio-economic features.
3. Interview and Focus Group Discussions were conducted in all select GPs under study with (i) the functionaries (ii) Tax Collectors and (iii) tax payers in order to bring about important suggestions for the long term betterment of the institutions.

4. Application of Econometric Models: Panel data regression analysis along with suitably chosen model using both STATA and SPSS Software was mainly used to explain the variations of Self Economic Dependency Ratio (SEDR) and Grants-in-aid each separately by the Politico- Socio-Economic Indicators, if any, of the select village Panchayats for twelve financial years (2005-06 to 2016-2017). Besides elaborative study on the nature and pattern of own resource mobilization via alternative and more effective indicator namely, Self-Economic Dependency Ratio (SEDR) under ideologically different political dispensations was analyzed using averages, percentages etc.

3. Analysis and Interpretation

This section is divided into the following sub-sections:

1. Trend and pattern of OSR, Total expenditure (TE and) Self-economic dependency ratio under two different political regimes

From Table 1 it was found that overall average growth percentage and the annual growth rate per Panchayat of own source revenue (OSR) during the Left front ruled government (2005- 2011) were found to be significantly greater than the Trinamool Congress (TMC) led government (2011-2017). But in terms of self-economic dependency ratio which is the ratio between own source revenue and total expenditure, the overall performances on these parameters during the Trinamool Congress led government were found to be a shed better than the Left front led government. But under the head of total expenditure the overall performances of aggregate growth rate percentage and annual growth rate percentage per Panchayat were found to be slightly better during the Trinamool led government. These results appear to be confusing and contradictory one. The underlying reasons for the above mentioned contradictory results are as follows:

During the Trinamool Congress (TMC) ruled government there were only six (46.66%) out of fifteen panchayats namely, Baidyanathpur, Dhanara, Gangajalghati, Gobindadham, Jagdalla-2, Khatra-2 and Purandapur where positive overall growth rates on total expenditure ranging between 2 to 43.41 % points were reported with an exception of 977.10% point reported in one panchayat namely, Jagdalla-2. The remaining nine gram Panchayats, i.e., 53.33% Panchayats received negative growth rates ranging between -61.95 to -2.64% points. Thus in majority Panchayats (53.33%) growth rates in Total expenditure during the TMC ruled government became negative which was one of the important reasons for higher self-economic dependency ratio during the TMC ruled government in comparison to the Left front led government. On the other hand during the Left front ruled government there were only two (13.33%) village Panchayats where negative growth rates (-20.04% and -4.53% respectively) on total expenditure were reported and in majority cases, i.e., in 86.66 % Panchayats the growth rates for total expenditure were positive ranging between 8.70 to 171.43 % points.

These trends were a clear signal to the fact that the funds received pattern mainly from the Central government during the TMC ruled government was inconsistent and erratic in nature. This inconsistency of receiving funds might rise to the important issue of improper utilization of Central government funds because timely utilization of funds was the prerequisite conditions for timely receiving of funds. Thus on the issue of self-economic dependency ratio as an important indicator for strengthening own source revenue generation capacity to meet their own basic needs or as a signal of improvement in gram Panchayat finance has been marginally improving over time and the change in political set up could alter the situation marginally.

From the trend and pattern of OSR, Total expenditure (TE) and Self-economic dependency ratio under two different political regimes on fifteen select village Panchayats, we found that there was diversity in the mix of Self-economic dependency ratios (SEDR) and also revenue growth over time. However, based on aggregate trend analysis, we cannot decisively argue whether the Self-economic dependency ratios of gram Panchayats were related to the underlying economic capacity or grants-in-aid which were the major component of Total expenditure or any other Politico-socio-economic attributes of the study area. Therefore, here we pose a simple empirical question: what might be the possible factors explaining the variations in the SEDRs as reported by the select village Panchayats? For getting answer to the above mentioned research question we are dividing the whole analysis into two parts: Firstly, we apply panel data regression analysis to examine the relationship between Self-economic dependency ratio and Politico-socio-economic indicators of the select village Panchayats and secondly, apply the same technique to examine the relation, if any, in between SEDR and grants-in-aid.

Table 1. Trend and pattern of OSR, Total Expenditure and Self-economic dependency ratios during 2005-08 to 2014-17 (Base year 2011=100)

GP/ Years	Own Source Revenue(Rs.in lakh)				Total Expenditure(Rs.in lakh)				Self-Economic Dependency Ratio			
	2005-08	2008-11	2011-14	2014-17	2005-08	2008-11	2011-14	2014-17	2005-08	2008-11	2011-14	2014-17
Baidyanathpur	3.84	1.83	2.83	6.84	260.4	208.21	154.97	180.04	1.475	0.879	1.826	3.799
Ban-Asuria	2.08	3.45	5.13	5.39	73.39	105.06	131.02	127.56	2.834	3.284	3.915	4.225
Bikna	1.65	3.14	6.83	8.92	84.86	92.24	130.06	112.71	1.944	3.404	5.251	7.914
Dhanara	1.03	2.39	3.31	5.24	105.54	159.79	166.97	172.6	0.976	1.496	1.982	3.036
Gangajalghati	2.48	3.91	4.01	5.94	85.4	137.82	92.56	132.74	2.904	2.837	4.332	4.475
Gobindadham	1.38	3.35	2.55	10.1	83.07	116.4	83.42	118.17	1.661	2.878	3.057	8.547
Gorabari	4.44	8.33	9.13	14.8	66.25	119.34	195.73	178.81	6.702	6.980	4.665	8.277
Hatgram	0.24	0.88	1.37	2.03	49.72	115.94	140.38	119.42	0.483	0.759	0.976	1.700
Jagdalla-2	1.86	2.36	5.26	5.45	53.1	82.43	11.57	124.62	3.503	2.863	45.462	4.373
Khatra-2	0.97	3.69	18.05	7.39	59.08	160.36	193.79	197.67	1.642	2.301	9.314	3.739
Masiara	1.99	3.62	1.46	3.14	124.93	223.77	201.7	76.75	1.5929	1.6177	0.7238	4.0912
Purandarpur	2.14	3.4	16.3	9.18	44.76	73.42	87.38	124.16	4.7811	4.6309	18.6542	7.3937
Raghunathpur	0.51	5.33	1.79	3.89	68.45	107.01	138.9	95.3	0.7451	4.9808	1.2887	4.0818
Sanbandha	2.06	2.53	6.84	4.59	61.58	99.9	141.37	100.17	3.3452	2.5325	4.8384	4.5822
Supur	3.12	3.46	4.27	5.12	308.66	294.69	231.83	179.49	1.0108	1.1741	1.8419	2.8525
AGR (%) per GP	147.83		54.03		58.79		62.75		54.45		71.68	
Annual Growth Rate	24.64		9.01		9.80		10.46		9.08		11.95	

Source: Compiled from Unpublished Local Audit Reports and Own Calculations

2. A panel data regression analysis of self-economic dependency ratio and select politico-socio-economic factors of the sample village Panchayats

For model selection in Panel data regression analysis we have applied two tests, namely, Breusch-Pagan Test and Hausman Test. The estimated value of the Breusch-Pagan test statistics is 0.16 which was found to be statistically insignificant. So from Breusch-Pagan test it can be concluded that the suitable model for Panel data regression analysis is Pooled Model. Further we have carried out the Hausman test whose estimated value of the test statistic is 7.29 which was again found to be statistically insignificant. Thus combining the results of Hausman and Breusch-Pagan Tests it can be concluded that the appropriate model would be here Pooled Model and the estimated results of the Pooled Model were noted below:

$$Y_{i,t} = -7.571 + 0.00X_{1i,t} + 0.009X_{2i,t} + 0.058X_{3i,t} - 0.092X_{4i,t} + 0.063X_{5i,t} + 2.240X_{6i,t}$$

(-0.485) (0.137) (0.607) (1.259) (-2.279) (1.070) (2.05)

Notes: [t values are given in the parentheses *, ** imply significant at the 1%, 5% level respectively]

Where $Y_{i,t}$ is the SEDR for the i-th individual village panchayat (i can take a value from 1 to 15) and t is for the two time periods 2006-07 and 2015-2016,

- $X_{1i,t}$ = Population Density,
- $X_{2i,t}$ = Sex Ratio,
- $X_{3i,t}$ = % of SC and ST Population,
- $X_{4i,t}$ = % of Below Poverty Line Households,
- $X_{5i,t}$ = % of Elected Family Members,
- $X_{6i,t}$ = Dummy for Political Regimes (which is 0 for the Left Front Rule and 1 otherwise),

Here the estimated t values for both $X_{4i,t}$ and $X_{6i,t}$ are statistically significant at 5% level. Thus we can conclude that SEDRs are negatively influenced by the percentage of Below Poverty Line Households and positively by the Political Regimes. Thus, if the number of below poverty line households decreases then it will lead to an increase in Self-economic dependency ratio of the select village Panchayats. This result was incommensurate with the real life situation and the common belief in Panchayats financing because poor economic condition was the main obstacle or culprit to make people economically dependent to meet their daily needs on government grants. On the other hand a change in political regime from the Left front ruled government to the TMC led government led to an increase in Self-economic dependency ratio. Thus a sign of improvement in terms of own source revenue generation capacity of the select village panchayats was at least ushered in during the TMC ruled government.

3. Panel data regression analysis of self-economic dependency ratio and grants-in-aid in the sample village Panchayats

Here the estimated value of the Breusch-Pagan test statistic was 70.01 which was found to be statistically significant at the 1% level. So from Bruesch-Pagan test it can be concluded that the suitable model for Panel data regression analysis is Random effect model. Further we have carried out the Hausman Test whose estimated value of the test statistic was 1.55 which was also statistically insignificant. Therefore, on the basis of Hausman Test we found that the suitable model is here the Random effect model and the estimated results of this model are as follows:

$$Y_{i,t} = 4.751* - 0.006**X_{1i,t}$$

(6.28) (-3.266)

Notes: [t values are given in the parentheses, *, ** imply significant at 1%, 5% level respectively]

Where $Y_{i,t}$ is the Self-economic dependency ratio and $X_{1i,t}$ is the Grants-in-aid for the i-th individual at time t (i can take value from 1 to 15 and t is from 1 to 12).

The relation between Self-economic dependency ratio and Grants-in-aid was found to be negative and significant. Our finding of negative significant relation between SEDR and Grants-in-aid does not support the earlier findings in the literature of Panchayat financing where it was stated that more grants-in-aid proved to be an added incentive factor for strengthening the capacity of more own source revenue generation. But in our study it was found that more funds received in terms of grants-in-aid worked as a dampening factor for the select Panchayats to become economically more self-reliant. This finding is quite likely because more funds received mainly through central sponsored schemes made the Panchayats' functionaries complacent and parasite. Most of the times they were only interested to show the villagers that they are trying their best to deliver services at the grass roots by performing the tedious nitty-gritty's for timely utilization of the schemes. In reality the Panchayats' functionaries and the already stretched administration machinery hardly bother and have time to devise innovative methods for strengthening the revenue base of own resource generation capacity of the Panchayats.

5. Concluding observations and policy prescriptions

From the above discussion and analysis we can draw the following main concluding observations: Overall average growth percentage and the annual growth rate per Panchayat of own source revenue (OSR) during the Left front ruled government (2005- 2011) were found to be significantly greater than the Trinamool Congress (TMC) led government (2011-2017). But in terms of self-economic dependency ratio which is the ratio between own source revenue and total expenditure, the overall performances on these parameters during the Trinamool Congress led government was found to be a shed better than the Left front led government. The panel data regression analysis between Self-economic dependency ratio (SEDR) and the select Politico-socio-economic factors for the select village Panchayats also subscribes the same view. In majority Panchayats (53.33%) growth rates in Total expenditure during the TMC ruled government became negative which was one of the important reasons for higher self-economic dependency ratio during the TMC ruled government in comparison to the Left front led government. In our panel data study between Self-economic dependency ratio and Grants-in-aid it was observed that more funds received in terms of grants-in-aid worked as a dampening factor for the select Panchayats to become economically more self-reliant.

The practice of Panchayat financing in the select Panchayats testifies the common fact that still in West Bengal the self-economic dependency ratio as an important indicator of strengthening the base of own resource generation capacity appears to be out of balance by comparison with one that would emphasize financial autonomy for rural local governments. More than 70% of the population in the state still lives in rural areas, but rural local governments account for less than 17% of total state and local government spending. Much of this amount is funded by Central government grants which limits the fiscal autonomy of rural local government. One point of suggestion here is to strengthen the functioning of Gram sabhas by convening meetings regularly where the spending for the schemes are elaborately discussed and participatory decisions taken because it is only social audit through the gram sabhas that can effectively ensure adherence to prescribed procedures and transparency in the spending of Panchayat money. The suggestions given above constitute a call for action. If they are taken seriously and implemented conscientiously in letter and spirit, Panchayati raj may yet come to flourish within our generation in the land of Mahatma Gandhi.

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