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Performance of Selected KMA and Non-KMA Municipalities of West Bengal: Looking through the Combined Financial Management Performance Index

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Abstract

Municipal Financial Management Analysis-based research studies, especially on the fiscal health of municipalities in West Bengal, have been very scarce in recent times, and the available studies are largely confined to municipalities within the Kolkata Metropolitan Area (KMA). These analyses primarily focus on the solvency dimension, often overlooking other vital financial management dimensions. Against this backdrop, this paper concentrates on the analysis of the financial management of municipal bodies in West Bengal across all categories and groups by developing a Combined Financial Management Performance Index (CFMPI) based on eight indicator ratios under two vital yet less-explored dimensions, namely, Budget Implementation Management and Financial Autonomy, covering a ten-year period from 2012-13 to 2021-22. Furthermore, the study ranks selected municipalities based on index scores at the individual level as well as at the group and category levels. The study enables inter-municipal comparisons while also providing deeper insights into the structural inefficiencies and fiscal dependencies that influence municipal financial performance. The study found that, except for Haldia, most municipalities in West Bengal performed poorly in both Budget Implementation Management and Financial Autonomy. However, non-KMA municipalities performed slightly better than municipalities belonging to the KMA category, although their performance also remained far below acceptable benchmarks.

Keywords: Combined Financial Management Performance Index, Financial Management, Municipal Finance, Municipal Fiscal Health

JEL Classification Codes: H70, H71, H72, H77, R51

1. Introduction

The role of urban areas as a driver of growth of the country has increased significantly, especially in recent times, that can be reflected in the fact that 63 per cent of the Gross Domestic Product (GDP) is contributed by the urban areas. The urban areas are governed by the urban local bodies in India—which we commonly call "Municipalities". In fact, there are eighteen obligatory functions that the municipal bodies have to perform for the smooth and sustainable management of the urban areas and to be able to continue this endeavour, urban local bodies must mobilise their resources effectively and control expenditures through optimum municipal financial management practices. However, there has been a gap, especially in recent times, in reflecting the current municipal fiscal health scenario, particularly focusing on budget implementation management and financial autonomy aspects. This necessitates the present study, which aims to enable a holistic

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understanding of the financial health of municipal bodies, ensuring representation of all categories and groups across the state from these two dimensions.

2. Literature Review

Abundant research and studies have been conducted on municipal finance and municipal financial management in several states of India (Nallathiga, 2012; Bandyopadhyay, 2013; Mohanty, 2014; Chatterjee & Mishra, 2014; Pierce, 2016; Jariwala, 2016; Naskar, 2017; Das & Chattopadhyay, 2018; Ahluwalia, 2019; Subalakshmi, 2022), primarily focusing on sustainability and efficiency aspects. However, the municipal financial scenario in West Bengal is largely concentrated on municipalities within the Kolkata Metropolitan Area (KMA), with relatively little attention paid to non-KMA municipalities. Additionally, the major portion of these financial management analyses is constructed on solvency dimensions (Chaney *et al*., 2002; Dennis, 2004; Wang *et al*., 2007; Ritonga, 2014; Naskar, 2014; Dutta & Majumder, 2023). Very few studies have focused on Financial Autonomy dimensions (Chattopadhyay, 2004; Chattopadhyay, 2011; Das & Chattopadhyay, 2018; Kopidani, 2018; Kopanska, 2022), and the Budget Implementation Management dimension has been almost entirely ignored. These research gaps have motivated a fresh research initiative to assess the financial management of municipal bodies in West Bengal across all groups and categories of municipalities, focusing on these two less-researched dimensions.

Table 1. Selection of twelve sample municipalities for the study

Category of the selected municipality (s)	Group or type of the selected municipality	Name of the selected sample municipalities
KMA	A	Maheshtala Municipality
	B	Hooghly Chinsurah Municipality
	C	Barrackpore Municipality
	C	Champdany Municipality
	D	Budge Budge Municipality
	E	Pujali Municipality
Non-KMA	A	Burdwan Municipality
	B	Haldia Municipality
	C	Midnapore Municipality
	D	Old Malda Municipality
	D	Rampurhat Municipality
	E	Tarakeswar Municipality

3. Methodology

3.1 Selection of Sample

Municipalities in West Bengal are categorised into two categories, *i.e.*, Kolkata Metropolitan Area (KMA) based municipalities and Non- Kolkata Metropolitan Area (non-KMA) based municipalities. Further, each category of municipal bodies is classified under five groups or types, namely, Group-A, Group-B, Group-C, Group-D and Group-E based on the population (Dutta & Majumder, 2024). A purposive sampling technique is applied in this study, and one sample municipality from each type or group of municipalities from among the KMA as well as non-KMA category has been selected for the study to ensure the representation from across all types or groups, subject to the conditions that the selected municipal body has audited annual accounts up to 2021-22. Besides, as Group-C municipal bodies are the most in numbers under KMA and Group-D municipalities are the most in numbers under non-KMA, one additional municipal body has been selected from the two categories based on that feature. Accordingly, a total of twelve municipalities are selected, representing more than ten per cent of all municipalities in the state. The selected sample municipalities are shown in Table 1.

3.2 Sources of Data and Period of Study

The analysis is based on the secondary sources. Financial performance data have been collected from the annual audited accounts of the selected municipalities for the study period of ten years, *i.e.*, 2012-13 to 2021-22.

3.3 Framework for Analysis

Analysis is performed on the inter-municipality level and based on the CFMPI. Construction of this index uses the core methodology of MPI, 2019 and City finance ranking guidelines, 2023, as issued by the Union Ministry of Housing and Urban Development (Ministry

of Housing and Urban Affairs, 2023), with required modifications suitable for the analysis of the municipal bodies of West Bengal (Dutta & Majumder, 2024). A set of eight indicator ratios is selected for municipal financial management performance analysis based on two dimensions, namely, Budget Implementation Management and Financial Autonomy. The details of the ratio indicators under these two dimensions are given:

3.4 Budget Implementation Management (B)

This is based on an analysis of variance between key budgeted elements with the actual figures and helps to examine the budget management performance of a municipality. This dimension is measured by two indicators and four ratios (Dutta & Majumder, 2024).

Expenditure Variance (B1): This indicator reflects the variance between actual and budgeted expenditure of an entity.

B1.1. CAPEX Variance Ratio: Variance between actual capital expenditure and the budgeted capital expenditure is measured by this ratio.

B1.2. REVEX Variance Ratio: Variance between actual and budgeted revenue expenditure is measured by this ratio.

Revenue Variance (B2): It reflects the variance between actual and budgeted revenue of an entity as a whole.

B2.1. Budget Implementation OSR Variance Ratio: This ratio measures the variance between actual and budgeted revenue from own sources (OSR).

B2.2. Budget TOR Implementation Variance Ratio: The variance between the actual and the budgeted Total Operating Revenue is being measured by this ratio.

3.5 Financial Autonomy (A)

Municipal Financial Autonomy indicates the level of self-sufficiency and helps to examine whether the municipality is vulnerable to the sources of external financing which is beyond its control. There are two indicators and four ratios to measure this dimension (Dutta & Majumder, 2024).

Revenue Autonomy (A1): It is the ability of local governments to create their own sources of revenue, such as taxes, in addition to their share of intergovernmental revenue grants.

A1.1. Tax Revenue Autonomy Ratio: This ratio is defined as the ratio of tax revenue to total operating revenue of an urban local body and indicates the tax revenue autonomy position of the entity.

A1.2. OSR Autonomy Ratio: The extent of Own Source Revenue to Total Operating Revenue of an entity is measured by this ratio.

Expenditure Autonomy (A2): It is the ability of local governments to manage their expenditures and allocate resources according to their own priorities based on own capacity.

A2.1. Coverage Ratio: The share of ULB's operating expenditure funded out of its own source revenue is measured by this ratio.

A2.2. Total Dependency Ratio: This is the ratio of the share of grants a municipal body receives in its total expenditure.

Firstly, all the indicators comprising 8 ratios (the value of each ratio has been derived based on the weighted average value of 10 years of data of both numerator and denominator, where the weights have been assigned from 10 to 1 starting from the most recent to the least recent years) shape a Combined Financial Performance Index. The scoring is based on the deviation percentage of indicator ratios from the accepted benchmark following the methodology of Dutta & Majumder (2024). As given in Table 2, for ratios, where 'the higher the value the better it is', if the municipality ratio has a favourable deviation from the benchmark, i.e. it is more than 100% of the desirable benchmark, the score is capped at 100. For the municipality ratios that have unfavourable deviation, i.e. where the deviation percentage is less than the benchmark, the score is based on that deviation percentage from the benchmark. However, if the unfavourable deviation is more than 100%, the score will be fixed at zero value. For ratios, where 'the lower the value, the better it is',

Table 2. Benchmarks for CFMPI analysis

Dimension with code	Indicator	Indicator code	Measurement of the indicator by ratio variables	Ratio variable code	Benchmark
B = Budget Implementation Management	Expenditure Variance	B1	Capital Expenditure Variance	B1.1	± ≤0.05
			Revenue Expenditure Variance	B1.2	± ≤0.05
	Revenue Variance	B2	Own Source Revenue Variance	B2.1	± ≤0.05
			Total Revenue Income Variance	B2.2	± ≤0.05
A = Financial Autonomy or Municipal Financial Independence	Revenue Autonomy or Self-Sufficiency	A1	Tax Autonomy	A1.1	≥0.50
			OSR Autonomy	A1.2	≥0.75
	Expenditure Autonomy	A2	Inter-Governmental Expenditure Dependency	A2.1	≥0.75
			Financial Independence or Coverage Ratio	A2.2	≥0.50

Source: Government of India, 2004; Wang et al., 2007; Comptroller and Auditor General Manual, 2011; Das & Chattopadhyay, 2018; Government of India, 2019; 15th F.C. 2020; Ministry of Housing and Urban Affairs, 2023

the scoring system will be vice versa to the above stated formulation. In some cases, like the Financial Autonomy Ratio, where the benchmark is 0.60, there will be a capping of the score at the benchmark. So, municipalities with a higher Financial Autonomy ratio, like 0.70 or higher, will be awarded the same score as the one with 0.60. However, those with a lower than 0.60 ratio will be penalised depending on the unfavourable deviation from the benchmark (Dutta & Majumder, 2024).

Given the standardised variables, the aggregation methodology of the Municipal Performance Index is calculated by summing the equal weighted scores of each dimension and dividing them by the number of indicators by the number of variables. Finally, the CFMPI Score = 0.50*B+0.50*A

The weights and complete methodology for each of the indicators and dimensions in brief, which form the CFMPI.

B1 = (B1.1+B1.2)/2	B = (B1+B2)/2	CFMPI = 0.50*B+0.50*A
B2 = (B2.1+B2.2)/2		
A1 = (A1.1+A1.2)/2	A = (A1+A2)/2	
A2 = (A2.1+A2.2)/2		

Ranking of the municipalities is done based on the index score. Additionally, in terms of the scores, the performance grading of a municipality, keeping in mind the average of the general municipal performance scenario of India, is determined as given in Table 3.

Table 3. Grading of municipalities based on CFMPI scores

Score of a municipality as per CFMPI	Performance status of the municipality
Greater than 0.70	Excellent
From 0.60 to 0.69	Very Good
From 0.50 to 0.59	Good
From 0.40 to 0.49	Average
From 0.30 to 0.39	Poor
Less than 0.30	Alarming

Source: Dennis (2004), Kloha *et al*. (2005), Gomez *et al*. (2009)

4. Results and Data Analysis

Figures 1 and 2 show the comparative performance of sample municipalities by total Dimensional score of the Index as designed, and accordingly, the detailed performance under each dimension index has also been analysed. Final Performance of the selected municipalities has been assessed on the Combined Financial Management Performance Index scores. The scores are summarised for each sample municipality as depicted in Figure 3 and further shown in Table 4 along with rank as well as performance grading at the individual level. The detailed scores by eight ratios under four indicators for each sample municipality are shown in Annexure 1. Besides, group-based ranking and grading and category-based ranking and grading of all the selected municipalities have been shown in Tables 5 and 6, respectively.

As evident from the comparative analysis of dimensional index scores of the selected

municipalities of both KMA and non-KMA categories of municipalities, as shown in Figures 1 and 2, there has been a lacklustre performance of municipal bodies belonging to KMA categories, specifically in the 'Budget Implementation Management' dimension. The looming fact is that, except for Barrackpore, no other municipality has even been able to have any kind of positive score in the stated dimension. In fact, Barrackpore Municipality, the highest scorer, has scored merely 25% in the Budget Implementation Management, which also falls under an 'Alarming' grade. Regarding the 'Financial Autonomy' dimension-based performance of these categories of municipalities, Maheshtala Municipality, the most populous and biggest municipality of West Bengal and which belongs to the 'A' group, has scored with a 'Very Good' grade of 60.33%. Except for these two municipal bodies, no other municipality under the KMA category has been able to achieve 'Very Good' grade in this dimension. Only Barrackpore Municipality, which belongs to 'C' grade, and Pujali Municipality, belonging to 'E' grade, have scored 'Good' grade with 52.33% and 51.17% individually. Hooghly-Chinsurah Municipality, which belongs to 'B' and Budge Budge Municipality, belonging to 'D' grade, have scored with a 'Poor' grade of 36.17% and 37.33% respectively. Performance of Champdany Municipality, which is another municipality of the 'C' group under the KMA category, is the worst as it scored with an 'Alarming' grade of 15.17% under this dimension. Coming to the performance of non-KMA municipal bodies, Haldia Municipality has emerged as the top performer in the 'Financial Autonomy' dimension. In fact, it has been exceptional with 100% score in the stated dimension and has been far ahead in this respect among all the selected twelve municipalities. But, at the same time, in the 'Budget Implementation Management' dimension, its performance is totally opposite, with an alarming grade score of only 10%, indicating that the municipality needs to take several measures in this aspect. Burdwan Municipality has topped in the 'Budget Implementation Management' dimension with a score of 30% among all twelve municipal bodies encompassing both KMA and non-KMA categories. But still, the score falls under an 'Alarming' grade, necessitating some proactive actions by the municipality in this matter. Midnapore Municipality has scored 25%, which also falls under 'Alarming' grade, but its performance in the 'Financial Autonomy' dimension is 47.83%, which, however, falls under 'Average' grade. As far as the performance of Old Malda, a 'D' group municipality, is concerned, it also scored with an 'Alarming' grade of 10% in 'Budget Implementation Management' dimension and in 'Financial Autonomy', it has, however, performed with an 'Average' grade of 42.50%. Rampurhat Municipality, which also belongs to the 'D' group, has merely scored 12.5% with an 'Alarming' grade in the 'Budget Implementation Management' dimension and 34% in the Financial Autonomy dimension, with just above the 'Poor' grade. Lastly, Tarakeswar Municipality, belonging to 'E' group, has again scored with 'Alarming' grade of 25% in the 'Budget Implementation Management' dimension and with a 'Poor' grade of 39.33% in the 'Financial Autonomy' dimension. Basically, all the selected municipal bodies are found to be underperformers in the 'Budget Implementation Management' dimension, indicating a common problem for all. Regarding 'Financial Autonomy', again, except Haldia and Maheshtala, none is able to cross the 'Very Good' grade of 60%. Regarding the CFMPI-based performance of municipalities at individual levels, as evident in Table 4 and Figure 3, except for Haldia, no municipality has been able to at least score more than 50%. Even barring Burdwan, none have even crossed 40% index scores, indicating overall below-standard performance and, in most of the cases, alarming performance of the selected municipalities throughout West Bengal. Regarding the group wise performance, as shown in Table 5 and Figure 4, 'A', 'B' and 'C' group municipal bodies have been in the first, second and third positions, respectively. However, average CFMPI-based performance of the 'D' group municipal bodies has been worst and therefore this group has been in the fifth position enabling 'E' group municipal bodies to gain fourth position among all groups. Lastly, as far as the category-based performance is concerned, non-KMA municipal bodies have performed far better

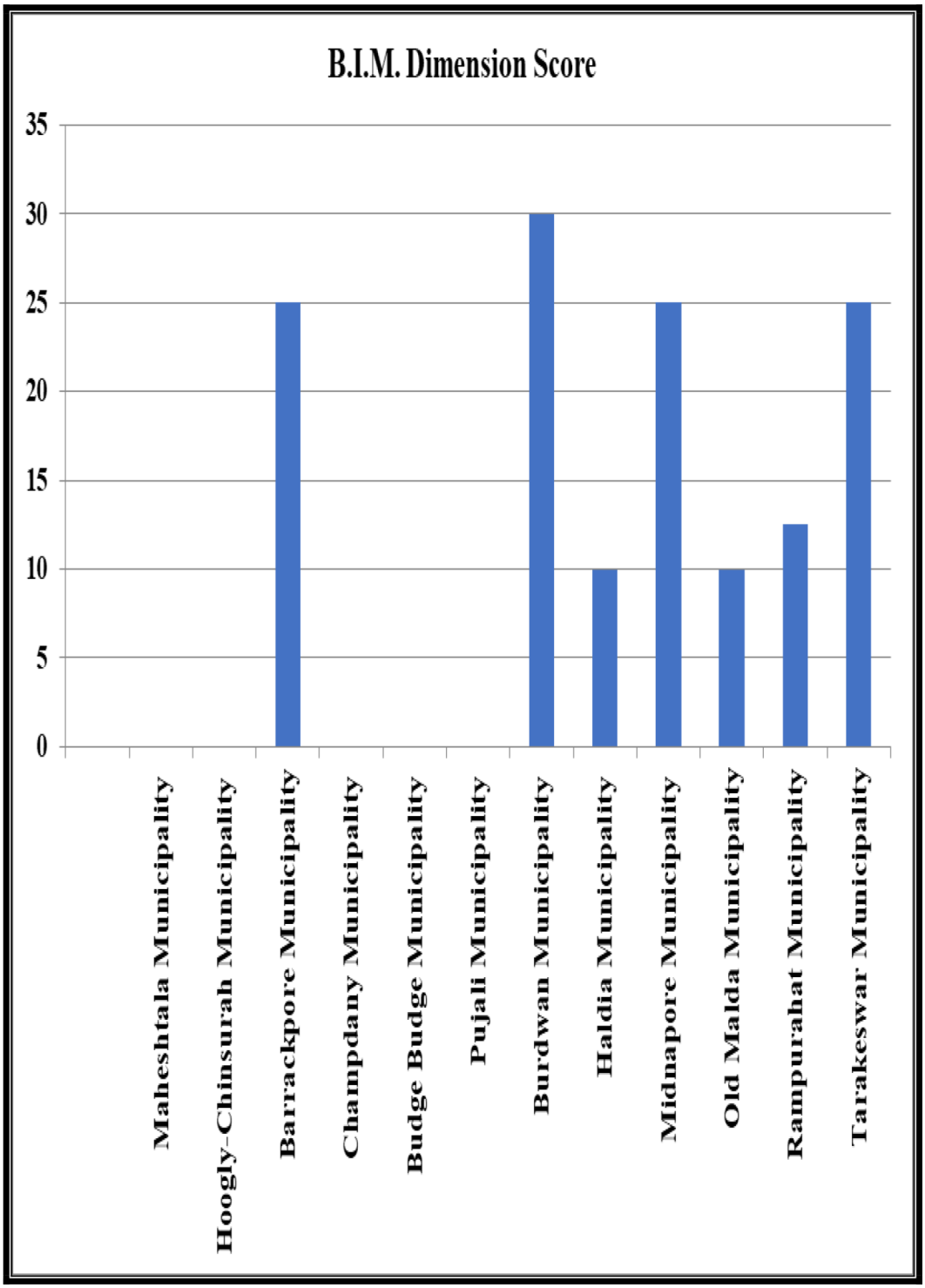


Figure 1. Comparative analysis by the budget implementation management dimension.
Source: Author's calculation

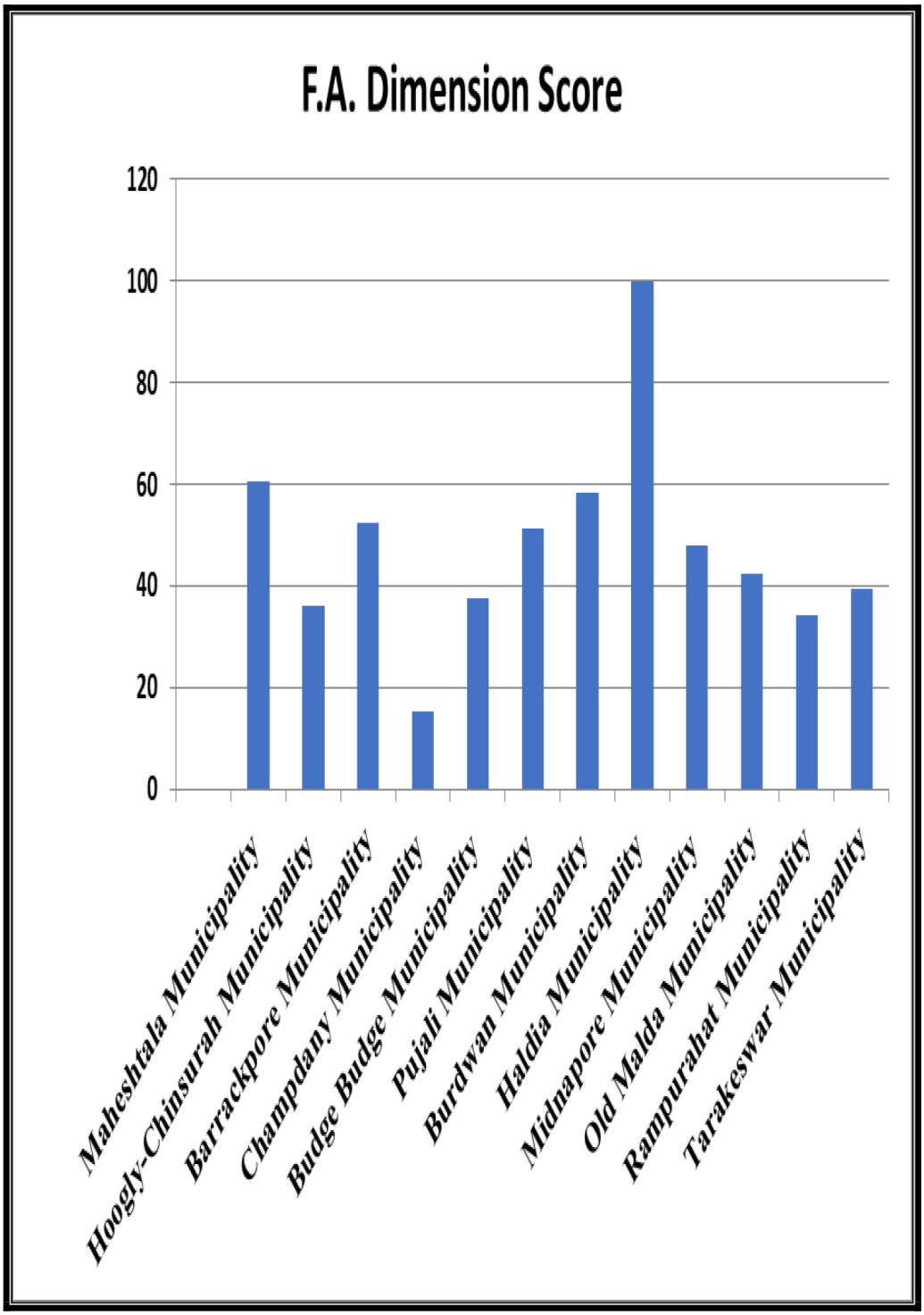


Figure 2. Comparative analysis by financial autonomy dimension.

Source: Author's calculation

than KMA category bodies with an average score of 36.20% whereas the KMA category has scored only 24.13%. These findings highlight persistent structural inefficiencies in municipal financial management across the state, particularly in budget execution and fiscal independence.

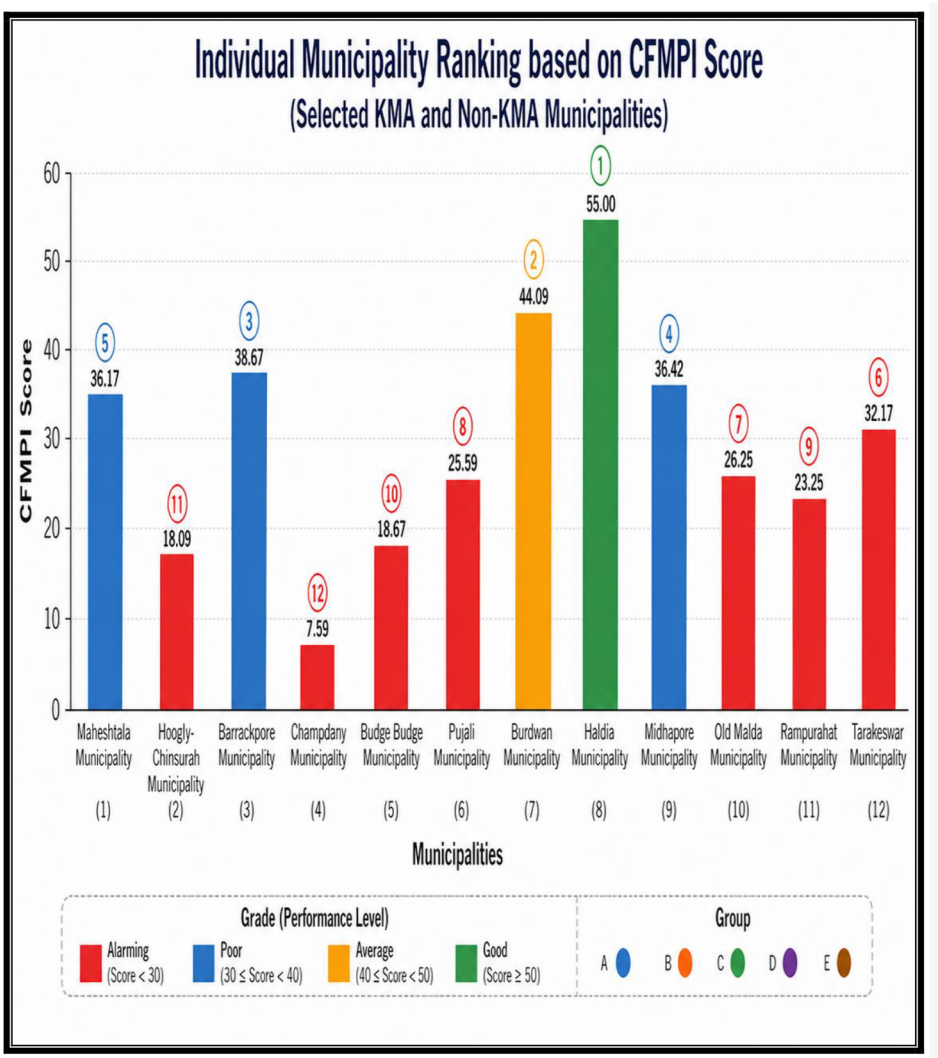


Figure 3. Individual municipality ranking based on the CFMPI of selected KMA and Non-KMA municipalities under West Bengal.
Source: Author's calculation based on CFMPI analysis

Table 4. Individual municipality ranking based on the CFMPI of selected KMA and Non-KMA municipalities

S. No.	Name of the municipality	CMFPI Score	Rank	Grade	Group
1	Maheshtala Municipality	36.17	5	Poor	A
2	Hoogly-Chinsurah Municipality	18.09	11	Alarming	B
3	Barrackpore Municipality	38.67	3	Poor	C
4	Champdany Municipality	7.59	12	Alarming	C
5	Budge Budge Municipality	18.67	10	Alarming	D
6	Pujali Municipality	25.59	8	Alarming	E
7	Burdwan Municipality	44.09	2	Average	A
8	Haldia Municipality	55.00	1	Good	B
9	Midnapore Municipality	36.42	4	Poor	C
10	Old Malda Municipality	26.25	7	Alarming	D
11	Rampurahat Municipality	23.25	9	Alarming	D
12	Tarakeswar Municipality	32.17	6	Alarming	E

Source: Author's calculation based on CFMPI analysis

Table 5. Group-wise ranking based on average CFMPI

S. No.	Municipality class/type	Average CFMPI score	Rank
1	'A' group municipal bodies	40.13	1
2	'B' group municipal bodies	36.55	2
3	'C' group municipal bodies	27.56	3
4	'D' group municipal bodies	20.96	5
5	'E' group municipal bodies	28.88	4

Source: Author's calculation based on CFMPI analysis

Table 6. Category-wise ranking based on average CFMPI

S. No.	Municipality category	Average CFMPI score	Rank
1	KMA category municipalities	24.13	2
2	Non-KMA category municipalities	36.20	1

Source: Author's calculation based on CFMPI analysis

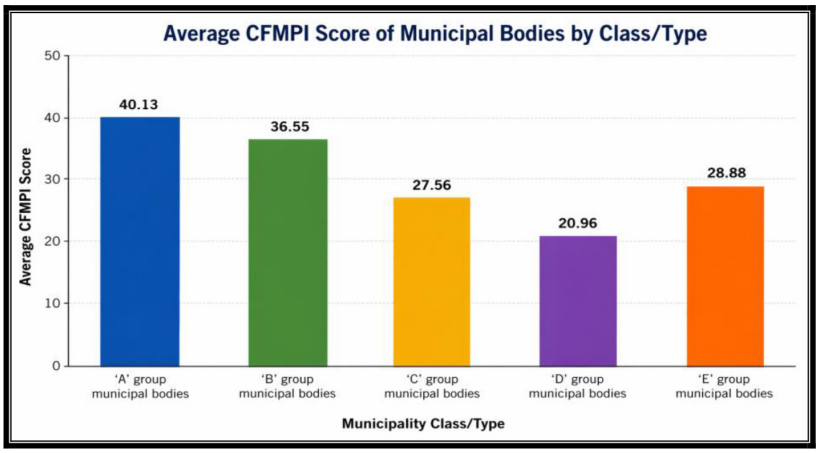


Figure 4. Group-wise ranking based on average CFMPI.

Source: Author's calculation based on CFMPI analysis

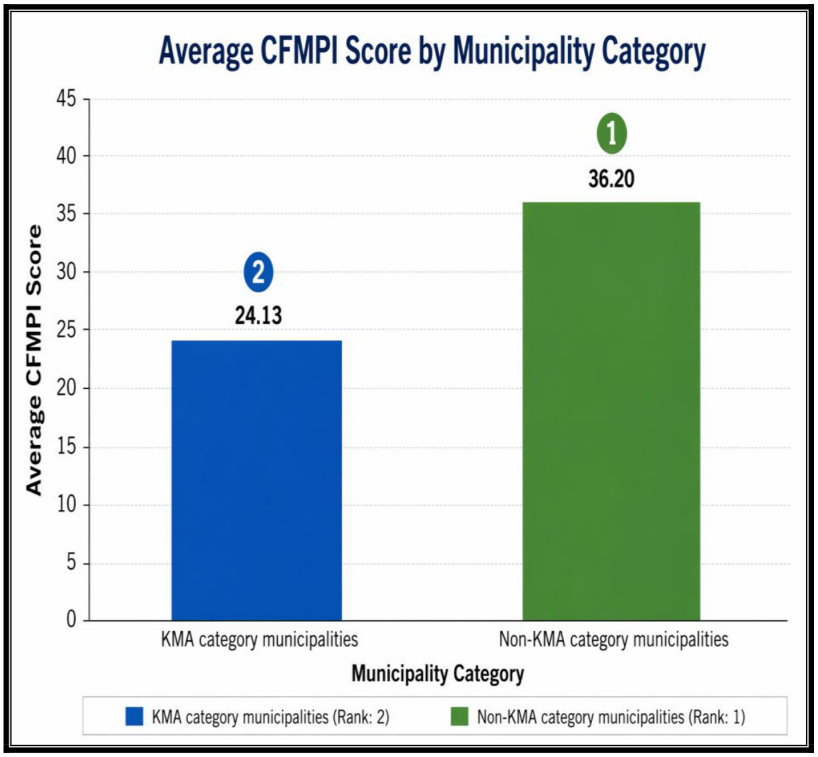


Figure 5. Category-wise ranking based on average CFMPI.

Source: Author's calculation based on CFMPI analysis

5. Conclusion and Implications

As far as the general assessment of the municipal financial management conditions from the aspects of 'Budget Implementation Management and Financial Autonomy' relating to the selected municipalities of West Bengal is concerned, for all, a lack of budgetary control is seen in all the indicators of the stated dimension. Persistent savings in budget provisions indicate unrealistic estimates and pinpoint to the absence of any definite work plan. A budget should be prepared realistically, based on the trends of expenditure in the previous years and savings over a period of time (Dutta & Majumder, 2024). The 'Financial Autonomy' of most of the selected municipalities does not look sound, indicating meagre revenue mobilization as well as failure in generating their revenues from own sources and thus they are excessively reliant on the inter-governmental revenue grants. A major part of all the indicators is in parity with the national municipal scenario and is correlating with the past municipal finance data of West Bengal (CAG, 2011; RBI, 2022; City Finance, 2023; Dutta & Majumder, 2024; ICAI, 2024). It points to the sustained poor financial health of the municipalities in the stated perspectives. Hence, numerous corrective measures and stringent actions are required to be taken by the municipal bodies so as to enable them to save themselves from at least the alarming conditions as far as these two dimensions are concerned. However, the legal mandates and rules of the state and central government are to be kept in mind while taking any further actions. Finally, this study offers an analytical framework to evaluate the municipality's performance in financial management, covering two major pertinent dimensions encompassing relevant performance indicators, which is expected to be an advancement over earlier studies on the financial management analysis of municipal bodies. Further, based on the proposed CFMPI framework, the West Bengal government may implement apposite mechanism to measure as well as compare the Budget Implementation Management and Financial Autonomy conditions of the municipal bodies and provide special grants to the municipal bodies which perform positively on benchmark CFMPI parameters, and that would also endorse healthy rivalry among the municipal bodies in future. Further, based on the proposed analysis framework, further research studies can be done to compare the performance of municipalities with the municipal corporations of West Bengal, and research may also be undertaken between the municipal bodies of West Bengal and any other states of India on the proposed parameter to further validate its applicability and robustness.

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Annexures

Table A1. CFMPI score sheet of Maheshtala Municipality

Ratio number	Ratio code	Weighted average ratio value (positive integers)	Magnitude of benchmark	Standard benchmark/ideal ratio value	Unfavourable deviation % from benchmark value	Ratio based score of the ULB based on research methodology	Indicator code	Indicator based index score	Dimension code	Dimension based index score
1	B1.1	0.76	≤	0.05	1420	0				
2	B1.2	0.17	≤	0.05	240	0	B1	0.00		
3	B2.1	0.42	≤	0.05	740	0				
4	B2.2	0.15	≤	0.05	200	0	B2	0.00	B	0.00
5	A1.1	0.12	≥	0.5	76	24				
6	A1.2	0.29	≥	0.75	61	39	A1	31.33		
7	A2.1	0.59	≥	0.75	21	79				
8	A2.2	0.5	≤	0.5	0	100	A2	89.33	A	60.33
CFMPI Scores										36.17

Source: Author's calculation

Table A2. CFPI score sheet of Hooghly-Chinsurah municipality

Ratio number	Ratio code	Weighted average ratio value (positive integers)	Magnitude of benchmark	Standard benchmark/ideal ratio value	Unfavourable deviation % from benchmark value	Ratio based score of the ULB based on research methodology	Indicator code	Indicator based index score	Dimension code	Dimension based index score
1	B1.1	0.7	≤	0.05	1300	0				
2	B1.2	0.22	≤	0.05	340	0	B1	0.00		
3	B2.1	0.64	≤	0.05	1180	0				
4	B2.2	0.24	≤	0.05	380	0	B2	0.00	B	0.00
5	A1.1	0.05	≥	0.5	90	10				
6	A1.2	0.19	≥	0.75	75	25	A1	17.67		
7	A2.1	0.28	≥	0.75	63	37				
8	A2.2	0.64	≤	0.5	28	72	A2	54.67	A	36.17
CFMPI Scores										18.09

Source: Author's calculation

Table A3. CFMPI score sheet of Barrackpore municipality

Ratio number	Ratio code	Weighted average ratio value (positive integers)	Magnitude of benchmark	Standard benchmark/ideal ratio value	Unfavourable deviation % from benchmark value	Ratio based score of the ULB based on research methodology	Indicator code	Indicator based index score	Dimension code	Dimension based index score
R1	B1.1	0.71	≤	0.05	1320	0				
R2	B1.2	0.81	≤	0.05	1520	0	B1	0.00		
R3	B2.1	0.01	≤	0.05	0	100				
R4	B2.2	0.24	≤	0.05	380	0	B2	50.00	B	25.00
R5	A1.1	0.1	≥	0.5	80	20				
R6	A1.2	0.4	≥	0.75	47	53	A1	36.67		
R7	A2.1	0.48	≥	0.75	36	64				
R8	A2.2	0.64	≤	0.5	28	72	A2	68.00	A	52.33
CFMPI Scores										38.67

Source: Author's calculation\

Table A4. CFMPI score sheet of Champdany municipality

Ratio number	Ratio code	Weighted average ratio value (positive integers)	Magnitude of benchmark	Standard Benchmark/ideal ratio value	Unfavourable deviation % from benchmark value	Ratio based score of the ULB based on research methodology	Indicator code	Indicator based index score	Dimension code	Dimension based index score
R1	B1.1	0.59	≤	0.05	1080	0				
R2	B1.2	0.66	≤	0.05	1220	0	B1	0.00		
R3	B2.1	0.62	≤	0.05	1140	0				
R4	B2.2	0.66	≤	0.05	1220	0	B2	0.00	B	0.00
R5	A1.1	0.02	≥	0.5	96	4				
R6	A1.2	0.05	≥	0.75	93	7	A1	5.33		
R7	A2.1	0.06	≥	0.75	92	8				
R8	A2.2	0.79	≤	0.5	58	42	A2	25.00	A	15.17
CFMPI Scores										7.59

Source: Author's calculation

Table A5. CFMPI score sheet of Budge Budge municipality

Ratio Number	Ratio code	Weighted average ratio value (Positive integers)	Magnitude of benchmark	Standard benchmark/ideal ratio value	Unfavourable deviation % from benchmark value	Ratio based score of the ULB based on research methodology	Indicator code	Indicator based index score	Dimension code	Dimension based index score
R1	B1.1	0.64	≤	0.05	1180	0				
R2	B1.2	0.21	≤	0.05	320	0	B1	0.00		
R3	B2.1	0.22	≤	0.05	340	0				
R4	B2.2	1.2	≤	0.05	2300	0	B2	0.00	B	0.00
R5	A1.1	0.16	≥	0.5	68	32				
R6	A1.2	0.21	≥	0.75	72	28	A1	30.00		
R7	A2.1	0.28	≥	0.75	63	37				
R8	A2.2	0.74	≤	0.5	48	52	A2	44.67	A	37.33
CFMPI Scores										18.67

Source: Author's calculation

Table A6. CFMPI score sheet of Pujali municipality

Ratio number	Ratio code	Weighted average ratio value (Positive integers)	Magnitude of benchmark	Standard benchmark/ideal ratio value	Unfavourable deviation % from benchmark value	Ratio based score of the ULB based on research methodology	Indicator code	Indicator based index score	Dimension code	Dimension based index score
R1	B1.1	0.82	≤	0.05	1540	0				
R2	B1.2	0.45	≤	0.05	800	0	B1	0.00	0.00	
R3	B2.1	0.7	≤	0.05	1300	0				
R4	B2.2	0.45	≤	0.05	800	0	B2	0.00	B	0.00
R5	A1.1	0.18	≥	0.5	64	36				
R6	A1.2	0.3	≥	0.75	60	40	A1	38.00		
R7	A2.1	0.41	≥	0.75	45	55				
R8	A2.2	0.63	≤	0.5	26	74	A2	64.33	A	51.17
CFMPI Scores										44.09

Source: Author's calculation

Table A7. CFMPI score sheet of Burdwan municipality

Ratio number	Ratio code	Weighted average ratio value (positive integers)	Magnitude of benchmark	Standard benchmark/ideal ratio value	Unfavourable deviation % from benchmark value	Ratio based score of the ULB based on research methodology	Indicator code	Indicator based index score	Dimension code	Dimension based index score
R1	B1.1	0.84	≤	0.05	1580	0				
R2	B1.2	0.06	≤	0.05	20	80	B1	40.00		
R3	B2.1	0.2	≤	0.05	300	0				
R4	B2.2	0.08	≤	0.05	60	40	B2	20.00	B	30.00
R5	A1.1	0.23	≥	0.5	54	46				
R6	A1.2	0.32	≥	0.75	57	43	A1	44.33		
R7	A2.1	0.33	≥	0.75	56	44				
R8	A2.2	0.48	≤	0.5	0	100	A2	72.00	A	58.17
CFMPI Scores										44.09

Source: Author's calculation

Table A8. CFMPI score sheet of Haldia municipality

Ratio number	Ratio code	Weighted Average ratio value (positive integers)	Magnitude of benchmark	Standard benchmark/ideal ratio value	Unfavourable deviation % from benchmark value	Ratio based score of the ULB based on research methodology	Indicator code	Indicator based index score	Dimension code	Dimension based index score
R1	B1.1	0.71	≤	0.05	1320	0				
R2	B1.2	0.38	≤	0.05	660	0	B1	0		
R3	B2.1	0.29	≤	0.05	480	0				
R4	B2.2	0.08	≤	0.05	60	40	B2	20.00	B	10.00
R5	A1.1	0.7	≥	0.5	0	100				
R6	A1.2	0.82	≥	0.75	0	100	A1	100.00		
R7	A2.1	0.93	≥	0.75	0	100				
R8	A2.2	0.11	≤	0.5	0	100	A2	100.00	A	100
CFMPI Scores										55.00

Source: Author's calculation

Table A9. CFMPI score sheet of Midnapore municipality

Ratio number	Ratio code	Weighted average ratio value (positive integers)	Magnitude of benchmark	Standard benchmark/ideal ratio value	Unfavourable deviation % from benchmark value	Ratio based score of the ULB based on research methodology	Indicator code	Indicator based index score	Dimension code	Dimension based index score
R1	B1.1	0.78	≤	0.05	1460	0				
R2	B1.2	0.07	≤	0.05	40	60	B1	30.00		
R3	B2.1	0.1	≤	0.05	100	0				
R4	B2.2	0.08	≤	0.05	60	40	B2	20.00	B	25.00
R5	A1.1	0.11	≥	0.5	78	22				
R6	A1.2	0.24	≥	0.75	68	32	A1	27.00		
R7	A2.1	0.34	≥	0.75	55	45				
R8	A2.2	0.54	≤	0.5	8	92	A2	68.67	A	47.83
CFMPI Scores										36.42

Source: Author's calculation

Table A10. CFMPI score sheet of old Malda municipality

Ratio number	Ratio code	Weighted average ratio value (positive integers)	Magnitude of benchmark	Standard benchmark/ideal ratio value	Unfavourable deviation % from benchmark value	Ratio based score of the ULB based on research methodology	Indicator code	Indicator based index score	Dimension code	Dimension based index score
R1	B1.1	0.83	≤	0.05	1560	0				
R2	B1.2	0.08	≤	0.05	60	40	B1	20.00		
R3	B2.1	0.53	≤	0.05	960	0				
R4	B2.2	0.24	≤	0.05	380	0	B2	0.00	B	10.00
R5	A1.1	0.05	≥	0.5	90	10				
R6	A1.2	0.2	≥	0.75	73	27	A1	18.33		
R7	A2.1	0.31	≥	0.75	59	41				
R8	A2.2	0.54	≤	0.5	8	92	A2	66.67	A	42.50
	CFMPI Scores									26.25

Source: Author's calculation

Table A11. CFMPI score sheet of Rampurhat municipality

Ratio number	Ratio code	Weighted average ratio value (Positive integers)	Magnitude of benchmark	Standard benchmark/ideal ratio value	Unfavourable deviation % from benchmark value	Ratio based score of the ULB based on research methodology	Indicator code	Indicator based index score	Dimension code	Dimension based index score
R1	B1.1	0.62	≤	0.1	520	0				
R2	B1.2	0.63	≤	0.1	530	0	B1	0.00		
R3	B2.1	0.15	≤	0.1	50	50				
R4	B2.2	1.21	≤	0.1	1110	0	B2	25.00	B	12.50
R5	A1.1	0.03	≥	0.5	94	6				
R6	A1.2	0.14	≥	0.75	81	19	A1	12.33		
R7	A2.1	0.37	≥	0.75	51	49				
R8	A2.2	0.69	≤	0.5	38	62	A2	55.67	A	34.00
CFMPI Scores										23.25

Source: Author's calculation

Table A12. CFMPI score sheet of Tarakeswar municipality

Ratio number	Ratio code	Weighted average ratio value (positive integers)	Magnitude of benchmark	Standard benchmark/ideal ratio value	Unfavourable deviation % from benchmark value	Ratio based score of the ULB based on research methodology	Indicator code	Indicator based index score	Dimension code	Dimension based index score
R1	B1.1	0.49	≤	0.05	880	0				
R2	B1.2	0.54	≤	0.05	980	0	B1	0.00		
R3	B2.1	0.02	≤	0.05	0	100				
R4	B2.2	0.66	≤	0.05	1220	0	B2	50.00	B	25.00
R5	A1.1	0.03	≥	0.5	94	6				
R6	A1.2	0.22	≥	0.75	71	29	A1	17.67		
R7	A2.1	0.33	≥	0.75	56	44				
R8	A2.2	0.61	≤	0.5	22	78	A2	61.00	A	39.33
CFMPI Scores										32.17

Source: Author's calculation