An Analytical and Statistical Study of Income and Expenditure of Bhilai Municipal Corporation

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Abstract

This research paper analyzes the income and expenditure pattern of Bhilai Municipal Corporation (BMC) during five financial years from 2019–20 to 2023–24. The objective is to evaluate the financial performance of the corporation and identify trends in its income and expenditure structure. Secondary data is collected from Bhilai Municipal Corporation's official financial statements have been analyzed using descriptive and statistical tools—Year-on-Year (YoY) Growth Rate, graphical data representation, chisquare test. The findings reveal continuous fiscal imbalance, fluctuating trends, and a moderate positive income and expenditure. Although the gap between the two has widened over certain years, statistical results show no significant difference between mean income and mean expenditure at the 5 percent level. The study concludes with practical suggestions to strengthen revenue generation, rationalize expenditure, and enhance financial stability.

Keywords

Municipal finance; Income; Expenditure; financial stability; YoY growth; Bhilai Municipal Corporation

Introduction

Municipal corporations plays important role of urban self-governance development in India. Their efficiency in delivering civic services depends on financial sustainability, which is determined by the adequacy of income and the prudence of expenditure. Bhilai Municipal Corporation (BMC), a major urban local body in Chhattisgarh, which is one of the top revenue earning Municipal corporation out of 14 municipal corporations of Chhattisgarh. It undertakes functions such as sanitation, water supply, street lighting, and infrastructure maintenance.

Municipal corporations play a important role in urban administration and service delivery. They are responsible for providing essential civic services such as sanitation, street lighting, water supply, waste management, and infrastructure development. To perform these functions effectively, sound financial management is indispensable. The fiscal health of a municipal body reflects its ability to plan, implement, and sustain urban development activities.

Bhilai Municipal Corporation (BMC), located in Chhattisgarh, is one of the major urban local bodies responsible for governing the industrial city of Bhilai.

Objectives of the Study

1. To analyse the different sources of income of Bhilai Municipal Corporation and analysis the trend between the period of 2019-20 to 2023-24 of the study.
2. To study the financial status of Bhilai Municipal Corporation between the tenure of 2019-20 to 2023-24.
3. To study the strength of Bhilai Municipal Corporation in providing and maintaining essential services with the fast-growing population.

Limitations of the Study

1. The study will be limited to Bhilai city(the mentioned wards and area come under Bhilai Municipal Corporation) Durg district of Chhattisgarh state.
2. The period or tenure of study will be limited to five years i.e. from 2019-20, 2020-21, 2021-22, 2022-23, and 2023-24.
3. The entire study will depend on the data we get from Bhilai Municipal Corporation and its website.
4. There may be some errors of judgment, however, care will be been taken to explain the situation while collecting opinions.

Hypothesis of the Study

[H0]1 No significant increase is observed in the distribution of revenue receipts.

[H0]2 No significant increase is observed in the distribution of capital receipts.

[H0]3 No significant increase is observed in the distribution of revenue expenditure.

[H0]4 No significant increase is observed in the distribution of capital expenditure.

[H1]5 There is significant growth(Surplus) observed over the period of years.

Research Methodology

Research methodology is the systematic approach, technique and processors used to study and analyze data. It provides the framework for understanding, evaluating, and interpreting the subject under study.Descriptive and analytical in Nature focusing on trends and performance evaluation of Income and expenditure of five financial years that is 2019-20 to 2023-24 Bhilai Municipal Corporation.

Data Collection: Secondary data is obtained from Bhilai Municipal Corporation's official records and website from the period of 2019-20 to 2023-24. This study covers all the income and expenditure. This study also involves both quantitative and qualitative anlaysis.

Tools & Techniques of Analysis: The secondary data has been analysed with the help of excel through graphical representation, year-over-year growth method is to used to interpret and conclude the results.

Accounting System

Bhilai Municipal Corporation uses double entry accounting principles, Standard govt accounting practices, Which more focuses on cash based receipts and payments generating financial statements. Every transaction passes through authorization: Proposal, sanction, and payment the annual budget is the principle financial document which are prepared by accountants or account department of Bhilai Municipal Corporation on the basis of projected revenue and expenses.

Financial system of Bhilai Municipal Corporation includes components such as

1. Revenue account
2. Capital account

Revenue account: Revenue account are the account which covers day to expenses or earned income recurring operational income and expenses related to routine municipal functions.

Capital account: Capital account covers income and expenditure related to asset creation capital project and infrastructure developments.

Summary of Bhilai Municipal Corporation (revenue and capital classification)

Particulars	2019–20	2020–21	2021-22	2022-23	2023-24
Opening Balance	**12383.52**	**12705.84**	**12705.84**	**22238.79**	**29890.07**
I. Revenue Account					
Total Revenue Income	12451.27	9786.31	10895.93	12093.1	16174.63
Total Revenue Expenditure	33385.81	25160.34	25800.91	43692.38	30433.21
Revenue Surplus / Deficit	**-20934.54**	**-15374.03**	**-14904.98**	**-31599.28**	**-14258.58**
II. Capital Account					
Total Capital Income	25449.9	17910.05	13002.98	21278.57	9148.87
Total Capital Expenditure	139.52	161.85	322.45	416.58	433.63
Capital Surplus / Deficit	**25310.38**	**17748.2**	**12680.53**	**20861.99**	**8715.24**

Table- 1 Deficit or Surplus on Revenue and Capital Income and Expenditures of five years from 2019-20 to 2023-24

Income of Bhilai Municipal Corporation

REVENUE INCOME

The revenue income of Bhilai Municipal Corporation (BMC) represents the regular and recurring financial inflows that are used to meet the Corporation’s operational and administrative expenses. These receipts do not create any liability or asset and are essential for the maintenance of civic services.

REVENUE INCOME STATEMENT						
Income Head	**Amount in Lakhs. (₹)**					**Percent Increase /Decrease(2019-20 to 2023–24)**
	2019–20	**2020–21**	**2021–22**	**2022–23**	**2023–24**	
Accumulated fund	396.78	318.49	315.65	314.37	362.64	–8.60%

All money received by or on behalf of the Corporation under the orders of law	2,673.63	2,198.50	2,611.75	2,443.54	2,415.58	–9.65%
Rent received from the property of the Corporation	304.38	267.4	351	671.93	4,297.83	1311.99%
Money collected from taxes	4,818.25	4,816.66	4,522.93	4,959.09	4,987.53	3.51%
Money collected from collection of fees	2,246.20	1,395.10	2,125.34	2,320.20	2,038.56	–9.24%
All penalties imposed by the court	347.61	242.93	250.02	318.28	366.53	5.44%
Income received as compensation or from compounding of offences	42.53	97.76	209.13	77.68	17.34	–59.23%
Income from interest and profit	500	250	320.97	302	984	96.80%
Other receipts	1,121.89	199.47	189.14	686.01	704.62	–37.19%
Total Revenue Income	**12,451.27**	**9,786.31**	**10,896.93**	**12,093.82**	**16,174.63**	**29.90%**

Table- 3 Total Revenue Income Statement

1. **For, [H0]1 No significant increase is observed in the distribution of revenue receipts.**

Overall Percentage Change (2019–20 to 2023–24)

Income Head	**Percent Increase / Decrease**
Accumulated Fund	–8.60
Money received under law	–9.65
Rent from Corporation property	1311.99
Taxes	3.51
Fees	–9.24
Court penalties	5.44
Compensation / compounding	–59.23
Interest & profit	96.8
Other receipts	–37.19
Total Revenue Income	**29.9**

Total Revenue Income

Overall increase of **29.90%**

We are considering 5 % as an significant level of increase or decrease in revenue income.

As here the revenue growth is 29% much greater than 5%. Here rent from corporation property plays an important role in collection of the huge amount due to which the revenue income is increased. Hence, we reject the null hypothesis that is **[H0]1** No significant increase is observed in the distribution of revenue income. Therefore, we may conclude that there is significant increase is observed in the distribution of revenue income.

CAPITAL INCOME

1. Capital income includes receipts of a non-recurring nature such as grants, asset disposals, and funds received for specific development works. It serves as the foundation for financing the Corporation's long-term capital projects.

CAPITAL INCOME STATEMENT						
Income Head	**Amount in Lakhs. (₹)**					**Percent Increase / Decrease (2019–20 to 2023–24)**
	2019–20	**2020–21**	**2021–22**	**2022–23**	**2023–24**	
Money received from Government as grant	25,395.14	17,856.34	12,489.71	20,818.26	8,304.74	**–67.30%**
Income from disposal of property	54.76	53.71	513.27	460.31	844.13	**1441.90%**
Total Capital Income	**25,449.90**	**17,910.05**	**13,002.98**	**21,278.57**	**9,148.87**	**–64.04%**

Table- 4 Total Capital Income Statement

2. **<u>For, [H0]2 No significant increase is observed in the distribution of capital receipts.</u>**

Overall Percentage Change (2019–20 to 2023–24)

Income Head	Percent Increase / Decrease
Money received from Government as grant	–67.30
Income from disposal of property	1,441.90
Total Capital Income	**–64.04**

Overall decrease of **–64.04%**

We are considering 5 % as a significant level of increase or decrease in capital income.

As here the revenue growth is **–64.04%** much less than 5%. Here rmoney received from Government as grant plays an important role in collection of the huge amount due to which the capital income is decreased. Hence, we reject to fail the null hypothesis that is **[H0]2** No significant increase is observed in the distribution of capital income. Therefore, we may conclude that there is no significant increase is observed in the distribution of capital income.

Uses of fund (Expenditure)

REVENUE EXPENDITURE

1. The revenue expenditure of Bhilai Municipal Corporation during the study period was largely devoted to meeting routine administrative and service-related needs. A major portion of spending was absorbed by salaries, solid waste management, and other operational expenses, indicating that most resources were used for maintaining day-to-day municipal functions.

REVENUE EXPENDITURE STATEMENT						
Expenditure Head	**Amount in Lakhs. (₹)**					**Percent Increase / Decrease (2019–20 to 2023–24)**
	2019–20	**2020–21**	**2021–22**	**2022–23**	**2023–24**	
Deputation staff from Government	91.9	124.4	227.41	235.39	280.18	204.87%
Municipal officers & servants (Par.1)	5,932.04	5,122.31	5,774.20	5,117.90	5,488.30	–7.48%
Consultancy / expert fees	7.69	0	0	1.8	4.25	–44.73%

Court costs	0	0	20.2	18.8	12.76	–36.83%
Liabilities of Government	58.56	48.38	48.38	48.38	65.12	11.20%
Audit of “A” accounts	0	0	0	0	2.65	–20.00%
Office expenses	126.9	92.75	150.85	169.46	195.3	53.90%
Vehicle department	419.76	437.7	619.71	609.38	813.11	93.71%
Pathway lighting	65.38	20.02	13.37	33.48	80.26	22.76%
Public health & amenities	323.33	310.19	540.82	550.58	562.56	73.99%
Solid Waste Management	2,647.44	1,856.63	1,985.00	3,146.17	3,404.16	28.58%
Environmental Protection	0	0	2.77	32.53	0	–100.00%
Other & miscellaneous expenses	23,804.71	17,272.36	16,645.61	33,965.70	19,804.74	–16.80%
Total Revenue Expenditure	**33,478.71**	**25,284.74**	**26,028.32**	**43,897.57**	**30,713.23**	**–8.27%**

Table- 5 Total Revenue Expenditure Statement

3. <u>For, [H0]3 No significant increase is observed in the distribution of revenue expenditure.</u>

Overall Percentage Change (2019–20 to 2023–24)

Income Head	Percent Increase / Decrease
Deputation staff from Government	**204.87**
Municipal officers & servants (Par.1)	–7.48
Consultancy / expert fees	–44.73
Court costs	–36.83
Liabilities of Government	11.2
Audit of “A” accounts	–20.00
Office expenses	53.9
Vehicle department	93.71
Pathway lighting	22.76
Public health & amenities	73.99
Solid Waste Management	28.58
Environmental Protection	–100.00
Other & miscellaneous expenses	–16.80
Total Revenue Expenditure	**–8.27**

Overall decrease of **—8.27%**

We are considering 5 % as an significant level of increase or decrease in revenue income.

As here the revenue growth is **—8.27** much less than 5%. Here environmental protection, audit cost, consultaion fees, court cost, as grant plays an important role in collection of the huge amount expenditure due to which the revenue expenditure is decreased. Hence Hence, we fail to reject the null hypothesis that is **[H0]3** No significant increase is observed in the distribution of revenue expenditure. Therefore, we may conclude that there is no significant increase is observed in the distribution of revenue expenditure.

CAPITAL EXPENDITURE

The capital expenditure of Bhilai Municipal Corporation consists of non-recurring, asset-creating outflows made for infrastructure development and long-term civic improvements. These expenditures enhance the physical and economic infrastructure of the city and ensure sustained public utility in future years. The following analysis presents the major capital expenditure heads of the Corporation for the five-year period from 2019–20 to 2023–24.

CAPITAL EXPENDITURE STATEMENT						
Expenditure Head	Amount in Lakhs. (₹)					Percent Increase / Decrease (2019–20 to 2023–24)
	2019–20	2020–21	2021–22	2022–23	2023–24	
Beautification & development of city gardens	36.85	34.36	76.19	151.47	51.98	**41.05%**
Public Works Dept. (Building Construction)	5.74	0.76	18.85	29.72	91.77	**1498.43%**
Contaminated water drainage	0.07	0	0	0	0	**–100%**
Road construction & maintenance	4.96	2.33	0	0	9.7	**95.56%**
Total Capital Expenditure	**47.62**	**37.45**	**95.04**	**181.19**	**153.45**	**222.06%**

Table- 6 Total Capital Expenditure Statement

4. **<u>For, [H0]4 No significant increase is observed in the distribution of capital expenditure</u>**.

Overall Percentage Change (2019–20 to 2023–24)

Income Head	Percent Increase / Decrease
Beautification & development of city gardens	**41.05**
Public Works Dept. (Building Construction)	**1498.43**
Contaminated water drainage	**–100.00**
Road construction & maintenance	**95.56**
Total Capital Expenditure	**222.06**

Overall increase of **222.06%**

We are considering 5 % as an significant level of increase or decrease in revenue income.

As here the revenue growth is **222.06%** much more than 5%. Here building construction and road repair and beautification of gardens plays an important role in collection of the huge amount expenditure due to which the revenue expenditure is increased. Hence, we reject the null hypothesis that is **[H0]4** No significant increase is observed in the distribution of capital expenditure. Therefore, we may conclude that there is no significant increase is observed in the distribution of capital expenditure.

5. **<u>For, [H1]5 There is significant growth(Surplus) observed over the period of years.</u>**

There is a significant growth in the income and expenditure of Bhilai Municipal Corporation over the years from 2019–20 to 2023–24.

Year	Actual Income (₹ lakh)	Actual Expenditure (₹ lakh)	Surplus (₹ lakh)	Surplus % (Method)
2019–20	6,588.69	6,432.75	155.94	**2.37%**
2020–21	6,772.30	6,510.45	261.85	**3.87%**
2021–22	6,850.40	6,690.85	159.55	**2.33%**
2022–23	7,020.80	6,890.50	130.3	**1.86%**
2023–24	7,142.25	7,018.90	123.35	**1.73%**

Table- 7 Average of Five Financial Years

Analysis of Percentage Change in Income, Expenditure and Fiscal Surplus

The year-wise comparison of income and expenditure of Bhilai Municipal Corporation from 2019–20 to 2023–24 shows how changes in income and spending directly influence the surplus position of the Corporation. Throughout the period, the Corporation maintained a surplus, which indicates overall financial stability. However, the size of this surplus varied from year to year depending on the relative growth of income and expenditure.

On the basis of observed year-over-year growthresults, the increases in both income and expenditure are **small, gradual, and not statistically significant**. The annual growth rates for income and expenditure lie between **1% and 3%**, which do not indicate any major financial expansion.

Hence, it may be concluded that **significant growth trend** is observed during the study period. Therefore, the **hypothesis [H1]There is significant growth(Surplus) observed over the period of years.** is **accepted**,

Findings of the Study: The major findings are presented under the following heads.

Revenue Account

1. Bhilai Municipal Corporation experienced a continuous revenue deficit throughout the study period, as revenue expenditure exceeded revenue income in all years.
2. Revenue income increased overall but failed to keep pace with rising expenditure, indicating operational imbalance.
3. Property tax remained the most stable and major source of revenue.
4. Income from municipal properties showed notable improvement in later years, reflecting better asset utilisation.
5. Fees and user charges were inconsistent and showed a declining trend, indicating weaknesses in collection efficiency.
6. Interest and profit income increased but contributed only marginally to total revenue.
7. Miscellaneous and compensation income remained irregular and insignificant.
8. Revenue expenditure was largely administrative and establishment-oriented, with major spending on salaries and routine civic services.

Capital Account

1. The capital account recorded a surplus in all five years, with capital income exceeding capital expenditure.
2. Government grants were the main source of capital income but declined substantially over the study period.
3. Heavy reliance on grants made capital financing uncertain and unstable.

4. Income from disposal of municipal assets showed improvement, though its share remained limited.
5. The Corporation did not resort to loan financing, indicating a conservative financial approach.
6. Capital expenditure remained low, suggesting under-utilisation of funds or delays in project implementation.

Suggestions and Recommendations

1. Greater emphasis should be placed on strengthening own-source revenue, particularly property tax, fees and user charges.
2. Regular revision of property tax assessments should be undertaken, and unassessed properties should be brought under the tax net.
3. Dependence on government grants should be reduced by enhancing internal revenue mobilisation, especially through municipal property and advertisement potential.
4. Capital funds should be utilised more effectively through timely execution of infrastructure projects.

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