Journal of Neonatal Surgery
ISSN(Online): 2226-0439
Vol. 14, Issue 27s (2025)
https://www.jneonatalsurg.com

OPEN ACCESS

A Study on Analysing the Financial Health and Risk Bearing Capacity of the Urban Local Bodies for Sustainable Financing

Mrs. Vipanchi V[1], Dr. U Bhojanna[2]

[1]Assistant Professor, JAIN (Deemed to be University), Bangalore, Karnataka, Research Scholar, Dept. of MBA & Research Centre, RNS Institute of Technology, Channasandra, Bengaluru-5600-- Affiliated to Visveswaraya Technological University, Belagavi, Karnataka.

[2]Professor and Dean – Dept. of MBA & Research Centre, RNS Institute of Technology, Channasandra, Bengaluru-5600-- Affiliated to Visveswaraya Technological University, Belagavi, Karnataka

Cite this paper as: Mrs. Vipanchi V, Dr. U Bhojanna, (2025) A Study on Analysing the Financial Health and Risk Bearing Capacity of the Urban Local Bodies for Sustainable Financing, *Journal of Neonatal Surgery*, 14 (27s), 616-623

ABSTRACT

Urban infrastructure is under increasing stress due to rapid urbanization. Addressing the long-term financial requirements arising from this growth and the evolving development agenda necessitates exploring innovative funding mechanisms. Although the roles and duties of Urban Local Bodies (ULBs) have expanded considerably after the 74th constitutional amendment Act their financial resources have not grown proportionally.

This study examines the financial health of Urban Local Bodies in Karnataka, focusing on their revenue generation capabilities and expenditure patterns. By analysing the ability of ULBs to meet their revenue expenditure out of own sources of revenue, evaluating the proportion of capEx out of overall expenditure and assessing their risk-bearing capacity, this research highlights critical gaps in municipal financing. The findings aim to provide actionable insights for improving the fiscal stability of ULBs and enhancing their ability to sustain and develop essential infrastructure.

Keywords: *Sustainable Finance, Financial Health, Urbanization, Risk appetite*

1. INTRODUCTION

Urbanization is a key driver of economic development, marking the transition from traditional rural economies to industrialized systems. Karnataka, the seventh most urbanized state in India, recorded an urban population of 39.27% as per the 2011 census. (economic survey) The state demonstrates notable variations in urbanization trends, with a significant concentration of its urban population—approximately 70%—residing in just 10% of towns and urban agglomerations. Bangalore stands out as the dominant city in this regard. (De Angelis et al. (2017) [1]).

The 74th CAA was introduced to strengthen the legal framework for Urban Local Bodies (ULBs) and delegate authority to them across 18 critical areas, including drinking water supply, sanitation, sewage systems, electricity and gas distribution, urban transport, primary health services, and environmental management. This move aimed to enable ULBs to meet the growing demands of economic expansion and population growth, ensuring the infrastructure necessary for societal progress and improved living standards [Bagchi, Soumen (2001)].

The municipalities are classified based on the population, density of population, employment in non- agricultural activities and the revenue generation from tax and non-tax sources.

For upgrading from Gram Panchayat to Town Panchayat the following conditions must be satisfied

Population – should range between ten thousand to twenty-five thousand, population density should be 400 inhabitants per square km, employment in non-agricultural activities should not be less than 50 percent of the total employment. **For upgrading from Town Panchayat to Town Municipal Council the following conditions must be satisfied:**

Population- should range between twenty-five thousand to fifty thousand, population density should be 1500 inhabitants per square km, employment in non-agricultural activities should not be less than 50 percent of the total employment, revenue in last preceding census year should be more than 9.00 lakhs per annum [Bagchi et. al. (2003)].

For upgrading from Town Municipal council to City Municipal Council the following conditions must be satisfied:

Population- should range between fifty thousand to three lakh and population density should be 1500 inhabitants per square km, employment in non-agricultural activities should not be less than 50 percent of the total employment, revenue in last preceding census year should be more than 9.00 lakhs per annum.

For upgrading from City Municipal Council to City Corporation the following conditions must be satisfied:

Population- Should range more than three lakh , population density should be 3 lakh inhabitants per square km, employment in non-agricultural activities should not be less than 50 percent of the total employment, revenue in last preceding census year should be more than 6 crore per annum.

Currently, Karnataka has 277 ULBs, including 11 Municipal Corporations, 61 City Municipal Councils, 126 Town Municipal Councils, and 114 Town Panchayats. Additionally, the state has established four Notified Area Committees (NACs) to deliver municipal services in specific zones, such as industrial areas [Directorate of Municipal Administration website]

Property tax serves as the primary revenue source for ULBs in Karnataka, contributing approximately 53% of their self-generated revenue[Bagchi et al. (2004000]. Other income sources include user charges for water supply, fees for building regulation and trade licenses, advertisement taxes, and duties on property transfers. Municipalities also have the option to secure loans from central and state governments or financial institutions to fund capex [Bhowmik, & Ghosh (2020)].

Compared to states like Maharashtra and Gujarat, ULBs in Karnataka generate a smaller share of revenue from their own sources. With the abolition of octroi across India, ULBs must identify alternative and sustainable revenue streams to minimize their dependency on state and central grants. This reliance on external grants often detracts from their focus on developing capital infrastructure [Cheol et.al. (2015)].

2. REVIEW OF LITERATURE

Agua, P. B., & Mendes, P. M. (2021) In Project Finance, investors typically have limited or no recourse to a sponsor's assets making them rely on future cash flows for returns. Despite this, investment decisions are often based on Net Present Value (NPV), with risk-adjusted discount rates used to account for uncertainty. However, these adjustments can sometimes lead to the rejection of projects that could be profitable over time. System Dynamics modeling addresses this limitation by simulating the continuous-time behavior of cash flows. This approach provides a clearer view of financial risks, incorporating growth dynamics and enabling better risk assessment and management.

According to Finn Schüle and Louise Sheiner (2020), financial market frictions led investors to hold onto cash rather than invest in municipal bonds. Consequently, they began selling off existing bonds and mutual funds while refraining from new purchases. To address this, the Federal Reserve permitted banks to use short-term municipal bonds from mutual funds as loan collateral. This move allowed banks to convert municipal bonds into cash, making them more attractive to investors. As a result, the Fed's intervention swiftly achieved its intended stabilizing effect.

Huixin Bi and W. Blake Marsh (2020) found that fiscal policy interventions, along with monetary policy measures supported by the Treasury, had a far greater stabilizing effect on the municipal bond market than monetary policy announcements without a clear fiscal backing.

M.S. Tumanggor (2020) suggests that municipal bonds offer a multi-dimensional, win-win solution benefiting the government, society, investors, and capital market participants while also fostering business opportunities and job creation.

Nandini Sarma (2020) emphasizes the urgent need for reforms in taxation, non-tax revenue, governance, and accounting standards in urban local bodies to bridge the growing gap between their responsibilities and financial and institutional capacities.

Daniel platz, Tim Hilger, Vito Intini and Simona Santoro (2017) emphasize that enhancing urban finance requires robust local public financial management, increased generation of own-source revenue, effective intergovernmental transfers, and the adoption of innovative borrowing strategies.

Ms. Megha Jain and Dr. Ravikant Joshi (2015) emphasizes the importance of strengthening the resource augmentation capacity of municipal bodies. They argue that merely allocating additional resources will not resolve existing challenges unless municipal bodies improve their efficiency in utilizing these resources. The authors advocate for the establishment of a framework that includes positive incentives, penalties, and accountability measures. This framework aims to encourage efficiency, regulate municipal activities, and ensure responsible resource usage to prevent inefficiencies from exacerbating the problem.

The United Nations (2015) highlights the importance of enhancing revenue administration to support sustainable development. The focus is on modernizing and adopting progressive tax systems, refining tax policies, and improving the efficiency of tax collection processes. These measures aim to create a robust and equitable revenue framework that can effectively mobilize resources for public services and infrastructure.

Cheol Liu and Tima T. Moldogaziev (2015) argue that the effectiveness of fiscal institutions in promoting fiscal discipline among local governments is significantly undermined in states with higher levels of public sector corruption. In such environments, corruption erodes the intended checks and balances of fiscal institutions, reducing their ability to manage resources responsibly and ensure financial accountability. This insight underscores the critical need to address corruption to realize the full potential of fiscal governance mechanisms**.**

Ramakrishna Nallathiga (2015) highlights a pressing issue faced by Urban Local Bodies stagnant tax revenue, not fully exploited non-tax revenue, unhealthy expenditure structure and low debt utilisation for several years. This stagnation hinders their ability to service bonds and meet financial obligations. To address this challenge, Nallathiga emphasizes the need for ULBs to enhance their revenue billing and collection systems. Improving these systems can help ULBs boost their financial health and better manage resources for urban development initiatives**.**

The World Wildlife Fund (WWF) (2015) emphasizes that financing for sustainable development must draw from a mix of international and domestic sources, incorporating both public and private financial flows. The key principle highlighted is that these diverse streams of funding should act in a complementary manner, ensuring that they work together to maximize impact rather than replacing one another. This approach is crucial for achieving a balanced and effective financing framework for sustainable development.

Anand Sahasranaman and Vishnu Prasad (2014) stress that cities in India must significantly enhance their revenue generation through mechanisms like property taxes and user charges. Without these higher revenue levels, achieving the mandate for improved public service delivery remains a challenging goal. Strengthening these revenue streams is essential for cities to meet growing demands for quality infrastructure and services in a sustainable manner**.**

Dr. Vijay S. Jariwala (2014) highlights key issues in municipal finances, noting that while municipal corporations generate small revenue surpluses with minimal resource gaps, their spending levels remain insufficient to provide even the minimum required civic amenities. This constrained expenditure is attributed to systemic design flaws within the inter-governmental framework, which limits the independence and decision-making capabilities of Urban Local Bodies (ULBs). The analysis underscores that true decentralization, allowing ULBs greater autonomy, is yet to be realized.

Simanti Bandyopadhyay (2011) emphasizes that improved fiscal management holds the key to enhancing service delivery in India's urban sector. Efficient resource allocation, effective revenue generation, and prudent financial planning are crucial for municipalities to meet the growing demands for quality urban infrastructure and services. Strengthening fiscal practices can enable urban local bodies to operate more sustainably and responsively.

M. Govinda Rao and Richard M. Bird (2010) suggest that to augment the resources of municipal bodies, it is essential to reform the property tax system and effectively utilize user charges and fees for various services. They also emphasize the need to strengthen and enhance central and state transfers to urban local governments, ensuring these bodies have adequate financial resources to meet their responsibilities.

Research gap

There are numerous studies suggesting that the ULBs should look for alternative source of finance as the existing source of finance is insufficient not only to build world class infrastructure but also to maintain the existing once because of the rapid urbanization that is posing a severe threat to urban infrastructure [De Angelis et. al. (2017)]. There is no particular study that has analysed the existing state of finances of the Urban Local Bodies in Karnataka [Garayalde et.al. (2019)].

Statement of Research Problem

The 74th constitutional Amendment Act, 1992 has given constitution recognition to the Urban Local Bodies and vested them with the 18 responsibilities such as supplying drinking water, sanitation, storm water drain, solid waste management, regulation of slaughter houses, construction of burial grounds, parks, roads and bridges among several others functions. Numerous studies have highlighted the need for sustainable source of finances to meet the growing needs of the urban cities [Ghodke, Manju (2004)]. However, before suggesting the alternative source of finance, it is important to analyse the existing source of finances of the urban local bodies and analyse its financial position [Jariwala, (2016)].

Objectives of the study

1. To estimate if the ULBs are able to meet their revenue expenditure out of their own

revenue

2. To determine the percentage of capEx as a percentage of overall expenditure.
3. To analyse the financial health and recommend sustainable financing strategy.

Scope of the study

The study focuses on evaluating the financial health of Urban Local Bodies (ULBs) in Karnataka by examining their financial positions as reflected in their audited books of accounts. The primary objective is to determine whether these ULBs are self-sufficient in generating the revenue necessary to meet their operational and developmental needs or if they are facing significant deficits that could impair their ability to provide essential services to the community [Jha (2003)]. The study aims to provide valuable insights into the financial viability of ULBs in Karnataka, highlighting challenges they face and identifying opportunities for reform and enhancement of fiscal management practices. This analysis can inform policymakers, stakeholders, and urban planners in their efforts to strengthen local governance and improve service delivery in urban areas [Kapoor &Pati (2017)].

3. RESEARCH METHODOLOGY

This paper relies on secondary data sources, including state budget documents and audited reports of urban local bodies [Malhotra (2020)]. Data on the state's own resources and expenditures were gathered from these sources, along with information from the Directorate of Municipal Administration, Karnataka Municipal Data Society, Urban Development Departments, and Budget Link documents to analyze state support for local bodies [Mathur and Thakur (2004)].

Conceptual framework

Diagram indicating key financial aspects of Urban Local Bodies

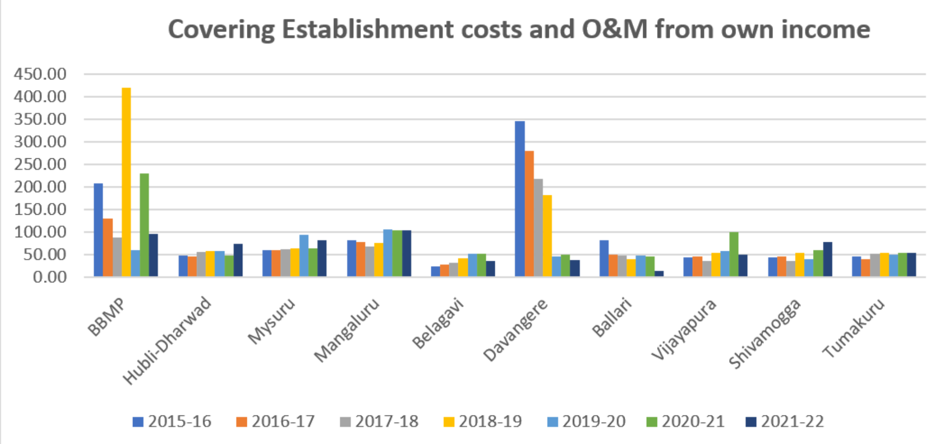
Analysis of the financial health

Table - 1 ULBs able to recover costs related to revenue expenditure which is O&M costs as well as establishment & salaries from its own revenue funds Achievement Range

Year	BBMP	Hubli-Dharwad	Mysuru	Mangaluru	Belagavi	Davangere	Ballari	Kalaburagi	Vijayapura	Shivamogga	Tumakuru
2015-16	207.63	48.13	59.74	81.54	23.67	344.46	80.38	40.84	43.48	43.48	44.49
2016-17	129.10	44.41	59.41	78.15	28.06	278.54	49.54	43.26	45.74	45.74	38.58
2017-18	87.97	55.20	60.81	66.57	30.74	216.58	47.07	35.73	35.58	35.58	51.08
2018-19	419.91	56.96	63.01	75.30	41.76	180.29	39.71	32.98	54.09	54.09	52.89
2019-20	58.25	56.71	93.73	105.04	51.05	45.80	46.95	50.65	56.49	39.89	49.61
2020-21	228.96	48.03	64.04	103.35	50.94	48.59	46.16	39.87	98.86	59.37	53.73
2021-22	94.83	73.06	80.54	104.08	35.37	37.16	13.97	40.69	48.86	77.36	53.50

Source: Audited accounts of the municipalities

Chart - 1



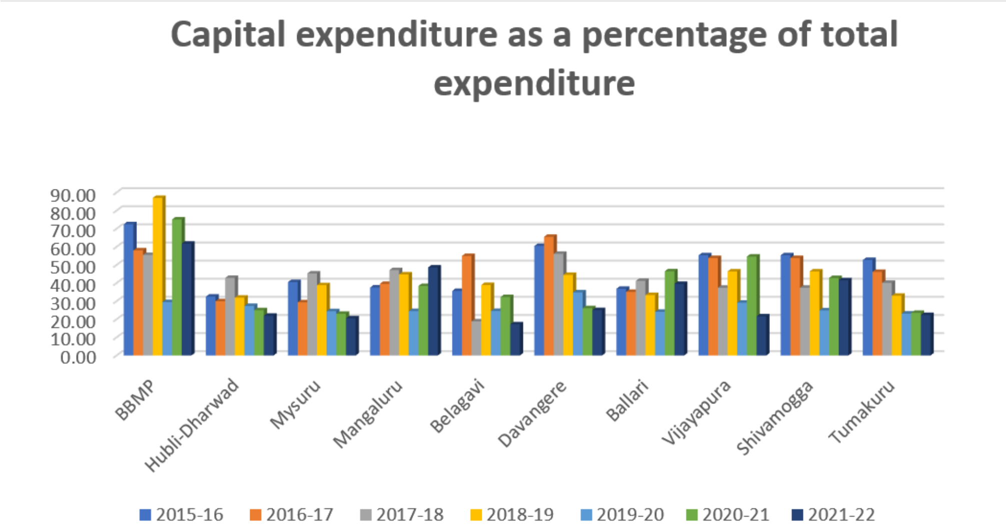
Achievement range is calculated by dividing the revenue expenditure by the own source of revenue, greater the achievement range better is the finances of the ULB. For this 7 years data is considered. Based on the data gathered as shown in Table - 1, it may be noted that BBMP has a good achievement range in the year 2015-16, 2016-17, 2018-19, 2020-21, indicating they have been able to meet their revenue expenditure out of their own revenue in the aforementioned years, Mysore has a good achievement range in 2019-20 and needs improvement in the remaining years, Mangalore also has a good track record in 2020-21 & 2021-22. Vijayapura has a good track record in 2020-21, the remaining Municipalities have failed to meet their revenue expenditure out of their own revenue indicating financial stress and needs a financial improvement plan [Mathur, Om Prakash (2006)].

Table – 2 : Ratio of capEx to overall Expenditure including all devolutions/schemes Achievement Range

Year	BBMP	Hubli-Dharwad	Mysuru	Mangaluru	Belagavi	Davangere	Ballari	Vijayapura	Shivamogga	Tumakuru
2015-16	72.51	32.52	40.58	37.56	35.67	60.48	36.87	55.35	55.35	52.78
2016-17	58.06	29.98	29.40	39.55	54.97	65.54	35.12	53.86	53.86	46.18
2017-18	55.52	42.86	45.32	47.19	18.88	56.13	41.20	37.45	37.45	40.12
2018-19	87.04	31.95	38.87	44.81	38.93	44.49	33.39	46.45	46.45	33.02
2019-20	29.52	27.39	24.51	24.52	24.60	34.85	24.14	29.21	24.93	23.18
2020-21	75.13	25.03	23.03	38.40	32.27	26.16	46.52	54.65	42.80	23.59
2021-22	61.77	21.98	20.54	48.63	17.25	25.05	39.58	21.63	41.52	22.36

Source: Audited accounts of the municipalities

Chart- 2



Achievement range is calculated by dividing the capEx as a percentage of overcall expenditure, if the ULBs are spending most of the funds towards capEx which involves construction of roads and bridges, clean water and sanitation, storm water drain, parks and amenities then the ULBs are embracing sustainable financing as these capital-intensive projects will yield good results in the long run [Mathur et. al. (2006)] & [Mathur et. al. (2003)]. For this analysis we have used 60% as benchmark as the sample size consists of Municipal Corporation whose revenue from local administration will not be less than 6 crore per annum [Ming Su and Quanhou Zhao (2006)].

As per the Table -2, BBMP has a good track record of capEx as a percentage of overall expenditure in the year 2015-16, 2018-19, 2020-21 and 2021-22 with the achievement range surpassing 60%, Davangere has a good track record in 2015-16 & 2016-17. All the other ULBs have an achievement range of less than 60 % indicting the ULBs are not investing in the developmental projects which is a cause of concern and needs to be addressed for a robust financing mechanism [Mohanty et. al. (2007)] & [Megha Jain, & Ravikanth Joshi. (2015)].

Analysis and Interpretation

Municipalities are said to have a robust and sustainable financing mechanism if they are able to meet their revenue expenditure out of their own revenue and if their achievement range in capEx as a percentage of overall expenditure has surpassed 60% [Nallathiga, Ramakrishna. (2015)] & [Nosike & Akujuru (2002)]. As per the data analysis it is observed that BBMP has a good track record in meeting its revenue expenditure out of its own revenue followed by Mysuru, & Mangalore and Vijayapura in one or more years. When it comes to capEx as a percentage of overall expenditure BBMP and Davangere have a good track record surpassing 60% achievement range in one or more years out of the seven years sample data collected. The remaining ULBs are under financial stress and are exhibiting poor financial health that requires a financial improvement plan [Rao et.al. (2010)].

4. FINDINGS AND CONCLUSION

The ability of the ULB to take risk depends on their financial health and based on the analysis of the finances of the municipal corporations as projected in Table -1 and Table -2 strengthening the own [Ray Santanu, & Chakraborty Joy. (2008)] source of revenue of the ULBs comprising of property tax, rental income, fees and fines, user charges, water charges is the need of the hour as the ULBs are not able to meet their revenue expenditure out of their own revenue for this, efforts must be made to bring all the properties under the tax bracket as the property tax is a low hanging fruit and improve the collection of the same by conducting Lok Adalat [] Szot-gabryś (2013)]. Water supply should be metered to improve their collection and also replace the worn-out pipes to plug water leakage [Takahiro Hattori (2018)]. The ULBs capEx as a percentage of overall expenditure is a cause of concern and needs to be addressed as investment in capital intensive project will facilitate in achieving sustainable financing [Thakur, & Ram. (2018)].

Scope for future study

Further study can be carried out to suggest innovative financing mechanism which would make the ULBs self-sufficient by developing a framework of sustainable financing mechanism that would explore various sources of finances and suggest the source of finance that would be suitable of the municipalities [Tumanggor, M. S. (2020)]

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