



Financial Autonomy for Financing Capital Expenditure of Local Body: A Case Study of Ulhasnagar Municipal Corporation, India

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Abstract

Every municipal corporation must increase revenue and capital receipts. The surplus in budgets are important to finance capital expenditure. But the revenue receipts of Ulhasnagar Municipal Corporation have declined over the period of time. An interest receipts on taxes have declined sharply. The corporation is not able to spend more on various infrastructural facilities. Various expenditure such as expenditure on postage, street light, payment of staff has been reduced by corporation. The road maintenance, public notices, drainage repairing related expenditure also reduced by corporation over the period of time. The capital receipts have also declined of corporation. The development projects under JNNURM, MP funds various grants have declined very fast. Capital expenditure on slums, housing infrastructure, water supply has declined in corporation in current period. The municipal corporation must raise capital through issuing municipal bonds. It will help to raise capital for civic services investment in corporation. Such efforts can be very helpful to provide quality infrastructure facilities to people. People will able to increase standard of living and quality of life in corporation.

Keywords: Water supply; Sanitation; Urbanization.

1. Introduction

Each municipal corporation should contribute significantly in civic infrastructure and improve quality of life of people. The local authorities account for a significant proportion of the general government's activity and exhibit a high degree of heterogeneity in the structure of their economic activity (Navon, 2006). Municipalities have a direct impact on people's life as they influence the functioning of local economies, the delivery of national governments' policies and that proximity services, such as public health, security and education. Thus, it is not surprising that municipalities have played a central role both in recent reforms and crises (Padovani et al., 2020). Each municipality was granted territorial power and made responsible for a range of development activities including infrastructure, local roads, sports, health and education (Surie, 2011). Ulhasnagar Municipal Corporation is no exceptions with above situation.

Ulhasnagar is a medium sized town in Mumbai Metropolitan Region (MMR) in Thane District. It is around 58 Kilometers away from Mumbai city. Mumbai city is a financial capital of country. The Ulhasnagar city extends to Ulhas River on the North. The city is bordered by Kalyan in the West and Ambernath in the East and South. The Central Railway line passes through Ulhasnagar and it connects number of cities in South India via Pune Junction. The Ulhasnagar city was as military transit camp in 1992 by British government. The camp was known as Kalyan Military camp. After World war two, the camp moved out of Town. After partition between India and Pakistan, immigrants come to India. Many Sindhis from West came and settled. After independence the camp is developed as

town. Government provided employment, housing, business opportunities to Sindhi families. Due to employment opportunities many urban and rural people migrated to city. The population started increasing in the infrastructure services never increased as proportion to population. Water supply, sewerage, solid waste, slums, floods, environment, pollution. The water supply is still inadequate with rising population. The storage tanks are limited. The lower slope areas receive more water than higher slope areas. Leakages are found at different places to water supply system. Many illegal connections are found in corporation. The washed diseases are found more among people. Water is drawn through hand pumps at different locations.

The sewage system is inadequate with rising population. The untreated sewage flows in Ulhasriver. Flooding is observed every season on corporation. It damages human life, properties and infrastructure. Municipal corporation does not have system to collect solid waste. The private agencies collect solid waste at different locations. Most of the areas are not covered in solid waste collection. Solid waste is thrown everywhere in corporation. It creates health and environment issues in corporation. The dumping grounds are far away and they are not adequate with rising solid waste. Municipal corporation does not have its transport corporation. The Kalyan Dombivali Municipal Corporation (KDMC) and State Transport (ST) buses operate in few routes. Internal transport is an issue. The and efficient transport is an issue with corporation. Health infrastructure and staff is inadequate with rising population. The quality of health care is very low. Private schools and colleges are beyond the reach of poor people. Open spaces are not found in corporation. Parks are inadequate in terms of population. The poor people migrate to city due to availability of employment. But affordable housing is not available therefore they prefer to stay in slums where environment is unhygienic. The corporation is not spending on construction of latrine, improvement of houses of poor.

The revenues lost due to abatement ineffectiveness potentially lead to lower quality infrastructure and education programs, as well as other municipal problems in jurisdictions that already face a variety of difficulties (Fullerton and Aragonés-Zamudio, 2006). There are major civic infrastructure issues are observed in Ulhasnagar Municipal Corporation.

2. Data of Municipal Corporation Budgets

Data related to budgets of Ulhasnagar Municipal Corporation of various years is downloaded from website (2012-13 to 2017-18). Population data available on census website, Government of India. We referred various articles such as Times of India, Maharashtra Times, Hindustan Times etc. Environment Status Report, Mumbai Metropolitan Regional Development Report, Thane District Environment Status report are referred. We also visited number of times to Ulhasnagar Municipal Corporation and observed the civic infrastructure facilities.

3. Methodology

Compound annual growth rate (CAGR) is used for geometric progression ratio. CAGR is useful to calculate constant rate of return from 2012-13 to 2017-18. Ulhasnagar Municipal Corporation has budget data from 2012-13 to 2017-18. CAGR breaks the volatility effect of periodic returns that can furnish arithmetic means irrelevant. The CAGR is defined as follows.

$$CAGR(t_0, t_n) = \left(\frac{V_{t_n}}{V_{t_0}} \right)^{\frac{1}{t_n - t_0}} - 1 \quad (1)$$

Where

V_{t_0} is the 2012-13 year.

V_{t_n} is the 2017-18 year.

The CAGR is presented in the following table. We have used STATA @10 software for data analysis.

3.1. Econometric Model

We have developed econometric model for Budget Surplus of Ulhasnagar Municipal Corporation. It is explained as follows.

$$\sum_{t=n}^n BS = \sum R_0 + \sum RS_t + \sum CS_t \quad (2)$$

Above equation shows that Budgetary Surplus with corporation shows as past Revenue (R_0)surplus, Revenue Surplus (RS) and Capital Surplus (CS) in the current period.

$$\sum_{t=n}^n RS_t = \sum RR_t - \sum RE_t \quad (3)$$

Revenue surplus is defined as the Revenue Receipts (RR) minus Revenue Expenditure (RE).

$$\sum_{t=n}^n CS_t = \sum CR_t - \sum CE_t \quad (4)$$

The capital Surplus is defined as the total Capital Receipts (CR) minus total Capital Expenditure (CE).

3.2. Revenue Receipts

The Ulhasnagar Municipal Corporation gets revenue from different sources. We have categorized the few sources in terms of following equations.

$$\sum_i^n RR = \sum_{i=1}^n (CRT, RUSA, RMPS, GC, CRT, LOF, M) \quad (5)$$

The Revenue Receipts(RR) comprises as Corporate Rates and Taxes (CRT), Recovery Under Special Acts (RUSA), Revenue from Municipal Properties and Services (RMPS), Grants and Contributions (GC), Corporation Rates and Taxes (CRT), License and Other Fees (LOF), Miscellaneous (M)

$$\sum_i^n CRT = \sum_{i=1}^n (OR, PT, CET, TC, STT, SHT, POT) \quad (5.1)$$

Corporation Rates and Taxes (CRT) is defined as Octroi Recovery (OR), Property Taxes(PT), Corporation Education Tax (CET), Tree Cess (TC), Street Tax(STT), Show Tax(SHT), Penalty and other Taxes (POT)

$$\sum_i^n RUSA = \sum_{i=1}^n (DC, BFPF, SBMRS, OF) \quad (5.2)$$

Recovery under special acts (RUSA) has different categories as Development charges (DC), Building Permission Fees and Premium (BFPF), Stocking of Building Material on Road Side (SBMRS), Other Fees (OF).

$$\sum_i^n RMPS = \sum_{i=1}^n (MFC, AHC, LF, BDCC, TL, CNF, RCC, NOCF, LFS, FF, MCF) \quad (5.3)$$

We have defined the Revenue from municipal properties and services (RMPS) a Medicine Fees and checking fee (MFC), Trade licence/licence fee (LF), Birth and Death Certificate Charges (BDCC), Notice Fee and Warrant Fees (NF), Change of Name fees, Road Cutting Charges (CNF), No objection Certificate Fees (NOCF), Licence Fees from Surveys (LFS), Fire fighting NOC Fees (FE), Marriage Certificate fee (MCF)

$$\sum_i^n GC = \sum_{i=1}^n (ETG, OG) \quad (5.4)$$

Grants and contributions(GC) are received by corporation and it is further categorized as Entertainment Tax Grant (ETG), Other Grants (OG),

$$\sum_i^n M = \sum_{i=1}^n (IOMD, IOMT, SS, SOTF, ESR, EGSR, TOBR, CR, ROFC, SSD, OI, TI) \quad (5.5)$$

Municipal corporation received Miscellaneous (M) amount different sources. It comprises as Interest on Municipal Deposits (IOMD), Interest on Municipal Taxes (IOMT), sale of scrap (SS), Sale of Tender Forms (SOTF), Tax on Big Residence Commercial Rebate (TOBR), Rebate on Fines Collected by Court (ROFC), Salary of Staff on Deputation (SSD), Other Income(OI), Transport Income (TI).

$$\sum_i^n CRT = \sum_{i=1}^n (WBRT, WBRWS, WBT, SBT, CT, SCT) \quad (5.6)$$

Corporation Rates and Taxes (CRT) is classified as Water Bill Recovery Tax(WBRT), Water Bill Recovery WS (WBRWS), Water Benefit Tax(WBT), Sewage Benefit Tax(SBT), Conservancy Tax(CT), Special Conservancy Tax(SCT)

$$\sum_i^n LOF = \sum_{i=1}^n (WCF, PLF, OF) \quad (5.7)$$

Licence and Other Fees(LOF) is charged by corporation and it is categorized as Water Connection Fees (WCF), Plumber Licence Fees (PLF), Other Fees (OF).

$$\sum_i^n M = \sum_{i=1}^n (STF) \quad (5.8)$$

We defined M as miscellaneous receipts as Sale of Tender Forms (STF)

3.3. Revenue Expenditure

The Ulhasnagar Municipal Corporation spends money on various services every year. We have categorized the expenditure on following major items.

$$\sum_{i=1}^n RE = \sum_{i=1}^n (GACC, PS, PHSWM, WS, UGD, D, M) \quad (6)$$

Revenue expenditure is classified simply as General Administration and Collection Charges (GACC), Public Safety (PS), Public Health and Solid Waste Management (PHSWM), Water Supply (WS), Under Ground Drainage (UGD), Drainage (D) and Miscellaneous (M).

$$Q \sum_i^n GACC = \sum_{i=1}^n (GA, PHMD, OAF, OAE) \quad (6.1)$$

Where General administration and collection charges (GACC) equals to GA which means General administration, Public Health Medical Department (PHMD), Other Allowances Facilities (OAF), Other Allowances Facilities (OAF).

$$\sum_i^n GA = \sum_{i=1}^n (CO, Au, Ac, Le, PH) \quad (6.1.1)$$

General Administration (GA) related expenditure is sum of Commissioners Office (CO), related expenditure, Audit (Au), Accounts (ACC), Legal (Le), Public Health (PH) related expenditure. We have also defined Public Health (Medical Department) (PHMD).

$$\sum_i^n PHMD = \sum_{i=1}^n (PWD, GD, UCD, ED, TP, SD, ED, FD, SNO, ATCO, VD, RD, WO, HP, DW, PF, SRFC, PF) \quad (6.1.2)$$

where Public Works Department (PWD), Garden Department (GD), Unauthorized Construction Department (UCD), Estate Department (ED), Town Planning (TP), Stores Department (SD), Electrical Department (ED), LBT Department (LBT), Security Department (SD), Fire Department (FD), Secretary & Non - Officials (SNO), Assessor & Tax Collectors Office (ATCO), Vehicles Department (VD), Record Department (RD), Ward Offices (WO), Health Posts (HP), Daily Wages (DW), Pension Fund (PF), Salary Reserve Fund Contingency (SRFC), Provident Fund (PF) related expenditure.

$$\sum_i^n Oaf = \sum_{i=1}^n (OA, LTA, MR, ET, LSPC, URC, VAO, TA) \quad (6.1.3)$$

Other Allowances and Facilities (OAF) are of many types and they are mainly comprises as Overtime Allowance (OA), Leave Travel Allowance (LTA), Medical Reimbursement (MR), Employees Training (MT), Leave Salary and Pension Contribution (LSPC), Uniforms and Rain Coats (URC), Vehicle Allowance to Officers (VAO), Travel Allowance (TA).

$$\sum_i^n OAE = \sum_{i=1}^n (S, P, ROX, OF, TC, TIM, OEB, OEI, PE, CCF, ITO, CAP, PD, VR, POT) \quad (6.1.4)$$

Other Allowances Facilities (OAF) is classified as Stationery (S), Printing (P), Repairs of Xerox (ROX), Office Furniture (OF), Telephone Charges (TC), Telephone, Intercom (TIM), Office Electricity Bills (OEB), Office Electrical Installation (OEI), Postal / Courier Expenses (PE), Court Cases & Fees (CCF), Information Technology Outsourcing (ITO), Computer Accessories & Peripherals (CAP), Petrol & Diesel (PD), Vehicle Repairs (VR), Purchase of Tyres & Tubes For Vehicles (POT).

$$\sum_i^n PS = \sum_{i=1}^n (SLRMV, SLRM, SLEC, RD, OE, RMFS, RTFV, EM) \quad (6.2)$$

Municipal Corporation is spending money on Public safety (PS). It is further categorized as Street Light Repairs & Maintenance (SLRM), Street Light Repairs & Maintenance (WS), (SLRM), Street Light Energy Charges (SLEC), R&D (RD), Other Expense (OE), Repairs & Maintenance Of Fire Station (RMFS), Repair To Fire Vehicles (RTFV), Emergency Management (EM).

$$\sum_i^n PHSWM = \sum_{i=1}^n (RR, MS, PI, OE, PM, FPPE, MDCM, AAT, ARTM, VA, DS) \quad (6.3)$$

Public health and solid waste management (PHSWM) is defined as Removal of Refuse (RR), Mechanical Sweeping (MS), Purchase of Insecticides (PI), Other Expense (OE), Purchase of Medicines (PM), Family Planning Programme Expenses (FPPE), Malaria & Dengue Control Measures (MDCM), Aids, Anti Tuberculosis (AAT), Anti Rabid Treatment Measures (ARTM), Vaccination (VA), Dog Sterilization (DS) etc.

$$\sum_i^n GI = \sum_{i=1}^n (MG, PTGE, EI, ECF) \quad (6.4)$$

Municipal corporation spends regularly on Garden Improvement (GI). We categorized such expenditure as Maintenance of Gardens (MG), Purchase of Trees Guards, Earth (PTGE), Electrical Installation (EI), Energy Charges Fountains (ECF).

$$\sum_i^n E = \sum_{i=1}^n (PE, PPSE, RMB, MOR, PTSRMM, RMS, MBG, OE) \quad (6.5)$$

All types of expenditure on Education (Education) is important in corporation. We categorized education expenditure as expenditure as Primary Education (PE), Pre - Primary & Secondary Education (PPSE), Repair to

Municipal Buildings (RMB), Maintenance of Roads (MOR), Providing Traffic Signs (PTS), Repair and Maintenance of Market (RMM), Repair and Maintenance of Statues(RMS), Maintenance of Burial Grounds (MBG), Other Expense (OE).

$$\sum_i^n WS = \sum_{i=1}^n (MWC, MWCA, WTC, PAI, RBW, WPC, WAC, PA, MWSB, CWP, RPM, OBPM, OEWSB, OE) \quad (6.6)$$

Municipal Corporation provides Water supply (WS) to all units. It spends as MIDC Water Charges (MWC), MIDC Water Charges (Arrears) (MWCA), Water Tanker Charges (WTC), Pipes, Accessories & its Installation (PAI), Repair of Bore wells(RBW), Water Pollution Cess(WPC), Water Analysis Charges (WAC), Pipes, Accessories(PA) Maintenance of Water Supply Buildings (MWSB), Chemicals etc. for Water Purification (CWP), Repair To Pumping Machinery (RPM), Operation of Booster Pumping Machinery (OBPM), Electricity /Telephone/ Other Expense of Water Supply Buildings (OEWSB) and Other Expenses (OE).

$$\sum_i^n UGD = \sum_{i=1}^n (STPPSO, OESTP, MDCI, MSS, MSCV) \quad (6.7)$$

Under Ground Drainage (UGD) means S.T.P. & Pumping Station Operation(STPPSO), Other Expenses of STP, PS & Drainage Buildings (OESTP), Material for Drainage Connection & Installation (MDCI), Maintenance of Sewerage System (MSS), Maintenance of Sewer Cleaning Vehicles (MSCV).

$$\sum_i^n D = \sum_{i=1}^n (RMDNC, RMUL, ROL, DDN) \quad (6.8)$$

Municipal Corporation spends money on Repair & Maintenance of Drains, Nallas& Culverts (RMDNC), Repair & Maintenance of Urinals & Latrines (RMUL), Repair of latrines (ROL), Desilting of Drains &Nallas (DDN). We have categorized such expenditure as expenditure on drainage.

$$\sum_i^n M = \sum_{i=1}^n (EE, VI, CTTE, EDC, POT, REDM, TOR, SE, MOAM, HOV, CC, ROUC, BC, DPP, OE, MOAM) \quad (6.9)$$

Municipal Corporation spends money on Miscellaneous (M) items. It is classified as Election Expenditure (EE), Vehicle Insurance (VI), Corporator Training & Travelling Expense (CTTE), Expense During Calamities (EDC), Publication of Tenders (POT), Refreshment Expenditure During Meetings (REDM), Tax / Octroi / Other Refunds (TOR), Sports Expense (SE), Meeting & Other Allowance to Members (MOAM), Hiring of Vehicles (HOV), Census Charges (CC), Removal of Unauthorized Construction (ROUC), Bank Charges (BC), Development plan preparation (DPP), Other Expense (OE), Meeting & Other Allowances to Members (MOAM) is last category of the revenue expenditure.

3.4. Capital Receipt

The capital is received by corporation from various sources. We have given few categories of capital receipts as follows.

$$\sum_i^n CR = \sum_{i=1}^n (RMP, GC, L, GC, CWSSDLF, GC) \quad (7)$$

Where , CR means Capital Receipts for corporation. It is further comprises as Revenue from Municipal properties (RMP), Grants and contributions(GC), Loans (L), Grants and contribution (GC), Consolidated water supply and sewage disposal loan fund(CWSSDLF), Grants and contribution (GC).

$$\sum_i^n RMP = \sum_{i=1}^n (MMR, OMPR, MGGR, THSPR, AHR) \quad (7.1)$$

Revenue from Municipal properties (RMP) means Municipal Market Rent (MMR), Other Municipal Properties Rent (OMPR), Municipal Gardens & Gardens Rent (MGGR), Town Hall, Swimming pool Rent (THSPR), Advertisement on Hoardings Rent (AHR) for municipal corporation. We have defined Grants and contribution (GC) as follows.

$$\sum_i^n GC = \sum_{i=1}^n (RG, DPDCG, MPG, DVIG, JNNURMMG, MFSPG, FGC, OG) \quad (7.2)$$

Where Road Grant (RG), D.P.D.C. Grant (DPDCG),M.P. Grant(MPG), Dalit Vasti Improvement Grant(DVIG), JNNURM Grant (JNNURMMG), Maharashtra Fire Safety Programme. Grant(MFSPG), Finance Commission Grant (FCG), Other Grants (OG).

4. Capital Expenditure

Municipal Corporation spends money on establishment of various civic services. Few services under capital expenditure are explained as follows.

$$\sum_i^n CE = \sum_{i=1}^n (GA, PS, PHSWM, M, WS, UGD, D) \quad (8)$$

The capital expenditure (CE) is an important component for budgets where General Administration (GA), Public safety (PS), Public health and solid waste management (PHSWM), Miscellaneous (M), Transport services (TS), Water supply (WS), Under ground drainage (UGD), Repayment of loans (RL), Miscellaneous (M).

$$\sum_i^n GA = \sum_{i=1}^n (ITE, PV, JNNURMD) \quad (8.1)$$

General Administration (GA) related expenditure means Information Technology Equipment (ITE), Purchase of Vehicles (PV), JNNURM Development (JNNURMD).

$$\sum_i^n PS = \sum_{i=1}^n (SLNI, SLNIWS, RD, PFT) \quad (8.2)$$

Public safety (PS) related expenditure is categorized as Street Light New Installation (SLNI), Street Light New Installation (WS) (SLNIWS), Research & Development (RD), Purchase of Fire Tenders (PFT) by corporation.

$$\sum_i^n PHSWM = \sum_{i=1}^n (SE, CG, PAI, PNF, EI) \quad (8.3)$$

Public Health and Solid Waste Management (PHSWM) related capital expenditure is defined as Sanitation Equipment's (SE), Construction of Gardens (CG), Purchase of Amusement Items (PAI), Providing New Fountains (PNF), Electrical Installations (EI) for number of years. We also defined Public Works (PW) of corporation as follows.

$$\sum_i^n PW = \sum_{i=1}^n \left(\begin{array}{l} MB, MBO, CSM, NR, NRCC, S, SGD, MF, DMF, SCF, CFG, CFWS, GBUCD, DWS, DWWSL, \\ DWML, DWML, DWFD, DWFIF, DWFRG, DWDP, DWMPF, DFD, \\ VIG, DWSG, JNNURMD, RAY \end{array} \right) \quad (8.4)$$

Where Public Works related to corporation means Municipal Buildings (MB), Construction of Samaj Mandir (CSM), Newer Roads (NR), New Roads (Cement Concrete) (NRCC), Statues (S), Shri .Ganesh Dev. Visarjan Ghat (SGD), Mayor Fund (MF), Deputy Mayor Fund (DMF), SC. Chairperson Fund (SCCF), Corporator Fund (General) (CFG), Corporator Fund (WS) (CFWS), St. Gadge Baba Urban Cleanliness Development (GBUCD), Development. Works In Slum (DWS), Development. Works In W.S. Localities (DWWSL), Development Works in Minority Localities (DWML), Development. Works Form Development Charges Fund (DWFD), Development Works from Infrastructure Fund (DWIF), Development. Works from Road Grant (DWRG), Development. Works from DPDC Grant (DWDP), Development. Works from MP Fund (DWMP), Development. Works from Dalit Vasti Implementation Grant (DWVIG), Development Works from Special Grant (DWSG), JNNURM Development (JNNURMD), Rajiv Awas Yojna (RAY). Public work of corporation is of different types.

$$\sum_i^n M = \sum_{i=1}^n (ECD) \quad (8.5)$$

Miscellaneous (M) related expenditure is of only Electricity Connection Deposits (ECD).

$$\sum_i^n WS = \sum_{i=1}^n (PAPP, PAPPWS, BPM, CMRWS, JNNURMD) \quad (8.6)$$

Water Supply (WS) means Pipes, Accessories, Power Pumps (PAPP), Pipes, Accessories, Power Pumps (WS) (PAPPWS), Booster Pumping Machinery (BPM), Construction & Major Repairs of WS (CMRWS), JNNURM Development (JNNURMD) over the period of time.

$$\sum_i^n UGD = \sum_{i=1}^n (EASTP, MINDC, PVM) \quad (8.7)$$

Under Ground Drainage (UGD) related capital expenditure is classified as Equipment's & Access for STP (EASTP), Material & Installation for New Drainage Connection (MINDC), Purchase of Vehicles & Machinery (PVM).

$$\sum_i^n D = \sum_{i=1}^n (CDNC, CDNCWS, CUL, CLM) \quad (8.8)$$

Drainage (D) related capital expenditure is of Construction Of Drains, Nallas and Culverts (CDNC), Construction Of Drains, Nallas and Culverts (WS), Construction Of Urinals and Latrines (CUL), Construction Of Latrines - Nirmal MMR (CLM).

4.1. History and Status of Civic Services by Ulhasnagar Municipal Corporation

Ulhasnagar was built as a Military Transit Camp in 1942. It was built during World War II by British Government. Such camp was known as Kalyan Military Transit Camp. The camp accommodated 6,000 soldiers and 30,000 other army officials. There were 2,126 barracks and about 1,173 housed personals within the camp. When the World War II over, the camp moved out of the town. The piece of land remained vacant until the Independence of India. After Independence of India, the partition between India and Pakistan took place. The partition, brought immigrants to India from newly formed West Pakistan. Many families of Hindu Sindhis left Sindh Province in West Pakistan. They came and settled in various parts of country. Few families came to Maharashtra in search of shelter and livelihood. Those came to Mumbai were sent to the Kalyan Military Transit camp. After partition, such camp was handed over to the Relief and Rehabilitation Ministry, Government of India. The immigrants Sindhis from Pakistan were rehabilitated on this camp. The lands were further allotted to Sindhunagar camp by Government of India. After 1947, the camps were converted into a township. The town is named as Ulhasnagar city by the Government of India. Government did number of activities for them. Firstly, the migrants of Sindhi Community were given employment opportunities in Government institutions in Mumbai. Secondly, housing and amenities developed for them. Few migrants started the small business within the town. The business started prospering because of ready market availability with Mumbai city.

Ulhasnagar city is well connected to Mumbai city through road and railway network. The Ulhasnagar city has access via Kalyan-Karjat State Highway number 34. Such highway passes through the city and connects Ambernath and Badlapur city. The northern part of the city is connected through Kalyan-Murbad State Highway number two. Ulhasnagar is an important railway station of central railway. It is on the Mumbai-Pune Rail route. The Central main rail line starts from CSMT (Chhatrapati Shivaji Maharaj Terminus) comes to Kalyan. The central railway line splits into two lines. One railway line passes through Ulhasnagar.

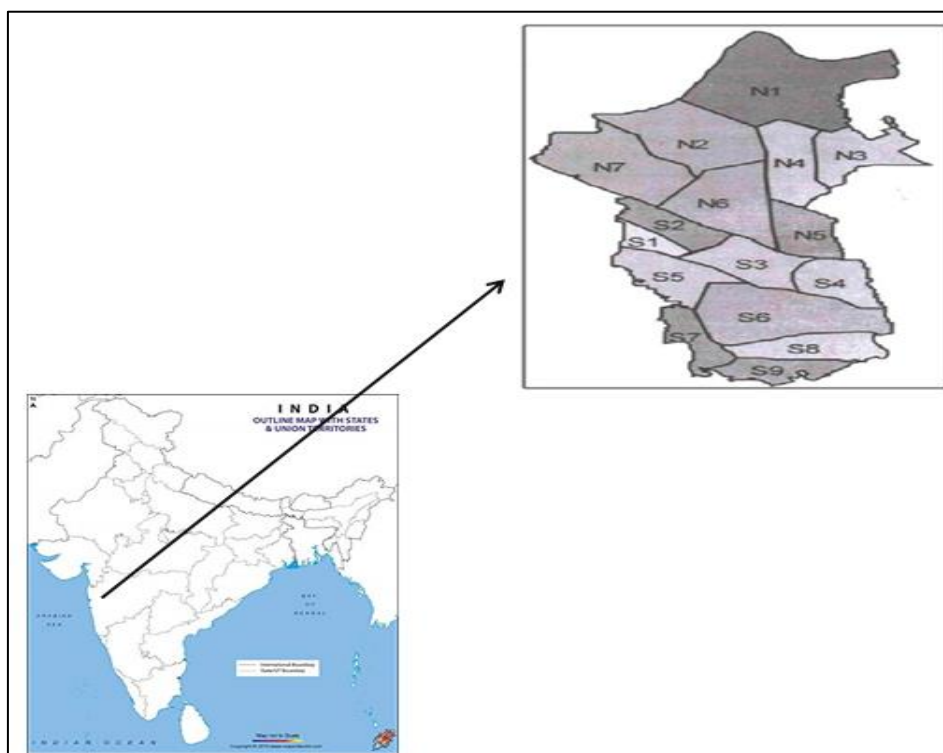


Figure-1. Map of Ulhasnagar Municipal Corporation in India

The population has grown steadily in Ulhasnagar till 1980. After 1981, the growth rate of population of city has decreased steadily. During 1960, many people from rural area specially North India, migrated in city in search of employment. The Kalyan-Dombivali city contributed prominently the Ulhasnagar town's rapid population and economic growth. In 1991, the total population of city was 369077. The male population was 138637 and female population was 105707. In 2001, the total population increased as 473731. In which the male populations was 251888 and female population was 221843.

In Ulhasnagar, the water supply system is old. It was built in the period when the town was a military camp. Such water supply system was further augmented to serve the population of the newly formed Transit camp at the time of independence. In 1948, the drinking water supply system to military camp was executed from Badlapur Barrage head works. Through 24" CI line, the 1.59 ML water was supplied from Balkanjibari GSR. The 9" distribution main was laid for supplying the drinking water to camp number one to five. The population was growing and drinking water was insufficient and system was inadequate. Additional 12" tapping near Shantinagar for 15 MLD. The pump house of 0.9ML capacity was constructed for supplying water to camp number 4. It is supplied through 375mm diameter CI rising main. It is useful to fill 1.35 ML ESR at camp number 5 in Ulhasnagar city. In 1978, due to rising in population, water was supplied from MIDC. It is Shahad water works and Bharvi Main. But the population was growing further. In 1991, the population was projected as 3.66 Lakhs. The 55 MLD

ESR was constructed. At Vittalwadi camp number 4, 1.5 MLD capacity ESR was constructed. At Patel Nagar, 2.75 ESR was established. The office ESR had 1.25 ML capacity. Due to water supply scarcity and growth of population, the M/S Kirloskar consultant from Pune was appointed in 1993. The scheme had cost of Rs.51 Crore. The committee submitted report with cost of Rs51 crore and submitted it in 1995. Such water supply scheme was expected to provide the water to 8.10 lakh population up to 2011. Total 18.8 crores were sanctioned through Maharashtra JeevanPradhikaran (MJP) to compete the 8ESR's at various South and North zones in city. Currently the MJP manages water supply but it gets water from MIDC. Municipal corporation do not have its own water supply dam. Corporation purchases the water from MIDC. The MIDC supplies raw water from Bharvi and Shahad reservoirs. Total 122 MLD water is received from the different sources. The 33'' supply is done through 24'' water connection at Shanti nagar (12 MLD). The old main water supply from old MBR is supplied as 25MLD. The NEW main water supply (New MBR) water is supplied as 32MLD.

The 69'' Barvi supply is done through 18'' water connection at Pale 36 MLD. From 33'' supply through 4'' water connection near Shahad Railway Bridge is done of 2.5MLD. The 33'' supply is done through 3'' water connection at Birla Garden which is 0.8 MLD. The 33'' supply is done through 3'' water connection at C block is 2 MLD. The water supply is done through other sources is 1.7 MLD.

The Kirloskar Consultant Ltd. prepared the water supply system in 1995. Such company did the survey and planned the water supply to its sixteen zones. The company made a plan to supply 110 MLD water supply to city excluding the losses. Water is supplied for more than 5 lakh population in city. Water is supplied for 8 hours maximum in city. But there are large inequalities in water supply. Water supply system is very old and it is developed around 1954 and 1982. Due to old water supply system, there are many leakages in the system. The storage tanks are limited in city. The slope of the surface is not uniform. The lower slope areas receive more water supply. The higher slope areas do not receive sufficient water. Due to over construction in city, lot of leakages are found at different places. Municipal corporation repairing of surface area. Most of the water supply leakages are not repaired. There are many illegal water tap connections in city. Many households draw water from hand pumps. It leads to water washed diseases in city. The city is dependent on MIDC and MJP for water supply. Whenever the water is not supplied to city, the flow of water supply declines in city. Municipal corporation is paying more to MIDC and MJP for water supply. The water tanker provides water to few settlements in city. The municipal corporation pays for water tankers. The sewage system of municipal corporation is suffering due to heavy and excess rain, power failure and accidental damage to the pump station. It is affecting on the environment and health status of the people. The existing sewage system is developed by the Maharashtra Jeevan Pradhikaran in 1994. The Ulhasnagar City has old sewage system and it is built in 1991. The cost of the sewage system was 15.25 crore. Due to heavy flood in 2005, the sewage main washed away and damaged pumping station. The sewer mains are not connected to collection main area. Therefore the sewage is flowing through open drain. The sewage in open drain flows further in Ulhasriver. The water logging is usually observed during every monsoon. Due to encroachment, the size of the drain is reduced. It is causing the drain water enters on roads and causes the flood in city. The regular flood in corporation causes the damage to human life, properties and infrastructure. Nearly 32 pockets in city are flood prone areas. During the high tide, through Kalyan creek, water enters in city. It causes the deaths of people, damage of roads, bridges and public toilet. The average solid waste generation in city is around 0.58 kg per capita per day. Total solid waste generation in corporation is around 300 MT. It consists of kitchen waste, papers, plastic, glass, metals, rubber and papers. From industry, it is stain less steel, nitric acid. The waste from industry could be 25MT a day. Around 0.58kg/per capita per day solid waste generated in city. The solid waste is collected by private agency. The bins are kept at different places in city. At different places, the segregation of solid waste is not done on regular basis. In bins, the solid waste collected from houses, streets, markets, commercial establishments. Number of vehicles collect the solid waste in corporation. The collected solid waste is dumped at the privately owned dumping sites such as Ratna trading (5 acres) and Khadi Machine(3 acres). Municipal corporation must have its dumping ground. But solid waste is dumped at privately owned sites. Solid waste must be collected regularly and disposed at dumping grounds. It will reduce the health issues among the people. In city, population and travel pattern is continuously changing. The city has no good, affordable, convenient and efficient public transport system. Therefore people are buying self vehicle. It leads to traffic jams, pollution and accidents in city. There is no municipal transport service available in city. The state transport services are operated from Vittalwadi Bus stand. The KDMC buses and State transport buses operates on few routes. Internal city is not taken care of public transport. The railway line is connecting Vittalwadi, Ulhasnaar and Shahad station. There is no connectivity to national highways. The total length of the road in Ulhasnagar is more than 126 km.. Ulhasnagar is industrial and commercial center in Mumbai Metropolitan Region. There are many vehicles but no parking facilities exist. Many vehicles are parked roadsides. It leads to congestion in city. There is excess FSI and no parking facility for residents in city. As far as social infrastructure is concerned then, the health care facilities are inadequate and less qualitative. There are only 3 public hospitals in city. The poor quality health care is affecting on people's productivity. Many rich people visit to Mumbai city for quality health care facilities. The educational facilities are poor in Ulhasnagar city. The city is not able to provide quality higher education. Students travel to Mumbai city for quality education. Ulhasnagar city lags in big gardens and playgrounds. Parks and open spaces leads to pleasure, recreation for people.

Many poor migrated in Ulhasnagar due to number of opportunities. Economic opportunities are there in entire Mumbai Metropolitan Region. People travel to Mumbai, Navi Mumbai and other Municipal corporations and councils area for employment. Initially they stay in slums as an option to high cost housing. Land is not exist for proper planned housing. The slums are authorized and unauthorized in nature. Slums do not have proper water supply, public toilets, drainage, roads and street lightening. The Ulhasriver opens out into Arabian sea through the Vasai and Thane creek. The big Waldhuni and Khemaninallah meet to Ulhas river. Every year, lot of flood observed

in surrounding places of Ulhas river. There is environmental pollution in city. The Waldhuninallah is flowing to North East. It cuts the city and it has drainage in the large part of the city. The new settlements are found in Southern and Western periphery of city. The settlements are developed via cutting the natural slopes of nallahs. There is modification of drain through construction and development work. The Waldhuninallah is important natural drain for city. But rising population and urbanization, the storm drain water management never took, water runoff has increased over the period of time. The sewage network is very poor. The sewage is not treated properly. The overflow of the sewage enters into nallah. It pollutes the river water and affects the aquatic animals and plants. The industries are also put the untreated water and waste. The water quality is not tested in nallahs. Around 4.73 lakh population generates 0.58 kg per capita daily domestic waste. It is estimated as 297MT a day. It consists of Kitchen waste, plastic, glass, metals, rubber. The industries could be generating 25MT solid waste. The solid waste is also generated through construction and repairing activities, drainage and nallah cleaning etc. Not whole solid waste is collected and transported to the dumping ground. The number of vehicles are increasing fast in corporation area. It creates noise and air pollution.

Expenditures can be categorized as revenue and capital. Revenue expenditure includes expenditure on general administration, wages and salaries, community services, horticulture and operations, and maintenance expenditure on all the services provided. Capital expenditure includes purchases of vehicles, expenditure incurred in construction of buildings, urban works and other investment components for the services (Simanti, 2015). We have used such criterion's to classify the revenue and capital expenditure as follows.

Table-1. Revenue receipts for Ulhasnagar Municipal Corporation (2012-13 to 2017-18)

No	Account Group	Sub-Group	Head of Accounts	CAGR
1	Corporation Rates & Taxes	Octroi Recovery	Local Body Tax Collection	19.29
		Property Taxes	General Tax	19.68
			Corporate Education Tax	17.81
			Tree Cess	22.77
			Street Tax	20.50
			Show Tax	8.40
			Penalty & Other Taxes	0.05
2	Recovery Under Special Acts	Recovery Under M.R.T.P. Act	Development Charges	41.47
			Building Permission Fee & Premium	46.27
			Stocking of Building Material on Road Side	14.37
			Other Fees	1.99
3	Revenue from Municipal Properties & Services	Hospital & Dispensary	Medicine & Checking Fee	14.42
			Ambulance & Hearse Charge.	10.39
		Licence & Other Fees	Trade Licences / Licence Fee	16.80
			Birth & Death Certificate Charges	13.54
			Notice Fee & Warrant Fee	1.77
			Change of Name Fee	7.27
			Road Cutting Charges	-0.34
			No Objection Certificate Fee	23.36
			Licence Fee from Surveys/Architects Etc.	16.47
			Fire Fighting /Fire Safety, NOC fees.	53.25
			Marriage Certificate Fee	36.63
4	Grants & Contribution	Grants & Contribution	Entertainment Tax Grant	3.06
			Other Grants	-34.85
5	Miscellaneous	Miscellaneous	Interest On Municipal. Deposits	6.23
			Interest On Municipal Taxes	-10.59
			Sale of Scrap	43.56
			Sale Of Tender Forms, Lists & Copying Charges Etc.	27.72
			Education Cess Rebate	15.98
			Employment Grant. Cess Rebate	16.05
			Tax On Big Residence Commercial Rebate	35.87
			Rebate On Fines Collected by Court	7.29
			Salary of Staff On Deputation	-100.00
			Other Income	2.28
			Transport Income	105.03

6	Corporation Rates & Taxes	Corporation Rates & Taxes	Water Bill Recovery (Tax)	28.21
			Water Bill Recovery (W.S)	51.96
			Water Benefit Tax	20.71
			Sewerage Benefit Tax	22.97
			Conservancy Tax	18.67
			Special Conservancy Tax	9.68
7	License & Other Fees	License & Other Fees	Water Connection Fee	60.69
			Plumber Licence Fee	16.30
			Other Fees	9.68
8	Miscellaneous	Miscellaneous	Sale Of Tender Forms etc.	2.24
	Revenue Receipts			23.94

In Ulhasnagar, the local body tax collection has increased as 19.29 per cent from 2012-13 to 2017-18. Octrai is much higher and it is significant source of revenue to corporation. The general tax for corporation is 19.68 per cent from 2012-13 to 2017-18. The corporations education tax is 17.81 per cent. The tree cees is observed as 22.27 percent. The street tax is only grown with 20.50 per cent for corporation over the period of time. The show tax is observed as 8.40 per cent from 2012-13 to 2017-18. Municipal Corporation gets revenue from show tax in its jurisdiction. The developmental charges for the corporation grown as 41.47 per cent. All the development work in corporation is charged taxes. The building per mission fees and premium is seen as 41.47 per cent. There are many buildings are constructed in city. The revenue from stocking of building material on road side is grown as 14.37 per cent. Regular reconstruction work is going on in corporation area, the material is stored on road side area. Municipal corporation gets revenue from such waste near road side. The other fees is observed as 1.99 per cent. The revenue receipts from medicine is 14.47 per cent from 2012-13 to 2017-18. Municipal Corporation charges ambulance fees from patients. The licence fees related revenue receipts is grown as 16.80 per cent. In order to drive to drive two and four wheels vehicles, the municipal corporation issues license. It gets revenue from people as licence fees. The birth and death certificate charges have grown as 13.54 per cent. Municipal corporation keeps the entry of birth and deaths of people. Through issue of such certificates, the municipal corporation gets revenue. The notice fees and warrant fees grown as 1.77 per cent. The change of name fees has grown as 7.27 per cent. The road cutting charges is -0.34 per cent. The road cutting has declined over the period of time in corporation. Road cutting may also be ignored by corporation. The growth is observed as 23.36 per cent. The licence fees, architecture is grown as 16.17 per cent. Few fire cases observed in corporation. Municipal corporation charges fees for such fire incidences. Marriage certificate fees is observed as 36.63 per cent. Marriage certificate fees is charged from new couples in corporation. Entertainment related tax grant is grown as 3.06 per cent. The other grant has grown as -34.85 per cent from 2012-13 to 2017-18. Interest on municipal deposit has grown as 6.23 per cent. The interest on municipal taxes has not grown (-10.59 per cent). The sale of scrap related receipts has grown as 43.56 per cent. The sale of tender forms, lists and copying charges are grown as 27.32 per cent. The education cees rebate is grown as 15.98 per cent. The employment grant, cees, rebate has grown as 16.05 per cent. The tax on big residence commercial rebate has grown as 35.87 per cent from 2012-13 to 2017-18. The revenue receipts of corporation has grown over the period of time.

Table-2. Revenue Expenditure for UMC (2012-13 to 2017-18)

No	Function	Sub-Function	Head of Accounts	CAGR
1	General Administration & Collection Charges	General Administration	Commissioners Office	19.84
			General Administration Establishment	-4.85
			Audit	-0.10
			Accounts	8.22
			Legal	8.07
			Public Health	4.44
			Public Health (Medical Department)	-0.54
			Public Works Department	-1.03
			Garden Department	5.73
			Unauthorised Construction Department	0.87
			Estate Department	7.66
			Town Planning	2.46
			Stores Department	-0.77
			Electrical Department	3.47
			LBT Department	1.12
			Security Department	1.85
			Fire Department	6.11
			Secretary & Non - Officials	3.64
			Assessor & Tax Collectors Office	2.38
			Vehicles Department	-0.41

			Record Department	8.12
			Ward Offices	5.19
			Health Posts	8.27
			Daily Wages/Honorarium/Contract etc.	26.39
			Pension Fund	5.30
			Salary Reserve Fund Contingency	20.79
			Provident Fund Contribution	-11.09
		Other Allowances & Facilities	Overtime Allowance	10.24
			Leave Travel Allowance	5.92
			Medical Reimbursement	1.67
			Employees Training	90.56
			Leave Salary & Pension Contribution	27.98
			Uniforms, Rain coats, Chappals & Umbrella etc.. to Employees	29.63
			Vehicle Allowance To Officers	-12.75
			Travel Allowance/Daily Allowance, Allowance & Benefits To Employees	5.23
		Other Administrative Expenses	Stationery	29.91
			Printing	52.01
			Repairs of Xerox, Printing & Other Equipment	18.57
			Office Furniture, Repairs & Maintenance	41.87
			Telephone Charges	9.11
			Telephone, Intercom etc. Installation & Maintenance	79.95
			Office Electricity Bills	11.92
			Office Electrical Installation & Maintenance	46.16
			Postal / Courier Expenses	-3.24
			Court Cases & Fees	45.32
			Information Technology Outsourcing	55.53
			Computer Accessories & Peripherals	42.66
			Petrol & Diesel	10.66
			Vehicle Repairs	17.50
			Purchase of Tyres & Tubes For Vehicles	51.33
2	Public Safety	Street Lighting	Street Light Repairs & Maintenance	46.10
			Street Light Repairs & Maintenance (WS)	47.32
			Street Light Energy Charges	-0.59
			R&D/EC/ Non - Conventional Energy etc.	17.01
			Other Expense	33.41
		Disaster Management & Fire Fighting	Repairs & Maintenance Of Fire Station	-26.44
			Repair To Fire Vehicles	53.33
			Emergency Management	72.57
3	Public Health & Solid Waste Management	Solid Waste	Removal of Refuse	38.29
			Mechanical Sweeping	7.54
			Purchase of Insecticides	9.09
			Other Expense	6.79
		Hospital & Dispensary	Purchase of Medicines	17.59
			Family Planning Programme Expenses	17.74
			Malaria & Dengue Control Measures	9.13
			Aids, Anti Tuberculosis & Other Epidemics Measures	40.29
			Anti Rabid Treatment Measures	7.42
			Vaccination	1.40

			Dog Sterilisation	30.30
		Garden Improvement	Maintenance of Gardens	103.20
			Purchase of Trees, Guards, Earth	37.62
			Electrical Installation (Maintenance)	50.16
			Energy Charges Fountains	43.07
		Education	Primary Education	27.29
			Pre - Primary & Secondary Education	134.84
			Repair to Municipal Buildings (Other)	112.40
			Maintenance of Roads	-56.28
			Providing Traffic Signs	62.34
			Repair & Maintenance Of Markets	52.92
			Repairs & Maintenance of Statues	31.37
			Maintenance of Burial Grounds	75.23
			Other Expense	-5.21
5	Water Supply	Water Supply	MIDC Water Charges	4.94
			MIDC Water Charges (Arrears)	86.67
			Water Tanker Charges	1.15
			Pipes, Accessories & its Installation (Maintenance.)	66.12
			Repair of Bore wells / Jet Pumps	87.46
			Water Pollution Cess	117.60
			Water Analysis Charges	32.70
			Pipes, Accessories /Bore wells & Installation (Maintenance) (WS)	103.15
			Maintenance of Water Supply Buildings (Pump Station, ESR, Administration / Residential Buildings)	66.61
			Chemicals etc. for Water Purification	26.72
			Repair To Pumping Machinery	44.78
			Operation of Booster Pumping Machinery	12.60
			Electricity /Telephone/ Other Expense of Water Supply Buildings	2.03
			Other Expenses	10.21
6	Under Ground Drainage		S.T.P. & Pumping Station Operation	83.24
			Electricity / Telephone /Other Expenses of STP, PS & Drainage Buildings	-0.23
			Material for Drainage Connection &Installation (Maintenance)	40.63
			Maintenance of Sewerage System	22.11
			Maintenance of Sewer Cleaning Vehicles	14.60
7	Drainage	Drainage	Repair & Maintenance of Drains, Nallas& Culverts	-10.51
			Repair & Maintenance of Urinals & Latrines	36.63
			Repair of latrines, Urinals, Nallas, Drains & Culvert etc. (WS)	109.46
			Desilting of Drains &Nallas	58.57
8	Miscellaneous	Miscellaneous	Election Expenditure	17.83
			Vehicle Insurance	19.23
			Corporators Training & Travelling Expense	38.53
			Expense During Calamities	61.86
			Publication of Tenders / Public Notices etc.	-5.37
			Refreshment Expenditure During Meetings	41.11
			Tax / Octroi / Other Refunds	39.25
			Sports Expense	33.21
			Meeting & Other Allowance to	9.78

		Members	
		Hiring of Vehicles	15.90
		Census Charges	-13.44
		Removal of Unauthorised Construction	58.49
		Bank Charges	90.37
		Development plan preparation	17.47
		Other Expense	8.30
		Meeting & other Allowances to Members	21.16
	Total Revenue Expenditure		15.83

The expenditure on commercial office is 19.84 per cent. The general administration establishment related revenue expenditure is observed as -4.85 per cent from 2012-13 to 2017-18. The expenditure on audit is negatively observed (-0.10 per cent) from 2012-13 to 2017-18. It means municipal corporation is reducing revenue expenditure on various subheads. Revenue expenditure on public health has grown as 4.44 per cent. Municipal corporations spending money on garden's development. The revenue expenditure related to fire department is 6.11 per cent. Municipal corporation buys various instruments related to fire. General administration related offices has grown as 5.19 per cent from 2012-13 to 2017-18.

The revenue expenditure on health posts is observed as 8.27 per cent. Health care related expenditure and special appointment of doctors post is important. People are not getting quality health care. The daily wages, honorarium/contract is observed as 26.39 per cent from 2012-13 to 2017-18. The pension fund related to revenue expenditure is observed as 5.30 per cent. The salary reserve fund contingency related expenditure has grown as 20.79 per cent. But the provident fund contribution related revenue expenditure has declined (-11.09 per cent). The revenue expenditure on leave travel allowance has grown as 5.92 per cent. The revenue expenditure on employee training is observed as 90.56 per cent from 2012-13 to 2017-18. The municipal corporation provides training to the staff regularly. As the staff of corporation has increased, the expenditure on pension contribution has also increased. The uniforms, rain coats, Umbrella related revenue expenditure is observed as 29.63 per cent. The revenue expenditure on vehicle allowance to officers has (-12.75 per cent) negative growth over the period of time (2012-13 to 2017-18). The revenue expenditure on travel allowance /daily allowance and benefit to employees is observed as 5.23 per cent over the period of time. Expenditure on stationary has grown as 29.91 per cent. Most of the office work requires papers and prints. The revenue expenditure on printing is observed as 52.01 per cent. The repair of Zerox printing other equipment related revenue expenditure has grown as 41.87 percent. The telephone, intercom installation and maintenance related revenue expenditure is grown as 79.95 per cent. The revenue expenditure on office electricity bill is grown as 11.92 per cent. The office electrical installation and maintenance related revenue expenditure is grown as 79.95 per cent. The revenue expenditure on office electricity bill is grown as 11.92 per cent. Due to overwork and staff, the use of electricity has grown in corporation. The office electrical installation and maintenance related expenditure has grown as 46.16 per cent. The post courier expenses related revenue expenditure has grown as -3.24 per cent. The revenue expenditure on court cases and fees have grown as 45.32 per cent from 2012-13 to 2017-18. The IT outsourcing related revenue expenditure has grown at 55.53 per cent. The growth of revenue expenditure on computer accessories and peripherals was 42.66 per cent. The revenue expenditure on petrol and diesel has observed as 10.66 per cent. Staff of corporation use vehicles for different visits. Therefore the vehicle related expenditure has grown as 17.50 per cent. The expenditure on purchase of tyres and tubes for vehicles has grown as 51.33 per cent. Other administrative expenses observed as 33.06 per cent. The revenue expenditure on street lights is grown with 46.10 per cent. The street light repairs and maintenance has grown as 47.32 per cent. The street light energy charges grown as -0.59 percent. The R&D/EC/NON conventional energy expenditure has grown as 17.01 per cent. The other expenses observed as 33.41 per cent in the corporation. Revenue expenditure on repair and maintenance of fire station has declined (-26.44 per cent) from 2012-13 to 2017-18. The emergency management expenditure is observed as 72.57 per cent. It has grown over the period of time. The removal of refuse has expenditure and it is observed as 38.29 percent. The mechanical sweeping related expenditure is observed as 7.54 per cent. Municipal corporation do not pay attention on mechanical sweeping. The purchase of insecticides has grown over the period of time (9.09 per cent). The other expenses has grown as 6.79 per cent over the period of time. The expenditure on purchase of medicines has grown as 17.59 per cent. The family planning programme expenses have grown as 17.14 per cent. For poor people, the money is spent related to family planning programs. The revenue expenditure on Malaria and Dengue control measures have grown 9.13 per cent from 2012-13 to 2017-18. Due to unhygienic conditions in the corporation, there is regular spike in cases of malaria and Dengue. The aid, anti tuberculosis and other epidemic measures related revenue expenditure has grown as 7.42 per cent in Ulhasnagar Municipal Corporation.

The revenue expenditure of Ulhasnagar Municipal Corporation is observed for vaccination as 1.40 per cent. Municipal corporation puts vaccination drive for kids and pregnant women. Expenditure on maintenance of garden has increased over the period of time. The purchase of trees, gardens has increased as 37.62 per cent. The electrical installation has increased as 50.16 per cent. Municipal corporation expenditure on primary education has increased as 27.29 percent. It has increased primary and secondary education from 2012-13 to 2017-18. The repair to municipal building related revenue expenditure has increased as 33.47 per cent. Municipal corporation maintenance

its assets regularly. The maintenance of roads decline in expenditure. There are no proper roads in the corporation. The municipal corporation has increased revenue expenditure on providing traffic signals (62.34 per cent). The corporation has also increased expenditure on repairs and maintenance of markets (52.95 per cent). Municipal corporation is increasing expenditure on repairs and maintenance of statues (31.37 per cent). The expenditure on maintenance of Burial grounds has increased as 75.23 per cent. Other expenses has declined of corporation (-5.21 percent). The miscellaneous expenditure includes the election expenditure . It has increased as 17.83 per cent. The expenditure on vehicle insurance has increased (19.23 per cent) from 2012-13 to 2017-18. The corporation , training and travelling expenses has increased as 38.53 per cent. Expense during calamities (61.86 per cent) in corporation. Every year flood like situation is observed in corporation. The publication of tenders/public notices etc. related revenue expenditure has declined (-5.37 percent) over the period of time. Municipal corporation has reduced expenditure on public notices. The refreshment expenditure during meeting has increased as 41.11 per cent. Every meeting, the refreshment is given to staff. Tax/Octrai /other refunds have increased as 39.25 per cent. The sports expenses have increased as 33.21 per cent for corporation. The hiring of vehicles related revenue expenditure has increased as 15.90 per cent. The expenditure on census charges has declined (-13.44 per cent). The removal of unauthorized construction has increased as 58.49 per cent. The corporation has many illegal constructions, expenditure is required and it is increasing over time. The bank charges have grown as 90.37 per cent. The development plan related expenditure is observed as 17.47 per cent. Other expenses have increased as 8.30 per cent. They are grown slightly over the period of time.

Meeting and other allowances to members have high growth (21.16 per cent) rate of expenditure. Over the period of time, the water supply and drainage development related expenditure has grown as 3.21 per cent. With increase in population , municipal corporation need to arrange water supply and drainage facility. The travel allowance and dearness allowance allowance has grown as 48.17 per cent over the period of time. An expenditure related to medical reimbursement is observed 13.97 per cent. The expenditure on petrol and diesel has grown as 10.46 per cent. A revenue expenditure on vehicle repairs has grown as 40.09 percent. Vehicles of corporation are regularly repaired. The expenditure on MIDC water supply charges has grown as 4.94 per cent. The expenditure on water tankers is observed as 1.15 percent. The repair of bore wells /jet pumps related revenue expenditure has grown as 87.46 per cent. The expenditure on maintenance of water supply building has grown as 66.61 percent. The chemical related expenditure for water purification has increased 26.72 percent. The repair related to pumping machinery has increased as 44.78 per cent. Few areas, where pumped water is provided. The operation of booster pumping machinery has grown as 12.60 per cent. The expenditure on electricity /telephone/other expense of water supply building has grown as 2.03 per cent. Expenditure on electricity/ telephone /other expenses of STP buildings has -0.23 per cent. Material for drainage connection and installation has observed as 40.63 per cent. The expenditure on maintenance of sewerage system is 22.11 per cent. It is managing the sewage system at various wards. The expenditure of sewer cleaning vehicles has observed as 14.60 per cent from 2012-13 to 2017-18. The repair and maintenance of drains and culverts related expenditure declined as 10.51 per cent. The repair and maintenance of urinals and latrines expenditure was 36.63 per cent. The desilting of drains expenditure has grown as 58.57 per cent. Total revenue expenditure is calculated as 15.83 per cent over the period of time from 2012-13 to 2017-18. We have also studied the capital receipts of the Ulhasnagar Municipal Corporation from 2012-13 to 2017-18.

Table-3. Ulhasnagar Municipal Corporation and Capital Receipts

No	Section	Sub-section	CAGR
1	Revenue From Municipal Properties	Municipal Markets Rent	49.48
		Other Municipal Properties Rent	14.92
		Municipal Gardens & Gardens Rent	14.42
		Town Hall, Swimming pool Rent	0.34
		Advertisement on Hoardings Rent	21.41
2	Grants & Contribution	Road Grant	2.04
		D.P.D.C. Grant	-26.85
		M.P. Grant	-13.68
		Dalit Vasti Improvement Grant	-2.92
		JNNURM Grant (E-GOV)	-100.00
		Maharashtra Fire Safety Programme. Grant	-100.00
		Finance Commission Grant	23.46
	Other Grants	4.56	
3	Loans	JNNRUM Loan (Road Infra)	26.02
4	Grants & Contribution	JNNURM Grant (Transport)	0.00
5	Consolidated Water Supply & Sewage Disposal Loan Fund	JNNRUM Loan (Water Supply)	-100.00
6	Grants & Contribution	JNNURM Grant (Water Supply)	-100.00
		Capital Receipts	19.57

The rent has grown as 49.48 per cent over the period. The municipal properties rent has grown 14.92 per cent over the period of time. The capital receipts from municipal gardens and garden's rent has grown 14.42 per cent. The municipal corporation charges fees for use of gardens. The capital receipts from the town hall, swimming pool rent

has grown 0.34 per cent. There are few town halls and swimming pools and they are charged as rent. The capital receipts from advertisement on hoarding rent has grown 21.41 per cent over the period of time. As far as grants and contributions are concerned then the grants for road is observed 2.04 per cent. The D.P.D.C grant is observed as -26.85 per cent. The capital receipts for Dalit Vasti improvement grant has declined (-2.92 per cent) over the period of time. The JNNURM grant (E-Gov) has declined completely (-100 per cent) over the period of time. Earlier central government was giving maximum grant for this program. The capital receipts under Maharashtra Fire Safety programme Grant is observed as (-100 per cent) over the period of time. The finance commission grant has grown per cent over the period of time. Other grants under grants and contribution category has grown as only 4.56 per cent. Municipal corporation gets loans for road infrastructure under JNNURM, The consolidated water supply and sewage disposal loan fund has seen 100 per cent decline in Ulhasnagar Municipal Corporation budget over the period of time. The grants and contribution under JNNURM (water supply) has declined completely over the period of time. Overall the total capital receipts for the Ulhasnagar Municipal Corporation is observed as 19.57 percent over the period of time.

Table-4. Capital expenditure for Ulhasnagar Municipal Corporation (2012-13 to 2017-18)

No	Function	Sub-Function	Head of Accounts	CAGR
1	General Administration	General Administration	Information Technology Equipment	58.46
			Purchase of Vehicles (Light)	169.76
			JNNURM Development (E-Gov)	-27.55
2	Public Safety	Street Lighting	Street Light New Installation	54.23
			Street Light New Installation(WS)	57.62
			Research & Development /Electric Cable/ Non - Conventional Energy etc.	36.53
			Purchase of Fire Tenders	33.82
3	Public Health & Solid Waste Management	Solid Waste	Sanitation Equipment's	29.82
		Garden Improvement	Construction of Gardens	49.23
			Purchase of Amusement Items	10.68
			Providing New Fountains	51.09
			Electrical Installations	-1.64
		Public Works Department	Municipal Buildings (HQ)	27.05
			Municipal Buildings (other)	34.66
			Construction of SamajMandir, Welcome gate, YatriNivas, Sports Complex, Stage etc.	57.16
			New Roads (BM&AC)	10.40
			New Roads (Cement Concrete)	65.42
			Statues	114.54
			Shri .Ganesh Dev. VisarjanGhat	50.57
			Mayor Fund	70.74
			Deputy Mayor Fund	51.40
			SC. Chairperson Fund	108.47
			Corporator Fund (General)	27.91
			Corporator Fund (WS)	36.24
			St. Gadge Baba Urban Cleanliness Development	25.73
			Development. Works In Slum	70.94
			Development. Works In W.S. Localities	87.04
			Development Works in Minority Localities	7.86
			Development. Works Form Development Charges Fund	39.28
			Development Works from Infrastructure Fund	2.84
			Development. Works from Road Grant	-2.64
			Development. Works from DPDC Grant	-22.99
			Development. Works from MP Fund	-16.67
			Development. Works from Dalit Vasti Implementation Grant	55.88
			Dev. Works from Special. Grant	59.72
			Development Works from Special Grant(Natural Calamity Msrs)	-
			JNNURM Development (Slum Housing	-17.72

			& Infrastructure)	
			Rajiv AwasYojna	16.51
		Repayment of Loans	Loan Repay. (MMRDA) (IRDP)	-
				100.00
4	Miscellaneous		Telephone/ Electricity Connection Deposits	9.20
5	Water Supply		Pipes, Accessories, Power Pumps	58.27
			Pipes, Accessories, Power Pumps (WS)	63.04
			Booster Pumping Machinery	84.59
			Construction & Major Repairs of WS Buildings (Pump Station, ESR, Administration/Residential buildings)	37.51
			JNNURM Development (Water Supply)	-23.07
6	Under Ground Drainage		Equipment's & Access for STP & PS	61.44
			Material & Installation for New Drainage Connection	52.36
			Purchase of Vehicles & Machinery	4.60
7	Drainage		Construction Of Drains, Nallas& Culverts	63.46
			Construction Of Drains, Nallas& Culverts(WS)	43.21
			Construction Of Urinals & Latrines	107.18
			Construction Of Latrines - Nirmal MMR	-30.16
	Capital Expenditure			31.13

The capital expenditure related to information technology equipment has grown as 58.46 per cent. The JNNURM development related capital expenditure has grown as -27.55 per cent. The street light new installation related capital expenditure has grown as 54.23 per cent. Municipal Corporation is putting street lights in different wards. The street light new installation has increased as 57.62 per cent. New areas are provided street lights for safety and reduce accidents. The R&D , electrical cable / non conventional related capital expenditure has grown as 36.53 per cent. The construction of new fire stations have increased over the period of time. The purchase of fire tenders has increased the capital expenditure as 33.82 per cent. Capital expenditure on stationary equipment has grown as 29.82 per cent. The capital expenditure on construction of gardens has observed as 49.23 per cent. It has planned few new gardens due to rising population and urban development and planning. The purchase of amusement items has increased as 10.68 per cent. The capital expenditure related to providing new fountains has observed as 51.09 per cent. An electronic installations related capital expenditure is observed as -1.64 per cent. The capital expenditure on municipal buildings and maintenance has increased as 27.05 per cent. The municipal corporation maintains the municipal building over the period of time. The capital expenditure on construction of Samajmandir , welcome gate, Pilgrim center was 57.16 per cent. All the centers are regularly maintained. The capital expenditure on new roads was 10.40 per cent. Few new roads have been developed as per the growth of population. The expenditure on roads observed as 65.42 per cent from 2012-13 to 2017-18. Now municipal corporation prefers more cement concrete roads as compare to the old construction material roads. Expenditure on statue has observe as 114.54 per cent. The expenditure on Sri Ganesh Development Visarjanghat has increased as 50.57 per cent. It is people's demand to build such ghat in corporation and it is also maintained every year. Expenditure on Mayor's fund has observed as 51.40 percent. The general corporate fund related capital expenditure is observed as 36.24 per cent. An expenditure on ST Gadge baba Urban cleanliness development has observed as 25.73 per cent. Capital expenditure on development of slums is seen as 70.94 per cent. Municipal corporation spends some amount of money on poor people and their civic services regularly. We have seen that the capital expenditure on development works in minority localities is 7.86 percent. Development works from development charges fund is 39.28 per cent. Capital expenditure on development works from infrastructure fund is seen as 2.84 per cent from 2012-13 to 2017-18. But development works from DPDC has declined over the period of time(-22.99 percent). The development works from MP funds is seen as negative (-16.67 percent) expenditure. The development works from dalitvasti implementation grants is seen as growing (55.88 percent). Municipal Corporation spends money for dalitvasti implementation regularly.

The development works from special grant has grown as 59.72 per cent. JNNURM development related capital expenditure is seen as negative (-17.72 per cent) growth. The Rajiv AwasYojana related capital expenditure is seen as 16.51 per cent. The telephone /electricity connection deposits related capital expenditure seen as 9.20 per cent. The pipes accessories, power pumps related capital expenditure is seen as 58.27 per cent. Municipal corporation regularly purchases the pipes accessories, power pumps. The capital expenditure is related to booster pumping machinery related is 84.59 per cent. Construction and major repairs of WS buildings is 37.51 per cent from 2012-13 to 2017-18. The material and installation for new drainage connection has observed as 52.36percent. Such expenditure has increased in capital expenditure because municipal corporation has installed few new drainage and connected to main sewage line. The construction of drainage, nallah's, culverts related capital expenditure grown as 63.46 percent. The capital expenditure on construction of urinal and latrine is observed as 107.18 per cent. Such work is regularly done by the corporation. The construction of Nirmal MMR has seen as negative (-30.16 per cent)

over the period of time. Total growth in capital expenditure over the period of time is observed as 31.13 per cent from 2012-13 to 2017-18.

4.2. Regression Results

We have used the ordinary least square regression (Greene, 2018) for various budgets data. The linear regression is explained as follows

$$Y_{it} = \alpha + \beta_1x_1 + \beta_2x_2 + \dots + \varepsilon \tag{9}$$

Where

Y_{it} is defined as dependent variable. We used revenue receipts, revenue expenditure, capital receipts and capital expenditure as dependent variable from 2012-13 to 2017-18.

In the above equation, the X_1 to X_n is used as independent variables in the regression analysis. The ε is presented as error term. The results of least square regression are presented in the following table.

4.3. Revenue Receipts

The revenue receipts are regularly received by the corporation but few receipts are significant.

Table-5 Regression result for revenue receipts

Variables		Co-efficient (Std errors)	T test
Corporation Rates & Taxes	Water Bill Recovery (W.S)	8.81* (0.37)	23.57
Corporation Rates & Taxes	Fire Tax	35.75* (2.83)	33.19
Recovery Under Special Acts	Building Permission Fee & Premium	5.11* (1.59)	15.76
	Constant	14055* (124.14)	113.23
R square=0.99	Adjusted R square=0.98	Std.Error of the estimate=144.22	

* Significant at 1 per cent

The revenue receipts from water bill recovery positively co-related and it is statistically significant. Municipal corporation gets the water bills over the period of time. It is applying different methods but gets water bills from people. The fire tax of municipal corporation is positively co-related to revenue receipts of corporation. Municipal corporation gets the fire tax regularly. Therefore it is statistically significant and positively co-related. The building and permission fees and premium is positively co-related to revenue receipts of corporation. Any building in corporation area required permission from architecture and planning department of corporation. The Municipal Corporation charges permission fees and it allows construction.

4.4. Revenue Expenditure

Ulhasnagar Municipal Corporation spends money on the civic infrastructure. It spends through different budgets. But not all expenditure is significant in different budgets.

Table-6. Regression result for revenue expenditure

Variables	subcategory	Co-efficient(Std errors)	T test
Water Supply	MIDC Water Charges	8.48**(2.94)	2.87
General Administration & Collection Charges	Commissioners Office	558.97**(204.70)	2.73
	Constant	-14760.84*** (7943.12)	-1.86
R square=0.93	Adjusted R square=0.88	Std.Error of the estimate=2306.84	

** Significant at 5 per cent. *** Significant at 10 percent

Revenue expenditure is positively co-related to Maharashtra Industrial Development Corporation (MIDC) water charges. It is statistically significant. Municipal Corporation buys water from MIDC. It needs to pay regularly to MIDC. Administration and collection charges related commissioner's office is positively co-related and statistically significant with revenue expenditure of corporation. Such expenditure is regular and it cannot be controlled.

4.5. Capital Receipts

Municipal corporation regularly gets the capital receipts from different sources. Few significant receipts are presented in the following table.

Table-7. Regression results for capital receipts

Variables	Sub category	Co-efficient (Std errors)	T test
Revenue From Municipal Properties	Other Municipal Properties Rent	2535.04* (142.30)	17.81
Grants & Contribution	Road Grant	35.75* (2.83)	12.60
Grants & Contribution	D.P.D.C. Grant	5.11** (1.59)	3.20
	Constant	-14342.13* (1499.66)	-9.56
R square=0.99	Adjusted R square=0.99	Std.Error of the estimate=503.96	

* Significant at 1 per cent

The capital receipts from other municipal properties rent is positively co-related and statistically significant. The corporation has given its unused offices and building on rent. It charges rent from such building and offices is statistically significant and positively co-related with capital receipts. The grants and contribution from road is positive with capital receipts. Municipal corporation has received the grants from state and central government for road construction and development. The D.P.D.C. grants is also positively co-related to capital receipts and it is significantly co-related.

4.6. Regression Results for Capital Expenditure

The capital expenditure is regularly done by the corporation in every budget. The significant capital expenditure is given in the following table.

Table-8. Regression results for capital expenditure

Variables	Subcategory	Co-efficient (Std errors)	T test
Public Works Department	New Roads (Cement Concrete)	4.65* (0.019)	240.90
Water Supply	JNNURM Development (Water Supply)	0.56* (0.04)	15.87
General Administration	JNNURM Development (E-Gov)	4.44** (2.12)	2.09
	Constant	2809.54* (130.22)	21.75
R square=0.99	Adjusted R square=0.99	Std.Error of the estimate=101.46	

* Significant at 1 per cent ** significant at 5 per cent

The capital expenditure is positively co-related to new roads (cement concrete) and it is statistically significant. Municipal corporation maintains cement concrete roads. It is one time capital expenditure. But such expenditure is statistically significant. The JNNUM development (water supply) related to capital expenditure is positively co-related and statistically significant. Water supply requires different types of expenditure such as pipe lines, GSR, meters etc. Municipal Corporation spends regularly on water supply scheme and infrastructure. The JNNURM development (E-Gov) is positively co-related and statistically significant. The e-governance is most popular system of governance. Municipal corporation is spending more on e-governance in current budgets.

4.7. Policy implication and Conclusion

The Ulhasnagar Municipal Corporation needs more financial autonomy in order to provide quality civic infrastructure facilities. It is argued that local authorities have better information than central governments for deciding what types of programs and policies to implement, and how to target these interventions so that the poor benefit from them. From an empowerment perspective, it is also argued that providing resources and delegating decisions at the local level is good in itself because it lets local communities decide what they want and how to achieve their goals. When mechanisms are designed to channel more resources to poorer municipalities, decentralization has the potential to empower the poor (Mohamed and Quentin, 2002). The property taxation represents the primary revenue source for the City, the accuracy of revenue forecasting is ever relevant in municipal budgeting. Many cities, struggle with increases in health care costs, and growing worker pensions. Responses have included personnel cuts, curtailed infrastructure investment, and higher user fees (Cote et al., 2010).

Ulhasnagar municipal corporation is most progressive corporation. It provides various business and employment opportunities. Many people migrate to city for different purposes. But infrastructure facilities are inadequate and it affects on quality of life of people.

The revenue receipts as grants from various agencies have declined for corporation. Due to rising population and expenditure, corporation is not able to pay adequate salary to staff on deputation. Interest on municipal taxes is not increasing. Due to more expenditure, municipal corporation, is not able to invest more money in infrastructure.

Revenue expenditure is already high for municipal corporation. Municipal corporation has reduced vehicle allowances of officers. Due to high expenditure, it has reduced expenditure on postal courier. Due to COVID-19, the municipal corporation has accepted maximum work thorough online mode. Municipal corporation has reduced the street light charges which could be a problem of theft, accidents and security of women. There are number of fires reported in city but, corporation has reduced expenditure on fire stations. The maintenance expenditure of interior road also reduced by corporation. The municipal corporation stopped expenditure on public notices in order to reduce the expenditure. Due to rising expenditure, municipal corporation has reduced the maintenance of drains. The corporation receipts have declined. The corporation gets the development works from MP. The JNNURM related development loan repay has declined in corporation. The receipts under the clean MMR also declined over the period of time. But the expenditure on electrical installation has declined. The roads related expenditure declined. The grants received for roads declined. The capital expenditure on slum housing and infrastructure is very low and declining fast. The water supply related capital expenditure is low and declining in corporation. Municipal corporation must raise capital through issue of municipal bonds.

In addition, more knowledge about how budgets are set and executed in different governance forms is needed in order to understand the incentives that bias capital expenditure deviations in those contexts. Finally, capital investments are hard to plan and to execute according to plan and budget. Research on the role of organizational capacity and competence in enhanced budget performance would be of great importance, theoretically and practically (Haraldsson, 2021).

Most of the local authorities outsourced their e-services. In-house e-service development processes were very rare. There is a need for an urgent coordination mechanism for the local authorities to guide them during the process of e-government projects. Eventually, some institutions assumed this way they handle and lead is questionable. They also lack qualified personnel, funding, and in the terms of other available sources. Additional research in this area is necessary to shed more light on the subject and to examine the process in a longitudinal perspective. The future research also needs to expand to supply local authorities with some more concrete guidance and methodologies from different disciplines. Particularly, the citizen side (demand) is a fertile area waiting for the keen researchers (Arslan, 2008). Ulhasnagar Municipal Corporation (UMC) needs more freedom to plan and execute civic infrastructure services. Administrative work needs different permissions from state and central government. Local civic infrastructure requirements are not solved on time. But above policies will certainly help to reduce few issues with corporation and improve standard of living of people.

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