

## Citizen Satisfaction with Municipal Services: A Meta-analysis

Nadia Shahzada<sup>1</sup>, Sanaullah Panezai<sup>2</sup> and Asma Khan Kakar<sup>3</sup>

<sup>1</sup> Department of Geography and Regional Planning, University of Balochistan, Quetta, Pakistan

<sup>2</sup> Associate Professor, Department of Geography and Regional Planning, University of Balochistan, Quetta, Pakistan.

<sup>3</sup> Department of Geography and Regional Planning, University of Balochistan, Quetta, Pakistan

ARTICLE INFO	ABSTRACT
<p><b>Article type:</b> Research Article</p> <p><b>Received:</b> 2024/01/10</p> <p><b>Accepted:</b> 2024/02/19</p> <p><b>pp:</b> 64-80</p> <p><b>Keywords:</b> Municipal services; Municipalities; Citizen satisfaction; Service delivery; Citizen expectation.</p>	<p><b>Background:</b> While studies have been carried out to evaluate the level of citizen satisfaction with municipal services, no evaluation of the results of these studies has been done.</p> <p><b>Objectives:</b> To investigate citizen satisfaction with municipal services globally, this review was conducted.</p> <p><b>Methodology:</b> This study made use of meta-analysis. For the literature review, papers indexed in the Web of Science (WoS) and Scopus were searched using the following keywords: 'municipal services', 'citizen satisfaction', and 'citizen satisfaction with municipal services'. During the keyword search, 60 English-language articles were chosen for review based on their relevance and importance. Finally, a review analysis was done to obtain results.</p> <p><b>Results:</b> The results revealed that the level of citizen satisfaction with municipal services varies among countries, contingent upon the quality of the services provided. The study also indicated that while municipalities generally provide adequate urban services, there is still room for improvement. The findings also showed that socio-demographic characteristics, quality of service, and institutional performance collectively impact citizen satisfaction.</p> <p><b>Conclusion:</b> This review concludes that citizens' expectations can be met through improved service quality. Balancing the performance of municipalities within the country involves providing better services in rural areas as well, ensuring a more equitable distribution of services.</p>



**Citation:** Shahzada, N., Panezai, S., & Kakar, A.K. (2024). Citizen Satisfaction with Municipal Services: A Meta-analysis. *Journal of Geography and Regional Future Studies*, 1(3), 64-80.



© The Author(s).

**Publisher:** Urmia University.

DOI: <https://doi.org/10.30466/grfs.2024.55104.1041>

DOR: <https://dorl.net/dor/20.1001.1.2981118.1402.1.3.5.3>

### 1. INTRODUCTION

Local governments and civil society organizations are working to establish the concept of public participation in municipal operations. Local government is seen as a pillar of community development (Almarshad, 2015). The municipal services include sanitation, solid waste management, and sewerage, among others. One of the most critical issues with municipal services is lack of consistency in providing high-quality services. The provision of constant service quality is likely to be one

of the most important components in establishing an organization's credibility and reputation in the eyes of the public (Mmutle & Shonhe, 2017). It is well-acknowledged that offering high-quality services improves an organization's bottom-line performance (Fry & Nisiewicz, 2013). Indeed, there is a growing body of empirical research demonstrating that offering high-quality services promotes profitability, productivity, positive word-of-mouth, market share, and return on investment while decreasing expenses (Abou-Foul et al., 2021). Public service organizations, like

<sup>1</sup> **Corresponding author:** Sanaullah Panezai, **Email:** sanaullah.panezai@gmail.com, **Tell:** +923337871676

many other service companies, are under constant pressure to improve the quality of their services (Mokhlis et al., 2011). Municipal governments, for example, confront more difficult challenges than those in the private sector in providing good service and maintaining citizen satisfaction (Andrews & Van de Walle, 2013).

Local governments genuinely desire to improve their public image by increasing the quality of services offered to the community (Elcock, 2013). Quality is a vital aspect of the reform of municipal services and of increasing citizen satisfaction (Beeri et al., 2019). Because of the insistence and hopes of society for local governments to provide services up to the quality standard expected by taxpayers, efficient and effective delivery systems have been the main emphasis of the governments of many countries (Elcock, 2013; Manikam et al., 2019). It entails developing organizations with the correct attitudes, establishing clear means of delivering services, and putting the right personnel in place to respond to citizens' needs (Myhre et al., 2020). It also necessitates a blend of solid policy formation, successful execution, a thorough awareness of people's needs and expectations, adequate resources and technology, a responsive organizational culture, and well-trained personnel (Ford et al., 2017).

Local governments around the world seek ways to make their citizens happy by providing satisfactory services, which are considered highly important in industrialized countries compared to developing ones (Sachs, 2012). Customer happiness has been identified as one of the most critical components of modern marketing philosophy, particularly in the service industry. Research has supported the assumption that there is a significant direct link between service quality and satisfaction (Rao & Tilt, 2016). Satisfaction also influences the quality of municipal services and demonstrates the relationship between the public and the government, as well as future behavior (Wu, 2020; Wu & Jung, 2016). This indicates that municipalities in many countries evaluate citizen satisfaction levels through surveys and scorecards, and citizens themselves are now more aware of their rights and services provided by local governments (Afroj et al., 2021a).

Obtaining citizen input about their satisfaction gives useful information on how well the municipal authority meets the needs of its citizens (Kassen, 2013). The data can be utilized in quality improvement initiatives to assist local councilors in identifying possibilities to improve services and instill a good perception among citizens (Istemic & Kozina, 2020). Studies of service quality can also reveal disparities between residents' and councilors' opinions of municipal services (Lo Storto, 2016). Finally, service quality assessments can be employed as a marketing strategy for improving

municipal services (Ammons, 2014). In many cases, citizens express their dissatisfaction with municipal services provided by metropolitan, municipal, and urban development departments (Offenhuber, 2015). Local governments face difficulty in satisfying their citizens for service delivery (Miller et al., 2020). This is evident in many developing countries in Asia and particularly in Africa, where citizens and governments are disconnected as a result of institutional failure (Hardoy et al., 2013). Slum areas of Asian countries, including Pakistan, Bangladesh, Tajikistan, Uzbekistan, and Kyrgyzstan, are the most impoverished in terms of basic municipal services delivery (Mahajan, 2017).

While studies have been carried out to evaluate the level of citizen satisfaction with municipal services, no evaluation of the results of these studies has been done. For a number of reasons, including knowledge synthesis, identifying research gaps, best practices and lessons learned, methodological advancements, comparative analysis, enhancing public engagement, and ultimately improving citizens' quality of life through more responsive and effective public services, a review of research studies on assessing citizen satisfaction with municipal services is required. To investigate citizen satisfaction with municipal services globally, this review was conducted. Although research has been conducted on assessing citizen satisfaction with municipal services, the scope of these studies conducted in urban areas in both developed and developing countries is localized. An assessment of the factors that affect citizen satisfaction with municipal services necessitates a comprehensive review of the findings of published studies. Thus, this review is an attempt to explore citizen satisfaction with municipal services globally. The findings would be useful for improving the service quality of municipal organizations.

## 2. METHODOLOGY

This section discusses the techniques used to access articles related to citizen satisfaction with municipal services. A systematic literature review and meta-analysis is conducted to consolidate the insights gleaned from prior research, offering a comprehensive perspective on the topic of citizen satisfaction with municipal services.

### 2.1. Design

This study used a meta-analysis, often known as an "analysis of analyses," to combine quantitative and qualitative findings from various research studies into a single, integrated, and qualitative literature review. A meta-analysis is defined as "the statistical examination of a large collection of individual study analysis data with the objective of integrating the findings." For systematic reviews and meta-analyses, we used the

Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) criteria.

## 2.2. Inclusion and exclusion criteria

The researcher included all cross-sectional studies that matched the following criteria: The initial requirement for inclusion was a time frame, and a timeframe from 2000 through 2023 was chosen. The second inclusion criterion was document formats, and journals (research publications) containing empirical data were chosen as primary sources. Articles published in the fields of social science, organizational psychology, business, and management were chosen as the third inclusion to maximize the potential of obtaining relevant articles. Authors reviewed the titles and abstracts of all articles provided by the search strategy in order to choose acceptable studies. The complete text of potentially relevant, non-duplicated publications was then independently examined.

## 2.3. Search strategy

The researcher employed various data sources in their article search. The process was initiated by conducting a search on the Web of Science, focusing on literature

within public administration journals. Specifically, they used the search terms “municipal services” and “citizen satisfaction” in the Web of Science’s “subject” search engine. This initial search yielded a total of 257 studies related to municipal services and citizen happiness. After a comprehensive examination of these studies, the researcher identified 60 articles that had directly addressed municipal services. Subsequently, a secondary search was carried out using Google Scholar, focusing on the keywords “citizens” and “satisfaction” within public sources. This secondary search yielded 60 relevant items, although it did not reveal any new research findings (Figure 1).

## 2.4. Data sources

After confirming the eligibility of the remaining articles, they were subjected to careful inspection, scrutiny and analysis. The data for the current study was collected by examining the titles, abstracts, and full texts of these articles to uncover significant issues and sub-themes. This information was obtained by thoroughly analyzing the titles, abstracts, and full texts of the articles in order to identify important concerns and subtopics.

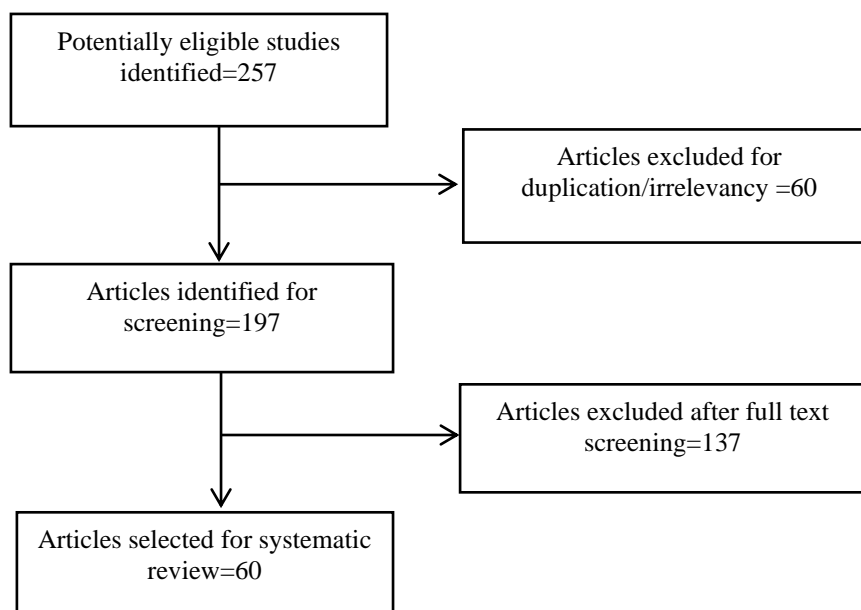


Fig 1. Search and selection procedure for doing a systematic literature review

## 2.5. Data analysis methods

The selected research articles were inspected, scrutinized, and analyzed. The current study's data was acquired by analyzing article titles, abstracts, and full texts to identify significant themes and sub-themes. The data was acquired by analyzing articles' titles, abstracts, and full text to identify significant themes and sub-themes. The descriptive method was employed for data analysis, data compilation and data visualization.

## 3. RESULTS

### 3.1. Description of peer-reviewed articles

Though 257 articles were identified at the initial stage but at last a total of sixty publications were included in the study's final analysis. Thirty-six (36) different journals published these articles. The effective impact factor of the Sustainable Cities and Society journal and the Journal of Automation in Construction was 11. The Production Planning and Control Journal, with an

impact factor of 7.8, was next to it. Six studies used in this paper were published in Public Administration Review, the journal with the largest distribution of

papers; these were followed by five articles in The Journal of Politics and four in Procedia-Social and Behavioral Sciences (Table 1).

**Table 1. Description of peer-reviewed articles**

S#	Names of Journals	Number of Articles	Impact Factor
1.	Automation in Construction	1	11.45
2.	Sustainable Cities and Society	2	11.17
3.	Production Planning and Control	1	8.30
4.	Government Information Quarterly	2	7.80
5.	Business Horizons	1	7.40
6.	Value in Health	1	6.92
7.	Journal of Urban Management	2	6.10
8.	Climate Policy	1	6.06
9.	International Marketing Review	2	5.95
10.	Public Management Review	2	5.90
11.	Environmental Development	2	5.40
12.	World Development	1	5.28
13.	Public Administration Review	6	4.06
14.	Sustainability	3	3.89
15.	The Journal of Politics	5	3.44
16.	Governance	1	3.22
17.	Research Space	1	3.11
18.	Frontiers in Environmental Science	1	3.10
19.	International Review of Management and Marketing	1	3.06
20.	International Journal of Public Sector Management	3	2.86
21.	The information Society Reader	1	2.52
22.	Urban Affairs Quarterly	1	2.50
23.	Global Journal of Sociology: Current Issues	1	2.48
24.	Global journals of Research and Review	1	2.42
25.	Voluntus: International Journal of Voluntary and Nonprofit Organizations	1	2.40
26.	Administration & Society	1	2.30
27.	Journal of Sport and Social Issues	1	2.30
28.	Journal of Services Research	1	2.15
29.	Health Economics Review	1	2.12
30.	International Journal of Geosciences	1	1.78
31.	Public Performance & Management Review	2	1.51
32.	International journal of Social Economics	2	1.10
33.	International Journal of Public Sector Performance Management	1	0.58
34.	Journal of Public and Nonprofit Affairs	1	0.43
35.	Journal of Public Administration and Governance	1	0.30
36.	Procedia- Social and behavioral sciences	4	0.00
Total		60	-

Source: (Authors' analysis, 2023)

### 3.2. Regional distribution of the research studies

A total of 60 articles are part of this analysis. These studies have been published at different locations

across the globe. The USA is the leading country with the highest (10) number of articles added to this review after South Africa (08), followed by Pakistan (05) and India (04). This was not a systematic selection (Figure 2).

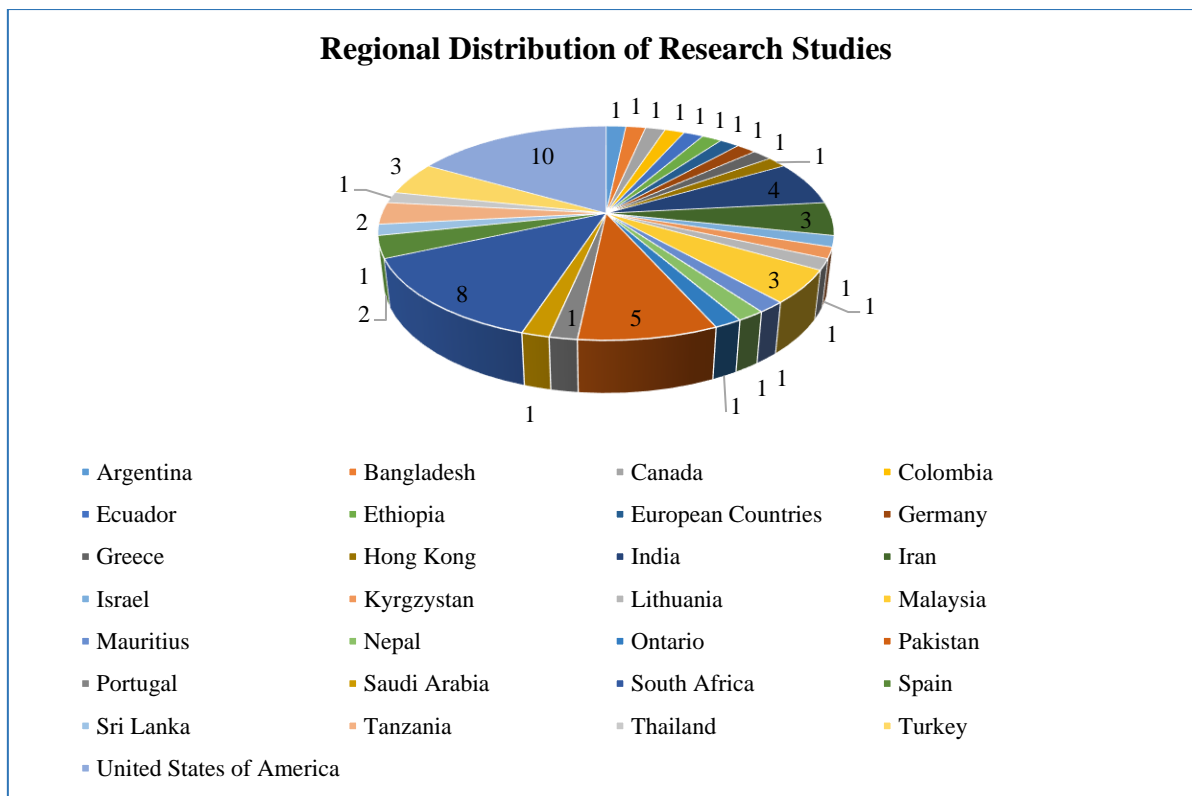


Fig 1. Regional distribution of articles

### 3.2. Multiple municipal services around the world

Simply, services are the “deeds, processes, and performances” (Zeithaml, 2013) and municipal services may be defined as services provided to residents of a city by metropolitan corporations or municipalities. There are different types of services provided to citizens depending on the function of the authorities, such as urban services, public services, basic municipal services, and local services. Every country differs in its urban function and defines municipal services according to its local government act. According to Section 73 of the "System’s Act," in South Africa, ‘basic municipal services are those services that are important for local residents and

improve quality of life. If these citizens do not avail themselves of these services, their lives are at risk (Bekink, 2006).

Likewise, this study revealed that every country acts differently at the national and local levels in terms of its service provision. Nepal and Argentina include environment management as a municipal service, unlike India and South Africa, where police service falls under the responsibilities of urban authorities. The provision of fresh water to citizens was the next service found in many countries, such as Kyrgyzstan, Pakistan, and India. The common municipal services in many countries were street and road cleanliness, garbage collection, public safety, sanitation, vital statistics, street lights and public toilets (Table 2).

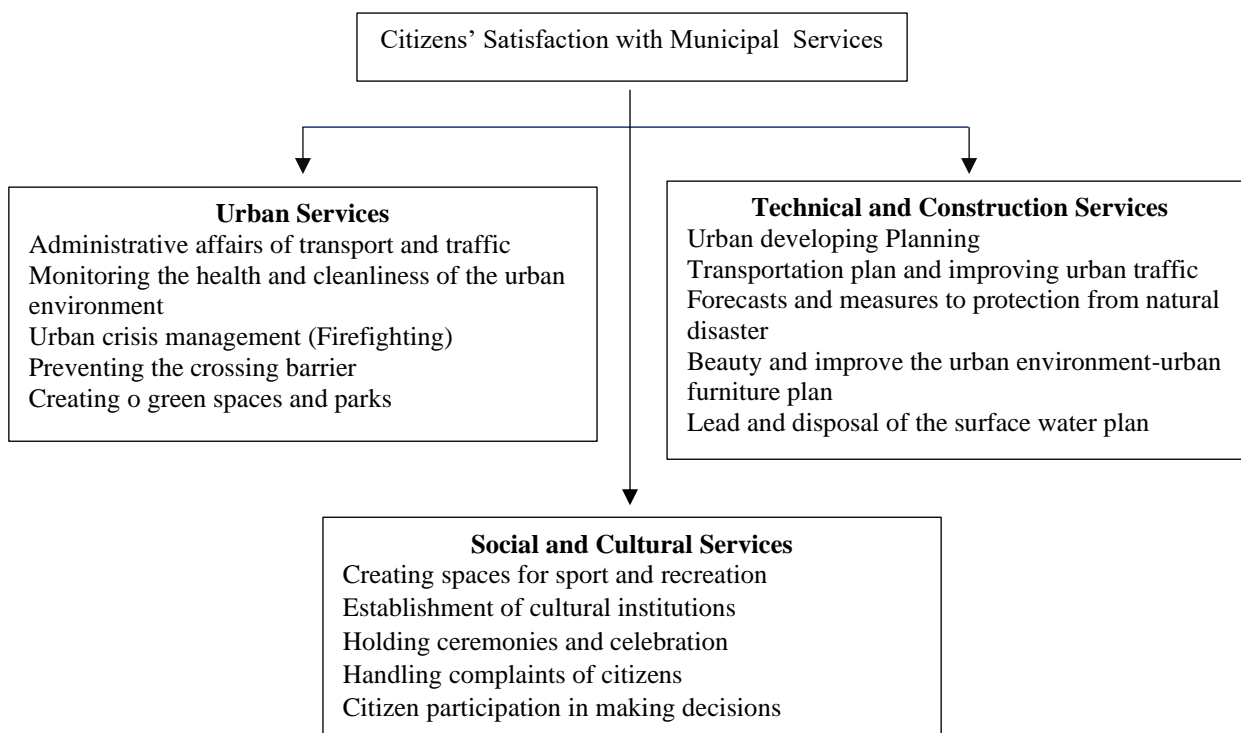
Table 2. Review of types of municipal services provided by local governments

Country	Municipal Services	Reference
Nepal	Environment management, solid waste and services, public works: roads and infrastructure, building design and approval, certification and recommendation, fire brigade service, vital registration, tax filing, social security, and allowance distribution.	(Adhikari, 2011)
South Africa	Water, electricity, refuse removal, housing, sanitation, road maintenance, water, electricity, solid wastes, health, market places, land use and cleaning, piped water, police, buildings, and market stalls.	(Masiya et al., 2019) (Akinboade et al., 2012). (Nkomo, 2017). (Statistics South Africa, 2016)



Country	Municipal Services	Reference
Malaysia	Drainage systems and public toilets, refuse collection, sewerage disposal, drainage, cleansing, and sanitation of public places should be available.	(Bello et al., 2018)
Argentina	Public space maintenance, animal control, security policy night, noise, traffic control, environmental care and conservation, hospital management, and housing management.	(Nigro & Císaro, 2014)
Turkey	Traffic-transportation, immigrants, unemployment, road pavement maintenance and repair, carpark, air pollution, education, garbage and cleaning services, rarity in social and cultural activities, park and gardens, security, infrastructure-sewage, lack of social facilities, natural gas noise Zoning-housing, urban transformation, lack of health services, electricity problems, water problems, sewer system services, cleaning services, and forest pest control. city planning, nationalization, road building, and maintenance of urban transformation (renewal of the old urban fabric) green fields and parks.	(Deniz Akgul, 2012; Örselli et al., 2017).
Greece	Adequate location and cleanliness of bins, recycling, lighting, maintenance network, electricity works, roads, municipal buildings, and time implementation of municipal projects.	(Makaratzis et al., 2016)
Portugal	Street cleaning, waste collection, and recycling.	(Arfeen et al., 2018).
Sri Lanka	Household wastes, and garbage.	(Knutsson et al., 2021)
Saudi Arabia	Environment, markets, parks and gardens, and land services.	(Almarshad, 2015)
Bangladesh	Public toilets, health services, parking, waste disposal, drainage systems, road maintenance, street lights, market management, traffic control, paste control, and disaster management.	(Afroj et al., 2021b)
Iran	Public health park and green space Lighting and security avoid crossing barriers, parking spaces, bus access, pedestrian bridges, lining urban furniture beautification, construction of streets and squares, supervising construction space for leisure and sport, stop begging libraries, academy, etc.	(Goharipour et al., 2011b; Jomehpour & Behzad, 2020)
USA	Roads, fire, parks, police, parks and recreation, refuse collection, library, education, schools, subways, buses, cleanest, protection, garbage collection, street lighting, sanitary, planning and zoning, and storm sewers, street, physical planning, and utility satisfaction	(Morgan & Pelissero, 1979) (Collins et al., 2019) (DeHoog et al., 1990). (Hero & Durand, 1985) (Kelly & Swindell, 2002) (Ryzin, 2004; Ryzin, 2006).
Lithuania	Health lighting, roads, and social services.	(Vilke & Vilkas, 2018)
Europe	Streets, buildings, public space and green space, sports and cultural categories, health, and education.	(Spyratos & Stathakis, 2018)
Pakistan	Education, health, water, solid waste management, water supply, sewerage, and drainage. primary schools, trash disposals, garbage collection.	(Altaf & Deshazo, 1996) (Arif et al., 2010b) (Nawaz & Batool, 2020) (Rahim & Shirazi, 2018).
Mauritius	Waste collection, construction and maintenance of buildings, cleaning maintenance, and lighting.	(Naraidoo & Sobhee, 2021).
Ontario	Roads, snow plowing, parks, planning zones, garbage collection, libraries, police, and fire	(Kushner & Siegel, 2005)
Kyrgyzstan	Sanitation, drinking water, infrastructure services, and social services	(Novikova, 2014)

Source: (Authors' Review 2023)



**Fig 2. Municipal Services**

Source: (Lakovic, 2021)

### 3.3. Citizens' satisfaction with municipal services

The view of citizens towards services is a method of assessing the quality of service delivery. It is also a greater opportunity to improve performance with the support of citizens' valuable comments if any gaps are discovered (Ammons, 2014). Municipalities are the primary governmental units in any given geographical area responsible for providing these services. Despite the fact that there are many people who have little or no access to services, or who have access to services that are of poor quality (Pedersen et al., 2012). For this, they have been heavily criticized and residents' complaints about poor service delivery have been reported in different forums, such as the media and organizations (Giulianotti et al., 2015). As a result, it is difficult for local government bodies to offer these services in an efficient and comprehensive manner; most countries provide these services through municipalities (Ladner, 2017).

Citizens' perceptions and opinions are an appropriate source for assessing the quality of municipal services. The lack of citizen awareness of local government administration is a key impediment to the growth of local government regions and their residents (Dale et al., 2020). Citizens' responsiveness to local authorities' service delivery is governed by the level of citizen satisfaction the public sector was given attention to,

particularly in local authorities), local authorities' occupants' needs and wants are unsatisfactorily catered to (Reddick et al., 2017). As a result, citizens in many developing countries are disgruntled and participate in protests. Because it allows households or service seekers who have received poor services to speak out against municipal service providers (Ong, 2013). If there is good feedback, local governments are providing excellent and satisfactory services. Furthermore, there is a need to involve residents in these matters, as their awareness can improve the level of service; this can be easily accomplished by municipal authorities, as they are the closest to citizens on behalf of local government (Dawes et al., 2009).

The review revealed that the satisfaction levels of citizens in the studied places differ from country to country and even within countries. For example, two studies conducted on the same objectives in Turkey, India, and Pakistan showed contradictory results. Likewise, in some countries, citizens showed a positive response, while many were dissatisfied in other countries. There was also a gap between rural and urban citizen's satisfaction levels. However, the net result explored that municipalities provided satisfactory performance, but there is still room for improvement. This review of studies also explored that citizen satisfaction is interlinked with the socio-demographic profile of respondents, quality of life and municipalities' performance (Table 3).

**Table 3. Review of the finding on citizens' satisfaction with municipal services**

#	Findings on Citizens Satisfaction	Region	References
1	The findings showed that with the establishment of the Aizawl Municipal Council (AMC), citizens are more satisfied in all categories than pre-AMC citizens. The majority of them are unaware of municipal activities.	India	(Lalchhuanawma, 2018)
2	The study identifies citizens' dissatisfaction with the solid waste services of the municipality and thus suggests developing and validating the mobile-based system in order to improve customer happiness and revenue collection.	Tanzania	(Manyonyi, 2022)
3	This study reports low satisfaction and service quality in the tribal area of north-western Pakistan.	Pakistan	(Cyan et al., 2017).
4	The level of satisfaction with municipal services differs across cities in Turkey. Improved municipal services such as garbage and environmental waste collection, air pollution quality, and public safety, in particular, were found to have an impact on people's happiness.	Turkey	(Çitak & Çakir, 2022)
5	Residents of Panskura Municipality were dissatisfied with four urban services, such as sanitation, transportation, health, and economy; however, they were satisfied with water service.	India	(Das et al., 2022)
6	Respondents were highly dissatisfied with road maintenance. They were happy with public service delivery in the areas of water, electricity, and solid waste and with the municipality's efforts to reduce crime.	South Africa	(Akinboade et al., 2012)
7	Municipalities' performance is poor, and citizens were unhappy with the poor quality of municipal services. There is a need for integrated development planning for municipalities.	South Africa	(Adonis & Van der Walt, 2017)
8	In Pakistan, a substantial portion of the public shows dissatisfaction with the services delivered by local governments. Solid waste management, in addition to drainage, required improvement.	Pakistan	(Arif et al., 2010a).
9	Municipalities in Malaysia have insufficient resources to provide basic municipal services to either the general population or those living in slum settlements.	Malaysia	(Sakawi, 2011)
10	Majority of the municipalities were found to be efficient in street lighting service in Spain.	Spain	(Lorenzo & Sánchez, 2007)
11	In South Africa, citizen showed dissatisfaction with the delivery of basic municipal services such as running water, electricity and toilets, especially in areas of informal settlements, to lack of provision of houses. Thus, use of IoT in municipal services can meet citizen needs and expectations.	South Africa	(Dlodlo et al., 2012)
12	The use of AI in municipal service delivery can help improve the urban service delivery system and satisfy urban citizens in Malaysia.	Malaysia	(Samsurijan et al., 2022)
13	In Turkey, residents were found dissatisfied with Kirsehir municipality's services. The varied satisfaction levels were affected by the demographic profile of residents, such as gender, education, and economic status, but not by age.	Turkey	(Deniz Akgul, 2012)
14	Citizens living in cities in Lithuania give high importance to the municipality's services. As people get older, their expectations rise. Citizens in cities were found to be less satisfied with municipal services.	Lithuania	(Vilke & Vilkas, 2018)
15	This study found citizens' satisfaction with urban traffic services was moderate. The variations in satisfaction with urban traffic services between the different locations of Arak residents are affected by age, gender, education, and occupational positions.	Iran	(Saghaei et al., 2021)
16	In South Africa, service quality is a significant predictor of customer satisfaction with municipal services. Customers evaluate the service fairness offered by municipal employees; thus, municipal management should encourage consumer involvement and participation.	South Africa	(Masitenyane & Mokoena, 2023)



#	Findings on Citizens Satisfaction	Region	References
17	Findings showed that the majority of the residents were willing to pay the local government in Hong Kong for the conservation of a heritage site. This showed the trust of the public in government efforts.	Hong Kong	(Yung & Chan, 2015)
18	The study showed that improvements are required in municipal services such as citizen security, public lighting, air quality, and sports services in Guayaquil, Ecuador.	Ecuador	(Rico et al., 2022)
19	The citizens were not satisfied with solid waste management. A majority (84%) of citizens stated that the collection of solid waste is the responsibility of the government, and people should not pay for it.	Pakistan	(Altaf & Deshazo, 1996).
20	The citizens of Bangladesh are moderately satisfied with urban services. Thus, to enhance citizens' satisfaction, there is still room for reliable and functional services.	Bangladesh	(Afroj et al., 2021a)
21	The citizens are highly satisfied with the municipal services such as vital registration, tax filing, social security distribution, certification and recommendation, fire brigade, and building design approval. Whereas, highly dissatisfied solid waste management, sanitation, and public works.	Nepal	(Adhikari, 2011)
22	Citizens were found to be very satisfied and happy. Age was a major factor that affects satisfaction in Turkey. Older people reported higher levels of satisfaction than younger people. The higher the education, the lower the satisfaction.	Turkey	(Orselli et al., 2017)
23	The findings showed that satisfaction with municipal services affects households status, needs, and service quality.	India	(Deichmann & Lall, 2003)
24	The findings showed moderate satisfaction of citizens' with municipal services; the northern part of Tehran was more highly satisfied than the southern part. Moreover, cultural factors and beliefs affect citizens' satisfaction with their living environment.	Iran	(Goharipour et al., 2011a)
25	The findings revealed that citizens were satisfied with municipal services in southern Thailand. Service quality was the major predictor of citizen satisfaction.	Thailand	(Mokhlis et al., 2011)
26	Local inhabitants have positive effects on improvements made in services provided to them.	Pakistan	(Nawaz & Batool, 2020)
27	This study showed that quality of life has a direct impact on citizen satisfaction with municipal services. The cordial relationship between citizens and the municipality has a positive effect on citizen satisfaction in Israel.	Israel	(Gendel-Guterman & Billig, 2021)
28	This study concludes that citizens were satisfied with municipal service delivery in Malaysia. Their satisfaction is triggered by the residents' municipal awareness.	Malaysia	(Bello, David, et al., 2017)
29	People living in urban areas are satisfied compared to rural areas. Likewise, satisfaction is not the same in all provinces of Pakistan. For instance, the higher the social status, the higher the satisfaction. This study suggests further reforms in institutions.	Pakistan	(ur Rahim & Shirazi, 2018).
31	The findings revealed that citizens were dissatisfied with the municipal services provided by Emfuleni Local Municipality, which thus needs to improve service quality.	South Africa	(Khale, 2015). (Moletsane, 2012).
32	The study reported that citizens were satisfied with the local government services in New York City. Their satisfaction was influenced by the perceived quality of services. Another study in the same city concluded that confirmation has a large influence on citizen satisfaction as compared to expectation variables.	USA	(Ryzin, 2004; Ryzin, 2006)
33	This study revealed high citizen satisfaction with regard to utilities, security, public space, and government performance. Similarly, there is low satisfaction with civic norms and government performance among the poor in Cali, Columbia.	Colombia	(Martínez et al., 2015).

#	Findings on Citizens Satisfaction	Region	References
34	The citizens reported mixed opinions—satisfied and dissatisfied—about the quality of services provided by municipalities before and after the reforms uniting regions in Canada.	Canada	(Kushner & Siegel, 2005).
35	This study reported that 84.4% of citizens were satisfied with the urban solid waste collection service in Burgos, Spain. Their satisfaction can be improved further by increasing the frequency of walkway and pavement cleaning and the frequency of waste collection.	Spain	(Puche-Regaliza et al., 2021).
36	The findings showed that poor waste management services were offered by Kinondoni Municipality, Tanzania. The amount of generated waste is higher than the collected waste.	Tanzania	(Mnyanyi, 2014).

### 3.4. Thematic analysis of municipal services

Table 8 presents a thematic distribution of municipal services based on a number of studies. The data reveals 33 distinct thematic areas of municipal services, ranging from solid waste management to snowplowing, and includes the number of studies dedicated to each theme along with their percentage contribution to the total of 217 studies. The highly researched thematic areas include solid waste

management (12.9%), public safety (11.1%), cleaning and sanitation (7.4%), and management of forests, green fields, and parks (7.4%). Research studies have also covered municipal areas such as the maintenance of roads and infrastructure (6.9%), the management of libraries, and primary schools (6.9%). In contrast to these, less attention has been given to the thematic areas of municipal services such as disaster management and snowplowing (Table 8).

**Table 4. Thematic analysis of Municipal Services (multiples options)**

S#	Thematic distribution of municipal services	Number of Studies	
		N	%
1.	Solid waste collection, disposal, recycling and management	28	12.9
2.	Public safety: fire brigade, police, security policy, night control	24	11.1
3.	Cleaning and sanitation, drainage system, sewerage disposal	16	7.4
4.	Forestation, green fields and parks	16	7.4
5.	Roads and infrastructures, road pavement maintenance and repair	15	6.9
6.	Education: library primary schools	15	6.9
7.	Public health services and hospital management	14	6.5
8.	Street lights	11	5.1
9.	Water supply and drinking water, water problem	10	4.6
10.	Cleaning services, street cleaning and cleanliness bins	10	4.6
11.	Urban transformation and city planning	9	4.1
12.	Market places and management	6	2.8
13.	Electricity supply	5	2.3
14.	Environmental care, management, and conservation, and air pollution	4	1.8
15.	Building design & approval, municipal building	3	1.4
16.	Traffic control, transportation	3	1.4
17.	Paste control	3	1.4
18.	Space for leisure & sport	3	1.4
19.	Provision of housing	2	0.9
20.	Public toilets management	2	0.9
21.	Parking space, bus access, car parking	2	0.9
22.	Preventing begging	2	0.9
23.	Public space maintenance, land services	2	0.9
24.	Certification and recommendations	1	0.5
25.	Vital registration, tax filing	1	0.5
26.	Social security and allowance distribution	1	0.5
27.	Animal control	1	0.5
28.	Immigrants	1	0.5
29.	Natural gas noise zoning-housing	1	0.5
30.	Disaster management	1	0.5

S#	Thematic distribution of municipal services	Number of Studies	
		N	%
31.	Security avoid crossing barrier, pedestrian bridge	1	0.5
32.	Social services	1	0.5
33.	Snow-plowing	1	0.5
	Total	217	100.0

Source: Authors' analysis

#### 4. DISCUSSION

The principal contribution of this research is reviewing the municipal services offered by local governments in both developing and developed countries. This study found that a set of municipal services is not uniform everywhere; service delivery depends on the function of that municipality. The municipal services offered by the local government vary depending on urban policies, the varying scope of urban services, and tradition and history (Çitak & Çakir, 2022).

Although there were some uniform services, including solid waste collection, street lights, and public safety (Adhikari, 2011). Additionally, there were certain services that were not common in each country under the review conducted, for instance, water provision and police service. These services were noticed in the regions of India, South Africa, etc. (Masiya et al., 2019). The results of this study also showed that municipalities perform their duties accurately. Citizens were found satisfied with municipal services in regions like the United States of America, India, Turkey, Ethiopia, Spain, Malaysia, Thailand, Pakistan, and South Africa. While average citizen satisfaction was reported in Iran and Nepal.

This study also identified the cities of the studied countries where citizens were not happy with municipal performance, despite the fact that the same countries were included in the list of satisfied ones, for example, South Africa, Pakistan, and Turkey. There are many agents that hinder the good performance of these municipalities. In many countries around the world, municipalities encounter problems and challenges. The biggest issue for these countries in managing and providing all of these municipal services, such as solid waste management capacity, is increasing with population growth (Douti et al., 2017). As a result, municipal governments are unable to provide high-quality services. They are unable to meet the needs of citizens. Population growth is one of the most serious issues (Maphumulo & Bhengu, 2019). According to these circumstances, the local government is unable to deliver these fundamental services to citizens and is unable to broaden its range of authority. As a result, citizens in many developing countries are disgruntled and participate in protests (Akinboade et al., 2013). Because it allows households or service seekers who have received poor services to

speak out against municipal service providers (Dalinjong & Laar, 2012).

The research also sought to identify the most critical service quality aspects that influence citizen satisfaction with local council services (Figure1). The findings complement prior research findings that demonstrate that service quality has a significant impact on customer satisfaction (Li & Shang, 2020). Along with service quality, the satisfaction of respondents also depends on their economic status, age, duration, and length of stay in that particular area.

Citizens' perceptions and comments are an appropriate source for gauging the quality of municipal services. A notable example comes from Bangalore, where authorities used citizen perception to evaluate these services and use it as a source to enhance them (Simon et al., 2016). The level of satisfaction and perception of citizens reflect on municipal service providers. If there is good feedback, local governments are providing excellent and satisfactory services (Akinboade et al., 2012). Furthermore, there is a need to involve residents in these matters; their awareness may also improve the level of services. This can be easily accomplished by municipal authorities, as they are the closest to citizens on behalf of the local government (Bonsón et al., 2017) (Table 2). Citizens' complaints about inadequate service delivery have been harshly condemned and reported in many forums, such as the media and organizations (Sheikh et al., 2015). As a result, it is difficult for local government bodies to offer these services in an efficient and comprehensive manner; most countries provide these services through municipalities (Ladner, 2017).

Local and municipal governments seek to be efficient in terms of service provision and delivery; therefore, assessing public satisfaction is crucial. So they can better meet the requirements of the community and boost their satisfaction (Beeri et al., 2019). Mismanagement of local government and municipal authority is condemned in developing countries. Researchers should address this predicament by performing studies on citizen satisfaction measurement (Mehr et al., 2017). The local government in South Africa is closely involved with service delivery in various parts of the country. South Africa, like other countries, faces difficulties in providing essential services successfully, which is why municipal

performance has been criticized in this region for many years (Hove et al., 2013).

## 5. CONCLUSION

The findings of this review study concluded that citizen satisfaction with municipal services varied across the cities in developing and developed countries, ranging from dissatisfaction to highly satisfied. Their satisfaction can be increased through an improved service delivery, including facility maintenance. The review found that residents' expectations were linked to their municipality's performance and reaction and were influenced by sociodemographic variables such as age and the quality of services provided to them. There is more than one aspect influencing public satisfaction and anticipation. These could be numerous and multidimensional, such as the socio-demographic characteristics of respondents and service quality. Finding such agents undoubtedly paves the way for improved institutional performance, as well as the satisfaction of citizens and the reputation of authorities. Despite the fact that this expectation is not entirely satisfied, they must enhance their performance, particularly in developing countries such as India, Pakistan, and Bangladesh, where inhabitants were found to be dissatisfied.

### 5.1. Suggestions and policy implications by reviewed studies

The analysis of the findings of the reviewed studies revealed several policy implications and suggestions for improving the quality of municipal services. These suggestions and policy implications for strengthening municipal services are of vital importance for policymakers, urban development departments, urban residents, business associations, tourists, and international development organizations for improving the quality of life, urban economies, social and environmental sustainability, and creating sustainable cities and communities in light of the Sustainable Development Goals (SDGs). The significant suggestions and policy implications are given below:

- For increasing citizen satisfaction and complaint redressal, establishment of a complaint office is suggested where complaints could be recorded and responded (Bello, Martin, et al., 2017).
- The results of this study suggest that urban authorities should improve the service quality for meeting citizen expectations (Van Ryzin et al., 2004).
- Considering the rural-urban contexts, the municipalities should take into account the socio-demographic characteristics of citizens while designing the provision of services system (Bucaite Vilke & Vilkas, 2018).
- It is suggested that service quality evaluations should be done annually to identify citizen expectations and to improve the performance of service providers (Mokhlis et al., 2011).
- The service delivery system and service provision should be improved in the study area (Akinboade et al., 2012).
- To ensure citizen satisfaction, authorities should prefer sustainable city planning with citizen participation (Bhuiyan & Islam, 2023).
- The result of published studies be compared by service providers with their performance so that policy decisions can be made in an informed manner (Swindell & Kelly, 2005).
- This study suggests municipalities to ensure a balance between citizens' expectations and their performance. Training to municipal workers for improving the service quality is suggested (Atieh, 2021).
- The urban authorities should provide cultural facilities to citizens and focus on a balanced delivery of services to urban or rural areas. This study also suggested utilizing research findings for improving services (Mohammadi & Sedeqi, 2023).
- An online complaint redressal system should be introduced for gaining public trust (Arfeen et al., 2018).
- There is a need for taking communication initiatives which can take into account the citizens' perspectives and feedback on services quality (Knutsson et al., 2021).
- For meeting citizen expectations, municipalities should improve their service delivery system and service quality (Deniz Akgul, 2012).
- Awareness programs need to be initiated for coordination between municipalities and their citizens (Bello et al., 2018).
- There should be a strong coordination between citizens and local councilors for solving problems regarding municipal services (Nkomo, 2017).
- Local government should focus on public safety and improving urban public places (Martínez et al., 2015).
- Considering citizens and customers, the urban managers develop competencies and utilize skills that can satisfy citizens about service quality (Collins et al., 2019).
- Improve the capacity of local government to meet the citizens' demands and needs and they should



thoroughly review their services to improve performance (Rahim & Shirazi, 2018).

- For improving service quality, establishing accountability mechanism for urban service providers is essential for improving their performance (Brinkerhoff et al., 2018).

## DECLARATIONS

**Funding:** “This research received no external funding”.

**Authors' Contribution:** Nadia Shahzada: Conceptualization, Writing- original draft, Writing- review and editing. Sanaullah Panezai: Conceptualization, Methodology, Validation, Writing - review and editing. Asma Khan Kakar: Writing - review and editing.

**Conflict of Interest:** The authors declare that they have no conflicts of interest.

**Acknowledgments:** The authors would like to thank the manuscript reviewers whose invaluable feedback improved the quality of manuscript.

## REFERENCES

- Abou-Foul, M., Ruiz-Alba, J. L., & Soares, A. (2021). The impact of digitalization and servitization on the financial performance of a firm: an empirical analysis. *Production Planning and Control*, 32(12), 975-989.
- Adhikari, R. (2011). *Citizens' satisfaction with municipal services: A case of Bharatpur Municipality*. (Master Thesis ), North South University, Bangladesh, Bangladesh.
- Adonis, V., & Van der Walt, F. (2017). Measurement of implementation of integrated development planning: A conceptual framework for South African municipalities. *African Journal of Public Affairs*, 9(7), 41-52.
- Afroj, S., Hanif, F., Hossain, M. B., Fuad, N., Islam, I., Sharmin, N., et al. (2021a). Assessing the municipal service quality of residential neighborhoods based on SERVQUAL, AHP and Citizen's Score Card: A case study of Dhaka North City Corporation area, Bangladesh. *Journal of Urban Management*, 10(3), 179-191.
- Afroj, S., Hanif, F., Hossain, M. B., Fuad, N., Islam, I., Sharmin, N., et al. (2021b). Assessing the municipal service quality of residential neighborhoods based on SERVQUAL, AHP and Citizen's Score Card: A case study of Dhaka North City Corporation area, Bangladesh. *Journal of urban and management*, 10(3), 179-191.
- Akgul, D. (2012). Measuring the satisfaction of citizens for the services given by the municipality: the case of Kirsehir Municipality. *Procedia- Social and behavioral sciences*, 62, 555-560.
- Akgul, D. (2012). Measuring the satisfaction of citizens for the services given by the municipality: the case of Kirsehir Municipality. *Procedia-Social and Behavioral Sciences*, 62, 555-560.
- Akinboade, O. A., Kinfaek, E. C., & Mokwena, M. P. (2012). An analysis of citizen satisfaction with public service delivery in the Sedibeng district municipality of South Africa. *international Journal of Social Economics*, 39(3), 182-199.
- Akinboade, O. A., Putuma Mokwena, M., & Kinfaek, E. C. (2013). Understanding citizens' participation in service delivery protests in South Africa's Sedibeng district municipality. *international Journal of Social Economics*, 40(5), 458-478.
- Almarshad, S. O. (2015). Municipal awareness and citizen satisfaction: The case of the Northern Borders in Saudi Arabia. *International Review of Management and Marketing*, 5(2), 94-101.
- Altaf, M. A., & Deshazo, J. (1996). Household demand for improved solid waste management: A case study of Gujranwala, Pakistan. *World Development*, 24(5), 857-868.
- Ammons, D. (2014). *Municipal Benchmarks: Assessing Local Performance and Establishing Community Standards: Assessing Local Performance and Establishing Community Standards*: Routledge.
- Andrews, R., & Van de Walle, S. (2013). New public management and citizens' perceptions of local service efficiency, responsiveness, equity and effectiveness. *Public Management Review*, 15(5), 762-783.
- Arfeen, M. I., Sarantis, D., & Pereira, A. F. (2018). *Assessment of Citizen Perception: A Case Study of Municipal Solid Waste Management System in Guimaraes*. Paper presented at the Proceedings of the International Conference on Innovation & Entrepreneurship.
- Arif, S., Cartier, W., Golda, A., & Nayyar-Stone, R. (2010a). The local government system in Pakistan: Citizens perceptions and preferences. *The Urban Institute IDG Working Paper: Washington, DC*, 43-44.
- Arif, S., Cartier, W., Golda, A., & Nayyar-Stone, R. J. T. U. I. I. W. P. W., DC. (2010b). *The local government system in Pakistan: Citizens perceptions and preferences*. Washington, DC: Urban Institute IDG
- Atieh, K. (2021). Measuring the Satisfaction Citizen of the Service Quality in Municipal Jenin Area in Palestine. *repository.aaup.edu*.
- Beeri, I., Uster, A., & Vigoda-Gadot, E. (2019). Does performance management relate to good



- governance? A study of its relationship with citizens' satisfaction with and trust in Israeli local government. *Public Performance & Management Review*, 42(2), 241-279.
- Bekink, B. (2006). *Principles of South African local government law*: Elsevier Butterworth Heinemann.
- Bello, M. U., David, M., & Kasim, R. (2017). A Review of Effects of Quality Municipal Services on Citizen Satisfaction in Malaysian Municipal Council: A Content Analysis. *Global Journal of Research and Review*, 4(3), 1-6.
- Bello, M. U., Martin, D., & Kasim, R. (2017). Municipal Awareness as an integral part for enhancing citizen satisfaction of Malaysian Municipal Councils, Batu Pahat. *Traektorîa Nauki= Path of Science*, 3(7), 2.1-2.10.
- Bello, M. U., Martin, D., Kasim, R., Razali, M. N., Ngadiman, Y., & Bon, T. (2018). Evidence of municipal awareness as a construct for enhancing citizen satisfaction in municipal council of Malaysia. *Global Journal of Research and Review*, 4(2), 1001-1012.
- Bhuiyan, M. A.-F., & Islam, M. A. (2023). Assessing citizen satisfaction of urban local government service and infrastructure in Bangladesh: A case study of Pabna municipality. *Environment Social Psychology*, 8(3).
- Bonsón, E., Royo, S., & Ratkai, M. (2017). Facebook practices in Western European municipalities: An empirical analysis of activity and citizens' engagement. *Administration & Society*, 49(3), 320-347.
- Brinkerhoff, D. W., Wetterberg, A., & Wibbels, E. (2018). Distance, services, and citizen perceptions of the state in rural Africa. *Governance*, 31(1), 103-124.
- Bucaite Vilke, J., & Vilkas, M. (2018). Discussing municipal performance alternatives: Public perceptions of municipal services delivery in Lithuania. *International Journal of Public Sector Management*, 31(4), 525-542.
- Çitak, F., & Çakir, C. (2022). Relationship Between Municipal Services and Happiness Level: An Empirical Study from TR90 Region in Turkey. *Dumlupınar Üniversitesi Sosyal Bilimler Dergisi*(73), 1-14. doi:10.51290/dpusbe.1022947
- Collins, B. K., Kim, H. J., & Tao, J. (2019). Managing for citizen satisfaction: Is good not enough? *Journal of Public and Nonprofit Affairs*, 5(1), 21-38.
- Cyan, M., Price, M., & Rider, M. (2017). Building up Municipal Services from a Scratch: Immediate Gains in Citizen Perceptions and Level of Trust in Militancy Prone Tribal City of North-Western Pakistan.
- Dale, A., Robinson, J., King, L., Burch, S., Newell, R., Shaw, A., et al. (2020). Meeting the climate change challenge: local government climate action in British Columbia, Canada. *Climate Policy*, 20(7), 866-880.
- Dalinjong, P. A., & Laar, A. S. (2012). The national health insurance scheme: perceptions and experiences of health care providers and clients in two districts of Ghana. *Health Economics Review*, 2(1), 1-13.
- Das, S., Das, N., Chatterjee, U., & Guchhait, S. (2022). Dwellers' perception toward the Urban services of Panskura Municipality, India: an application of importance-performance models. *GeoJournal*, 87(4), 389-411.
- Dawes, S. S., Cresswell, A. M., & Pardo, T. A. (2009). From "need to know" to "need to share": Tangled problems, information boundaries, and the building of public sector knowledge networks. *Public Administration Review*, 69(3), 392-402.
- DeHoog, R. H., Lowery, D., & Lyons, W. E. (1990). Citizen satisfaction with local governance: A test of individual, jurisdictional, and city-specific explanations. *The Journal of Politics*, 52(3), 807-837.
- Deichmann, U., & Lall, S. V. (2003). *Are You Satisfied?: Citizen Feedback and Delivery of Urban Services* (Vol. 3070): World Bank Publications.
- Dlodlo, N., Olwal, T., & Mvelase, P. (2012). The Internet of Things in bridging the gap in municipal service delivery in South Africa. *Research Space*.
- Douti, N. B., Abanyie, S. K., & Ampofo, S. (2017). Solid waste management challenges in urban areas of Ghana: A case study of Bawku Municipality. *International Journal of Geosciences*, 8(4).
- Elcock, H. (2013). *Local government: Policy and management in local authorities*: Routledge.
- Ford, R. C., Piccolo, R. F., & Ford, L. R. (2017). Strategies for building effective virtual teams: Trust is key. *Business Horizons*, 60(1), 25-34.
- Fry, L. W., & Nisiewicz, M. S. (2013). *Maximizing the triple bottom line through spiritual leadership*: Stanford University Press.
- Gendel-Guterman, H., & Billig, M. (2021). Increasing citizen satisfaction with municipal services: the function of intangible factors. *International Review on Public and Nonprofit Marketing*, 18(2), 171-186.
- Giulianotti, R., Armstrong, G., Hales, G., & Hobbs, D. (2015). Sport mega-events and public opposition: A sociological study of the London 2012 Olympics. *Journal of Sport and Social Issues*, 39(2), 99-119.
- Goharipour, H., Karimi, M., & Barakpour, N. (2011a). *Evaluation of urban management performance based on citizen satisfaction with municipal services*

- in city of Tehran*. Paper presented at the International conference of social science and humanity, Singapore.
- Goharipour, H., Karimi, M., & Barakpour, N. (2011b). *Evaluation of urban management performance based on citizen satisfaction with municipal services in city of Tehran*. Paper presented at the International conference of social science and humanity, Singapore, Singapore.
- Hardoy, J. E., Mitlin, D., & Satterthwaite, D. (2013). *Environmental problems in an urbanizing world: finding solutions in cities in Africa, Asia and Latin America*: Routledge.
- Hero, R. E., & Durand, R. (1985). Explaining citizen evaluations of urban services: A comparison of some alternative models. *Urban Affairs Quarterly*, 20(3), 344-354.
- Hove, M., Ngwerume, E., & Muchemwa, C. (2013). The urban crisis in Sub-Saharan Africa: A threat to human security and sustainable development. *Stability: International Journal of Security and Development*, 2(1).
- Istemic, S. P., & Kozina, J. (2020). Participatory planning in a post-socialist urban context: experience from five cities in Central and Eastern Europe. *Participatory Research and Planning in Practice*, 31.
- Jomehpour, M., & Behzad, M. (2020). An investigation on shaping local waste management services based on public participation: A case study of Amol, Mazandaran Province, Iran. *Environmental Development*, 35, 100519.
- Kassen, M. (2013). A promising phenomenon of open data: A case study of the Chicago open data project. *Government Information Quarterly*, 30(4), 508-513.
- Kelly, J. M., & Swindell, D. (2002). A multiple-indicator approach to municipal service evaluation: Correlating performance measurement and citizen satisfaction across jurisdictions. *Public Administration Review*, 62(5), 610-621.
- Khale, S. (2015). Assessment of the quality of municipal services in the City of Tshwane, South Africa. *Journal of Corporate Governance Control*, 13(1), 678-695.
- Knutsson, S. G., Asplund, T., Höst, G., & Schönborn, K. J. (2021). Public perceptions of waste management in Sri Lanka: A focus group study. *Sustainability*, 13(23), 12960.
- Kushner, J., & Siegel, D. (2005). Citizen satisfaction with municipal amalgamations. *Canadian Public Administration*, 48(1), 73-95.
- Ladner, A. (2017). *Autonomy and austerity: Re-investing in local government*. Paper presented at the The future of local government in Europe.
- Lakovic, V. (2021). Crisis management of municipality performance on citizen satisfaction with urban services by structural equation modeling. *Quality & Quantity*, 55(2), 765-773.
- Lalchhuanawma, H. (2018). „A Study of Citizen Satisfaction on Municipal Services in Aizawl City“. *International Journal of Research and Analytical Review*, 5(4).
- Li, Y., & Shang, H. (2020). Service quality, perceived value, and citizens' continuous-use intention regarding e-government: Empirical evidence from China. *Information and Management*, 57(3), 103197.
- Lo Storto, C. (2016). The trade-off between cost efficiency and public service quality: A non-parametric frontier analysis of Italian major municipalities. *Cities*, 51, 52-63.
- Lorenzo, J. M. P., & Sánchez, I. M. G. (2007). Efficiency evaluation in municipal services: an application to the street lighting service in Spain. *Journal of Productivity Analysis*, 27, 149-162.
- Mahajan, A. (2017). Central, East and South Asia. In *The World Guide to Sustainable Enterprise* (pp. 2-13): Routledge.
- Makaratzis, E., Metaxas, T., & Terzidis, K. (2016). Improving service quality to local communities via satisfaction measurement in Greece: The MUSA approach. *Munich personal repec archive*, 27.
- Manikam, S., Sahibudin, S., & Kasinathan, V. (2019). Business intelligence addressing service quality for big data analytics in public sector. *Indonesian Journal of Electrical Engineering and Computer Science*, 16(1), 491-499.
- Manyonyi, S. (2022). *Mobile-based system for solid waste management to improve customer satisfaction and revenue generation: a case of Shinyanga municipal council*. NM-AIST,
- Maphumulo, W. T., & Bhengu, B. R. (2019). Challenges of quality improvement in the healthcare of South Africa post-apartheid: A critical review. *Curationis*, 42(1), 1-9.
- Martínez, L., Short, J., & Ortíz, M. (2015). Citizen satisfaction with public goods and government services in the global urban south: A case study of Cali, Colombia. *Habitat International*, 49, 84-91.
- Masitenyane, L. A., & Mokoena, B. A. (2023). Dimensional Analysis of Service Fairness on Service Quality and Customer Satisfaction: A Local Municipality Study. *African Journal of Inter/Multidisciplinary Studies*, 5(1), 1-12.
- Masiya, T., Davids, Y. D., & Mangai, M. S. (2019). Assessing service delivery: Public perception of municipal service delivery in South Africa.

- Theoretical and Empirical Researches in Urban Management*, 14(2), 20-40.
- Mehr, H., Ash, H., & Fellow, D. (2017). *Artificial Intelligence for Citizen Services and Government*. Retrieved from chrome-extension://efaidnbmnnnibpcajpcglclefindmkaj/<http://creatingfutureus.org/wp-content/uploads/2021/10/Mehr-2017-AIforGovCitizenServices.pdf>
- Miller, J., Ward, C., Lee, C., D'Ambrosio, L., & Coughlin, J. (2020). Sharing is caring: The potential of the sharing economy to support aging in place. *Gerontology and Geriatrics Education*, 41(4), 407-429.
- Mmutle, T., & Shonhe, L. (2017). Customers' perception of service quality and its impact on reputation in the hospitality industry. *Boloka Institutional Repository*.
- Mnyanyi, N. B. (2014). *Assessment of Solid Waste Management in Kinondoni Municipality*. The Open University of Tanzania,
- Mohammadi, K., & Sedeqi, K. (2023). Measuring the Level of Citizens' Satisfaction with the Performance of the Municipality: A Case Study of Pul-e-Khumri Municipality. *Journal of Humanities Social Sciences Studies*, 5(4), 44-51.
- Mokhlis, S., Aleesa, Y., & Mamat, I. (2011). Municipal service quality and citizen satisfaction in southern Thailand. *Journal of Public Administration and Governance*, 1(1), 122-137.
- Moletsane, A. M. (2012). *Community expectations and perceptions of municipal service delivery: a case study in the Emfuleni local area*. North-West University,
- Morgan, D. R., & Pelissero, J. P. (1979). Citizen satisfaction with local public services in a Southwestern State. *Review of Regional Economics and Business*, 4(April 1979), 27-30.
- Myhre, J., Saga, S., Malmedal, W., Ostaszkiwicz, J., & Nakrem, S. (2020). React and act: a qualitative study of how nursing home leaders follow up on staff-to-resident abuse. *BMC Health Services Research*, 20(1), 1-13.
- Naraidoo, S., & Sobhee, S. K. (2021). Citizens' perceptions of local government services and their trust in local authorities: implications for local government in Mauritius. *The Journal of Applied Economics Research*, 15(3), 353-386.
- Nawaz, W., & Batool, Z. (2020). Ch., MS (2020). Perception and Satisfaction of Residents Regarding Services Provided Under Greater Faisalabad Water Supply, Sewerage and Drainage Project. *Global Regional Review*, 1, 136-142.
- Nigro, H. O., & Císaro, S. E. G. (2014). Prediction of citizen satisfaction with local government based on perceptions of physical disorder. *Journal of Place Management and Development*, 7(2), 153-175.
- Nkomo, S. (2017). *Public service delivery in South Africa: Councillors and citizens critical links in overcoming persistent inequities*. Retrieved from Africa:
- Novikova, I. (2014). *Assessing citizens' perceptions of local government responsiveness: The case of urban squatters in Bishkek*: American University.
- Offenhuber, D. (2015). Infrastructure legibility—a comparative analysis of open311-based citizen feedback systems. *Cambridge Journal of Regions, Economy and Society*, 8(1), 93-112.
- Ong, A. (2013). Cultural citizenship as subject-making. *The anthropology of citizenship: A reader*, 79-92.
- Orselli, E., Bayrakci, E., & Kahraman, S. (2017). Citizen satisfaction with municipal services: The case of Konya. *Global Journal of Sociology: Current Issues*, 7(1), 24-33.
- Örselli, E., Bayrakçı, E., & Kahraman, S. (2017). Citizen satisfaction with municipal services: The case of Konya. *Global Journal of Sociology: Current Issues*, 7(1), 24-33.
- Pedersen, K. M., Andersen, J. S., & Søndergaard, J. (2012). General practice and primary health care in Denmark. *The Journal of the American Board of Family Medicine*, 25(Suppl 1), S34-S38.
- Puche-Regaliza, J. C., Porrás-Alfonso, S., Jiménez, A., Aparicio-Castillo, S., & Arranz-Val, P. (2021). Exploring determinants of public satisfaction with urban solid waste collection services quality. *Environment, Development Sustainability*, 23, 9927-9948.
- Rahim, F. u., & Shirazi, N. S. (2018). Fiscal decentralization and citizen's satisfaction from local public service delivery in Pakistan. *International Journal of Ethics and System*, 34(1), 122-142.
- Rao, K., & Tilt, C. (2016). Board composition and corporate social responsibility: The role of diversity, gender, strategy and decision making. *Journal of Business Ethics*, 138(2), 327-347.
- Reddick, C. G., Chatfield, A. T., & Ojo, A. (2017). A social media text analytics framework for double-loop learning for citizen-centric public services: A case study of a local government Facebook use. *Government Information Quarterly*, 34(1), 110-125.
- Rico, M. S. O., Vergara-Romero, A., Subia, J. F. R., & Río, J. A. J. d. (2022). Study of citizen satisfaction and loyalty in the urban area of Guayaquil: Perspective of the quality of public services applying structural equations. *Plos One*, 17(2), e0263331.



- Ryzin, G. G. V. (2004). Expectations, performance, and citizen satisfaction with urban services. *Journal of Policy Analysis and Management*, 23(3), 433-448.
- Ryzin, G. G. V. (2006). Testing the expectancy disconfirmation model of citizen satisfaction with local government. *Journal of Public Administration Research and Theory*, 16(4), 599-611.
- Sachs, J. D. (2012). From millennium development goals to sustainable development goals. *The Lancet*, 379(9832), 2206-2211.
- Saghaei, M., Mokhtary, R., & Bakhshi, A. (2021). Assessment of Citizens' Satisfaction with Urban Public Transportation Situation (Case Study Arak). *Journal of Transportation Research*, 18(4), 207-220.
- Sakawi, Z. (2011). Municipal solid waste management in Malaysia: Solution for sustainability waste management. *Journal of Applied Sciences in Environmental Sanitation*, 6(1), 29-38.
- Samsurijan, M. S., Ebekozi, A., Nor Azazi, N. A., Shaed, M. M., & Radin Badaruddin, R. F. (2022). Artificial intelligence in urban services in Malaysia: a review. *PSU Research Review*.
- Sheikh, K., Saligram, P. S., & Hort, K. (2015). What explains regulatory failure? Analysing the architecture of health care regulation in two Indian states. *Health Policy Planning*, 30(1), 39-55.
- Simon, D., Arfvidsson, H., Anand, G., Bazaz, A., Fenna, G., Foster, K., et al. (2016). Developing and testing the Urban Sustainable Development Goal's targets and indicators—a five-city study. *Environment and Urbanization*, 28(1), 49-63.
- Spyratos, S., & Stathakis, D. (2018). Evaluating the services and facilities of European cities using crowdsourced place data. *Environment and Planning B: Urban Analytics and City Science*, 45(4), 733-750.
- Statistics South Africa. (2016). *The state of basic service delivery in South Africa: in-depth analysis of the community survey 2016 data*.
- Swindell, D., & Kelly, J. (2005). Performance measurement versus city service satisfaction: intra-city variations in quality? *Social Science Quarterly*, 86(3), 704-723.
- ur Rahim, F., & Shirazi, N. S. (2018). Fiscal decentralization and citizen's satisfaction from local public service delivery in Pakistan. *International Journal of Ethics and Systems*.
- Van Ryzin, G. G., Muzzio, D., Immerwahr, S., Gulick, L., & Martinez, E. (2004). Drivers and consequences of citizen satisfaction: An application of the American customer satisfaction index model to New York City. *Public Administration Review*, 64(3), 331-341.
- Vilke, J. B., & Vilkas, M. (2018). Discussing municipal performance alternatives: Public perceptions of municipal services delivery in Lithuania. *International Journal of Public Sector Management*, 31(4), 525-542.
- Wu, W.-N. (2020). Determinants of citizen-generated data in a smart city: Analysis of 311 system user behavior. *Sustainable Cities and Society*, 59, 102167.
- Wu, W.-N., & Jung, K. (2016). A missing link between citizen participation, satisfaction, and public performance: evidences from the city and county of San Francisco. *International Journal of Public Sector Performance Management*, 2(4), 392-410.
- Yung, E. H., & Chan, E. H. (2015). Evaluation of the social values and willingness to pay for conserving built heritage in Hong Kong. *Facilities*, 33(1/2), 76-98.
- Zeithaml, V. A. (2013). *Services marketing: Integrating customer focus across the firm*: McGraw-Hill.