Mediating Factors Of Municipal Service Excellence

Zeleke Worku

Tshwane School for Business and Society 159 Nana Sita Street, Pretoria 0001, South Africa

Abstract

The City of Tshwane renders municipal services to about 3 million people. The perception of people who live and work in the City was assessed by gathering data from a sample of 402 people who live in the City on 57 indicators of satisfaction with the quality, affordability and efficiency of municipal services (water, sanitation, electricity, waste removal, safety and security, and the maintenance of roads, street lights and municipal infrastructure. The study found that about 76% of respondents were happy with the quality of municipal services provided to them. Perceived satisfaction with various aspects of municipal services was measured by using a measurement tool defined by Ananda and Pawsey (2019). The results identified 3 influential mediating factors of service excellence. The three influential mediating factors were resolving queries from customers on municipal accounts promptly, the effective use of the Help Desk for assisting customers who require help, and the effective collection of municipal bills from customers.

Keywords: Service excellence, City of Tshwane, Structural Equations Modelling.

Introduction and background to study

The City of Tshwane (2021) is about 21 years old (inaugurated on the fifth of December 2000). In the past 20 years, the City of Tshwane has performed relatively well in comparison with South African municipalities. Based on a consolidated audit report released by the South African Auditor-General (2021) for 2019/2020, the City of Cape Town has performed relatively better than the City of Tshwane. This is attributed to failure to adhere to the integrated development plan (IDP) of the City. The IDP is essential for optimising municipal services. That is, the IDP enables municipalities to provide satisfactory services at an affordable cost. In order to be able to use the IDP for service delivery, municipal employees and their line function managers must be adequately trained on how to use total quality management techniques.

The ability to use the IDP effectively requires robust management skills, respect for good leadership, and respect for the basic principles of accountability to customers. The audit report received by the City of Tshwane (2021) from the South African Auditor-General for work done in 2019/2020 is qualified. The report shows various aspects of municipal service delivery that need to be improved by the South African Auditor-General (2021).

Objective of study

The purpose of research was to explore measures that are helpful for adhering closely to the integrated development plan (IDP) of the City of Tshwane so that the quality of municipal services that are rendered to customers could be enhanced.

Literature review

The audit report issued to the City of Tshwane (2021) by the South African Auditor-General for work done in 2019/2020 shows various aspects of municipal service delivery that need to be improved by way of adhering better with the IDP document of the City of Tshwane. The City of Tshwane is one of 8 large-sized metropolitan municipalities. In his report to the 278 South African municipalities, the Auditor-General (2021) has pointed out that failure to adhere closely to Integrated Development Plans (IDPs) is the underlying and prime cause of inability to provide satisfactory municipal services to people who live and work in South African municipalities. About 3 million people live and work in the City of Tshwane (Statistics South Africa, 2020). South Africa has 278 municipalities out of which 8 are large-sized or metropolitan municipalities, 44 are medium-sized municipalities, and 226 are small-sized municipalities (South African Local Government Association, 2021).

Maphoroma (2019) has found that the ability of employees and their line function managers to comply with working conditions that are documented in the IDP document is an influential predictor of the capacity to render satisfactory municipal services to customers. Khale (2015) has identified predictors of satisfactory municipal services by assessing the perception held by customers who live and work in the City of Tshwane on the efficiency, reliability, quality and affordability of municipal services, and has found that failure to comply with good leadership principles is a key obstacle to service delivery. The author has shown that it is necessary to educate customers about service level standards and norms on a regular basis. The reluctance of elected municipal officials and employees to account to the people and poor communication are common obstacles that lead to protests and complaints Sibanda, Zindi and Maramura (2020) have shown that municipal employees and line function managers whose job is to render services to customers must be made to account to the people on a regular basis in all municipalities. The authors have shown the relative importance of ethical principles and guidelines for satisfactory performance and accountability to customers.

Marivate (2014) and Tshanga (2020) have identified mediating factors for satisfactory municipal service delivery in the Greater Tshwane region, and has found that it is vital to have an organisational culture that enables and motivates employees to carry out their duties with great commitment, pleasure and loyalty to ratepayers and customers of the City of Tshwane. A metropolitan municipality in which there is a culture of mistrust and hostile relationship among employees could be counterproductive and detrimental to

adequate service delivery and sustained growth (Olver, 2021). The author has shown that all municipalities must do their best to enhance their quality of services by way of recruiting the most suitably qualified employees. The author has also argued that employees whose job is to render municipal services must be assessed and evaluated rigorously at regular intervals so as to comply with service delivery norms and standards. Lekubu and Sibanda (2021) have shown that adherence to ethical guidelines and principles is of utmost importance in all South African municipalities as doing so discourages the practice of corruption and the abuse of power.

Messinger (2013) and Mamokhere (2020) have found that the underlying causes of protests over inadequate municipal services are inability to account for municipal resources such as money and assets, lack of effective leadership, poor communication with customers, lack of transparent leadership, and political interference in municipal affairs by municipal officials. Mashamaite (2014) and Matebese-Notshulwana (2021) have shown that municipalities often lose vast sums of money on procurement procedures due to corruption and lack of accountability to the people. Marivate (2014) and Worku (2016, 2018) have found that over 50% of all newly established small, micro and medium-sized business enterprises (SMMEs) operating in Tshwane townships and local municipalities fail in their first 3 consecutive years of operation due to inadequate municipal services.

Nzimande and Fabula (2020) have shown that poor municipal services stifle profitability in start-up enterprises. Oranje, Van Huyssteen and Maritz (2020) have shown that migration into urban areas has caused major municipal service delivery problems due to failure in rural-based local municipalities. Ndinga-Kanga, Van der Merwe and Hartford (2020) have argued that local municipalities must make a concerted effort to embrace and promote good organisational culture and behaviour if they are to promote viability in business enterprises. Machiri and Pade-Khene (2020:144) have shown that the use of digital platforms and e-Governance is highly beneficial for promoting accountability and efficiency in the delivery of services in Government Departments and municipalities.

Methods and materials of study

This paper is a result of a survey of 402 residents and ratepayers of the City of Tshwane. Data was gathered from respondents by using a questionnaire. Perceived satisfaction with services was measured by using a tool defined by Ananda and Pawsey (2019). Content validity (Vaske, 2019) was ensured by conducting a pilot study of size 10 respondents before the actual study was conducted. A few minor corrections and amendments were made to the questionnaire of study following the pilot study. Reliability and internal consistency (Loewenthal and Lewis, 2018) were ensured by using the Cronbach Alpha test. All Cronbach Alpha coefficients used for performing the analyses of data sets had magnitudes of 0.75 or above.

Two-by-two tests of associations (Saleh, Arashi and Kibria, 2019) were used for screening variables. Ordered logit analysis (Keith, 2019) was used for estimating odds ratios for influential predictors of satisfactory municipal services. Finally, regression coefficients were estimated from Structural Equations Modelling (Rogerson, 2019). The procedure led to the identification of 3 highly significant predictors of satisfaction. Estimates obtained from SEM were quite reliable based on standard diagnostic measures. These diagnostic measures were the AGFI statistic (Adjusted Goodness of Fit Index), the ILI (Tucker Lewis Index), the CFI (Comparative Fit Index), the SRMSEA (Standardised Root Mean Square Error of Approximation), and the CD (Coefficient of Determination). MLE (Maximum Likelihood Estimators) were used for estimating regression coefficients. OIM (Observed Information Matrix) values of 5% or less suggest that the fitted regression model is adequate. Furthermore, the AIC (Akaike Information Criterion) and BIC (Bayesian Information Criterion) were used for comparing the fitted regression model with the true regression model (Mueller & Hancock, 2019).

Results of study

Table 1 shows that 306 of the 402 respondents (76.12%) were happy with their municipal services by the standards of Ananda and Pawsey (2019). The percentage of male respondents was 59.45%.

Table 1: Assessment of satisfaction with municipal services (n=402)

Variable of study	Number (Percentage)
Satisfaction with the overall quality of municipal services provided by the standards of Ananda and	Satisfied: 306 (76.12%) Not satisfied: 96 (23.88%)
Gender of respondent	Male: 239 (59.45%) Female: 163 (40.55%)
Race of respondent	Black: 169 (42.04%) White: 213 (52.99%) Coloured: 12 (2.99%)
Age category of respondents	30 years or younger: 45 (11.19%) 31 to 35 years: 41 (10.20%) 36 to 40 years: 58 (14.43%) 41 to 50 years: 171 (42.54%)
Highest level of education of respondents	Grade 12 or less: 175 (43.53%) Certificate: 113 (28.11%) Diploma: 13 (3.23%) Bachelor's degree: 14 (11.67%)

Table 2 shows just under 11% of respondents had lived for 21 years or longer at the time of study.

Table 2: Duration of stay of respondents in City of Tshwane (n=402)

Duration of stay in City of	Number	Percentage
5 years or less	42	10.45%
6 to 10 years	51	12.69%
11 to 15 years	212	52.74%
16 to 20 years	54	13.43%
21 years or longer	43	10.70%

Table 3 shows that Setswana is spoken by 21% of respondents as a home language.

Table 3: Home languages of participants of study (n=402)

Home language	Number	Percentage
English	36	9%
Afrikaans	72	18%
isiZulu	52	13%
isiXhosa	12	3%
Northern Sotho	36	9%
Southern Sotho	32	8%
Setswana	84	21%
SiSwati	12	3%
Xitsonga	36	9%
Tshivenda	16	4%
isiNdebele	12	3%
Total	402	100%

Table 4 shows the main occupations held by the 402 participants of study. Public servants accounted for 12% of respondents. Entrepreneurs accounted for 13% of respondents. Business owners or operators accounted for 16% of respondents. Private sector employees accounted for 19% of respondents.

Table 4: Main occupations of respondents (n=402)

Occupation of respondent of study	Percentage
Public servant	12%

Entrepreneur	13%
Business owner or operator	16%
Private sector employee	19%
Self-employed person	4%
Health professional or health care industry employee or worker	4%
Member of a faith-based institution	1%
Member of the Judiciary	1%
Academic educator or member of the teachers' profession	3%
Social worker	1%
Student	4%
Member of the hospitality industry	8%
Member of the transportation industry	7%
Member of the entertainment industry	1%
Member of the real estate industry	2%
Member of the Police Force or Army	2%
Journalist or member of the Media or Press	1%
Member of the Diplomatic community	1%

Table 5 shows results obtained from two-by-two tests of associations (Saleh, Arashi and Kibria, 2019) obtained from Pearson's chi-square tests of association. The table shows 5 factors that are significantly associated with satisfactory municipal services.

Table 5: Results obtained from two-by-two crosstab analyses (n=402)

Factors significantly associated with adequate municipal services	Observed chi-square value	P-value
Prompt resolution of account related queries	18.0099	0.0000
Effective assistance at Help Desk	14.1529	0.0000
Willingness to pay for municipal services	11.5057	0.0000
Prompt payment of municipal bills	7.2564	0.0000
Ownership of dwelling unit	5.1803	0.0000
Occupation of respondent	4.9172	0.0000

Table 6 shows results obtained from ordered logit analysis (Keith, 2019). The table shows 3 factors that are significantly associated with satisfactory municipal services.

Table 6: Results from ordered logit analysis (n=402)

Determinants of satisfaction with the quality of municipal services	Odds Ratio	P-value	95% C. I.
Prompt resolution of account related	3.47	0.0000	(1.88, 5.59)
Effective assistance at Help Desk	3.38	0.0000	(1.86, 5.52)
Willingness to pay for municipal services	3.06	0.0000	(1.79, 5.06)

Table 7 presents regression coefficients estimated from Structural Equations Modelling (SEM). By performing confirmatory and exploratory factor analyses (Rogerson, 2019), 3 highly significant predictors of satisfaction were identified and quantified. Estimates obtained from SEM were quite reliable based on standard diagnostic measures.

Table 7: Results from Structural Equations Modelling (n=402)

Determinants of satisfaction	Coefficient	Z-statistic	P-value	OIM Std. Err
Prompt resolution of account related queries	3.26	6.46	0.0000	0.0113
Effective assistance at Help Desk	2.75	5.94	0.0000	0.0129
Willingness to pay for municipal services	2.74	5.92	0.0000	0.1275
Constant term	1.67	2.09	0.0109	1.1866

Table 8 shows goodness-of-fit measures obtained from structural equations modelling. The table shows that the fitted structural equations model fits the data quite well.

Table 8: Goodness-of-fit measures for structural equations modelling (n=402)

Goodness-of-fit statistic	Acronym	Magnitude
The Adjusted Goodness of Fit Index statistic	AGFI	94.57% (Large)
The Tucker Lewis Index	TLI	98% (Large)
The Comparative Fit Index	CFI	98% (Large)
The Standardised Root Mean Square Error of Approximation	SRMSEA	0.0108 < 0.05 (Small)

The Coefficient of Determination	CD	78.49% > 75% (Large)
The Akaike Information Criterion	AIC	32.596 (Small)
The Bayesian Information Criterion	BIC	33.884 (Small)

Discussion of results

The results show that the top three mediators of satisfactory service delivery are the ability to resolve account related queries promptly and efficiently, the ability to provide customers with effective and speedy assistance at the Help Desk, and the ability to collect bills that are owed to the City of Tshwane promptly and efficiently. The study conducted by Alexander, Runciman, Ngwane, Moloto, Mokgele and Van Staden (2018) has shown that progressive organisational cultural behaviour (OCB) is significantly associated with productivity at the workplace. Examples of progressive organisational cultural behaviour are volunteering to work long hours, assisting customers over weekends, holidays and outside normal working hours, volunteering to do things without having to do so, going beyond the call of duty with a view to help customers who find themselves in trouble.

Biljohn and Lues (2020) have shown that good employees and managers often reach out to customers in order to be sufficiently proactive and well-prepared. Such good leaders lead by example and are willing to accept innovative ideas and methods of enhancing service delivery to customers. Good leaders promote the culture of supporting, mentoring and coaching each other at the workplace.

Breakfast, Nomarwayi and Bradshaw (2020) have shown that violent service delivery protests can only be alleviated and mitigated by way of adhering to IDP documents in all 278 South African municipalities. The IDP document places emphasis on accountability to the people, transparency and performance appraisal.

De Kadt and Lieberman (2020) have shown that good municipal leaders and employees must solicit ideas and suggestions from customers by reaching out to them on a regular basis. Harris (2020) has conducted a study in Accra and Cape Town, and has found that it is possible to enhance the quality of water services in local municipalities by using community based development programmes in which members of local communities play a leading role. Doing so is highly helpful for promoting awareness and protecting scarce water resources.

Good municipal employees and leaders are guided by research findings. Hofstetter, Bolding and Van Koppen (2020) have shown that good leaders encourage their followers to benefit from innovative ideas and suggestions that are given to them by customers. Khale (2015) and Langa and Kiguwa (2013) have found that refusal to listen to valuable suggestions and constructive comments from members of the community often lead to violet service delivery protests in local municipalities. Msenge and Nzewi (2021) have shown that citizen participation enables local municipalities to alleviate and mitigate violent protests

over poor municipal service delivery. Lekubu and Sibanda (2021) have argued that local municipalities need to adhere to business ethics principles and guidelines in order to alleviate dissatisfaction over the quality of municipal service delivery. The authors have recommended the use of performance monitoring, evaluation and control.

List of references

1. Alexander, P., Runciman, C., Ngwane, T., Moloto, B., Mokgele, K., & Van Staden, N. (2018). Frequency and turmoil: South Africa's community protests 2005–2017. South African Crime Quarterly, 63(1), 27-42.

2. Biljohn, M. I. M., & Lues, L. (2020). Citizen participation, social innovation, and the governance of local government service delivery: Findings from South Africa. International Journal of Public Administration, 43(3), 229-241.

3. Breakfast, N. B., Nomarwayi, T., & Bradshaw, G. (2020). Electoral violence and municipal demarcation in South Africa, 1994-2019: a violent service delivery protests perspective. Gender and Behaviour, 18(1), 14857-14871.

4. City of Tshwane. (2021). Annual reports for 2019/2020. [Online]. Available from: https://www.tshwane.gov.za [Accessed: 17 Nov 2021].

5. De Kadt, D., & Lieberman, E. S. (2020). Nuanced accountability: Voter responses to service delivery in southern Africa. British Journal of Political Science, 50(1), 185-215.

6. Green, P. J., & Silverman, B. W. (2019). Nonparametric regression and generalized linear models: a roughness penalty approach. London: Chapman and Hall/CRC.

7. Harris, L. M. (2020). Assessing states: Water service delivery and evolving state–society relations in Accra, Ghana and Cape Town, South Africa. Environment and Planning C: Politics and Space, 38(2), 290-311.

8. Hofstetter, M., Bolding, A., & van Koppen, B. (2020). Addressing failed water infrastructure delivery through increased accountability and end-user agency: The case of the Sekhukhune District, South Africa. Water Alternatives, 13(3), 843-863.

9. Khale, S. (2015). Assessment of the quality of municipal services in the City of Tshwane, South Africa. Journal of Corporate Governance and Control, 13(1), 678-695.

10. Keith, T. Z. (2019). Multiple regression and beyond: An introduction to multiple regression and structural equation modeling. New York: Routledge.

11. Langa, M., & Kiguwa, P. (2013). Violent masculinities and service delivery protests in post-apartheid South Africa: A case study of two communities in Mpumalanga. Agenda, 27(1), 20-31.

12. Lekubu, B. K., & Sibanda, O. S. (2021). Moral Values and Ethics as Antidotes for Corruption in the South African Public Service and Administration. Koers, 86(1), 1-12.

13. Machiri, M., & Pade-Khene, C. (2020). Appropriating Digital Citizen Engagement in Resource Constrained Local Government Service Delivery: A Case Study in South Africa. In International Development Informatics Association Conference (pp. 141-154). Springer, Cham.

14. Maphoroma, L. (2019). Factors that affect productivity in emergency and rescue services in the City of Tshwane. Journal of Advances in Social Science and Humanities, 5(2), 627-641.

15. Mamokhere, J. (2020). An assessment of reasons behind service delivery protests: A case of Greater Tzaneen Municipality. Journal of Public Affairs, 20(2), 1-11.

16. Marivate, S. P. (2014). The impact of entrepreneurial skills on the viability and long-term survival of small businesses: A case of the city of Tshwane, South Africa. European Journal of Business, Economics and Accountancy, 2(2), 53-72.

17. Mashamaite, K. (2014). Public service delivery protests in a democratic South Africa: A dilemma for local municipalities. Mediterranean Journal of Social Sciences, 5(25), 231.

18. Matebese-Notshulwana, K. (2021). Weak Procurement Practices and the Challenges of Service Delivery in South Africa. Public Procurement, Corruption and the Crisis of Governance in Africa, 93-111.

19. Matthews, M., & Mokoena, B. A. (2020). The Influence of Service Quality Dimensions On Customer Satisfaction Within Visa Facilitation Centres in South Africa. International Journal of eBusiness and eGovernment Studies, 12(2), 122-135.

20. Messinger, P. R. (2013). Municipal service delivery: a multi-stakeholder framework. Human Factors and Ergonomics in Manufacturing & Service Industries, 23(1): 37-46.

21. Msenge, P., & Nzewi, O. I. (2021). A proposed citizen participation–public trust model in the context of service delivery protests in South African local government. Journal of Local Government Research and Innovation, 2(1), 10-11.

22. Ndinga-Kanga, M., van der Merwe, H., & Hartford, D. (2020). Forging a resilient social contract in South Africa: states and societies sustaining peace in the post-apartheid era. Journal of Intervention and Statebuilding, 14(1), 22-41.

23. Nzimande, N. P., & Fabula, S. (2020). Socially sustainable urban renewal in emerging economies: A comparison of Magdolna Quarter, Budapest, Hungary and Albert Park, Durban, South Africa. Hungarian Geographic Bulletin, 69(4), 383-400.

24. Olver, C. (2021). Power, institutions and rents in two South African cities. Area Development and Policy, 6(3), 250-270.

25. Oranje, M., van Huyssteen, E., & Maritz, J. (2020). Rapid urbanisation to non-metropolitan urban South Africa: A call for Accrediting credible 'informal'life-enhancing responses and institutions. Cities, 96(1), 1-13.

26. Rogerson, P. A. (2019). Statistical methods for geography: A student's guide. London: SAGE Publications.

27. Saleh, A. M. E., Arashi, M., & Kibria, B. G. (2019). Theory of ridge regression estimation with applications (Vol. 285). New York: John Wiley & Sons.

28. Sibanda, M. M., Zindi, B., & Maramura, T. C. (2020). Control and accountability in supply chain management: Evidence from a South African metropolitan municipality. Cogent Business & Management, 7(1), 1-11.

29. South African Auditor-General. (2021). Annual report for 2019/2020. [Online]. Available from: https://www.agsa.co.za/   [Accessed: 17 Nov 2021].

30. Statistics South Africa. (2020). 2020 Mid-year population estimates. [Online]. Available from: http://www.statssa.gov.za/   [Accessed: 17 Nov 2021].

31. South African Local Government Association. (2021). Annual report for 2019/2020. [Online]. Available from: SALGAhttps://www.salga.org.za   [Accessed: 17 Nov 2021].

32. Tshanga, D. L. (2020). Mediating factors in the assessment of the quality of municipal service delivery. International Journal of Applied Science Research, 3(6), 288-296.

33. Vaske, J. J. (2019). Survey Research and Analysis. Chicago: Sagamore-Venture.

34. Worku, Z. (2016). The impact of poor quality municipal services on small enterprises. Investment Management and Financial Innovations, 13(3), 274-279.

35. Worku, Z. (2018). Factors that affect the nonpayment of municipal services in Madibeng, Mamelodi and Soshanguve Townships of South Africa. Journal of Applied Business Research, 34(1), 99-116.