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Exploring citizen satisfaction: balancing revenue generation and community engagement in municipal services

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Abstract

Purpose – Informed by public value theory, the purpose of this paper is to explore the relationship between citizen satisfaction with municipalities' efforts to generate financial assets and their engagement with communities for the delivery of services.

Design/methodology/approach – Published panel data was collected from each of the 79 municipalities in Victoria, Australia, over five fiscal years (2015–2020). This study uses Least Square Regression analysis to examine the relationship between citizen satisfaction, surplus revenues and community engagement.

Findings – The analysis reveals a positive relationship between citizen satisfaction and surplus revenues but finds no significant link between citizen satisfaction and community engagement across all municipalities. However, further analysis distinguishing between urban and rural municipalities uncovers distinct patterns. Urban dwellers place higher value on surplus revenues for their satisfaction, whereas rural citizens derive greater satisfaction from community engagement.

Practical implications – The results of this study underscore the importance of tailored governance strategies that align with the distinct needs of urban and rural communities. Municipal leaders should adopt differentiated approaches, prioritizing financial sustainability in urban areas and fostering community engagement in rural municipalities to enhance overall citizen satisfaction.

Data availability statement: The data used in this research were obtained from publicly accessible sources: www.vic.gov.au/know-your-council and www.localgovernment.vic.gov.au/funding-programs/victoria-grants-commission/consultation-and-operations

Note 1: The local government body or municipality in Australia is generally referred to as Council or City Council. There are currently 547 councils in Australia. Based on the population density, these councils are categorized as urban councils (high density – average 1,000 people/sq.km) and rural councils (low density – average 200 people/sq.km).

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Originality/value – This study challenges the assumption of a universal approach to citizen satisfaction in municipal governance. By highlighting the differing priorities of urban and rural populations, the findings of this study contribute to public value theory by emphasizing the need for context-specific strategies in municipal management.

Keywords Citizen participation, Local council, Public value theory, Rural, Urban

Paper type Research paper

1. Introduction

Understanding citizen satisfaction with municipalities' activities and services is important for both local government administrators and scholars interested in exploring the factors that may impact citizen satisfaction (Bostanc and Erdem, 2020). Scholars maintain that citizen satisfaction is central to all municipalities' policies and services, as satisfied citizens contribute to urbanization and the development of neighborhoods at the municipal level (Osumanu *et al.*, 2022; Zenker *et al.*, 2013). The existing literature on local government studies has mainly focused on municipalities' services and has shown that better services are the main factor for citizen satisfaction (Alkraiji, 2021; Mbassi *et al.*, 2019; Yang, 2018; Yildirim and Yıldırım, 2022). However, with the change in citizens' awareness and municipalities' governance processes, citizens' expectations have now extended from municipalities' services to other performances, such as earning revenues and citizen engagement in rendered services (Waheduzzaman and Khandaker, 2022).

Today, citizens not only expect better services but also want transparency in municipalities' operations and better engagement with decisions that affect them (Tran and Dollery, 2021). Local citizens also want to see better financial performance by their municipalities related to local budgets (Ochoa-Rico *et al.*, 2022). This transformation in citizen behavior indicates that citizen participation and financial assets are now closely related to citizen satisfaction at the municipal level (Oh *et al.*, 2022). Moreover, as funds from central governments have gradually shrunk for development programs at the local level, municipalities have been trying to generate more financial assets to cover expenses for local services to achieve citizen satisfaction (Mishra and Abdullahi, 2020). In addition to providing household services, municipalities today need more funds to undertake local developments such as parks, roads and playgrounds to engage local citizens and satisfy them (Ma, 2017; Schutte, 2022).

However, municipalities' efforts to earn financial assets sometimes require keeping local citizens away from decision-making processes because of the sensitivity of financial strategies, which may impact citizen satisfaction (VAGO, 2019). An audit report reveals that most of the closed-door meetings (closed to citizens) at the municipal level in Victoria, Australia, are related to financial assets and contracts (Glass, 2016). The report also states that municipalities conducted 60% of their annual meetings without any participation from local citizens, leading to citizen dissatisfaction (VAGO, 2019). This finding demonstrates that some municipalities aim to acquire more financial assets to cover the expenses of providing services to citizens, even at the cost of citizen disengagement. Such practices may negatively impact local citizen satisfaction.

According to public value theory (PVT), citizen satisfaction is correlated with the values created by municipalities (Qwabe and Ojogiwa, 2022). Municipal officials work hard to create public values, such as acquiring financial assets and constructing infrastructure, aiming to satisfy citizens (Waheduzzaman and Khandaker, 2022). Based on PVT, Moore (2007) argues that citizens are pleased with any municipality actions that are transparent and when they perceive value in the earned assets. PVT, thus, suggests that there is a relationship between citizen satisfaction, the municipality's assets and community engagement.

Based on the above empirical and theoretical discussion, this research hypothesizes that there is a positive correlation between citizen satisfaction, citizen engagement and financial assets acquired by municipalities. Local government administrators and councilors would be able to set their policies and strategies effectively if they understand which factors are significantly related to citizen satisfaction. However, there is little published research to suggest which of the organizational factors, such as community engagement with municipalities' decisions or municipalities' financial assets, have a relationship with citizen satisfaction. This study, thus, aims to examine the relationship between citizen satisfaction, community engagement with council decisions and the earning of different financial assets at the municipal level. This paper specifically attempts to address the research question:

RQ1. What is the extent of the positive relationship between citizen satisfaction at the municipal level and different financial elements, such as surplus revenue, cash-on-hand and current assets, along with community engagement?

This research has used published data related to services, finance and collaboration issues measured by 79 municipalities/local councils (see note 1) in Victoria, Australia. This research has examined both rural and urban municipalities combined and separately to observe the pattern of satisfaction and whether there is any variation in citizen satisfaction in urban and rural contexts. More specifically, it aims to explore the factors that have a significant relationship with citizen satisfaction, including community engagement, cash flow, current assets and surplus revenue. The findings of this research would help municipalities rethink and redesign their citizen engagement activities, transparency mechanisms and achievement of financial assets to improve citizen satisfaction with their decisions.

2. Transforming local governments and its influence on citizen satisfaction

Researchers have been actively investigating citizen satisfaction at the municipal level for some time (Cardoso *et al.*, 2022; Ochoa-Rico *et al.*, 2022; Oh *et al.*, 2022). However, the majority of these studies have focused on only three areas: Service Quality, which assesses residents' perceptions of whether municipal services meet their expectations and needs (Bostanc and Erdem, 2020; Ochoa-Rico *et al.*, 2022); Accessibility, which examines the ease of accessing services and interacting with the local government (Bostanc and Erdem, 2020); and Responsiveness, which gauges how effectively municipalities address citizen requests, complaints and feedback (Ma, 2017).

In recent years, local governments have undergone significant transformations, particularly after the implementation of the New Public Management approach (Ochoa-Rico *et al.*, 2022). They have increasingly focused on adopting private sector financial systems and commercializing services (Jessa and Uys, 2018). Budget cuts from central governments have compelled local authorities to generate their own revenues. Consequently, local governments now function as not only service providers but also commercial organizations seeking revenue income (Mishra and Abdullahi, 2020). This shift in focus has impacted citizen satisfaction.

Municipalities and their officials find themselves balancing revenue generation and transparency, often prioritizing financial gains while striving to satisfy citizens through community engagement in their decision-making mechanisms (Bello *et al.*, 2017). In this context, community engagement refers to the active involvement of citizens in municipal decision-making processes that directly impact their communities. According to the Victorian Council Governance website (KnowYourCouncil, 2019), community engagement is quantified as the proportion of council decisions made in closed meetings relative to the total number of meetings held by a municipality in a given year. This metric highlights that not all municipal meetings are accessible to the public, and the prevalence of closed-door meetings may influence public perception and levels of citizen satisfaction (Mills and Tomazin, 2018).

Notably, a significant proportion of these closed sessions pertains to financial contracts and asset management (Waheduzzaman and Khandaker, 2022).

Financially, many municipalities are accumulating cashable assets, surplus revenues and funds from asset sales (Tran and Dollery, 2021). Simultaneously, they are engaging with communities and fostering neighborhood development to satisfy citizens (Yu *et al.*, 2019). Despite the significant importance of these financial assets and community engagement, there is a lack of research that explores their specific relationship with citizen satisfaction. Bridging this gap is imperative to understand how citizens' satisfaction levels are affected by the pursuit of financial gains and the creation of participatory decisions. Therefore, conducting comprehensive research is essential to uncover the significant factors that influence citizen satisfaction within the evolving landscape of local governments. Understanding these dynamics will aid in developing effective strategies to ensure both financial sustainability and positive social impacts while meeting the needs and expectations of local citizens.

This discussion suggests that higher citizen satisfaction may be achieved through greater community engagement in municipal decision-making processes (e.g. reducing the frequency of closed-door meetings) and improved financial performance. As highlighted in the literature review, citizen satisfaction is positively associated with inclusive, participatory governance. Accordingly, it is hypothesized that there is a potential positive relationship between citizen satisfaction, the level of community engagement and the strength of a municipal's financial assets.

2.1 Theoretical background of citizen satisfaction

Citizen satisfaction with their municipalities refers to the level of citizens' perception of the municipalities' efforts to earn financial value and provide social value through a better livelihood for local citizens (Ochoa-Rico *et al.*, 2022). Practically, the Victorian Council Governance website defines the citizen satisfaction rating as a score out of 100 reflecting how well the council is perceived to have made decisions in the best interests of the community (KnowYourCouncil, 2019). Scholars maintain that a municipality's success and performance should be measured by its citizens' perceived satisfaction (Zenker *et al.*, 2013). Satisfied citizens tend to trust in municipalities' functions, resulting in greater inclusion, which consequently invites the flow of resource contributions and cooperation from citizens to implement any program (Bostanc and Erdem, 2020). This literature, thus, emphasizes that citizen satisfaction should be a prime focus for all local government activities.

In the existing literature, two different theoretical aspects related to management and psychology disciplines have differently explained citizen satisfaction with local government bodies. One of these theories is social psychology theory, which outlines that citizen satisfaction or dissatisfaction is reflected in citizens' attitudinal changes because of an information gap between service providers and service receivers (Cardoso *et al.*, 2022). Citizens, also known as service receivers, with prior knowledge are more aware of the capacities and limitations of the service providers, which makes them satisfied or dissatisfied after the service is rendered (Tummers *et al.*, 2016). For example, if citizens know about the budget planning of a program, then they can easily compare the prior budget allocations and services provided with that budget and become satisfied or dissatisfied.

In contrast, according to the expectation-disconfirmation theory, citizens become satisfied when their pre-perceived expectations are met by the service rendered (Kang and Park, 2018). Citizens draw their expectations based on their experiences with similar services in previous years. They also compare the quantity and quality of services with their prior expectations. Cardoso *et al.* (2022) maintain that service providers can satisfy citizens when they engage with local citizens to understand their expectations and deliver services in line with citizens' prior experiences and expectations.

Both social psychology theory and expectation-disconfirmation theory underscore the significance of effective information exchange in promoting transparency and aligning service delivery with citizen expectations to enhance engagement and ultimately achieve citizen satisfaction. This study integrates these theoretical perspectives by emphasizing public values such as financial transparency in budgeting and active citizen participation during service provision. Consequently, the PVT is adopted as the central framework, as it encompasses the principles identified by both theories, positioning public value as a critical determinant of citizen satisfaction.

2.2 Public value theory and citizen satisfaction

According to the PVT, citizen satisfaction is related to the perceived value created by municipalities' activities (Bostanc and Erdem, 2020). The fundamental assumption of PVT is to add value to the public sphere through the actions and decisions of an organization or government, which leads to citizen satisfaction (Hartley *et al.*, 2019; Moore, 2013). For example, municipalities use taxpayers' money to construct a new road, which is considered a public value if citizens see the value of the new road and become satisfied with this investment. This indicates that what managers define as public value may not qualify as public value in all cases, as an output is termed public value when it contributes to the community and is accepted by local citizens (Hartley *et al.*, 2019). Municipalities across the world, therefore, aim to create public value with a participatory approach and satisfy local citizens (Yu *et al.*, 2019).

However, scholars argue that public value is not the same as private value. Private value refers to the benefits that accrue to an individual or a particular group, while public value refers to the benefits that accrue to society as a whole (Jaspers and Steen, 2019). When local beneficiaries can observe and measure an output in terms of its contribution to their society, it is regarded as public value (Qwabe and Ojogiwa, 2022). A transparent system is, therefore, required so that citizens can monitor and measure the benefits of managerial decisions (Jessa and Uys, 2018).

Based on PVT, Moore (2007) has drawn the public value chain, which articulates that citizen satisfaction is the catalytic factor that transforms any municipality's actions, processes or programs into public value. According to the public value chain, when citizens are satisfied with an output derived from any municipality's initiatives, it is considered public value. At the initial level of the value chain, public managers use their organizational capabilities or inputs, which then create some interim outputs such as financial assets and participatory plans (Figure 1). These outputs can be perceived as public value when citizens are satisfied with them. However, Moore (2007) expressed concern about measuring public satisfaction with every output. He, therefore, suggested that an output can be considered public value if it is valuable to the citizenry, politically legitimate, feasible and sustainable and operationally possible and practical (Moore, 2013).

Though the public value chain primarily aims to apply to central or mainstream public services, it can also be applied to local government settings (Hartley *et al.*, 2019). This research, therefore, adopts PVT as a research framework to examine the relationship between citizen satisfaction and the outputs of municipalities' decisions.

3. Methodology

This research uses a quantitative method to find the relationship between citizen satisfaction with community engagement in council decisions and financial assets at the municipal level.

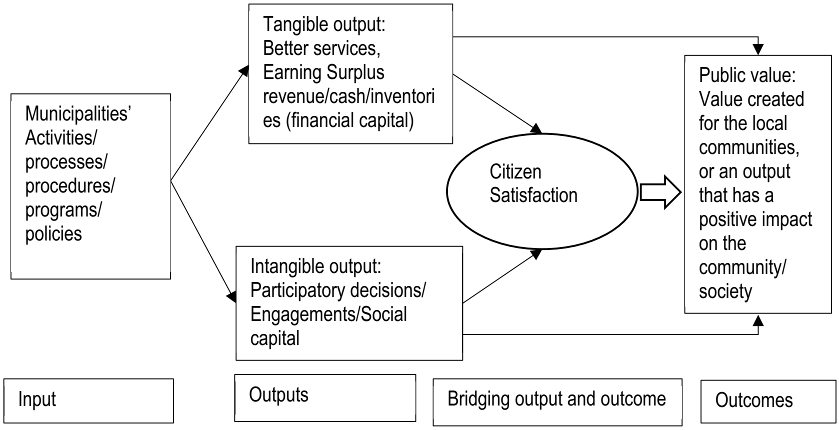

Figure 1. Public value chain at local government levels
Source: Courtesy of Moore (2007)

Publicly available data related to financial and governance factors have been collected from each of the 79 municipalities/councils (see note 1) in Victoria, Australia (Appendix Table A1). Based on the literature review, we have selected two variables from governance factors: Citizen Satisfaction and Community Engagement for Council Decisions. Among financial factors, we have selected three variables: Surplus (Deficit) Revenue, Current Assets and Unrestricted Cash.

This research applies Regression analysis, particularly Least Squares Regression, which is well-suited for testing hypotheses about how independent variables (e.g. community engagement) influence a dependent variable (e.g. citizen satisfaction) (Gim, 2021). As the data set includes multiple municipalities observed over multiple years, panel data regression techniques provide robust estimations while accounting for time effects and municipal-specific variations (Romero-Subia, *et al.*, 2022). Least Squares Regression is a commonly used method for examining such relationships in panel studies, as it minimizes the sum of squared residuals to provide the best-fitting model (Gim, 2021).

3.1 The dependent variable

Citizen satisfaction: As cited above, Citizen Satisfaction is the dependent variable for this research. According to the Victorian Council Governance website, "Community satisfaction rating [is calculated as] out of 100 with how the council has performed in making decisions in the interests of the community" (KnowYourCouncil, 2019).

3.2 Independent variables

Community engagement: This variable is derived from the councils' decisions involving community engagement. According to the Victorian Council Governance website (KnowYourCouncil, 2019), decisions without community engagement or closed-door meetings are measured as the "Number of council decisions made closed to the public divided by the total meetings conducted by the councils in that year (multiplied by 100)." Thus, this research subtracts the percentage of closed-door decisions from one (1 – closed door decisions) to obtain the percentage of decisions with community engagement.

Surplus revenue: The Victorian Local Council website defines surplus revenue as "Adjusted underlying surplus (or deficit) as a percentage of underlying revenue, which is surplus or deficit for the year excluding non-recurrent government grants received for capital purposes, contributions for capital works, and the value of assets received from developers, divided by total revenue excluding non-recurrent government grants received for capital purposes, contributions for capital works, and the value of assets received from developers" (KnowYourCouncil, 2019). As hypothesized, citizen satisfaction may increase with an increase in surplus revenue, indicating a positive relationship between citizen satisfaction and surplus revenue.

Current assets (cash equivalents): According to the Victorian Council Governance website, Current Assets are defined as the "Value of current assets at the end of the year (i.e. assets that can easily be converted to cash within 12 months) divided by the total revenue excluding non-recurrent government grants received for capital purposes, contributions for capital works, and the value of assets received from developers" (KnowYourCouncil, 2019). In light of the hypothesis developed above, citizens would be satisfied when they see more cash equivalents in their councils. This indicates a positive relationship between citizen satisfaction and current assets.

Unrestricted cash (cash-on-hand): The Victorian Council website defines unrestricted cash as "the amount of cash at the end of the year which is free of restrictions (liabilities) divided by total revenue (multiplied by 100) at the end of the year" (KnowYourCouncil, 2019). According to the above hypothesis, citizens would be satisfied when they find more cash in the council's coffers. This suggests a positive relationship between citizen satisfaction and cash-on-hand.

This research has also selected two control variables to improve the robustness of the model and minimize the impact of endogeneity. These variables are Expenditure on Population and Expenditure on Property. Expenditure on Population is the amount of the council's expenditure in proportion to the total expenditure (multiplied by 100) for each resident living in the council area (KnowYourCouncil, 2019). Expenditure on Property is the amount of the council's expenditure in proportion to the total expenditure (multiplied by 100) for each property owned by local residents within the council area (KnowYourCouncil, 2019). It is hypothesized that councils hold more closed-door meetings when expenditures on population and property increase (Robbins *et al.*, 2016).

3.3 Use of statistical models

The following statistical models are used to determine the effect of financial and governance variables on citizen satisfaction.

Model 1:

$$Citizen\ Satisfaction_{ct} = \propto + \beta_1\ \text{Community Engagement}_{ct} + \varepsilon_{ct}$$

Model 2:

$$\begin{aligned} Citizen\ Satisfaction_{ct} = {} & \propto + \beta_1\ \text{Community Engagement}_{ct} + \beta_2\ \text{Surplus Revenue}_{ct} \\ & + \beta_3\ Current\ Assets_{ct} + \beta_4\ Unrestricted\ Cash_{ct} + \varepsilon_{ct} \end{aligned}$$

Model 3:

$$\begin{aligned} Citizen\ Satisfaction_{ct} = {} & \propto + \beta_1\ \text{Community Engagement}_{ct} + \beta_2\ \text{Surplus Revenue}_{ct} \\ & + \beta_3\ Current\ Assets_{ct} + \beta_4\ Unrestricted\ Cash_{ct} \\ & + \beta_5\ \text{Expenditure on Property}_{ct} \\ & + \beta_6\ \text{Expenditure on Population}_{ct} + \varepsilon_{ct} \end{aligned}$$

Here, *Citizen Satisfaction* $_{ct}$ is the percent of citizen satisfaction with the council c in the year t; *Community Engagement* $_{ct}$ is the percent of Citizen Engagement with Decisions in the council c in the year t; *Cash* $_{ct}$ is the percent of Unrestricted Cash in proportion to total liabilities of the council c in the year t; *Current Assets* $_{ct}$ is the percent of Current Assets in proportion to the current liabilities of the council c in the year t; *Surplus Revenue* $_{ct}$ *is* the percent of Surplus Revenue (profit or deficit) in proportion to the total financial income of the council c in the year *t; Expenditure on Population* $_{ct}$ *is* the percent of expenditure for each resident in proportion to the total expenditure of the council c in the year *t; Expenditure on Property* $_{ct}$ *is* the percent of expenditure for each property in proportion to the total expenditure of the council c in the year *t;* and ε is the error term.

3.4 Data and descriptive statistics

The study uses data from different local councils across Victoria, which includes 34 urban councils and 45 rural councils. Table A1 in the Appendix illustrates the names of the urban and rural councils that have been used in our sample. The data span the period of five fiscal years from 2015–2016 to 2019–2020. Table 1 illustrates the descriptive statistics of the sample data for *Community Satisfaction, Community Engagement, Cash-on-hand, Current Assets, Surplus Revenue, Expenditure on Population and Expenditure on Property* that are used in the analysis.

Table 2 illustrates the correlation of coefficient between dependent and independent variables that are used in this research. This table presents the correlation of coefficient analyses of all councils, rural councils and urban councils separately. It can be seen from Table 2 that all the values of correlation of coefficient analysis are below 0.490. This suggests the data is reliable and free from any collinearity.

Table 3 presents the least square regression analysis (fixed effects panel regression) approach using the full data set that has included urban and rural councils across Victoria. The study uses all three statistical models in the analysis described above. Model 1 includes one independent variable which is *Community Engagement,* and the dependent variable is *Community Satisfaction.* In Model 2, the independent variable includes *Community Engagement and Financial Assets (Cash, Current Assets and Surplus Revenue).* Model 3 includes all independent variables, for example, *Community Engagement, Financial Assets (Cash, Current Assets and Surplus Revenue)* and control variables, for example, *Expenditures (Expenditure on Population and Expenditure on Property).*

Table 1. Descriptive statistics of full dataset (n = 395)

Variables	Community satisfaction	Community engagement	Surplus revenue	Current assets	Cash-on-hand
Mean	0.552	0.562	0.036	0.026	0.011
Median	0.560	0.560	0.051	0.023	0.009
Maximum	0.730	0.740	0.300	0.083	0.057
Minimum	0.330	0.400	−0.510	0.004	−0.012
SD	0.064	0.059	0.097	0.012	0.009
Skewness	−0.084	0.292	−1.030	1.709	0.771
Kurtosis	3.103	3.472	6.292	7.278	4.707
Jarque-Bera	0.638	9.256	248.230	493.333	87.053
Sum SD	1.638	1.359	3.739	545.630	349.236

Source(s): Authors' own creation

Table 2. Pearson's correlation of coefficient between dependent and independent variables

Variables	Cash-on-hand	Citizen satisfaction	Community engagement	Current assets
*All councils (*n *= 395)*				
Citizen satisfaction	−0.005			
Community engagement	−0.050	−0.002		
Current assets	0.428	0.052	0.031	
Surplus revenue	0.062	−0.120	0.160	0.257
*Rural councils (*n *= 225)*				
Citizen satisfaction	0.071			
Community engagement	0.019	0.083		
Current assets	0.383	0.076	0.104	
Surplus revenue	0.072	−0.148	0.043	0.275
*Urban councils (*n *= 170)*				
Citizen satisfaction	−0.099			
Community engagement	−0.046	−0.08		
Current assets	0.49	0.012	0.029	
Surplus revenue	0.186	−0.078	0.004	0.418

Note(s): All correlations are significant at the $p < 0.1$ level (two-tailed)
Source(s): Authors' own creation

Table 3. Least square regression analysis for all councils

	All councils (n = 395)		
Variables	Model 1	Model 2	Model 3
C	0.577*** (0.033) [17.484]	0.561*** (0.035) [16.038]	0.546*** (0.043) [12.563]
Community engagement	−0.029 (0.037) [−0.769]	−0.029 (0.037) [−0.769]	−0.021 (0.038) [−0.542]
Surplus revenue	–	0.044* (0.03) [1.472]	0.069* (0.036) [1.932]
Current assets	–	0.007 (0.004) [1.875]	0.008 (0.004) [2.020]
Cash-on-hand	–	−0.002 (0.003) [−0.547]	−0.002 (0.003) [−0.695]
Expenditure on population	–	–	0.000** (0.000) [0.00]
Expenditure on property	–	–	0.000 (0.000) [0.00]
R^2	0.779	0.784	0.786
Adjusted R^2	0.721	0.724	0.724
SE of regression	0.034	0.033	0.033
F-statistic	13.240	13.047	12.778
Prob. (F-statistic)	0.000	0.000	0.000

Note(s): *, ** and *** represent statistical significance at the $p < 0.05$, $p < 0.01$ and $p < 0.001$ levels, respectively. Two values are reported below the estimated coefficient. The first, in parenthesis, is the standard errors and the second in brackets is the t-statistics
Source(s): Authors' own creation

The data analysis shows that *Community Engagement* is not statistically significant across all models. The data analysis also finds that Surplus Revenue is significantly correlated with community satisfaction and the effect is statistically significant at the $p < 0.05$ level for Models 2 and 3. The adjusted R^2 values for Models 1, 2 and 3 are 0.721, 0.724 and 0.724, respectively, suggesting a good fit of the regression models.

Table 4 shows the least square regression analysis using the rural council data set. In this data set, we include 45 rural councils, and the data span the period from 2015–2016 to

Table 4. Least square regression analysis for rural councils

Variables	Model 1	Rural councils (n = 225) Model 2	Model 3
C	0.512*** (0.048) [10.613]	0.493*** (0.051) [9.634]	0.472*** (0.056) [8.464]
Community engagement	0.016* (0.054) [0.293]	0.022* (0.055) [0.399]	0.032* (0.054) [0.591]
Surplus revenue	–	0.009 (0.041) [0.209]	0.082 (0.050) [1.655]
Current assets	–	0.004 (0.004) [1.156]	0.001 (0.004) [0.043]
Cash-on-hand	–	0.003 (0.005) [0.614]	0.001 (0.005) [0.217]
Expenditure on population	–	–	0.001* (0.000) [0.00]
Expenditure on property	–	–	0.001 (0.000) [0.00]
R^2	0.731	0.734	0.739
Adjusted R^2	0.656	0.654	0.656
SE of regression	0.035	0.035	0.035
F-statistic	9.702	9.138	8.923
Prob F-statistics	0.000	0.000	0.000

Note(s): *, ** and *** represent statistical significance at the $p < 0.05$, $p < 0.01$ and $p < 0.001$ levels, respectively. Two values are reported below the estimated coefficient. The first, in parenthesis, is the standard errors and the second in brackets is the *t*-statistics
Source(s): Authors' own creation

2019–2020. It is found from the regression analysis that *Community Engagement* is statistically correlated with citizen satisfaction at the $p < 0.05$ significant level for all three models. Interestingly, none of the financial factors are statistically significant. The adjusted R^2 values for all three models are 0.731, 0.734 and 0.739. The F-statistics for all models are statistically significant which suggests a good fit of the regression models.

Table 5 in the following illustrates the least square regression analysis using the urban data set of our sample. The sample includes 34 urban councils in Victoria, Australia. It can be seen from the following table that *Community Engagement* is not significantly correlated

Table 5. Least square regression analysis for urban councils

Variables	Model 1	Urban councils (n = 170) Model 2	Model 3
C	0.637*** (0.053) [11.988]	0.629*** (0.053) [11.859]	0.597*** (0.097) [6.133]
Community engagement	−0.057 (0.059) [−0.971]	−0.076 (0.059) [−1.281]	−0.071 (0.061) [−1.171]
Surplus revenue	–	0.012* (0.005) [2.218]	0.012* (0.006) [2.121]
Current assets	–	−0.028 (0.066) [−0.422]	−0.015 (0.074) [−0.204]
Cash-on-hand	–	−0.003 (0.005) [−0.615]	−0.003 (0.005) [−0.613]
Expenditure on population	–	–	0.000** (0.000) [0.00]
Expenditure on property	–	–	0.000 (0.000) [0.00]
R^2	0.723	0.733	0.734
Adjusted R^2	0.643	0.648	0.643
SE of regression	0.032	0.032	0.032
F-statistic	8.996	8.585	8.072
Prob F-statistics	0.000	0.000	0.000

Note(s): *, ** and *** represent statistical significance at the $p < 0.05$, $p < 0.01$ and $p < 0.001$ levels, respectively. Two values are reported below the estimated coefficient. The first, in parenthesis, is the standard errors and the second in brackets is the *t*-statistics
Source(s): Authors' own creation

with *Citizen Satisfaction*. Among the three financial assets, only *Surplus Revenue* is statistically significant in Models 2 and 3, and the effect is positively correlated at $p < 0.05$ significance level. This result is also consistent with our full data set where Surplus Revenue is also statistically significant at $p < 0.05$ level. The adjusted R^2 values for all three models are 0.643, 0.648 and 0.8643. The F-statistics values for all three models are statistically significant suggesting that all of these statistical models are a good fit for this analysis.

4. Discussion

This research presents mixed findings regarding citizen satisfaction with community engagement and the accumulation of financial assets at the municipal level. The analysis of comprehensive data collected from all 79 municipalities indicates that there is no significant relationship between citizen satisfaction and community engagement with municipal affairs. These findings differ somewhat from the theoretical principle that greater engagement with municipalities would result in higher satisfaction among citizens (Cardoso *et al.*, 2022).

There are several potential explanations for these findings. First, citizens in Victorian municipalities have limited opportunities for participation (Waheduzzaman and Khandaker, 2022). The data show that, on average, community engagement in municipalities' decision-making processes stands at 56% (Table 1). This means that, on average, communities are not involved in decision-making in 44% of cases. A report also reveals that some Victorian municipalities conduct 60% of their annual meetings without any community engagement (VAGO, 2019). This limited scope of participation may impact the relationship between community engagement and citizen satisfaction. These findings indicate that the current level of engagement has no impact on citizen satisfaction. Therefore, engagement should not be practiced merely for the sake of engagement; rather, a higher level and quality of engagement are required, which might improve citizen satisfaction.

Second, citizens might not be satisfied because they do not perceive any value in their engagement with municipalities' decisions. According to the Victorian Auditor General's report, most important financial decisions in municipalities are made in closed-door meetings (Victorian Ombudsman, 2016). This means most local citizens have no say in important decisions at the municipal level. If citizens perceive that their engagement is not valued or taken into account for significant decisions, then it is likely to affect their level of satisfaction (Moore, 2013). Therefore, community engagement that is limited to less important decisions is likely to have a negative impact on citizen satisfaction.

In contrast to community engagement, citizens from all municipalities have exhibited satisfaction with the earning of surplus revenue. This finding supports the theoretical view that citizens are satisfied with more revenue, as they expect municipalities to earn surplus revenue for developing more public value at local levels (Bello *et al.*, 2017). Moreover, citizens may consider the earning of surplus revenue as a measure of the performance of their municipal officials. In this regard, Robbins *et al.* (2016) emphasize that many municipalities use the level of their financial assets as a benchmark for the efficiency and effectiveness of their decisions. Therefore, a municipality's performance in earning surplus revenue can be considered a predictor of local community satisfaction.

The data analysis, however, shows that citizen satisfaction has no relationship with the earning of cash-on-hand and cash equivalents (current assets). It is possible that this lack of relationship may be because municipalities often do not want to share information about cash-on-hand and cash equivalents (current assets) with local citizens (Waheduzzaman and Khandaker, 2022). Therefore, it may be difficult for citizens to understand the value of these financial assets, specifically how these assets are being used for the overall well-being of communities.

In 2019, the Victorian Auditor General reported, based on the audit of the annual financial reports of all 79 municipalities, that 178 financial statement errors totaling AU$240.4m (US$173m) were identified, mostly related to current assets/cash equivalents (VAGO, 2019). For example, there were incorrect classifications of current assets (cash equivalents and financial assets) and incorrect valuation and timing in listing current assets (VAGO, 2019). These malpractices suggest that municipalities tried to hide information related to the use of current assets from local communities. There is also a perceived suspicion that councilors sometimes involve themselves in managing current assets for their own interests rather than for the benefit of all communities (Mills and Tomazin, 2018). Therefore, citizens are not satisfied with the current assets, as they do not see any value or understand the use of current assets.

Further analysis, however, shows that the patterns of citizen satisfaction differ for urban and rural municipalities. On the one hand, communities in urban municipalities have displayed satisfaction with the earning of surplus revenue but not with community engagement. On the other hand, communities in rural municipalities show satisfaction with community engagement but not with surplus revenue. This observation supports the view of urban theorists who claim that urban citizens today are more focused on surplus revenues that municipalities may use for improving local infrastructure developments and promoting local businesses (Buylen and Christiaens, 2016). As commercial activities are higher in urban municipalities, the satisfaction of local communities may be influenced by the surplus revenue that promotes local businesses (Oludele *et al.*, 2012). In contrast, the satisfaction of rural communities with community engagement can be explained by the views of Dollery *et al.* (2010), which maintain that the participation of rural citizens with their neighbors and municipalities may positively reflect on their satisfaction, as rural people are more attached to their local officials and neighbors.

The above findings align with the core principles of PVT, which underscore the significance of taking into account the desires and concerns of citizens as well as the broader societal impacts of a municipality or its policies (Moore, 2013). The findings emphasize the importance of recognizing the distinct needs and priorities of different communities when creating and serving values for them. It is reinforced that a one-size-fits-all approach is not applicable when it comes to delivering value to citizens (Oludele *et al.*, 2012). Municipal managers must consider the unique social values and expectations of their communities to develop effective assets that are recognized as valuable and will satisfy local residents. When Moore (2013) emphasized that policymakers must design policies and initiatives that are politically legitimate, feasible, sustainable, operationally possible and practical, our findings also add that meeting the specific needs and priorities of the community is crucial for gaining the satisfaction of local communities.

Additionally, the findings partly challenge the public value chain proposition proposed by Moore (2013). When Moore (2013) emphasized that tangible and intangible assets generate citizen satisfaction that is in turn considered public value, our findings suggest that public value and citizen satisfaction are inseparable. Any tangible and intangible asset that is considered valuable by the community also actuates their satisfaction. In other words, citizen satisfaction is an integral element of public value, and thus, public value cannot be created without citizen satisfaction (Figure 2). The ultimate objective of public value is to fulfill the needs, preferences and expectations of citizens, thereby enhancing overall satisfaction. If a value or initiative falls short of achieving citizen satisfaction, then it falls short of being a genuine public value.

While previous studies mainly measured citizen satisfaction by benchmarking the quality of municipalities' services (Mbassi *et al.*, 2019; Yang, 2018; Yildirim and Yıldırım, 2022),

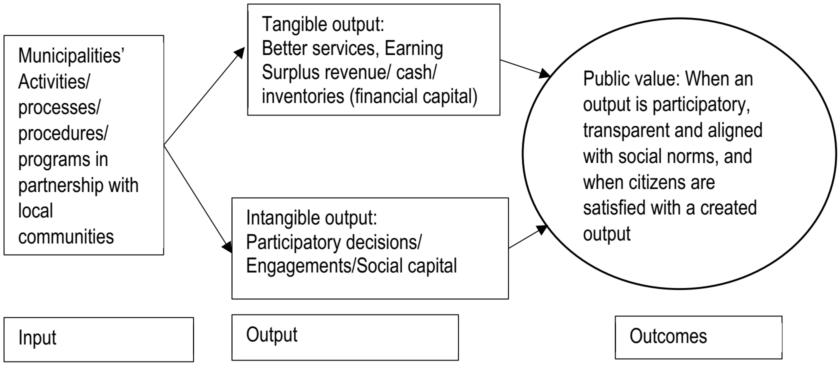

Figure 2. Citizen satisfaction is an integral part of a public value
Source: Courtesy of Moore (2007), reframed based on the findings of this study

this research investigates the interplay between citizen satisfaction, financial assets and community engagement in both urban and rural municipalities. By highlighting the influence of localized social factors on public value, this study offers valuable insights into the creation of meaningful value to enhance citizen satisfaction. Furthermore, this research expands on the existing public-value chain framework (Moore, 2013) to encompass the creation of public value and citizen satisfaction in both urban and rural areas separately.

5. Conclusion

This study makes an original contribution to PVT by demonstrating that citizen satisfaction is not solely driven by community engagement or financial asset accumulation but is contingent upon the localized priorities of urban and rural municipalities. While prior research predominantly links public value to service quality (Mbassi *et al.*, 2019; Yang, 2018; Yildirim and Yıldırım, 2022), this study advances the literature by analyzing the interplay between citizen satisfaction, financial performance and community engagement. The findings challenge the assumption that greater engagement universally enhances satisfaction, revealing instead that the effectiveness of engagement depends on its depth and perceived impact on decision-making. In doing so, this research refines Moore's (2013) public value chain framework by asserting that public value and citizen satisfaction are inseparable – any asset, tangible or intangible, must be recognized as valuable by the community to generate satisfaction.

Furthermore, this study underscores the need for a differentiated approach to municipal governance, as urban citizens prioritize financial performance, while rural citizens value engagement. This distinction highlights the limitations of one-size-fits-all municipal strategies and stresses the importance of aligning governance models with community expectations. By extending the public value discourse to financial transparency and localized governance dynamics, this study offers actionable insights for policymakers seeking to enhance municipal effectiveness and citizen satisfaction. Future research should explore additional contextual factors influencing public value creation and examine long-term implications of financial transparency on trust in local governments.

5.1 Practical implications

The findings emphasize the need for tailored municipal governance strategies rather than a uniform approach to obtain citizen satisfaction. Urban municipalities should enhance financial performance transparency, as citizens in these areas prioritize economic stability. In contrast, rural municipalities should focus on fostering meaningful public engagement, reflecting citizens' preference for participatory decision-making. Overall, the study underscores the need to balance financial accountability with inclusive governance, ensuring that both tangible assets (such as budget surpluses) and intangible assets (such as citizen participation) contribute to effective municipal performance and citizen satisfaction.

5.2 Theoretical implications

This study contributes to PVT by challenging the assumption that community engagement universally enhances citizen satisfaction. Instead, it highlights the context-dependent nature of public value, where urban and rural municipalities prioritize financial performance and engagement differently. By integrating financial transparency into the public value chain framework (Moore, 2013), the study refines the understanding that public value is not inherent in assets but is contingent on citizen recognition. Additionally, it extends prior research by demonstrating that citizen satisfaction arises from an interaction of financial performance, engagement quality and localized priorities, rather than service quality alone.

5.3 Future research recommendations

This research does not purport to be comprehensive, as it is based on a single-country study. Caution should be exercised in interpreting these results, as this study relied exclusively on secondary data collected by local government bodies. It has also used only a short panel data limited to the 2015–2016 to 2019–2020 financial years. Further research with municipalities in wider geographical settings and with both quantitative and qualitative data may provide a better understanding of citizen satisfaction with municipal performance.

Points for Practitioners

- Municipalities should acknowledge the diverse needs and preferences of urban and rural communities when formulating policies and initiatives.
- Urban municipalities need to focus on generating surplus revenue while targeting strategies to enhance local citizen satisfaction.
- Rural municipalities should prioritize generating surplus revenue alongside actively engaging with local communities to improve citizen satisfaction.

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Appendix

Table A1. Urban and rural councils in Victoria

No.	Rural council list	Urban council list
1	Alpine Shire	Ballarat City
2	Ararat Rural City	Banyule City
3	Bass Coast Shire	Bayside City
4	Baw Baw Shire	Boroondara City
5	Benalla Rural City	Brimbank City
6	Buloke Shire	Casey City
7	Campaspe Shire	Darebin City
8	Cardinia Shire	Frankston City
9	Central Goldfields Shire	Glen Eira City
10	Colac Otway Shire	Greater Bendigo City
11	Corangamite Shire	Greater Dandenong City
12	East Gippsland Shire	Greater Geelong City
13	Gannawarra Shire	Greater Shepparton City
14	Glenelg Shire	Hobsons Bay City
15	Golden Plains Shire	Hume City
16	Hepburn Shire	Kingston City
17	Hindmarsh Shire	Knox City
18	Horsham Rural City	Latrobe City
19	Indigo Shire	Manningham City
20	Loddon Shire	Maribyrnong City
21	Macedon Ranges Shire	Maroondah City
22	Mansfield Shire	Melbourne City
23	Mildura Rural City	Melton City
24	Mitchell Shire	Monash City
25	Moira Shire	Moonee Valley City
26	Moorabool Shire	Moreland City
27	Mornington Peninsula Shire	Port Phillip City
28	Mount Alexander Shire	Stonnington City
29	Moyne Shire	Warrnambool City
30	Murrindindi Shire	Whitehorse City
31	Nillumbik Shire	Whittlesea City
32	Northern Grampians Shire	Wodonga City
33	Pyrenees Shire	Wyndham City
34	Borough Of Queenscliffe	Yarra City
35	South Gippsland Shire	
36	Southern Grampians Shire	
37	Strathbogie Shire	
38	Surf Coast Shire	
39	Swan Hill Rural City	
40	Towong Shire	
41	Wangaratta Rural City	
42	Wellington Shire	
43	West Wimmera Shire	
44	Yarra Ranges Shire	
45	Yarriambiack Shire	

Source: Local Government Victoria (2019)