

Public Service Users' Behavior, Service Satisfaction, and Citizens' Attitudes toward Budgets Cuts

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Abstract

Although the citizens' perceived satisfaction with public service is a cornerstone to public management, service users' attitudes toward service budget in the public sector is poorly understood. The purpose of this study attempts to examine the effect of frequent usage of public services on citizens' attitudes toward service budget by using confirmatory factor analysis. This study used the 2003 citizen survey of San Francisco and utilized the Muni transit system as a case. We found that citizens' perceived service satisfaction is not directly related to their intention of supporting service budget, and the interaction between the frequency of service usage and perceived service satisfaction brings a positive influence on public service users' attitudes toward selected budget.

Key Words: *Service Performance, Citizen Satisfaction, Budget Attitude, Public Service Consumer.*

Introduction

Citizens' attitudes toward service budget is undeniably one of the most concern of local governments because citizens' perceived perspective is the main determinant of supporting public projects and polices (Glaser and Denhardt 1999; Robbins et al. 2008). Local government entities must respond citizens about information request, service deficiency, local emergency and non-emergency events, public safety issues, matters related to public programs, and a host of other topics in an effective operation of public agencies (Jung et al. 2015). Unlike most business entities, public service consumer's attitudes toward service providers include more complicated issues and limitations, such as budget constraints and public regulations. Moreover, given the declining citizen satisfaction with public services and programs as well as the decreasing trust in government (Berman 1997; Morgeson et al. 2010), many public administration scholars have suggested that governments would enhance service performance in order to obtain citizens' continuous support for the operation of public programs and polices (Higgins 2005; Thomas 2012;

Andrews and Van de Walle 2013 ; Wu and Jung 2016; Wu 2017). On the other hand, when citizens have positive views of political institutions, they may have a higher moral obligation to pay taxes and positive perspectives to government (Torgler and Schneider 2007).

Current literature has demonstrated that citizen satisfaction with public services is a positive determinant of citizens' willingness to support service budget (Benton and Daly 1992; Hansen 1998; Duncombe et al. 2003). If citizens perceive high performance on specific public services, they will be more willing to support public budgets related to those services. Although a large body of study emphasized the function and effect of citizens' opinions on policy-making processes and citizen-government relations (Callahan and Holzer 1999; Zhang and Yang 2009), these works did not pay much attention to how the usage experience of public services significantly influences public service consumers' attitudes toward a specific service budget.

Some researchers attempt to examine the relationship between usage experience of public services and citizens' opinion and suggest that citizens with positive usage experience of public services would translate this experience positively to their willingness to support public budget (Robbins et al. 2008; Collins and Kim 2009). It is, however, still unclear that whether frequent users of public services are more likely to support service budget or not. Frequent users of public services are those who frequently consume the selected public service in a given period of time. For consumer-oriented services, the frequent usage of public services provides local officials an important clue informing local governments to maintain service performance and to understand citizens' perception of the selected services that they use most frequently.

In this context, the focus of this study is on the usage experience of public service consumers and its relationship with citizens' attitudes toward service budget. This study moves step forward and attempts to investigate the effect of the frequent usage of public services on citizens' budget attitudes. The purpose of this study is to test the theory that frequent users of public services are more likely to support public budgets. The main independent variables include citizen satisfaction with public transportation and the frequency of using specific public transportation service. The dependent variable is support for public budgets related to public transportation. However, the effect of satisfaction with these services on attitudes toward service budget is indirect and mediated by the frequency of using public services. To test this argument, the data used in this study was drawn from 2003 citizen survey of City of San Francisco.

Hypotheses and Literature Review

Citizen Satisfaction with Public Services and Frequency of Using Public Services

Researchers have argued that there is a positive relationship between service outputs (i.e., performance) or service outcomes (i.e., satisfaction) and service of consumer's use (Bolton et al. 1999; Ismail et al. 2012). The citizens' preference of service use is based on their consideration and assessment of their experience on service quality (Wisniewski 2001), suggesting that service performance influences citizen views of their local governments and the use of public services. People would repeatedly use public services if they are satisfied with the quality of these services and have positive usage experience. In this sense, a positive usage experience of public service is an important driving force for citizens to use the service frequently. Thus, understanding how citizens assess public services and then translate their usage experience into frequent use of these services becomes distinctly critical.

The difference between frequent and infrequent users can be distinguished as below. The frequent use of public services represents the citizens' preference and their need for the public services. That is, citizens' perspective and attitudes toward local governments matter in explaining their frequent use of public services. In contrast, infrequent users will use some services when these services are convenient or the purpose of usage is not related to citizens' preference but to friends' invitation or one-time service use.

When citizens have positive use experience, they would like to increase the use of public services (Van Ryzin and Charbonneau 2010). Therefore, we hypothesize that:

H_1 : Citizen Satisfaction with public services is positively associated with citizens' frequency of using public services.

Citizen Satisfaction with Public Services and Citizens' Attitudes toward Service Budget

Citizen satisfaction is an overall judgment of individuals to public services (Hassett and Watson 2003; Kelly and Swindell 2003). By knowing citizen satisfaction, public officials can foresee significantly important responses from the citizens and then make an adequate budget plan that the citizens want (Hassett and Watson 2003; Van Ryzin 2007). But why is citizen satisfaction so important to the public budget? Citizen survey is usually advocated as a useful tool to explore citizens' voice and intention, to represent the opinions of the majority, and to help public managers know citizens' preference and demands (Poister and Henry, 1994; Duncombe, Robbins, and Stonecash, 2003; Franklin, Ho, and Ebdon, 2009). Therefore, exploring the voice and budget attitudes of the public is able to not only assists public administrators in planning annual budget (Miller and Ever 2002), but also provides a good piece of information for public managers to efficiently arrange public budget (Koford 2010).

In effect, local public officials usually evaluate citizen opinions to public services, identify areas where citizens desire, and monitor the effectiveness as well as the improvement of service quality through well-conducted citizen satisfaction survey (Callahan and Gilbert 2005; Thomas 2012). If citizens perceive high quality of public services, they will be more willing to support public budgeting of selected budget, and public officials will have a clue about on which of public services they should put more resources (Glaser and Hildreth 1996; Glaser et al. 2002; Donahue, Robbins et al. 2008; Chen et al. 2010). Therefore, citizens with positive experience of consuming public service would translate positively to their willingness to support public budget (Park 2005; Collins and Kim 2009; Ibeas and Cecín 2011). Given this, we hypothesize that:

H_2 : Citizen Satisfaction with public services is positively associated with citizens' intention to selected service budget..

Frequent Use of Public Services and Citizens' Attitudes toward Service Budget

Citizens' usage experience of public services influences their support to public policies and services (Poister and Henry 1994; Van Ryzin, Immerwahr, and Altman 2008; Dell'Olio et al. 2011). Service users and non-service users have different views to assess governmental efforts (Kelly and Swindell 2003). For example, people who frequently use digital library service have stronger support to the service than those with less frequently usage experience of digital library service (Liu and Luo 2011). As to mention public budget, however, there is a trade-off between citizen demands and their intention to tax support for public services (Glaser and Hildreth 1996; Glaser et al. 2002). Citizens with a good usage experience of public service would positively translate this experience to the action which is willing to support public budget (Collins and Kim 2009). If governments fail to offer the qualified services that citizens have expected, citizens may be less willing to use the "unsatisfied" service and in turn they will not support the continuous operation of the current public programs and policies (Berman 2005; Ismail et al. 2012).

What role do frequent users play in the mechanism between positive usage experience of public services and selected service budge support? Frequent use of public services means that citizens have favors and needs in these services. This statement assumes that citizens are rational service consumers, and are not willingness to support any budget cut in the services that they use frequently or they like to have (Van Ryzin and Charbonneau 2010). In the perspective of service consumers, the frequent use of public services drives citizens to support service spending if public service consumers have positive usage experience,

which in turn encourages service consumers to use these services repeatedly. Empirically, frequent users of public services have less uncertainty to the use of the selected public services and possess more information about these services (Cheng 2011). The more information about selected public services citizens have, the more frequently they are going to use these services, and then the more likely they are willing to pay tax in return (Robbins et al. 2008).

H_3 : Frequent use of public services is positively associated with citizens' intention to selected service budget.

Frequency of Using Public Services as an Intermediate Role

It is possible that citizen satisfaction with public services has an effect on citizens' attitudes toward service budget but the influence operates through frequency of using public services. That is, the effect of citizen satisfaction on citizens' attitudes toward service budget is mediated by frequency of using public services. Citizen satisfaction with public service would influence their frequency of service use, and then affect the support of service budget and the choice for future service uses (Wen et al. 2005). In addition, when citizen have high perceived assessment on the services they consume, they are more likely to increase the time of using and then support relative budget in order to maintain the quality and quantity of the public services they frequently use.

Therefore, supporting an intermediate role of frequently using public services is the argument that if service consumers have higher satisfaction with a service, the service users would use a service frequently, and the repeated exposure to favorable service may continually lead to their support of the service budget. Given this, we hypothesize that:

H_4 : citizen satisfaction will have significantly indirect effects on citizens' attitudes toward service budget if the frequency of using public services plays an intermediate role in the model.

Figure 1 shows the hypothesized relationships of the proposed model. We expect that the influence of citizen satisfaction with public services on citizens' attitudes toward service budget will be not only direct, but also mediated by frequency of using public services and in the specific way shown in the figure.

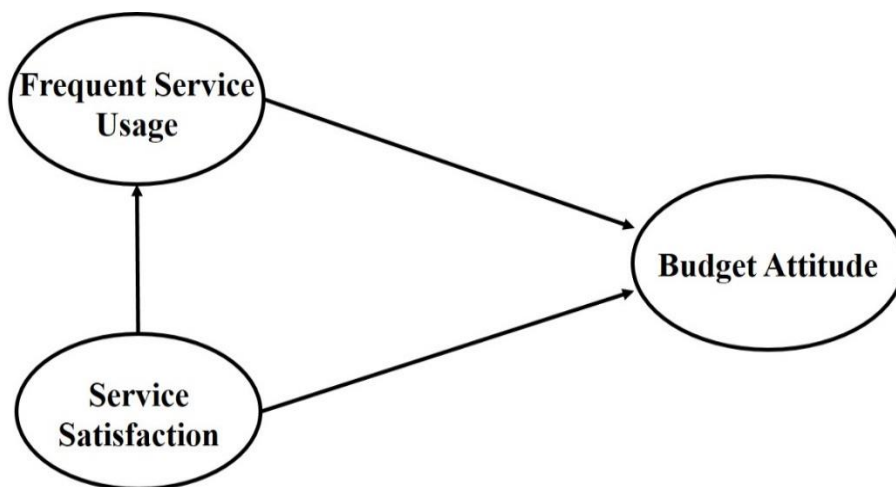


Figure 1. Hypothesized Relationships of Proposed Model

Methodology

Participants

The data used in this study was drawn from the 2003 San Francisco City Survey, which is part of an ongoing effort to measure and improve the performance of City government in San Francisco. The survey collected the total of 1519 San Franciscans, using a mailed questionnaire and telephone interviews. There are 73 percent of the total sample was surveyed by mail and 27 percent by telephone. 5500 questionnaires were distributed to randomly selected San Franciscans in January 2003. 1114 questionnaires were returned by early March (a cooperation rate of 24 percent). 1080 individuals were contacted and asked to participate in a telephone interview and 405 interviewers responded (the cooperation rate was 38 percent). 48 percent of the respondents were male and 52 percent were female. The largest age category in the sample was 30-44 years old, accounting for 31 percent of respondents. The largest educational background category was 4 or more years of college, at 57 percent. Within the sample, 53 percent of respondents worked 35 or more hours a week and 50 percent of respondents earned household total income before tax in 2001 over 50,000 US dollars. Finally, the largest ethnic group in the sample was the white, accounting for 51 percent of respondents.

Measures

The focus of this research is on citizens' attitudes toward the City's transit service. The questionnaire used in this study was aimed at measuring satisfaction with public transportation (reliability, cleanliness, fares, safety, communication to passengers, and courtesy of drivers)¹, frequency of using public transportation (times of using the City's transit service)², and attitudes toward transportation budget (protect public transportation from budget cuts)³. The survey items related to satisfaction contain six scales ranging from 0 to 5. The highest grading scale, 5, indicates that the quality of the service is excellent, while the lowest rating scale, 0, means the respondents have not used the service. Moreover, the survey item of frequency measures how often citizens have used public transportation during the past year and it also contains six scales scoring from 0 to 5. The frequency of usage ranges from daily usage (5), several times a week (4), and once or twice a week (3) to never use (0). Finally, the survey items of attitudes toward budget measure whether citizens would like to protect public transportation from budget cuts.

Analysis

This study used Structural Equation Modeling (SEM) analysis by means of LISREL to evaluate a measurement model and a causal model simultaneously, using the weighted least squares estimation method. Thus, the analysis evaluated the extent to which the observed variables were indicators of the latent constructs in the model and the strength of the relationships among the latent variables as specified by the hypothesized paths. We evaluated the viability of the specific hypotheses by the significance of specific paths between latent constructs. The reliability of the measures by Cronbach's alpha. Univariate t-tests were used to test individual parameters in the proposed model and robust standard errors were used to form the test statistics because of their ability to protect against violations of the assumption of multivariate normality of the observed variables. The root mean square error of approximation (RMSEA), the χ^2 values, and the adjusted goodness of fit index (AGFI) were used to evaluate the overall fit of the

¹ Corresponding question: If you have used Muni during the past year, please grade the following: reliability, cleanliness, fares, safety, communication to passengers, and courtesy of drivers.

² Corresponding question: On average, how often have you used Muni (the City's transit service) during the past year?

³ Corresponding question: If you are responsible for balancing the City's budget, which services would you protect?

proposal model (Steiger 1990). The RMSEA, the overall fit of the proposed model, takes into account the error of approximation in the population and examines how well the model fits the population covariance matrix (Browne and Cudeck 1993). RMSEA values less than 0.05 indicate good fit, and values as high as 0.08 represent reasonable errors of approximation in the population. RMSEA values ranging from 0.08 to 0.10 indicate mediocre fit, and those greater than 0.10 indicate poor fit. For other tests of goodness-of-fit, the adjusted goodness of fit index (AGFI) adjusts for the number of degrees of freedom in the specified model. Its values range from 0 to 1.0, with values close to 1.0 being indicative of good fit. In the structural equation with latent variable analysis, the chi-square value is used as a badness-of-fit rather than a goodness-of-fit measure. A small χ^2 value is indicative of good fit, whereas a large χ^2 value reflects bad fit. However, the problem of the χ^2 values for model fit is that their power varies with the sample size. The statistical test will certainly be significant if the sample size is more than 1,024 observations. Thus, with large samples, we will always obtain a badness-of-fit test even if the model actually describes the data quite well.

Results

Table 1 presents information about the quality of measurement of the latent constructs in the model. As the standardized factor loadings in the table show, all the measured variables loaded on the latent constructs as expected. The Cronbach's alpha for the measured variables of the satisfaction latent construct was 0.925, which indicates that these indicators are highly reliable measures of the latent construct. We expected that the degree of citizen satisfaction with the Muni transit system in San Francisco would relate positively to the frequency of using public transportation; citizens who are more satisfied with public transportation would frequently use the City's transit service than those who are less satisfied. Unstandardized path coefficients of the proposed model were presented in Figure 2 and t-values were shown in Figure 3. As the path coefficient and t-value shown in Figure 2 and Figure 3, this path was significant and in the predicted direction. Therefore, H_1 was supported. We also expected that the degree of satisfaction (H_2) and frequency (H_3) would relate positively to attitudes toward service budget. The results shown in Figure 2 and Figure 3 indicate that the path coefficients for each of these paths were significant but only H_2 in the predicted direction. Thus, H_3 was supported but H_2 was not.

Table 1. Measurement Model Results

Constructs	Standardized Factor Loading	t-Value
<i>Public Transportation Service Satisfaction (0.925)</i>		
Reliability	0.76	40.63
Cleanliness	0.82	55.01
Fares	0.77	42.97
Safety	0.86	60.93
Communication to passengers	0.78	47.54
Courtesy of drivers	0.80	51.67
<i>Frequent Service Usage (Public Transportation)</i>		
Times of using the City's transit service	0.42	a
<i>Attitude toward Transportation Budget</i>		
Protect public transportation from budget cuts	0.86	a

Note: a = fixed during analysis, no t-values given. The Cronbach's alpha for the measured variables of the satisfaction, latent construct was 0.925. All loading values are significant at $p < .000$

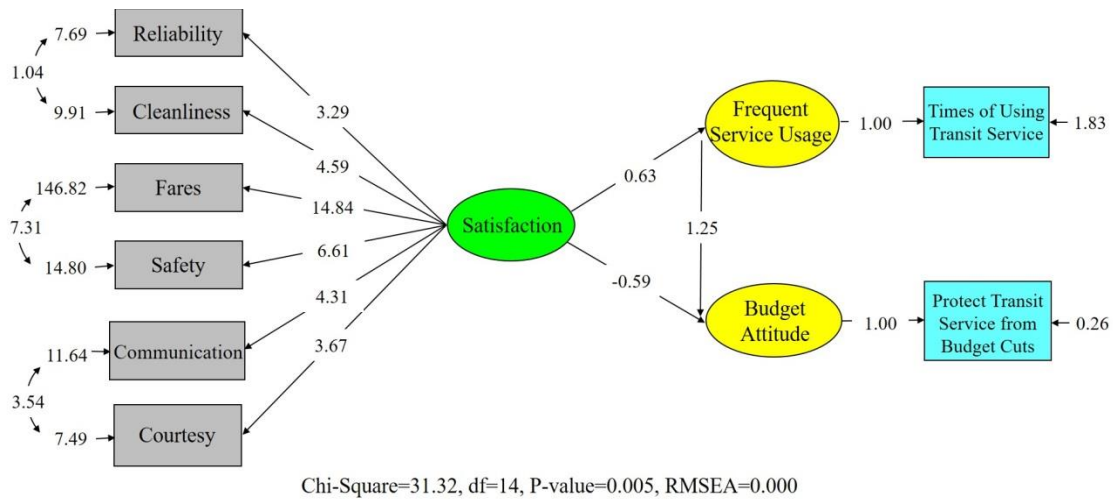


Figure 2. Causal Model Results (Path Coefficients are presented in the Figure)

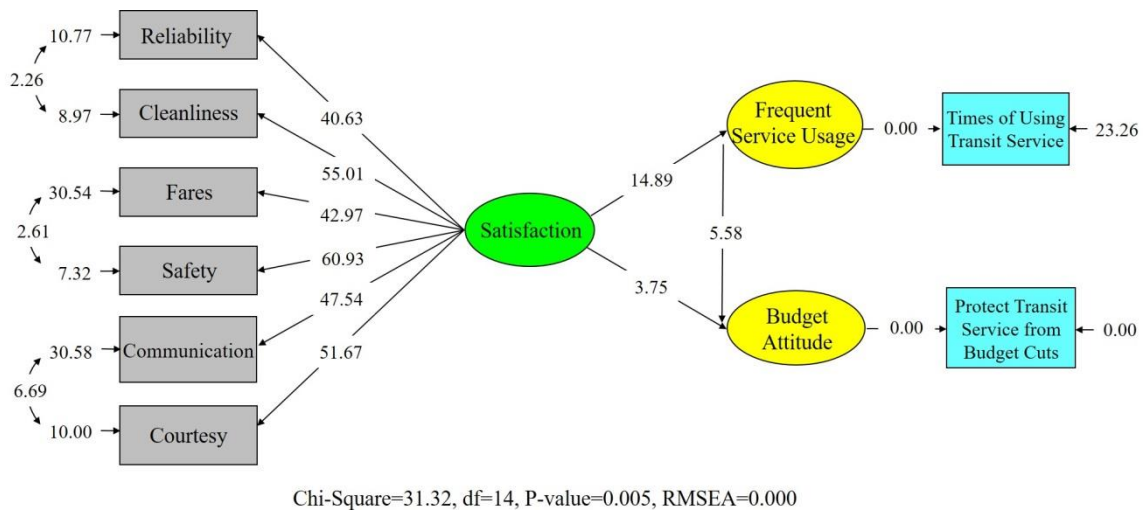


Figure 3. Causal Model Results (t-values are presented in the Figure)

Moreover, the frequency of using public services was assumed to be an intermediate variable and the results shown in Table 2 provide a test of the extent to which the effect of satisfaction with public transportation on attitudes toward service budget is mediated by the frequency of public transit usage (H_4). When a direct relationship between citizen satisfaction with public transportation service and their attitudes toward service budget support was considered in conjunction with a mediated relationship, there was a significantly direct effect of satisfaction on attitudes, as reported in Table 2.

Satisfaction with public transit appears to have an influence on attitudes toward service budget that is mediated by the frequency of service usage, as hypothesized, and a direct effect that is over and above this mediated influence. In this case, satisfaction had a negative effect directly (-0.592) and positive effect indirectly (0.791) on attitudes, and, as a result, the influence of satisfaction ended up to be a positive overall effect on attitudes (0.199). This result indicated that the frequency of public transit usage plays a decisive role in mediating the influence of satisfaction on attitudes by turning the negative effect of satisfaction on attitudes into the overall positive influence.

Table 2. Direct and Indirect Effects of Satisfaction and Frequency on Attitudes toward Service Budget

Relationships(Path)	Direct Effect	Indirect Effect	Total Effect
Service Satisfaction → Frequency Service Usage	0.634 (0.043)	No	0.634 (0.043)
Service Satisfaction → Budget Attitudes	-0.592 (0.158)	0.791 (0.158)	0.199 (0.033)
Frequency Service Usage → Budget Attitudes	1.248 (0.224)	No	1.248 (0.224)

Note: Standard errors are presented in the parentheses. All effects are significant at $P < 0.000$

As the fit indices reported in Figure 2, the proposed model fit the data extremely well in that the RMSEA was below 0.05, the chi-square “badness-of-fit” statistics was significant in the proposed model ($\chi^2 = 31.32, df = 14, p = 0.005, n = 1513$), and the AGFI was 0.998 (not shown in the figure).

Discussion and Conclusion

Scholars agree that exploring citizens’ intention is useful for local governments; however, in practice this approach has not been widespread because citizens face the complexity of budget system and lack interests in public budget and do not have a proper approach to represent what they think. Also, the complicated number and professional knowledge of public budget prevent citizens from reviewing the spending and revenue of governments (Rubin 2002). Moreover, the various roles of the public in governance process and the deficiency of participation mechanism prevent public officials from exploring citizens’ attitudes and intentions (Thomas 2012).

The results of this study provide new evidence regarding the relationships among satisfaction with public transportation, the frequency of public transit usage, and attitudes toward public transportation budget. Previous researches have shown, for example, that citizen satisfaction with public services is a significant predictor of the propensity of citizens to support public service budget. This study’s results, however, suggest that these relationships are not that simple. For some people, such as those who are more satisfied with public transportation but do not use it frequently, they are less likely to support public budget related to public transportation budget. For others, such as those who are also satisfied with public transportation and use it very often, they are more likely to protect public transportation from budget cuts. Thus, citizens’ perceived service performance is found to be not directly related to their intention of supporting service budget and only the frequency of service usage is able to bring a positive influence of satisfaction on attitudes toward selected budget.

The rational urban resident would consider self-interested as well as evaluate whether the service would benefit them. Often, citizens’ service budget attitudes arise more from material self-interest (Beck et al. 1987; Winter and Mouritzen 2001). Rather than emphasizing on the importance of citizen perceived perspectives to the support of a selected service budget, the demand and need sides of public services would dominate the consideration of supporting a selected service rather only their perceived perspectives. If citizens believe that the service budget would not be worth “more” or not bring the benefit that they expect, the public would be less willing to support service budget and governmental finance (Fjeldstad 2004).

Finally, the effect of satisfaction on budget attitudes is profound and not as intuitive as we thought. Initially, we ran the analysis without putting a frequency construct into the model and the results indicated that satisfaction has a positive effect on attitudes toward budget (the results are not shown in this study). After controlling a frequency construct, the direct effect of satisfaction on attitudes, at this point, became negative although the total effect of satisfaction was still positive (the results are reported in Table 2). It is worth noting that the influence of overall citizen satisfaction on the propensity of support for public budgeting is positive no matter whether we include the frequent usage of public service into the model. But only when we control a frequency construct in the model, satisfaction is just able to show its 'real' direct effect on budget attitudes. In this paper, we also have some important implications for the policy maker. The importance of these findings to public policy practices concentrates on the complex interplay of the determinants of attitudes toward public budget. This study focused on the influence of frequently using public service that has consistently been neglected in the field of citizen participation in the budget process. The results of this study depart from previous ones by demonstrating that frequently using public service is a decisive determinant of budget attitudes.

In addition, the finding also represents important information in practice. Public managers need to concern about citizen attitudes because citizen apathy is dangerous to policy implementation and trust in governments (Berner 2001). When citizens are not satisfied enough with governmental actions, they may be less politically energetic and less willing to participate in public affairs or to support public budgeting (Lutz and Wang 1987).

We have shown that satisfaction with the Muni transit system will increase the frequency of using this service, in turn predicting budget attitudes toward it. To the extent that people's perceptions about the performance of public transportation can be changed, this should have two influences on behavior. First, as people's satisfaction with the Muni transit system increases, the frequency that they will use public transportation would also increase. Second, increasing the frequency of citizens' public transportation usage should change their attitudes toward service budget. That is, as citizens begin to perceive the good performance of the Muni transit system, this should influence their behaviors using public transportation. Thus, satisfaction will have an influence on attitudes toward service budget through this indirect route.

Therefore, for those public consumption services, the implications are mainly related to what types of policies are constructed to make citizens more convenient and comfortable to use public transit. A wide-covered transportation rout network, for example, may increase the convenience and frequency that citizens use the City's public transit and then increase the likelihood that citizens support service budget of public transportation. On the other hand, convenient and comfortable institutional arrangements may also improve citizen satisfaction with public services.

In this study, we have attempted to provide a better understanding for the motivations underlying budget support. In doing so, we have drawn on theory and research in several domains, particularly on the area of perceived service performance. We have shown that citizen satisfaction and the frequency of using public services relate to citizens' attitudes toward budget in logical and predictable ways. Understanding these relations has important implications for understanding citizens' perceived service performance and attitudes toward public budgeting.

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