

Citizen satisfaction in the service delivery of city corporations in Bangladesh

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ABSTRACT

Citizen satisfaction in service delivery is an essential indicator in the governance mechanism involving the level of confidence that citizens have towards the local government institutions. The present study aims to find out the level of citizens' satisfaction with urban local government institutions, i.e., city corporations in Bangladesh. The study seeks to identify the factors that can explain the variations in citizens' satisfaction level in urban local government institutions. The study adopted a quantitative approach based on the survey data, which involved the opinions of 2,160 respondents from all 12 city corporations in the country. The study found that, first, citizens' level of satisfaction in city corporations is low. Second, the public responsiveness variable involving the speed and accuracy of city corporations in service delivery has the strongest overall effect on variations in citizens' satisfaction. Third, the service quality variables, along with the prior experience determinants involving timeliness and promptness in giving services, act as a determining variable affecting satisfaction in city corporations. The contribution of this study lies in its pointing out some new directions to better explain the level of citizen satisfaction towards city corporations in Bangladesh.

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1. INTRODUCTION

In developing countries like Bangladesh, the central government entrusts urban local government institutions with enhanced development roles to provide civic amenities to the local people, such as the provision of infrastructural facilities and various utilities and other services (Mujeri & Singh, 1997). Citizens' level of satisfaction with public services may vary according to their experience with public services. When individuals' experience is largely positive, citizens tend to be satisfied (Christensen & Laegreid, 2003). The more the priorities of the citizens are met, the more service satisfaction will take place, which not only confirms the legitimacy of the local government institutions but also their trustworthiness. This study focuses on evaluating citizens' satisfaction in the services provided by city corporations, the highest urban local government bodies in Bangladesh.

Public institutions such as city corporations in Bangladesh constitute the major local government bodies in urban areas. The nation is divided into two types of local government institutions: rural and urban local government institutions. There are two tiers of urban local government; municipalities and city corporations, where the city corporation is the highest tier. Perceiving the level of citizens' satisfaction with the services provided by city corporations is essential to strengthen the legitimacy and improve the performance of local government institutions. There are several reasons for both administrators and public administration scholars to seek a good overall measure of citizen satisfaction with local services (Ryzin, 2004). From the perspective of an administrator responsible for a local citizen survey, overall citizen satisfaction—that is, a question such as “Overall, how satisfied are you with the services of government?”—is often a key survey question that attracts a good deal of attention (Ryzin, 1996). From the perspective of public administration scholars, there should certainly be a keen interest in identifying a valid and reliable measure of overall citizen satisfaction (Ryzin, 2004). As part of citizen surveys, an overall measure of satisfaction is thought to reflect citizens' summative judgment about the performance of local government (Miller & Miller, 1991). Ryzin (2004) emphasizes the importance of determining overall citizen satisfaction regardless of the ambiguity of the concept, as citizens' experience with local government services is a reflection of satisfaction.

The importance of citizen satisfaction in the delivery of local services by the city corporations cannot be undermined in finding out the level of satisfaction with public institutions. Ensuring that local government institutions such as city corporations take into account the needs of the citizens bears great significance for satisfaction to take place in city corporations. In response to various public service reforms waving throughout the world, Bangladesh has not been far behind in improving the public service delivery to satisfy the needs of the people by making it faster, efficient, and responsive (Osman, 2016). It is stated that there is a moderate level of satisfaction among the service beneficiaries in the various local public institutions. Citizens do have contrasting experience of service satisfaction over the provisions of the public institutions at the local level in Bangladesh. Karim (2015) stated that regarding public services involving various online facilities such as education (examination results, application for admission, knowing necessary documents, fees, etc.), transportation facilities, payment of various utility services (such as gas, water, telephone), income tax payment, trade license, land records, etc. are now easily facilitated from home through the internet without being physically present at the local institution. However, there are dissatisfaction over time and steps involved in obtaining services, i.e. there is a gap between the formally prescribed time and the time actually taken to receive the services (Osman, 2016). It is expected that the higher the level of satisfaction of the beneficiaries, the more pleasant the experience will be for the citizens regarding the provision of the services of the local government institutions such as city corporations.

Better quality performance at the local government tiers should lead to satisfied citizens, which would generate a positive attitude towards the government (Mahmud, 2021). The more satisfaction citizens have in public institutions such as in city corporations and in the process of governance, the closer the relationship between the state and society will be. The Local Government (City Corporation) (Amended) Act 2011 aims to empower the institution to perform governance and service delivery functions effectively while keeping the local citizen at the center. High citizens' satisfaction with the services delivered by city corporations implies that citizens have positive expectations of the members of those organizations. Higher satisfaction assumes that public officials follow procedures following the rule of law, which will produce beneficial outcomes for governing institutions and society as well. Citizens' satisfaction with the services delivered fosters public support for the government to implement public policies and as public institutions such as city corporations implement various government policies, thus the need for citizen satisfaction in city corporations is evident.

To ensure a trustworthy relationship between local government bodies and local citizens, the service provided by the local government institutions must ensure citizens' satisfaction. The major objective of the research is to provide a statistical trend on citizens' satisfaction level with the services provided by all the twelve city corporations in the country. This study endeavors to find out what factors affect citizens' satisfaction with the city corporations.

2. CONCEPTUAL UNDERSTANDING

What municipal governments do, who does it, and with what resources varies by country and town (Akinboade, Kinfack, & Molwena, 2012). In countries following the British colonial legacy, such as Bangladesh, citizens tend to look at local government bodies as service delivery agencies to meet their needs. The role of local government bodies such as city corporations in Bangladesh is largely the delivery of basic services to the communities, and one of its challenges today is to provide effective and efficient service

delivery. For local government institutions to be effective, the service providers must show genuine care and concern for their citizens (Kim, 2005). Citizens in peripheral geographical positions must be satisfied with the functions of the local government institutions. This satisfaction can only sustain and help to improve the governance procedure when the basic services provided by institutions such as city corporations meet the ever-increasing expectations of citizens.

2.1 Public service satisfaction

Citizen expectations are at the center of studies of satisfaction (Akinboade, Kinfack, & Molwena, 2012). Although there is general agreement about the influence of citizen expectations on overall service quality and satisfaction, considerable work remains to be done regarding the exact way this process takes place (Coye, 2004). Satisfaction is defined by Ryzin (2006) as the “consumer’s or citizen’s summary judgment about the product or service”. Authors (Bitner, 1990; Bolton & Drew, 1991; Cronin & Taylor, 1992) believe that satisfaction is an emotional reaction, a transaction-specific measure. High levels of satisfaction may include positive and negative emotions (Arnould & Price, 1993). Orren (1997) contends, citing Putnam (2000), that public satisfaction with government is a function of both public expectation and perceptions of government performance (Welch, Hinnant & Moon, 2004). These authors opine that different factors involved in the perception and expectation dimensions jointly affect the level of public satisfaction with governmental performance (Akinboade, Mokwena & Kinfack, 2014). Satisfaction is perceived as a global citizen response in which citizens reflect on their pleasure level. Satisfaction is based on service delivery predictions or norms that depend on past experiences, driven by conceptual cues such as equity and regret (Akinboade, Mokwena & Kinfack, 2014).

Several scholarly studies over the years have focused on overall citizen satisfaction as a key dependent variable (DeHoog, Lowery & Lyons, 1990; Fitzgerald & Durant 1980; Kelly & Swindell, 2002; Ryzin, 2004). More importantly, efforts have been made to develop and test models that explain the basic processes citizens employ in forming their overall satisfaction judgments (DeHoog et al., 1990; Fitzgerald & Durant, 1980; Van Ryzin, 2004). These models generally attempt to examine how specific service evaluations and other potential determinants, such as the experience of citizens and their expectations along with public responsiveness, combine to influence overall satisfaction with local government services. For any field of research to make scientific progress, good measures must be available for the key theoretical constructs of interest (Ryzin, 2004). It would seem, therefore, that the scholarly study of citizen satisfaction with urban services would be well served by the development and testing of standardized measures of overall citizen satisfaction.

The performance of public institutions significantly relies on the standard of services they provide to citizens (Chatterjee & Suy, 2019). Cronin and Taylor (1992) discovered a causal relationship between service quality and citizen satisfaction. Following service encounters with public institutions, citizens may evaluate the level of satisfaction to show their perceived level of satisfaction with the service quality. Parasuraman et al. (1985) viewed service quality as the citizens’ perception of service excellence, that is, citizen’s impression of the service provided. It involves the citizen perception of the performance of public institutions. Empirical findings in the literature on service quality and satisfaction show that service quality is one of the antecedents of satisfaction (Cronin & Taylor, 1992). It involves the judgment or attitude relating to the overall excellence or superiority of the services (Parasuraman et al., 1988).

Rolle (2017) and Vigoda (2000) argued that citizens who view their local public institutions as responsive are satisfied with their work. They have also mentioned that satisfaction with the work of local public institutions is affected by perceived responsiveness. At the beginning of the 1990s, Robert Putnam et al. (1994) identified the responsiveness of public institutions as one of the main explanatory factors for satisfaction with local government performance. Public institutions that act responsively are rewarded with support and trust on behalf of the public (Linde & Peters, 2020). To ensure that citizens have a positive notion of the government, citizens’ expectations must be met, which focuses on satisfaction. Local government responsiveness allows for the improvement of the capacity of the public institutions and improves the accessibility of various public resources to people in neglected areas. If the responsiveness of the local government institutions, such as city corporations, is high, the citizen satisfaction with the institutions will also be on the upper scale, or vice-versa.

2.2 Hypothesis

Considering the performance and responsiveness of the city corporations and their relationship with satisfaction, it can be assumed that they correlate with each other. The performance factor involving service quality and the prior service experience acts as a catalyst in measuring the citizens’ perceived satisfaction

level (Akinboade, kinfack & Molwena, 2012). Orren (1997) identified a positive relationship between public satisfaction and the service quality of the provisions of the public institutions. Oliver (1997) opined that satisfaction is based on the past experiences of the citizens in public institutions. Based on the performance of the local public institutions, that is, the city corporation, two hypotheses can be formed:

Hypothesis 1: The better the service quality with the provisions by the city corporations, the higher the satisfaction level.

Hypothesis 2: The more the respondents perceive that their experience with the services and provisions with city corporations involves a positive notion, the higher the satisfaction level.

Vigoda (2000) identified that the perception of a public institution as responsive plays an important role in explaining satisfaction. The perception of the local government bodies such as city corporations as not responsive to the needs of the local citizens affects the citizens' satisfaction negatively with the whole institution. Public responsiveness of government agencies is a central concern of public administration, as it makes way for the provision of high-quality goods and services with minimum resources (Brewer & Seldon, 2000). If local government institutions such as city corporations fail to perform well in ensuring the expected quality of services for the citizens, perceived public responsiveness can be on a lower scale, which in turn would affect negatively the level of citizen satisfaction with city corporations. Based on the responsiveness of the local public institutions, i.e., city corporations, and citizen satisfaction, the following hypothesis is formed:

Hypothesis 3: The more respondents perceive that city corporation is responsive in the provision of goods and services, the greater the satisfaction.

3. METHODOLOGY

As mentioned above, Bangladesh has twelve (12) city corporations and the study explains a particular phenomenon, i.e. citizens' satisfaction based on the performance and responsiveness aspect from all twelve of them. Through the statistical analysis, the study explores what variables or factors affect the citizens' satisfaction, which would help to demonstrate that two or more variables are related. This study is based on a countrywide face-to-face questionnaire survey from the city corporations. The main research objective of the study was to measure the level of citizens' satisfaction with the services provided by all the city corporations in Bangladesh. A quantitative technique was used in order to reach the goal, based on the opinions of respondents who received services directly from city corporations. The study's quantitative approach enabled it to perceive the level of satisfaction through a numerical description of the respondents' opinions. In reality, this study seeks to obtain a statistical generalization of respondents' views and opinions regarding the delivery of services at city corporations; consequently, the study concentrated on four important departments within city corporations: revenue, health, town planning/engineering, and waste management.

3.1 Target population and sampling

There were 2,160 respondents whose demographic profiles were based on gender, age, education, and occupation (shown in descriptive statistics). Despite efforts to obtain a representative sample, the sample may be biased towards men with higher education and occupations. Due to the patriarchal culture of Bangladesh, compared with females, male participants tend to take charge of outside issues more and thus, have greater access to local public institutions (Cain, Khanam & Nahar, 1979). The majority of the respondents range from those who have completed their secondary school to higher-level education (university level). This shows a quite high literacy rate among service seekers as the overall literacy rate (70%) is quite high in Bangladesh. The study stratified respondents into different categories. Stratification makes way for improving the representativeness of the study samples (Mahmud, 2021). When the distribution of certain characteristics is done through stratification, the research tries to ensure that the statistical logical procedures incorporate the views of various stakeholders (Malhorta et al., 2006). The present study categorized the population into six categories or strata. These are NGO service recipients, socially important citizens (landlords and leaseholders of markets and land), political volunteers/activists, business-owners (mainly traders and construction contractors), specialized occupational groups (such as doctors, lawyers, engineers, and teachers), and manual workers (both skilled and unskilled) such as day laborers, as well as vehicle and mechanical operators.

As with prior research (e.g., Mahmud, 2021), this study also used proportional stratified purposive sampling (the proportion of the population in each strata is the same, and respondents are then randomly selected from each group) since each of the six strata contains an equal number of respondents. An equal proportion of

respondents from the six groups or strata were taken, where thirty respondents from each stratum were randomly selected from 12 city corporations; thus, a total of 2,160 respondents (6 categories x 30 respondents x 12 city corporations = 2,160) were randomly selected.

Table 1: Sampling details and the reasons for the selection of respondents

Unit of Observation	City corporation Offices
Respondents /Stratification	NGO service recipients; socially important people; businessmen; political activists; specialized occupational people; manual workers. Six (6) strata
Sampling Size	2,160 (30 respondents x 6 strata x 12 city corporations) ¹
Sampling Design	Single-stage- Sampling directly carried out in the city corporations
Sample Selection Process	Proportional Stratified Random Sampling (PSRS)
Reason for sample selection	The proportion for every stratum is equal to that of the population and is random as the random selection allows for more accurate generalization from a sample

Note 1. Each stratum, that is, having equal sampling fraction/respondents

Primary data from the survey were collected through close-ended questionnaires on 4-point Likert- scale, for example, from ‘*not at all satisfied*’ to ‘*highly satisfied*’. The data were collected at a specific point in time and then refined using IBM SPSS 26.0 software. For the dependent and independent variables, descriptive analysis was used, which included multivariate frequency distributions. Multiple regression analysis was applied to understand the magnitude of the explanatory variables. Harman single factor score test was used to identify instances of common method bias (CMB).

3.2 Measures

Dependent variable (citizens’ satisfaction in the services provided by city corporations): Overall citizen satisfaction can be defined as a citizen’s summative assessment of the performance of his or her local government institution, i.e., city corporations, in terms of the quality of basic local services provided. With this definition in mind, this study tested and compared measures of overall citizen satisfaction using single-item measures. The single-item measure inquires into the respondent’s satisfaction with the services provided by city corporations. The response format is as follows: ‘*very dissatisfied (1)*’ to ‘*very satisfied (4)*’. This question is similar to those used in several previous studies, including Lyons et al. (1992) and Van Ryzin et al (2004). The satisfaction question serves as a component of the American Customer Satisfaction Index (ACSI) scale which is widely used as a measure of overall customer satisfaction (Ryzin, 2004). The study measures the level of satisfaction based on the mean or the average value of the citizens’ responses to a single item construct in the survey. The mean value simply maps or presents the level of citizens’ perception of the city corporations based upon the answer to the question: “*To what extent the citizens are overall satisfied with the services provided by the city corporation?*” on a four-point scale; the responses are ‘*highly satisfied*’ (coded as 4), ‘*moderately satisfied*’ (coded as 3), ‘*lowly satisfied*’ (coded as 2) and ‘*not at all satisfied*’ (coded as 1). Table 2 describes each measure and provides the question wording and response format for each scale.

Independent Variables: Based on the performance approach and public responsiveness of service satisfaction, the study developed three (3) independent variables.

First, the variable service quality was chosen to find its effect on citizens’ satisfaction. It is difficult to come to a consensus as to a definition of service quality, but it can be concluded from the perspectives of different scholars that it involves something intangible that satisfies a citizen and, preferably, provides a certain value to that citizen (Bryslund & Curry, 2001). The idea of excellent service quality implies that every citizen is important and that all expectations should be met or exceeded depending upon citizens’ reasonable expectations. Citizens typically assess service quality by comparing the service they have actually experienced with the service they desire or expect, which is their expected service quality (Donnelly et al.,

2001). The study chose four main basic services provided by the city corporations to find their service quality. The services are as follows: i) infrastructural services (roads, bridges, etc.); ii) waste management (disposal of wastes, road cleaning, etc.); iii) revenue services (fixation of annual holding taxes, allotment of holding numbers, and shops in municipal markets; issuing of trade licenses, etc.); and iv) transportation services (providing the license to the new vehicle, renewal of the license, ensuring only fit and licensed vehicles to be on the road, repairing old vehicles).

Second, the prior experience of respondents on two items were chosen to find its effect on citizens' satisfaction. The two items include: i) timeliness and promptness of the city corporation in giving the services; and ii) cost-effectiveness in the provision of various goods and services to the people.

Third, the attitude of the public involving the responsiveness of city corporations was examined based on Thomas and Palfrey's (1996) theoretical conception involving directly to the 'accuracy' and 'speed' of public organization reaction to citizens' demands. Speed can be referred to as the waiting time between citizens' requests for action and the reply to that by the public agency (Vigoda & Yuval, 2003). Whereas accuracy refers to what extent government organizations respond to the needs or wishes of the citizens' taking into account the equity, equal opportunities, and fair distribution of public goods (Rourke, 1992; Stewart & Ranson, 1994). The study used three (3) experimental responses appraising the speed and accuracy of public services provided to the citizens by city corporations. The experimental responses were: 1) 'your city corporation responds to public requests quickly during your need'; 2) 'your city corporation is sensitive to your opinion and making a sincere effort to support residents who need help' and 3) 'your city corporation treats local citizens properly, concisely, and within a reasonable period'. Response 1 and 3 involve the 'speed' category and Response 2 involves 'accuracy' of public organization reaction to citizens' demands. This study used a four-point Likert scale for every response with 1= strongly disagree, 2= disagree, 3= agree, 4= strongly agree to measure the variable.

Table 2: Dependent and independent variable measures

Dependent variable: <i>Citizens' Satisfaction</i>		
Meaning/Components:	Question asked to respondents:	Measurements:
Meeting the normative expectation of the citizens in the goods and services provided by the city corporations	"To what extent you are satisfied with the overall services provided by the city corporation?"	Respondents were asked to answer on a scale ranging from: "Not at all satisfied" (1) to "Highly satisfied" (4).
Independent variable 1: <i>Service Quality</i>		
Meaning/Components:	Question asked to respondents:	Measurements:
Citizens' perception and expectations of service quality to highlight the current performance level	"How would you rate the current quality of following services of the city corporation compared with your past expectations?": <ul style="list-style-type: none"> • Infrastructural services • Waste management • Revenue services • Transportation services 	Respondents were asked to answer on a scale ranging from: "Very low" (1) to "very high"(4).
Independent variable 2: <i>Prior Experience</i>		
Meaning/Components:	Question asked to respondents:	Measurements:
Assessment of different service features by the citizens based on their actual experience	"How would you rate their experience of the following services of the city corporation?": <ul style="list-style-type: none"> • Timeliness and promptness • Cost-effectiveness 	Respondents were asked to answer on a scale ranging from: "very poor" (1) to "very good" (4).

Table 2: Dependent and independent variable measures (Cont'd)

Independent variable 3: Responsiveness		
Meaning/Components	Question asked to respondents:	Measurements:
Speed Accuracy	<p>“Your city corporation responds to public requests quickly during your need”;</p> <p>“Your city corporation treats local citizens properly, concisely, and within a reasonable period”;</p> <p>“Your city corporation is sensitive to your opinion and making a sincere effort to support residents who need help”</p>	<p>Respondents were asked to answer on a scale ranging from: “strongly disagree” (1) to “strongly agree” (4).</p>

4. FINDINGS

4.1 Dependent variable: citizen satisfaction in city corporations

Table 3 briefly shows that the satisfaction value from all the city corporations is 2.44. This suggests that the mean value is on the lower scale, indicating the presence of low citizen satisfaction in the city corporations.

Table 3: Descriptive statistics for citizen satisfaction in city corporations

		Mean (S. D.)
		City Corporations
Satisfaction Value	Citizen satisfaction	2.44 (0.534)
Valid N		300

Note. Minimum value (1) and Maximum value (4)

Table 4 shows that 56% of the respondents have low satisfaction, while 44% of the respondents portray high satisfaction (adding *not at all satisfied* and *lowly satisfied*) in the city corporations. The majority of the respondents do not feel that the city corporation provides a flexible service to meet their individual needs.

Table 4: Citizen satisfaction in city corporations (percentile distribution)

Category	City Corporations
High Satisfaction	44 %
low Satisfaction	56 %
Total Percentage	100 %

Note 1. Low satisfaction = Low satisfaction [Not at all satisfied (1) and lowly satisfied (2)]

Note 2. High Satisfaction = High satisfaction [Moderately satisfied (3) and highly satisfied (4)]

Note 3. The satisfaction are rounded up

4.2 Descriptive statistics on independent variables

Descriptive statistics, that is, the mean or the average value of the responses involving the index of the independent or explanatory variables and their indicators, have been presented in Table 5. The values presented, that is, the index involves the total number of answers for each value or measure as well as the combined average for all the independent variable indicators.

Table 5: Descriptive statistics for the indicators of the independent variables

Independent Variables	Frequency (n)	Percentage (%)	Mean (S.D.)
Gender			
Male	1555	72	
Female	605	28	
Age			
18-30	281	13	
31-40	799	37	
41-50	734	34	
51-60	259	12	
61 and above	87	04	
Education			
Illiterate	21	01	
Literate	108	05	
Primary School (Class 1-5)	44	02	
High School (Class 1-8)	194	09	
Secondary School Certificate (Class 1-10)	389	18	
Higher Secondary Certificate (Class 1-12)	540	25	
University (Hons. /Ms)	713	33	
Higher Education (post-graduation/Ph.D.)	151	07	
Occupation			
Professionals-lawyers, doctors, engineers	360	16.67	
Political Activists Volunteers	360	16.67	
Manual Worker (Skilled and Unskilled)	360	16.67	
Self-employed/Businessman	360	16.67	
Socially Important people: retired; landlord; leaseholder	360	16.67	
NGO personnel	360	16.67	
Independent Variable 1: Service Quality			
a. Waste Management Services			2. 69 (0. 850)
b. Transportation Services			2. 35 (0. 889)
c. Infrastructural Services			2. 32 (0. 957)
d. Revenue Services			2. 29 (0. 964)
Overall service quality index (low-high)			2. 41 (0. 387)
Independent Variable 2: Prior Experience			
a. Timeliness and Promptness			2. 49 (0. 941)
b. Cost-Effectiveness			2. 24 (0. 937)
Overall Experience index (poor - good)			2. 37 (0. 706)
Independent Variable 3: Responsiveness			
a. Speed			2. 15 (0.715)
b. Accuracy			2. 28 (0.813)
Overall responsiveness index (low-high)			2. 22 (0.758)

Note. Minimum value (1) and Maximum value (4)

4.2.1 Service quality variables

Descriptive statistics show that the overall index for service quality variables for the city corporations has a score of 2.41; thus, the mean value is below average, which indicates that the majority of the respondents perceive the services of the city corporations as having low quality. The highest quality lies in the waste management services provided by the city corporations, with the quality index at 2.69. The quality index regarding various transportation services provided by the city corporations with an index score of 2.35. The quality index regarding various infrastructural services provided by the city corporations with the index at 2.32. Service quality is least regarding revenue services provided by the city corporations with the index at

2.29. Overall, respondents do not hold positive feelings about the quality of various basic services provided by the city corporations.

4.2.2 Prior experience variables

The overall service experience for the city corporations has an index of 2.37 which portrays that the majority of respondents consider the city corporations to facilitate poor experience in various service provisions. The perception level of the prior experience shows that there is a substantial absence of cost-effectiveness and timeliness and promptness in providing various services by the city corporations. Timeliness and promptness indicator has a score of 2.49, which indicates that time or the duration required to complete the procedure of the whole service delivery by the city corporations is quite poor. The cost-effectiveness index has a mean value of 2.24 portraying that the cost of giving services to the citizens is not at all justifiable for the citizens.

4.2.3 Responsiveness variables

The overall public responsiveness perception index is 2.22. This suggests that the mean value is on the lower scale indicating that the respondents had a negative view about their city corporations' responsiveness, which indicates that the urban local government agencies are not performing well. The two indicators separately, speed and accuracy, also portray a similar result of low public responsiveness. The perception of respondents shows that the speed indicator has a score of 2.15, which is the lowest of all.

4.3 Regression Analysis

Regression analysis answers the research questions and examines the relationship between explanatory variables and citizen satisfaction in the city corporations.

Table 6: Regression analysis of all the independent variables affecting citizens' satisfaction in city corporations.

	Citizen satisfaction (Standardized Coefficient) Combined Model
Service quality with various provisions:	
a. Infrastructural services	0.533***
b. Transportation services	0.189***
c. Revenue services	0.081**
d. Waste management services	0.055**
Prior experience in:	
a. Timeliness and promptness	0.127***
b. Cost-effectiveness	0.075**
Public responsiveness in:	
a. Speed	0.537***
b. Accuracy	0.437***
N	2160
Constant	2.431
Adjusted R²	0.303

Note. * $P < 0.10$, ** $P < 0.005$, *** $P < 0.001$

The combined model, including all explanatory variables, explains 30.3% (Adjusted R² of 0.303) variations in citizens' satisfaction in the city corporations. Table 6 shows the regression analysis of all the independent variables affecting citizens' satisfaction in city corporations.

Concerning the service quality variables, the combined model shows that the infrastructural services have the strongest significant effect, beta coefficient (β) of **0.533** ($p < 0.001$), on citizen satisfaction in the city corporations. The transportation, revenue, and waste management service- all have a positive statistically

significant effect on the level of service satisfaction, beta coefficient (β) of **0.189** ($p < 0.001$); (β) of **0.081** ($p < 0.005$); (β) of **0.055** ($p < 0.005$) respectively, in the city corporations.

Regarding the prior experience variables, both timelines and promptness and cost-effectiveness, have a positive statistically significant effect on the level of service satisfaction, beta coefficient (β) of **0.127** ($p < 0.001$) and (β) of **0.075** ($p < 0.005$) respectively, in the city corporations. The public responsiveness determinants involving speed and accuracy reflect a strong statistically significant positive effect, beta coefficient (β) of **0.537** ($p < 0.001$) and (β) of **0.437** ($p < 0.001$) respectively, on citizen satisfaction in the city corporations.

5. DISCUSSION

The study expected significant effects of service quality in influencing citizen satisfaction, which was found. According to Van Ryzin (2004), the urban governments' performance concerning the quality of basic services affects citizen satisfaction. Infrastructural development is concerned with the building and maintenance of rural roads, bridges, and culverts which have huge impacts in uplifting the quality of life of citizens. Over the last three to four years no significant improvement in the road maintenance and construction of new roads have been initiated in urban areas (Asian Development Bank, 2014). There is no denying that infrastructural development is an important indicator for citizens to explore the predictive ability in explaining low citizens' satisfaction in city corporations. The transportation facilities have failed to meet the expectations of the respondents. Although new vehicles having the facilities of Compressed Natural Gas (CNG) has come up in the urban area, but the old and unfit old three-wheelers which are run through batteries still leads to constant accidents in urban areas due to its inability to carry the huge load of the people. There is no bus service in all the city corporations, except in Dhaka and Chittagong city, as a mode of public transport which would have reduced the number of small vehicles with enhanced modern traffic system. The revenue service has utterly failed to ensure satisfaction. The holding tax has been increased without prior consultation with stakeholders in return for no real services being provided to owners of lands and buildings in all the city corporations. Impartiality and neutrality have been questioned in terms of assessment of tax, where citizens perceive that the city corporations maintain the patron-client relationship in providing services (Zafarullah & Huque, 2001).

With regards to prior experience of citizens on services of city corporations, findings demonstrate that timelines, promptness, and cost-effectiveness, have a significant level of positive impact on citizens' satisfaction. The finding shows that the timeliness and promptness of city corporations in providing services has not been up to the standards, which have been reflected on the satisfaction level. Local government institutions in Bangladesh reflect strong uncertainty avoidance organizational culture involving adherence to strict rules and regulations with public personnel not ready to take the risk in proving any services which are not in their jurisdiction or to take any decision and depending upon the head of the institution to take all the decisions (Haque & Mohammad, 2013). The culture of local government institutions involving city corporations is coiled by rigid codes and procedures questioning its effectiveness. From a human resource perspective, competency involving the ability and skill of the personnel involved in the provision of services and from the organizational level failed to meet the desired satisfaction level. City corporations are involved in the provision of various goods and services to the people, and the cost of giving services must be a balanced one, that is, the cost is expected to be reasonable for the citizens. However, compared with the rise in taxes on various infrastructural development, the city corporations have had a futile impact on the desired services to people involving the various utility services.

Concerning the public responsiveness in influencing citizens' satisfaction, the study expected to find a positive relationship. The finding shows that respondents reported that the city corporations have failed to provide services with their desired speed and accuracy leading to low responsiveness and asserting the lower satisfaction level. The findings reveal that public responsiveness acts as an explanatory factor in influencing citizens' satisfaction in city corporations. Studies such as Putnam et al. (1994), Vigoda (2000), and Rolle (2017) prove the relevance of the current study's case involving strong significant correlations between responsiveness and satisfaction with public institutions. Scholars found a significant impact of responsiveness in generating satisfaction in public institutions. Thus, with lower citizen satisfaction in the city corporations, the relation between low responsiveness and low citizen satisfaction may seem valid.

6. CONCLUSION

This study examined the factors affecting the level of citizen satisfaction with service delivery of all the city corporations in Bangladesh. The public responsiveness factors involving speed and accuracy with which city

corporations are providing services to the respondents best explain the finding of the study on citizen satisfaction. The finding is very much consistent with the study conducted by Rolle (2017), where responsiveness is directly related to citizen satisfaction. Regarding the performance approach involving city corporations' service quality and prior experience of citizens with service provisions, both the determinants demonstrate a significant effect on the satisfaction level.

One of the limitations of the study was that data collection involved in Bangladeshi setting which is different from other Asian or European settings. The result might have been affected by cultural and structural factors unique to Bangladesh. Such as the Bangladeshi local government or public institutions is markedly distinct from the neighboring country like India, let alone Europe. It is more conservative and centralized, and for many years it faced problems of being a hybrid democracy which paves way for future research in different settings. This study involves a quantitative approach thus one of the limitation of the study involves not conducting interview with city corporation officials. Despite the limitations, the findings of this study have demonstrated the usefulness of examining three determinants as the antecedent of citizen satisfaction in local government institutions. In this study, three broader variables have been used and they may be replaced with other variables which would reflect more reliable and valid measures required for comprehending the causes of citizen satisfaction. The contribution of this study lies in its pointing some new directions to better explain the citizen satisfaction towards public institutions.

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