Dedicated to the Father of the Nation Bangabandhu Sheikh Mujibur Rahman

BARISHAL UNIVERSITY JOURNAL OF SOCIAL SCIENCES

Volume - 1, Issue - 1, 2020

মুজিব শতবর্ষ MUJIB 100

ভানই শক্তি

পরিশাল বিশ্ববিদ্যালয়

FACULTY OF SOCIAL SCIENCES
UNIVERSITY OF BARISHAL

CONTENTS

PUBLIC RESPONSIVENESS OF GOVERNMENT ORGANIZATIONS DURING COVID-19 PANDEMIC IN BANGLADESH

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Abstract

Every democratic government should be responsive to the needs of the people, especially during crisis situations. Very few researches have been empirically tested in the South Asian region to find out the level of public responsiveness of government organizations along with the quest for factors affecting the level of public responsiveness. This research attempts to provide an empirical assessment in explaining the level of public responsiveness of government organizations in Bangladesh considering the requirements and demands of the citizens during the COVID-19 pandemic. Participants in the research were 502 Bangladeshi citizens who reported their attitudes and perceptions on the activities of local administration, police, and public hospitals during this pandemic. Findings reveal that factors such as organizational performance, citizens' acceptance of innovative and creative actions of the government, and government impartiality in the exercise of authority contribute most in explaining the low public responsiveness during this COVID-19 pandemic in Bangladesh. Despite some limitations, the study has developed the perspective of citizen-oriented public organizations during a pandemic for explaining public responsiveness.

Keywords

Bangladesh; COVID-19; public responsiveness; organizational performance; impartiality; innovation.

Introduction

Governments across the world are facing severe challenges in responding to the threat of COVID-19 disease (Christensen & Lægreid, 2020). With the outbreak of novel coronavirus-2 (nCoV-2) declared a pandemic and an international public health emergency by the World Health Organization (WHO), the entire world is working to address it (Anwar, Nasrullah & Hosen, 2020). The observations of recent measures to face the challenge of the pandemic highlight the role of governments and their policies. Therefore, it is essential to look at the perceived responsiveness on actions of government organizations during the pandemic as people highly rely on public institutions for services and help to deal with the pandemic.

Despite its conceptual ambiguities and theoretical controversies, responsiveness is an important value for government organizations (Bryer, 2007; Rourke, 1992; Saltzstein, 1992; Stivers, 1994). However, the operationalization of responsiveness involving forms of responsiveness, the preferable targets of responsiveness, or the best way to achieve responsiveness is yet to achieve any consensus (Yang & Pandey, 2007, p. 215). Governments that act responsively are rewarded with support and trust on behalf of the public (Linde & Peters 2020, p. 2).

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Unfortunately, as a fundamental aspect of government performance (Fried, 1976; Glaser & Denhardt, 2000), responsiveness is rarely considered in current government performance measurement efforts and only a few public administration studies have empirically assessed the factors that determine government organizations' public responsiveness (Yang & Pandey, 2007). To ensure that citizens have a positive notion of the government citizens' expectations must be met, which focuses on performance. Fulfilling the needs of citizens would make way for ensuring the public responsiveness of the government. Government responsiveness allows for the improvement of the capacity of public administrators at the central and rural level and improves the accessibility of various public resources to people in neglected areas.

We selected Bangladesh as a case because for a developing country like Bangladesh achieving good governance having values such as transparency, accountability, and responsiveness is a major challenge (Huque, 2015). The government in Bangladesh is facing a tough challenge during this COVID-19 pandemic in implementing orders like social distancing as many people are not voluntarily complying with the order as they are disabled with lower income, inadequate resources to meet their basic needs, and inconsistent information about the pandemic and government measures (Anwar et al., 2020). Bangladesh is not new to disaster or major humanitarian crises. The Coronavirus pandemic has a significant likelihood of leading to a long and severe recession. Planning and preparing for the unexpected and unknown, dealing with uncertainty and ambiguity, tackling urgent issues, and responding to citizens' demands and expectations are crucial and difficult tasks for the public authorities (Christensen & Lægreid, 2020). In this unprecedented public health and economic challenge, it is important to perceive the level of responsiveness of the government in terms of socio-economic, range of health-related interventions, and service provisions. Considering the harsh reality of COVID-19, the question of how governments fulfill their role, and how benevolent they are to citizens' needs remain vague. Do the government or the public organizations working hard in efficiently using the resources of the country and the public money? What do citizens perceive of the quality and quantity of services they receive from government organizations? Answers to these questions may explain how citizens evaluate the responsiveness of public organizations.

This study tries to find out the perceived level of public responsiveness of the government organizations of Bangladesh during the COVID-19 pandemic. The study also tries to explore and perceive the factors that contribute most to explaining the public responsiveness of government organizations. It is important to recognize that governance has to go beyond the traditional bureaucratic attitude and embrace the values of performance, innovations, equality, and responsiveness. The research highlights citizens' behavioral perception by shedding light on understanding public sector operations and the extent to which public organizations are aware of public needs during this pandemic in Bangladesh. This research tested various hypotheses with the survey data from citizens and investigated the variables that contribute most to explaining the level of responsiveness of the public institutions during this COVID-19 pandemic in Bangladesh.

Research questions

- Does organizational performance of public agencies affect the level of public responsiveness during the COVID-19 pandemic?
- Do innovative and creative initiatives of government organizations affect the level of public responsiveness during the COVID-19 pandemic?
- Does impartiality in the provision of goods and services affect the level of public responsiveness during the COVID-19 pandemic?

Research objectives

- To measure the perceived level of public responsiveness of the government organizations of Bangladesh during the COVID-19 pandemic.
- To find out factors that explain the public responsiveness of the government organizations of Bangladesh during the COVID-19 pandemic.

Literature Review

Government responsiveness or responsiveness to the public at large reflects 'the capacity to satisfy the preferences of citizens' (Ostrom, 1975:275). Public responsiveness can be explained using three explanatory approaches: performance of public organization, innovation and creativity, and impartial exercise of the authority of public organizations (Vigoda, 2000; Vigoda & Yuval, 2003, and Saltzstein, 1992). Public organizations need to be perceived as reactive, sympathetic, competent, and benevolent of the public needs. It is vital to formulate a systematic approach to understanding the relationship between service recipients and service deliverers to ensure collaborative and pragmatic communication with the public. Scholars and practitioners have agreed that opinions of service receivers need to be taken seriously by policymakers or service deliverers (Palfrey et al., 1992; Winkler, 1987; National Consumer Council, 1986; DHSS, 1979, as cited in Vigoda, 2000).

Thomas and Palfrey (1996) stated that citizens must be involved in the evaluation of the performance of public institutions as citizens are the beneficiaries of public sector operations. Vigoda (2000) addressed that perception of public responsiveness depends on the performance of public organizations according to the needs and demands of the citizens. Performance in public organizations contributes to a better quality of functionality and enhances the accountability of public organizations (Cheong & Kim, 2017). Studies have elaborated on the importance of creating an efficient, skillful, professional, and committed public service to assist the government in its functioning (Staats, 1988; Hart & Grant, 1989; Holzer, 1989; Holzer & Rabin, 1987). Improving the performance 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). During this pandemic, citizens of developing countries such as Bangladesh need better services from public institutions as the role and amplitude of the public services increase in any crisis. The bureaucratic performance involves a comprehensive, distinctive, reliable, and continuous assessment of citizens' satisfaction from

governmental operation in various fields (Vigoda & Yuval, 2003). If the performance of the government institutions is high, the responsiveness of government organizations would also be on the upper scale or vice-versa. Citizens can make a better perception of public organizations' performance by analyzing the public administrator's activity as well as responsiveness.

Chun and Rainey (2005) emphasize citizen service orientation involving meeting the expectations and following on citizens' feedback in measuring public organizations' performance which can be used in perceiving the public responsiveness. Pandemics or crises demand the fast and effective whole of government responses which can be established through political will and public organizations' involvement through efficient skills and professionalism. The street-level bureaucrats are generally those who directly confront the public and need to provide immediate answers and they must portray service-orientation, professionalism, knowledge, patience, and understanding of the citizens' changing needs (Vigoda, 2000). Professional and skilled public servants would cause citizens to feel more comfortable and have less stress. During pandemic and crisis like COVID-19 passionate and empathetic public officials make way for a positive perception of government responsiveness as a performance measure. If government agencies fail to perform well in ensuring the expected quality of services for the citizens, perceived public responsiveness can be on a lower scale. Thus the hypothesis which we can draw regarding the perception of the performance of government organizations and public responsiveness is;

Hypthesis 1: The perception of citizens on the performance of public agencies is positively correlated with the public responsiveness of government organizations during this COVID-19 pandemic.

Government responsiveness to citizens' preferences is fundamental to most conceptions of democracy (Lijphart, 1984; Dahl, 1967). Over the last three decades, it has been advocated to place citizens' interests at high priority as a measure of public responsiveness of government (Paarlberg, 2007). During this COVID-19, citizens especially those of developing countries like Bangladesh look up to initiatives of the public institutions to prevent and mitigate the disease. The role of government in public service provision is expected to be proactive and prioritize their preferences and to satisfy their expectations and demands (Gofen, 2013). The government needs to bring about innovative and new ideas to serve the people during this pandemic. Bryer (2007) proposed entrepreneurial actions of government to citizens as a measure of public responsiveness where acceptance of the actions must equate to the demands of the public preferences (Yang & Pandey, 2007). The COVID-19 pandemic poses an acute threat to the basic structure of the public service delivery system. The government has to initiate alternative means of entrepreneurial role in the production and delivery of public services especially in the distribution and redistribution of economic resources.

Innovation and creativity serve as an essential engine for public sector organizations that seek to perform better (Vigoda & Yuval, 2003). Public responsiveness can be built upon citizens'

perception that government organizations are doing their best by the creation of new opportunities in the arrangement of public service provision during this crisis. If the public agencies lack the entrepreneurship in meeting the desired needs of citizens, the level of public responsiveness would be nominal. The situation in Bangladesh is rapidly evolving, and it is comparable with many other countries, e.g., France, Japan, which have lately seen a devastating impact from the virus (Dong et al., 2020). This is causing fear and anxiety about the pandemic leading to overwhelming stress for everyone. It can be suggested that citizens' may make good judgments at rating their preferences based on the services given by the public organizations (Swindell & Kelly, 2000; Andrews & Van de Walle, 2013). When citizens decide to embrace innovative and newly introduced service provisions, it can create a positive perception in building public responsiveness of government organizations. Failing to ensure the acceptance of the innovations and creativity can imply lower levels of public responsiveness of government agencies. During this pandemic, citizens can be influenced by the entrepreneurial role and operations of the government which would aggregately affect public responsiveness of public institutions. Thus based on the discussion above, the hypothesis which the study draws is;

Hypothesis 2*: Citizens' acceptance of innovative and creative initiatives of government organizations are expected to have a positive correlation with public responsiveness during the COVID-19 pandemic.*

Issues such as administrative ethics and fairness have witnessed a growing interest among various scholars (Gawthrop, 1976; Wilenski, 1980; Richardson & Nigro, 1991; Suzuki, 1995; DeLeon, 1996; Lui & Cooper, 1997, cited in Vigoda & Yuval, 2003). During this pandemic, citizens look for proper management and redistribution of economic resources both from political personnel and government officials. Public responsiveness is frequently assessed involving standards like integrity and equity (Saltzstein, 1992). Khan (2013) stated that corruption has been institutionalized in the public services in Bangladesh involving favoritism, kinship, regional empathy, patronage, bribery, abuse of authority, etc. In Bangladesh, about 21.8 percent of the total population lives below the national poverty line (ADB, 2018), a country of about 162.7 million people (BBS, 2018). A huge number of people need financial and food assistance during this pandemic. Citizens' preferences and needs can be met when public agencies are not involved in discrimination patronage, and undue interest to special interest or political groups. High public responsiveness of government organizations occurs due to the presence of quality of government involving the impartial exercise of public power by institutions.

Rothstein emphasized procedural fairness, with emphasis upon impartiality (2011) when implementing public policies. Impartiality is defined as the 'condition where the officials do not take into consideration anything about the citizen…not stipulated beforehand in the policy of the law' (2011, p. 13). When public policies neglect the basic justice, fairness, and equal treatment of the public, citizens are expected to have less satisfaction with the operating

procedure of the public institutions and the performance of the institutions. If public institutions along with government fail to provide goods and services impartially the legitimacy of government becomes questionable. Legitimacy allows a positive social contract between citizens and government officials, which is an important condition for ensuring high public responsiveness in government organizations. Public policy is mutually related to administrative culture, ethics, norms, and behaviors of public servants (Vigoda, 2000). Government organizations play important role in addressing the basic issues of citizens during this COVID-19 pandemic and the 'exercise of power' in the policy process has to be impartial in the delivery of the services. Based on the discussion that responsiveness is affected due to congruence between public agencies and citizens regarding values, issue priorities, and impartiality we hypothesize;

Hypothesis 3: Impartiality in the provision of goods and services is positively correlated with public responsiveness during this COVID-19 pandemic.

Methodology
Data and Procedure
The first and main research objective of the study was to measure the perceived level of public responsiveness of government organizations. To achieve the objective, a quantitative approach was adopted based upon the attitude and perception of respondents. The quantitative approach of the study allowed perceiving the level of public responsiveness, through a numeric description of the opinions and perception of respondents. The study applied IBM SPSS (Statistical Package for the Social Sciences) 24.0 for coding in reducing the original data. The study involved descriptive analysis for all independent and dependent variables of the study such as frequencies, multivariate frequency distribution (tabulation of two or more variables), i.e. percentile distribution; the mean and standard deviation of the data. The study also applied multiple regression analyses that have allowed the understanding of the magnitude of the extent of the impact of the explanatory variables over the dependent variable, i.e. public responsiveness of government organizations. Based on the research objective the study area chosen in understanding public responsiveness involving the respondents' attitudes and opinions were restricted to three types of government organizations in Bangladesh, i.e. i) the local police administration; ii) the local Administration, and iii) the local public hospitals.

To analyze the relationships between the variables we collected data using a web-based cross-sectional survey from June 25 to July 15, 2020. We recruited participants through Facebook. It is important to note that various other previous research analyzed survey data to explain an important aspect like the responsiveness of government organizations (Vigoda, 2000; Yang & Pandey, 2007; Bonafont & Palau, 2011; Linde & Peters, 2020). We acknowledge the pandemic and government-imposed lockdown and could not collect data through an in-person survey. During a lockdown situation, we couldn't travel across the country as it would have propagated the community spread of the Coronavirus. Additionally, this study did not receive any funding

from any source. Thus, we adopted the no-cost method of recruiting participants using Facebook following the 'push out' strategy (Antoun et al., 2016). It is important to note that Facebook posts and advertisements often outperform postal surveys in terms of response, diverse pool of participants, and cost (Batterham, 2014; Carlini et al., 2015). We posted our survey link to different Facebook open groups where only Bangladeshi people have memberships. We found that 38 million people in Bangladesh use Facebook (Statista.com, 2020). Thus, we had the opportunity to reach a diverse participant through Facebook open groups during a lockdown and social distancing situation.

The survey questionnaire was translated from English to Bangla for the convenience of the participants and to capture responses from more diverse sections of the population. Finally, we received n= 502 responses from the survey. Participation in the research was voluntary and respondents were assured of full confidentiality through the entire process.

Regarding the sample description of the survey, responses came from more males (63 percent) than from females (37 percent). The reason for such a high number rests in the various socio-economic and political activities of Bangladesh. Bangladesh being a patriarchal society, services including access to various social media such as Facebook are still male-dominated. The majority of the respondents (88 percent) were young (40 years or below) and 12 percent of the respondents have the age of 41 years or above. In Bangladesh, the largest Facebook user group is from 18-24 years, which portrays the rationale for such a high number of young age respondents in the sample.

Bangladesh has made notable progress in the education sector with various economic and technological incentives for students which have been reflected in the sample where 78 percent of the respondents had a Bachelors's degree or more. The development of Bangladesh has been scattered in terms of its geographical position. Major infrastructural development has been centered on its capital Dhaka and some other big cities where access to technological services is readily available and this reflects the reason for the high number of respondents, 69 percent, of the sample being urban residents, living in towns and cities. A breakdown by occupation shows a heterogeneous distribution with 26 percent of the respondents working in government sectors, 13 percent in the private arena, and large numbers of respondents (47 percent) were students. Concerning income, 68 percent of the respondents had an income of US$ 375 or less per month. The overall socio-demographic features of the sample illustrate a vivid assessment of the total population in Bangladesh with slightly younger and higher-income earners than the average Bangladeshi population. Detail description of the socio-demographic profile of the respondents is presented in Appendix 1.

Variables of the study

Dependent variable: perceived public responsiveness of government organizations during COVID-19

The attitude of the public towards the responsiveness of government organizations 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 three (3) government organizations, which were i) the local police administration; ii) the local Administration and iii) the local public hospitals. The three (3), experimental responses prepared were;

Response for local police administration
1) 'your local police administration is responding to public requests quickly during this COVID-19 pandemic'; 2) 'your local police administration is sensitive to your opinion and making a sincere effort to support residents who need help during this COVID-19 pandemic' and 3) 'your local police administration is treating local citizens properly, concisely, and within a reasonable period during this COVID-19 pandemic'.

Response for local administration
1) 'your local Administration is responding to public requests quickly during this COVID-19 pandemic'; 2) 'your local administration is sensitive to your opinion and making a sincere effort to support residents who need help during this COVID-19 pandemic' and 3) 'your local administration is treating local citizens properly, concisely, and within a reasonable period during this COVID-19 pandemic'.

Response for local public hospitals
1) 'your local public hospitals are responding to public requests quickly during this COVID-19 pandemic'; 2) 'your local public hospitals are sensitive to your opinion and making a sincere effort to support residents who need help during this COVID-19 pandemic' and 3) 'your local public hospitals are treating local citizens properly, concisely, and within a reasonable period during this COVID-19 pandemic'.
Response 1 and 3 involve the 'speed' category and Response 2 involves 'accuracy' of public organization reaction to citizens' demands. We used a four-point Likert scale for every response with 1= *strongly disagree*, 2= *disagree*, 3= *agree*, 4= *strongly agree* to measure the variable. In terms of reliability and validity, the four-point Likert scale does not make any difference compared to the five and eleven-point Likert scale, including a mid-point (Leung, 2011; Kulas et al., 2008).

Independent Variables
Based on the performance measure of public institutions, innovations, and creativity in public administration and impartiality in the exercise of authority in affecting public responsiveness, three (3) independent variables were formulated. First, based on the organizational performance variable, the factor selected for measuring is the managerial performance. The second variable

is the innovations undertaken by the public agencies which have been measured based on the degree of acceptance of the creative and innovative actions from the respondents. Impartiality in the exercise of authority, the third variable, has been measured on the procedural fairness of the government organizations in the provision of services.

1.   Organizational performance
For measuring organizational performance involving its operations, this study pragmatically selected the survey item 'managerial performance' from Chun and Rainey (2005). Concerning managerial performance, it can be argued that when citizens perceive highly of an organization's managers, the positive assessments should relate to better organizational performance, which cumulatively affects public responsiveness. The performance variable consists of perception on three (3) items, i.e. quality of work, response to customer feedback, and meeting citizens' expectations during COVID-19 pandemic. Respondents were asked to report how much they agreed with these items and the scale ranging from 1 (*very low*) to 4 (*very high*).

2.   Acceptance of innovations and creativity
Innovation and creativity reflect entrepreneurial actions, flexibility, and ingenuity by public organizations to improve services to the people. This variable portrays the degree to which decisions taken by government organizations in the country are flexible taking account of respondents' willingness or acceptance to adopt new ideas to fight against the pandemic. It was measured through the degree of acceptance of five (5) new initiations which the government agencies undertook during this COVID-19 pandemic, which are: i) the introduction of 'Corona Contact Tracing Mobile Application' for the prevention of the spread of COVID-19 pandemic; ii) the introduction of emergency hotline numbers for getting medical services regarding COVID-19; iii) dividing the country into three color zones, red, green, and yellow to control the infection and death rates from COVID-19 more effectively and closing of all offices in red zone areas; iv) introduction of COVID-19 dedicated public hospitals and v) introduction of distance learning (e-learning or online classes) at every educational tier. We used a four-point Likert scale for every response with 1= *not at all acceptable*, 2= *moderately acceptable*, 3= *acceptable*, 4= *highly acceptable* to measure the variable. To simplify the data, the 'innovation and creativity' index has been divided into two with '*high acceptance*' and '*low acceptance*'. High acceptance is based on responses '*acceptable*' to '*highly acceptable*' and low acceptance is based on answers '*not at all acceptable*' to '*moderately acceptable*'. The higher values of the index imply high acceptance of innovative actions and lower values imply low acceptance.

3.   Impartiality in the exercise of authority
The study assesses impartiality in the exercise of authority through Rothstein's (2011) 'procedural fairness' in treating people alike irrespective of personal relationships and personal likes and dislikes. This variable also describes the general perception of the citizens towards the morality and fairness of public personnel during this pandemic. The variable consists of four (4)

items: i) 'government officials in your locality maintain procedural fairness in carrying out their duties during this COVID-19 pandemic'; ii) 'government organizations are operating appropriately and is not affected by political pressures during this COVID-19'; iii) 'citizens of your city receive equal and fair treatment from the public officials during this COVID-19' and iv) 'necessity rather than favoritism determine who would get various public relief goods during this COVID-19'. We used a four-point Likert scale for every response with 1= *strongly disagree*, 2= *disagree*, 3= *agree*, 4= *strongly agree* to measure the variable. To simplify the data, the 'impartiality in the exercise of authority' index has been divided into two with 'weak impartiality' and 'strong impartiality'. Weak impartiality is based on responses '*strongly disagree*' to '*moderately disagree*' and strong impartiality is based on answers '*agree*' to '*strongly agree*'. The higher values of the index imply 'strong impartiality in the exercise of authority' and lower values imply 'weak impartiality in the exercise of authority'.

Control variables

There are six (6) control variables of the study, of which five (5) are dichotomous and one (1) ordinal variable. The five dichotomous variables are; i) gender (0=Male; 1=Female), ii) age (0 = Young, 40 years and lower; 1 = Old, 41 years and above), iii) education (0 = Lower educated, i.e. respondents who are illiterate to those had higher secondary school certificate, class 12; 1 = Higher educated, i.e. respondents having graduation degree and above), iv) geographical area (0 = rural; 1 = urban) and v) income (0 = low income, i.e. earning TK 0-30,000, i.e. US$ 0-375 per month; 1 = high income i.e. earning TK 30,001 and above, i.e. US$ 376 and above per month). The only ordinal variable is occupation, which was measured on six-point scale from 0 (unemployed) to 5 (Other jobs).

Data Analysis

To test the relationships and to establish causality between the independent variables and public responsiveness multiple regression analyses were performed. Four (4) regression models were tested where each group of independent variables was analyzed first and thereafter all the independent variables were correlated with the dependent variable, i.e. public responsiveness of government organizations.

Data Findings

Descriptive findings of dependent variable: perceived public responsiveness of government organizations during COVID-19 in Bangladesh

The study measures the perceived level of public responsiveness by formulating a 'perception index' (mean or the average value of the responses of citizens' from the responses asked in the survey) based on citizens' experimental responses on three public organizations. To simplify the data, the perceived public responsiveness index has been divided into two with low public responsiveness and high public responsiveness. Low public responsiveness consists of responses between '*strongly disagree*' to '*disagree*' in appraising the speed and accuracy of

public services provided, whereas high public responsiveness consists of responses between '*agree*' to '*strongly agree*'.

Table 1: Descriptive statistics for perceived public responsiveness of government organizations during COVID-19

		Mean (S.D.)			
		Local Administration	**Local Police**	**Local Hospitals**	**Combined (pooled)**
Public Responsiveness Perception Index	*Speed*	2.14 (0.830)	2.37 (0.842)	1.88 (0.833)	2.13 (0.813)
	Accuracy	2.20 (0.823)	2.47 (0.814)	1.95 (0.840)	2.21 (0.811)
	Overall Index	2.16 (0.824)	2.40 (0.834)	1.91 (0.839)	**2.16 (0.805)**
Valid N					**502**

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

Table 1 briefly shows that the combined overall public responsiveness perception index is 2.16. This suggests that the mean value is on the lower scale indicating that the respondents had a negative view about their public institutions' responsiveness, which perceives that the government agencies are not performing well during this COVID-19 pandemic. The two indicators separately, speed and accuracy, also portray a similar result of low public responsiveness. Among the three public institutions, the police score the highest (mean value = 2.40), although the responsiveness index for the police is slightly higher than the average mean value, while local hospitals score lowest (mean value = 1.91) in terms of the perceived public responsiveness. If we also reflect on the percentile distribution of respondents' perceived public responsiveness, Table 2 shows a similar trend in explaining the government performance, where 64 percent of the respondents demonstrate low public responsiveness of government organizations during this COVID-19 pandemic.

Table 2: Perceived public responsiveness of government organizations during COVID-19 in Bangladesh (Percentile distribution)

Category	Percentage
Low Public Responsiveness	**64 percent**
High Public Responsiveness	**36 percent**
Total Percentage	**100 percent**

Note 1: Low Public Responsiveness = [strongly disagree (1) and disagree (2) in appraising the speed and accuracy of public services]
Note 2: High Public Responsiveness= [agree (3) and strongly agree (4) in appraising the speed and accuracy of public services]
The percentages are rounded up

Descriptive findings: Independent variables

Table 3 provides the descriptive statistics, i.e. the mean or the average value of the responses involving the index of all the independent variables and its indicators.

Organizational performance variable

For measuring organizational performance, this study formulated an index by mapping citizens' perception of three indicators, which are: quality of work, response to customer feedback, and meeting citizens' expectations during the COVID-19 pandemic. The overall index (Table 3) for organizational performance variables for government agencies has a score of 1.81. This suggests that the mean value is very low which indicates that respondents perceive very lowly of public service orientation involving the quality of work, meeting the expectations, and following on citizens' feedback during this COVID-19 pandemic.

Acceptance of innovations and creativity variable

The overall acceptance of innovations and creativity index is 2.60 (see table 3), which portrays that the public institutions have failed to come up with promising new ideas to improve the quality of life of the respondents during this COVID-19 pandemic. Although this variable has scored highest among all the independent variables, however, the low mean value reflects that the technological advancements have not been able to maximize the acceptance of creativity for respondents to improve the service quality during this pandemic.

Impartiality in the exercise of authority variable

Impartiality in the exercise of the authority variable has an overall index of 1.86 (see table 3). This suggests that the majority of respondents perceive public institutions are involved in very weak procedural impartiality in service provisions during this pandemic. The index of all the factors of impartiality in the exercise of authority shows that there is a substantial absence of impartiality in the implementation of rules and regulations indicating public agencies are less responsive and less sensitive to their demand.

Table 3: Descriptive Statistics for the indicators of the independent variables

Independent Variable 1: Organizational performance during COVID-19 pandemic	**Mean (S. D.)**
a. Quality of work	1.86 (0.617)
b. Response to customer feedback	1.83 (0.654)
c. Meeting citizens' expectations	1.73 (0.605)
Overall Organizational Performance Index (Low - High)	**1.81 (0.628)**
Independent Variable 2: Acceptance of innovations and creativity during COVID-19 pandemic	
a. Introduction of emergency hotline numbers and mobile Apps for treatment	2.74 (0.845)
a. Intrduction of COVID-19 dedictaed hospitals	2.68 (0.992)
b. Dividing the country into three colored zones during the pandemic	2.64 (0.935)

c. Introduction of Distance learning (e-learning or online classes)	2.59 (0.921)
d. Introduction of 'Corona Contact Tracing Mobile Application'	2.36 (0.856)
Overall Acceptance of innovations and creativity Index (Low - High)	**2.60 (0.912)**

Independent Variable 3: Impartiality in exercise of authority during COVID-19 pandemic

a. Maintenance procedural fairness	2.04 (0.795)
b. Equal and fair treatment from the public officials during	1.87 (0.776)
c. Necessity rather than favoritism in getting relief goods	1.81 (0.798)
d. Political Neutrality	1.72 (0.800)
Overall Impartiality in exercise of authority Index (Weak – Strong)	**1.86 (0.802)**

Note 1: Mean/Index values are given in descending order
Note 2: Minimum value (1) and Maximum value (4)

In observing the descriptive findings of the independent variables, all the index values of the factors of the variables reveal a low-performance benchmark, low acceptance of innovations, and weak impartiality in the decision-making process during this COVID-19 pandemic in the country.

Regression Analysis

To analyze the effects of organizational performance, innovation, and creativity of public agencies and procedural impartiality on public responsiveness of government organization during this pandemic multiple regression analyses were performed. It tries to establish the causality between explanatory variables and public responsiveness of government organizations during this pandemic. Table 4 shows the results of the analyses.

Table 4: Regression analysis of all the independent variables explaining the perceived public responsiveness of government organizations during COVID-19 pandemic in Bangladesh

	Standardized Coefficient Beta (β)			
	Model 1	**Model 2**	**Model 3**	**Model 4 (Combined/ pooled)**
Organizational Performance				
a. Quality of work	0.351			0.164
b. Response to customer feedback	**0.185*****			**0.196*****
c. Meeting citizens' expectations	**0.122****			**0.127*****
Overall	**0.505***			**0.551*****
Acceptance of innovations and creativity				
a. Introduction of 'Corona Contact Tracing Mobile Application'		0.416		0.308
b. Introduction of emergency hotline numbers and mobile Apps for treatment		**0.147*****		**0.193*****
c. Dividing the country into three color zones during pandemic		0.166		**0.201****
d. Introduction of COVID-19 dedicated public hospitals		**0.166***		**0.282***

e. Introduction of distance learning (e-learning or online classes)	**0.625**[**]			**0.583**[**]
Overall	**0.121**[***]			**0.128**[***]
Impartiality in exercise of authority				
a. Maintenance procedural fairness			0.215	0.146
b. Political Neutrality			**0.105**[**]	**0.165**[**]
c. Equal and fair treatment from the public officials during the pandemic			**0.125**[**]	**0.465**[***]
d. Necessity rather than favoritism in getting relief goods			0.041	0.117
Overall			**0.437**[**]	**0.446**[***]
N	502	502	502	502
R²	0.182	0.181	0.218	0.462
Adjusted R²	0.181	0.162	0.217	0.457

Notes: *$P < 0.10$, **$P < 0.05$, *** $P < 0.01$

Concerning organizational performance in affecting public responsiveness, model 1 (see table 4) of the regression analysis finds positive statistical significance. The regression table shows a significant relational effect between organizational performance and public responsiveness with an overall beta coefficient (β) of 0.505 ($P<0.10$). Two out of three factors explaining the organizational performance reflect statistically significant ($\beta = 0.185$, $P<0.01$, and $\beta = 0.122$, $P<0.10$) relationship between organizational performance and public responsiveness. The findings show that citizens who believe that when the organizational performance of the public agencies fails to meet their expectations during this pandemic also perceive public institutions as low responsive. The model explains a variance of 18.1 percent (Adjusted R square of 0.181) which implies that the prediction of responsiveness by the suggested set of factors for the independent variable organizational performance is meaningful, which matches our first hypothesis.

The second model examined predictors of public responsiveness with the acceptance of innovations and creative operations of government. The result yielded significant relationships between acceptances of innovations and creativity of government actions and public responsiveness, with an overall beta coefficient (β) of 0.121 ($P<0.01$). Three out of five factors of innovation and creativity variable have a strong and positive relationship ($\beta = 0.147$, $P<0.01$; $\beta = 0.166$, $P<0.10$ and $\beta = 0.625$, $P<0.01$) with public responsiveness. The explained variance of the model is about 16.2 percent (Adjusted R square of 0.162) which to accepted level support for the relationships between the variable innovation and creativity and public responsiveness during this crisis Coronavirus situation which matches with the second hypothesis of the research.

The third model analyzes citizens' perceptions about the extent to which the public institutions maintaining impartiality affect public responsiveness. The finding reveals that the variable has statistical positive significance, beta coefficient (β) of 0.437 ($P<0.05$), with public responsiveness. Two out of four factors of impartiality in the exercise of authority variable have a strong and positive relationship ($\beta = 0.105$, $P<0.05$ and $\beta = 0.125$, $P<0.05$) with public responsiveness. The explanatory power of this model explains 21.7 percent (Adjusted R square

of 0.217) of the variations in public responsiveness of government organizations during this pandemic.

The fourth model includes all the explanatory variables in one regression model. The findings of the model show that each of the independent groups of variables significantly contributes to the understanding of the public responsiveness of government organizations during this pandemic. Analyzing the model it can be seen that overall coefficient (β) for each independent variable ($\beta = 0.551$, $P<0.01$; $\beta = 0.128$, $P<0.01$ and $\beta = 0.446$, $P<0.01$) has increased from individual model. The total explained variance for the variable public responsiveness with operation by all the independent variables summed at 45.7 percent (Adjusted R square of 0.457) providing support for the model and the relationships between public responsiveness with organizational performance, innovation and creativity, and impartiality in the exercise of authority. In all the four regression models analyzed, the organizational performance variable shows the strongest significance in explaining the public responsiveness.

Discussion

What fosters public responsiveness of government organizations during crises such as the COVID-19 pandemic? The main objective of the study was to measure the perceived level of public responsiveness of government organizations and low public responsiveness of public institutions was found. A responsive government could mean responding easily to demands or entail democratic dimensions such as reflecting and giving expression to the will of the people (Pennock, 1952). As speed and accuracy of government endeavors were examined to perceive the public responsiveness, low public responsiveness indicates public administration actions were unable to satisfy the preferences of the citizens during this COVID-19 pandemic in Bangladesh. The rationale for the low public responsiveness of government organizations might be because of the slow process of conducting testing facilities and receiving the test results in the country (Rahaman et al., 2020).

The study tried perceiving the factors that explain the public responsiveness of government organizations. Regarding the organizational performance indicator, managerial performance on public service provision has positive statistical significance with public responsiveness. The study found low organizational performance index of government operations and aggregately a low public responsiveness was perceived by the citizens. The reason for perceived low organizational performance might be because of the low number of testing facilities in the country. All districts in Bangladesh reported at least one COVID-19 case but only 30 out of all 64 districts have testing facilities. This coincides with our first hypothesis, which stated that the organizational performance of government affects public responsiveness. Organizational performance is perceived as better when the preparedness and crisis management of governmental organizations match the expectations of citizens. When there is a mismatch between organizational capacity and citizens' expectations, the government response process runs into trouble (Christensen, Lægreid & Rykkja, 2016), which seems to be prevalent during this pandemic in Bangladesh. The rationale for such low organizational performance may be

because public authorities, initially knew little about the virus, its paths of transmission, and its health impact. Governments worldwide, including that of Bangladesh, were pressed into taking measures that, in the context of western liberal democracies, were seen as both unimaginable and infeasible (such as extensive lockdowns and social distancing).

The study hypothesized that flexibility, creativity, and acceptance of innovation in delivering public services by government organizations has a positive correlation with public responsiveness during a pandemic situation. The finding reveals that the level of citizens' acceptance of the innovations and changes during the COVID-19 pandemic is low and aggregately a low public responsiveness was perceived by citizens. The absence of effective networking management and citizen's satisfaction with the adopted new and innovative actions of public organizations during pandemic situations creates low responsiveness of government (Provan & Kenis, 2007; Vigoda & Yuval, 2003). Flexibility and stability are important for ensuring the rapid and consistent responses of public organizations to meet the changing needs and demands of citizens during a pandemic crisis (Provan & Kenis, 2007). One of the innovations of the policymakers in Bangladesh during the COVID-19 pandemic is the launching of the Corona Contract Tracing mobile app where only bluetooth and location-based information is being used. But, the app is likely to be of much use as it doesn't tell anything about people who do not have the app installed. Since all mobile users in Bangladesh do not have smart-phone sets, a significantly large number of people may stay out of this listing, making the tracing less effective.

The negative effect of political influence and bureaucratic partiality in the exercise of authority results in the low responsiveness of public organizations during the pandemic. The finding of the study shows the level of impartiality of public organizations in delivering public goods and services is very weak and the public responsiveness has also been at the lower side. The result yields the third hypothesis of the study which expected a positive correlation between impartiality in the exercise of power and high public responsiveness. Public responsiveness will have a downward trend when public administrators fail to respond neutrally and competently to competing interests by applying expert knowledge and skills under professional norms and standards (Kearney & Sinha, 1988). The politicization of administration, corruption, bypass of institutional rules, and regulations are the main traits of the public institutions in Bangladesh (Haque & Mohammad 2013). Mismanagements paralyzing the health sector with the increase in corruption worsening the situation to a greater degree during this COVID-19 crisis in Bangladesh (Al-Zaman, 2020). The media reported 218 relief goods-related corruption incidents from March 10, 2020, to June 15, 2020, and most of the convicts were government officials, public representatives, and ruling party leaders and activists[1]. The lack of ability in the effective allocation of resources impartially tends to yield low responsiveness.

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[1]Available at: https://www.newagebd.net/article/108515/tib-finds-gross-corruption-in-covid-19-purchases (accessed on 18/10/2020)

Conclusion and Implications of the Study

Given the vastness of the conceptual understanding of the public responsiveness and the complexity in measuring it during world wide crisis such as the COVID-19 pandemic, this study is only the first leap in studying the public responsiveness of government organizations. The main goal of the study was to find the level of perceived public responsiveness of government organizations during this pandemic and suggest some credible explanation for citizens' perception of public responsiveness in Bangladesh. The finding overall suggests that various variables are involved in the process of public responsiveness. This study supports the assumption that public responsiveness is determined by the quality of services provided by public agencies. The study through plausible quantitative analysis explains that public responsiveness can be addressed with the quality of government involving procedural fairness in service delivery. The study implies that during crises such as the COVID-19 pandemic government agencies need to focus on citizens' basic priorities and values and the agencies need to develop acceptable standards of innovation for enhancing the organizational capacity.

There were certain limitations of the study that should be noted. The data was collected in a Bangladeshi setting which is different from other Asian, European, and African settings. The research implies that it should be replicated in other settings before a strong conclusion can be made. This study examined citizens' perceptions at one point in time, i.e. during this COVID-19 pandemic, thus it should be replicated in the post-pandemic situation to reveal the overall trends of public responsiveness of government organizations. This study used three variables in explaining public responsiveness, however, future studies require other variables that reflect more reliable and valid measures to comprehend the causes of the responsiveness. The contribution of the study lies in pointing out that the public agencies in Bangladesh quickly need to identify ways of improving the public service quality before the imminent second wave of the pandemic.

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Appendix 1

Table 5: Descriptive statistics of socio-demographic variables

Variable	Frequency (n = 502)	Percentage (%)
Gender		
Male	316	63
Female	186	37
Age		
Young (Below 40 Years)	441	88
Old (41+ years)	61	12
Education		
Lower Educated (Higher school certificate or less)	109	22
Higher Educated (Bachelor's and above)	393	78
Location		
Urban Residents (Towns and Cities)	347	69
Rural Residents (Villages)	155	31
Occupation		
Unemployed	26	05
Student	237	47
Entrepreneur/Businessman	19	04
Government job	131	26
Private job	65	13
Others	26	05
Income (US $)		
Low Income earners (US$ 375 or less per month)	340	68
High income earners (US $ 376 or more per month	162	32