Citizens' Initiatives for Crisis Management and the Use of Social Media: An Analysis of COVID-19 Crisis in Bangladesh

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Abstract

This study analyses different social media-based citizens' initiatives taken during the COVID-19 crisis in Bangladesh. By applying netnography on various Facebook groups, the study finds that people are trying to address the crisis by using social media. The groups provided different crucial support to general people, such as connecting people to get blood and plasma and delivering medical necessities (e.g., supplying oxygen at home). The study also finds that different factors such as the development of trust, opportunities for digital transactions, the existence of dedicated moderators, and an easily available platform (Facebook) to connect people contribute to increasing the effectiveness of those groups.

Keywords COVID-19 · Coordination · Crisis management · Developing country · Social media · Bangladesh

Crisis management is a core government responsibility, but this is very difficult to deliver (Boin & Hart, 2003). It is “a set of factors designed to combat crises and to lessen the actual damage inflicted” (Coombs, 2015: 21). During any crisis, coordination among government agencies and social organizations (e.g., NGOs, relief organizations) is the key to crisis management (Christensen & Ma, 2020). Most of the studies on coordination for crisis management focus on the state lead initiatives (e.g., Christensen & Lægheid, 2020; Christensen & Ma, 2020; Hu & Kapucu, 2016) or the top-down model (Boin & Bynander, 2015). Such studies mainly explain the coordination difficulties among state agencies and other organizations like NGOs, voluntary and relief organizations (Kapucu, 2006; McEntire, 2002), and

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coordination structures and mechanisms (Christensen & Ma, 2020). However, there can be bottom-up initiatives initiated by citizens.

According to the bottom-up approach, coordination results from people working together to address a crisis without any central guidance (Beck & Plowman, 2014). These citizen-driven initiatives are important, particularly in developing countries where the state is less capable. In a crisis moment, a citizens-driven bottom-up approach can hugely help to reduce the coordination gap of the top-down model (state lead initiatives); and help to have better use of the existing limited resources. In this context, this study tries to understand citizen-driven initiatives taken in a developing country (Bangladesh) during the COVID-19 crisis. The study attempts to identify the different activities of the different citizen lead groups which are using social media (here only Facebook) to address the challenges of COVID-19, and also tries to explore the possible factors which contributed to the success of those groups. So, the main research questions for the study are: a) what are activities performed by different citizen lead groups organized through Facebook to address the COVID-19 crisis? and b) what are the factors which contributed to the success of those groups?

Background of the Study

In Bangladesh, the total number of government health facilities (hospitals, primary, secondary, and tertiary health facilities) is 2,865 (BBS, 2019). These health facilities are mainly funded by the government directly. Apart from these, there are 5,054 private hospitals and clinics (BBS, 2019); most of these clinics are run by private entrepreneurs with profit motives. Though there are some facilities that also work as charitable organizations, and provide health services for free or at lower costs, but their magnitude and contribution are not that significant. There is no government-initiated insurance system to cover health-related costs; so, most people cover their health-related costs by themselves. There are some insurance companies (both private and public) but their coverage is very low across the country and not that popular, and their services are limited to the more affluent class only. So, for any major health issue, most people have significant financial difficulties.

Until August 27, 2020, in Bangladesh, 304,583 people were affected, and 4,127 people died due to COVID-19 (Worldometer, 2020). However, there is criticism for these statistics as there are lower numbers of tests and many people died without tests; local newspapers labeled those as 'die with COVID-like symptoms' (UNB, 2020). These people are not included in the official counts. Amid this crisis, it was found that some of the testing organizations were providing false reports on COVID-19 without conducting any test (DhakaTribune, 2020). This causes severe damage to trust in the health institutions among the people.

In Bangladesh, most of the people (middle class and above) usually used to take medical treatments from the private hospitals, but during the crisis, many of those hospitals were not providing services; later on, the government enforces a new directive under which no private hospital can deny any COVID-19 patient to provide treatment (Daily Star, 2020a, b, June 04). Then some of the private hospitals started to provide the treatment but they also charge a lot of fees for such treatment. On the

other hand, in most of the public hospitals, the facilities are very poor, and many people do not want to go there because of those poor conditions. In many cases, people were dying just because there is no high flow oxygen supply. There is also a lack of Intensive Care Units (ICU), and many hospitals cannot provide that facility to critically affected patients (Daily Star, 2020a, b). So, many patients were helplessly rushing from one hospital to another hospital.

Amid these difficult situations where there is resource scarcity and poor coordination of the efforts to deal with the crisis, some citizen-driven initiatives emerge in Bangladesh to address the different associated needs of the people. These groups started to use social media platforms (mainly Facebook-based) to establish connections among the people and to coordinate their activities. These initiatives become easier because of the increasing availability of the internet and higher social media usage, particularly in urban areas. Among the South Asian countries, Bangladesh has the second highest number of internet users (58.4 percent) (Table 1). In the main cities, there are broadband internet connections for home use, which cost around 6–10 USD per month. Though in rural areas, such provisions are not available, but people can use mobile-based data packages there. Those packages' costs vary based on the volume and the speed. For example, one person can get 1 GB of data for a month at the cost of 1 USD for one package. In terms of the number of Facebook users, Bangladesh is in the 10th position in the world (Statistia, 2021) (more details are in Appendix Fig. 2). Though, most of the Facebook users in Bangladesh are young males. Statistics from the year 2020 indicate that in Bangladesh, 72.3 percent of Facebook users are male, and 77 percent are between the 18–34 age group (NapoleonCat, 2020).

The citizen-driven initiatives used Facebook as their main platform to coordinate their activities. The members of the different groups try to help each other through this media to address their different needs; for example, to locate hospitals, identify possible blood and plasma donors, collect money to buy necessary medical equipment, and detect a patient who needs an oxygen cylinder and deliver that at their home. This study likes to analyze the different groups' activities and analyze the possible factors for the successes they so far achieved.

Table 1 Internet Penetration in South Asian Countries

Countries	Population (2020 Est.)	Internet Users, (Year 2000)	Internet Users 31-MAY-2020	Penetration % Population	Facebook 31-MAR-2020
Afghanistan	38,928,346	1,000	7,337,489	18.8%	3,848,400
Bangladesh	164,689,383	100,000	96,199,000	58.4%	33,713,000
Bhutan	771,608	500	397,499	51.5%	413,100
India	1,380,004,385	5,000,000	560,000,000	40.6%	251,000,000
Maldives	540,544	6,000	370,000	68.4%	375,100
Nepal	29,136,808	50,000	16,190,000	55.6%	10,419,000
Pakistan	220,892,340	133,900	71,608,065	32.4%	37,070,000
Sri Lanka	21,413,249	121,500	7,169,533	33.5%	6,428,000

Source: Internetworldstats, 2021

Crisis Management: Theoretical and Conceptual Foundations

Rosenthal et al. (1989) define a crisis as “a serious threat to the basic structures and the fundamental values and norms of a system which under time pressure and highly uncertain circumstances necessitates making vital decisions” (cited in Boin, 2005: 2). This definition covers pandemics, terrorist attacks, natural disasters, industrial and transportation accidents, and infrastructure failures (Christensen et al., , 2016a, b). The key attributes of a crisis are its unexpectedness and uncontrollability, which disrupt normal operations (Unlu et al., 2010). In another definition, Seeger et al., (2002: 2) define a crisis as “a targeted event that creates high uncertainty and perceived threat.”

Governance capacity is considered one of the critical elements for a well-functioning governmental crisis management system (Christensen et al., , 2016a, b). For this capacity, there are two key factors: availability of resources and coordination. If a country does not have the necessary resources to manage a crisis like pandemic, then the country will struggle to address the crisis. On the other hand, if there is a coordination gap, then a country may fail to manage a crisis despite the higher availability of resources. To combat a crisis, coordination is considered the core concern as it is identified as a critical factor for most of the failure to deal with crises; and, simultaneously, it is seen as a solution to such failure (Christensen et al., , 2016a, b). Coordination can be defined as “the adjustment of actions and decisions among interdependent actors to achieve specified goals” (Koop & Lodge, 2014: 1313). For this study, coordination indicates people’s collective activities to accomplish a set of tasks or goals for their survival (Boin & Bynander, 2015). To increase the effectiveness of coordination, social media (e.g. Facebook) can play a significant role (Li et al., 2020).

During the COVID-19 crisis, countries like the USA and the UK probably suffered due to a lack of effective coordination though both countries have a relatively higher magnitude of resources. On the other hand, countries like Germany, Norway, and Japan are more successful due to effective coordination and resource availability (Baniamin et al., 2020). Christensen and Lægreid (2020) show the importance of both factors (resources and coordination) for the success of Norway in controlling the COVID-19 pandemic. Based on these two factors, we can develop a matrix (Fig. 1) and can theoretically understand the variation of the degree of success in the management of a crisis in a country.

Figure 1 indicates four possible scenarios based on the variations of coordination nature (effective and ineffective) and resource availability (low and high). For the situation in Q1, there is the availability of resources and better coordination; so, countries having such a situation may successfully manage the crisis like the COVID-19 pandemic. Probably countries like Germany and Norway which are so far successful to manage COVID-19 may belong here. In the situation of Q2, there is lower availability of resources but due to better coordination, those countries can have higher success in the management of the crisis. Developing countries like Vietnam which have less affected people despite having a long border with China may belong to this group (Jones, 2020). A country

Fig. 1 Key Factors for Crisis Management in a Country

Methodology

The members of identified groups vary from 21 to 560 K. However, the study mainly focused on three groups which have around 21 K; 33 K, and 20 K members on August 14, 2020. The group, which has 33 K members, started its journey in the year 2016 to help people, and when the crisis unfolded, they began to work

on COVID-19. The other two groups started their journeys after the beginning of the crisis. There are some rationales for choosing these three groups: they appear to be more effective in addressing the problem, they are active and always have some panel members to regulate the activities. The group which has around 560 K members, becomes a bit uncontrolled where people's needs were not addressed properly. If anyone gives post of their needs in that group, then s/he may not get any response, or sometimes just get random responses from some other random people, and in many cases those responses were not reliable. In many cases, people post irrelevant advertisements, and gradually the group loses its relevance. This is why that group is not considered for this study. The rationale for limiting three groups is also related to the management issue as it takes considerable time to follow the groups.

The adoption of netnography can be a good methodology as the study can monitor people's nature of interactions and their activities. From those activities, the study tries to identify some trends like what types of activities they are taking to address the crises and what types of benefits those activities are generating. Apart from these, the study also tries to understand their possible challenges and reasons for success. For this study, it was not possible to know the demographic attributes of the members of those groups as that information is not available publicly. If we have the information, we can have a better understanding of the nature of the groups.

Findings

Area of Interventions

Identifying suitable hospitals and information about the COVID-19 tests

When a person gets affected by COVID-19, most of them wonder which hospitals they should go to for treatment. Usually, before the COVID-19 crisis, most of the people (middle class and above) used to go to private hospitals for any kind of treatment, but at the beginning of the crisis, most of the private hospitals were not providing treatments to COVID-19 affected people. They either close the hospitals entirely or posted notice that they are not providing treatments to COVID-19 affected people. So, for such treatment, people need to go to public hospitals. As there is no systematic procedure to admit to a government hospital, people have to decide by themselves which hospital they should admit to. The same is applicable to tests for COVID-19 infection. People need to decide by themselves where to go for the test. People usually get an idea about the service providers' quality of services through other people's opinions and feedback. Usually, people's main concerns are related to how fast they can get COVID-19 test reports and whether the service provider takes samples from home if the patient's situation is not good enough to wait for a long queue for the test. In this regard, the following comment can be indicative:

“Can anyone tell me any organization which can come home and collect samples in Dhaka city?”

Later, the government forced private hospitals to provide treatments to COVID-19 affected people but still, there was a scarcity of proper treatment facilities. The hospital's information becomes more important for critical patients who need support from the Intensive Care Unit (ICU) as there is a scarcity of this facility. In this regard, when people give a post on Facebook, others try to provide information that helps one save time searching for available options. The helplessness during this crisis for ICU can be understood by the following comment of a person in a group:

"Someone, please arranges an ICU bed now. Just as we prepare to go to sleep at night, one patient and her family are rushing to different hospitals with an oxygen saturation of 40 or so for an ICU bed. They were released from the hospital as that hospital does not have ICU support, and they are advised to arrange an ICU for the patient."

Telemedicine service

Due to the COVID-19 crisis, it becomes difficult to visit hospitals and get treatment for patients affected by different sicknesses as they may be affected by COVID-19. So, usually, the patients whose situations are not that critical are trying to avoid visiting hospitals. For these patients, different groups started telemedicine services. Such services appear to be very helpful to them. On top of that, the COVID-19 affected patients who have mild symptoms; they are also taking advice through these services and are staying at home rather than going to the hospitals. This helps to reduce pressure at the hospitals. For this kind of online services, some groups sometimes may have small fees, but if anyone cannot provide such fees immediately, they sometimes allow people to take advice without payment. In this regard, one patient writes:

"I do not have *Bkash* [mobile phone-based payment process], and this is late night, so I cannot pay you now. I will pay in the morning."

Then the service provider writes: "That is fine."

One group posted this conversation by erasing the patient's name and encouraging everyone to take the service; they advised that one should not hesitate to call them because s/he does not have an online payment option.

Providing emergency oxygen support

Different groups are arranging oxygen for the patients who are staying at home and having breathing problems. For this, they created their own 'oxygen bank'. To establish such a bank, different groups took different initiatives. For example, one group sets up a technical team in the combination of doctors and some other people. The group members first set up initial arrangements for this service, for example, the arrangement of oxygen cylinders and the recruitment of delivery men. About the activities on the oxygen supply initiative, one-panel member of a group writes:

“We have already talked to a reliable oxygen cylinder supplier, where we can keep our cylinders and can deliver when needed. He will sanitize the empty cylinders and our team members will supervise and help him.”

One group provides the oxygen for free, though they take delivery charges. In this regard, the motto of the team is: “Oxygen should be free for all” (Khan, 2020). They took initiatives so that the patients can get oxygen at any time of the day. This 24-h supply of oxygen is vital as at night, if there is any problem, people become helpless. When these groups get calls from any patient, the team members distribute the oxygen cylinder to the patient’s home. After one person’s need is fulfilled, the cylinders are returned, sanitized, and refilled for another person’s use. Along with the distribution of oxygen cylinders, the team members also advise about the safe use of the cylinder; particularly, they try to raise awareness about the possible danger of fire as oxygen is highly inflammable. The groups also try to motivate people to donate money and used medical-grade cylinders which one does not need any more so that the groups can give oxygen services to more people. In this connection, one member of a group writes:

“In this crisis, we consider the whole country as a family; we don’t want anyone to die for lack of simple oxygen; everyone in the family has to come forward and help the initiative so that we can increase the number of cylinders and can increase the range of our services.”

Getting blood and plasma donor

In Bangladesh, there is no central official blood bank; some voluntary organizations have blood banks, but usually, people depend on friends, family members, and relatives to get blood during any need, like the surgery of a patient. Conscious people usually do not use those organizations’ blood banks as they do not trust the source of blood and the screening processes. During the COVID-19 problem, due to lockdown, getting willing people to donate blood became difficult as many people, particularly students who usually donate blood left the cities for their homes. Different online platforms are trying to address this need by connecting people. For example, one person asks blood for a patient who is going through kidney dialysis:

“Urgently need one bag of AB+ blood for a kidney dialysis patient. If anyone is interested in donating, please let me know.”

Then the dedicated members of the group tried to connect potential donors with that person. Sometimes even willing people directly communicate with them as well. Not only for blood, but social media platforms have also become the main tool to identify potential donors of plasma as there is a growing belief that plasma therapy may be helpful for the COVID-19 affected patients. We can see people’s desperation to look for plasma from COVID-19 recovered patients in the group; the following comment can be indicative in this regard:

“Hello, everyone. I am in dire need of B+ plasma of a COVID-19 recovered patient. If there is any one of you or anyone you know, please reach out. This

will save someone's life who is very dear to me. If there is anyone, please help me.”

If anyone needs plasma, usually s/he gives a post on those Facebook groups and may get a volunteer eligible to donate plasma for COVID-19 affected patients. Different doctors are trying this method as a possible treatment for critical patients. In this perspective, these groups played an important role in locating the recovered patients by creating a ‘plasma bank’ where they maintain the list of the COVID-19 recovered people who are willing to donate plasma. About the success of these groups’ plasma collection, one volunteer of a group writes:

“It was around 2.00 am; I got a sound of a notification from my mobile, felt obligated to check as I am a volunteer of a group. Someone asked for plasma and I found that already a few people commented to help, and within a few minutes, the plasma is managed. This is a great achievement for all of us.”

The groups also try to check the authenticity of the needs of the people so that this online platform will not be used as a tool for bad practices (e.g., buying and selling blood or plasma or the associated fraud). For this, they always ask for the requisition forms for any such need.

Providing resources for hospitals

At the beginning of the crisis, different hospitals were struggling to get a regular supply of different necessary equipment to protect doctors from the possible infection of COVID-19. We can see doctors sometimes write to the groups for help; the following post by a doctor is indicative of this kind of posts:

“We are out of masks, sanitizers, and gloves; could anyone arrange those? We don't need money; we need those things.”

Sometimes, even doctors ask for bigger help like the establishment of a high-flow oxygen supply or oxygen concentrators. For example, one doctor writes:

“I need one oxygen concentrator. Could you help us?”

For such cases, the groups try to collect money and then try to buy the equipment for the respective hospital. One doctor writes in a group by appreciating these initiatives:

“Thank you! This war is for all of us! Our 60+ doctors have died of corona infection. Rare in the world! I still remember doing 30 hours of duty with 120 ml sanitizer at the beginning of the duty which is not sufficient for even 1 hour.”

Cash help and providing jobs

Due to COVID-19 related lockdowns and economic slowdown, many people lost their jobs and earnings. For those people, these types of groups tried to collect money to

help them. For example, for the schoolteachers who were not getting their salaries, they tried to provide some money to them. For this, one group took an initiative which they labeled as ‘School teacher aid program’. Or for small businesspeople, sometimes they give them opportunities to use their platforms to sell their products. Even those who lost their jobs, they also tried to provide jobs for them in different roles like a caregiver to help the critical patients or distributors to distribute different services offered by the groups. In this regard, one of the panel members of a group writes:

“We want to provide jobs by engaging people to our different services so that they can earn something as a livelihood and can also contribute to the group.”

The groups encourage others to provide jobs to people, and sometimes post about job vacancies at the groups if they have any information about any job vacancy. On the other hand, if anyone needs a job desperately, then s/he can write about his/her needs and qualifications in those Facebook groups. If anyone thinks that they can use such qualifications, then s/he may offer a job to the respective person. Thus, these platforms are helping the general people who are suffering economically due to COVID-19.

Controlling price

During the COVID-19 crisis, the prices of different medical equipment increased significantly. One such piece of equipment is the ‘pulse oximeter’, which helps to monitor oxygen levels. Doctors recommend this device to monitor oxygen levels, and that is why people started to buy that device, which leads to a significant increase in the price of that device. To control the price, one group started to sell this at a fixed price so that people do not need to pay extra money to buy the equipment, and the people who are selling the same device at a higher price in the market are forced to reduce the price. Through these kinds of activities, the group is also trying to raise awareness of the people. In this connection, one moderator of the group writes:

“Our objective is not only to control the price but also to awaken your conscience as well.”

Another person writes the following in the same comment thread by appreciating the initiative:

“From this group’s oximeter project, we can see that a few people can break a business syndicate if they have an honest will. So, let there be more honest people in the country and let all the syndicates be broken.”

Possible Some Key Factors for the Achievement of Success So Far

Easily available online-based platform

The establishment of a group and the spread of that group were possible due to easily available a social media platform like Facebook. Earlier, it was difficult for such

kinds of voluntary groups to reach a large number of people so quickly due to the lack of any feasible platform. This social media helps to solve this challenge. This platform helps to engage more people with the groups' initiatives easily, and at the same time, it also helps to spread their services across different parts of the country.

Having a group of dedicated people

One of the key factors to successful groups is to have some dedicated people who work as the nucleus of the groups. Their initial initiative to launch the group and then continuous efforts contributed significantly to the groups' success. Because of the lack of such dedicated people, we can see that one group with around 560 K members was disorganized and became an ineffective platform.

Building trust

The development of trust among the people appears to be one key factor for the success of these groups. For building trust, they try to become more transparent about their activities; they give details of the collected money, and at the same time, they also provide descriptions of their activities like where they donated medical equipment. In this regard, one moderator of a group writes:

“This group believes in transparency. Therefore, all the details of the donation will be uploaded regularly.”

Sometimes, people who get various supports from these groups, like getting oxygen cylinders or buying oximeters at a fair price, also post in their Facebook groups by praising the group members' initiatives. At the same time, one group separately maintains a Facebook page where they post all the newspaper coverages of their activities. All these contributed to building trust in their initiatives and helped people to realize the groups' dedication to addressing the crisis, and motivated others to join and contribute to the groups.

Service charge and selection of employee

To make all their activities viable, the groups sometimes charge for their services like home delivery of oxygen cylinders. In this connection, one member of a group writes:

“You have to pay service charges as people are working hard and the project has to be sustainable.”

Though they charge for some of their services, they try to keep their charges minimum, mainly covering the operational cost. They also try to recruit people who lost their jobs during this crisis, so that they can be benefited economically. In this regard, one member of the group writes:

“To keep the service charges lower and have better output, we employ people who lost their jobs and committed to working for this kind of jobs.”

Motivating people

The regular posts on the various groups’ different activities play an important role in motivating people to engage and contribute further. Initially, many people joined those groups to get information on COVID-19 related issues and services like getting oxygen or medical advice, but then they themselves get motivated by the groups’ different initiatives, and they also get involved with the activities of the services. This helps to spread the active group members’ presence in different parts of the country. In this connection, one member of a group writes:

“Whatever we achieve so far, it is because of all of your cooperation.”

Digital platform for financial transactions

Earlier, it was challenging to collect donations from different people, but currently, the availability of digital platforms for financial transactions makes it easier to collect donations from different people from different parts of the country. They even started to collect money from abroad, particularly expatriate Bangladeshi people. The availability of the opportunity for digital financial transactions helps them enormously.

Keep distance from the established political parties

Most of the groups tried to keep their distance from the established political parties; probably this helps them to engage all types of people with their initiatives and makes the groups acceptable to all the people. This approach is particularly supportive for those who want to keep their distance from traditional political parties but want to contribute something. Though the groups do not say anything explicitly about political affiliations but at least, there were no visible political engagements from those groups.

Discussions and Concluding Remarks

The study identified different social media-based groups which are working to address the COVID-19 crisis in Bangladesh. Their initiatives are helping to address the resource scarcity and the coordination gap in the country. The study finds that people are trying to address their vulnerability by increasing communication through those groups. For example, there is a lack of information about the availability of Intensive Care Unit (ICU); so, when someone has a critical patient, then they post about their necessity in those groups, and someone who knows about the availability of ICU, they try to help by providing relevant information. For this, the doctors

working in different hospitals are playing an important role. This saves unnecessary wastage of time for checking the availability by going from one hospital to another. When doctors have a scarcity of the supply of necessary equipment at the hospitals, like personal protective equipment (PPE), hand sanitizers, or even oxygen supply machines, they also ask for help in those groups, and then people donate money and collectively buy those things for the respective places. Some of these groups also created a database of the people who have already been cured of COVID-19 to collect plasma from them to treat COVID-19 affected new patients. They also help patients to get blood as, during this crisis, it becomes difficult to get blood donors for treatments.

Apart from initiatives to help critical patients, the groups also take initiatives to help other patients who have mild symptoms of COVID-19 infection; they provide medical advice over the phone and on online platforms. This advice is helpful for the patients who stay at home during their infections. These groups' initiatives are not limited to the treatment activities; they also try to control the price of different medical equipment like pulse oximeters or oxygen cylinders to be used at home. They try to provide various equipment at a fixed price so that people selling the same equipment at the market get demotivated to sell those products at higher prices due to the increase in demand. Thus, the citizen-driven initiatives empowered by social media platforms are helping people to address the pandemic crisis in Bangladesh.

The study also analyses the possible success factors of these groups, which they have achieved so far. Firstly, the urgency from the public, and the initiatives taken by few people to make available such types of groups through an easily available online-based platform like Facebook contributed significantly. There are some dedicated people who work as the nucleus for the groups. However, above all, the creation of trust by generating transparency of their work contributed significantly. The study finds that posting pictures of their activities on online platforms gives credibility to the groups. Apart from this, their news is also published on regular media platforms which also helps to increase the credibility of their works. On the top, the people who get benefits from the groups, some of them also share their experiences in the groups. These inspire others to contribute and join the initiatives. The use of digital platforms for financial transactions helps them to gather money from people living in different places. The groups recruited people as volunteers and paid positions to work for the groups to distribute different medical equipment in different areas and ensure a workforce to work for the groups. They also try to keep distance from the traditional political parties which may help them be acceptable to all the people.

Thus, we can see citizen-driven initiatives can help to address a crisis like a pandemic. In such an initiative, social media like Facebook can play an important role by providing an easily available platform to reach different types of people living in different parts of the country. Even it helps to engage the expatriate Bangladeshi people and motivate them to donate to the groups' activities. This is how it helps to connect people who do not know each other. This is a significant factor during the crisis as people need to act very fast and need to coordinate the activities effectively by keeping trust. This increased coordination also helps to have better use of the limited resources to combat the pandemic. So

far, most of the groups managed to have people's trust and are helping to address the challenges of the pandemic. Though, they also faced different challenges.

Sometimes, some people try to misuse the platform, for example, for getting plasma and blood; some people ask money for such donations, and even after taking money, they do not go to the hospitals to donate plasma/blood. These sometimes cause adverse effects on people's minds. However, such practices are not related to the core group members. As the groups are open to adding any member to increase their outreach, some bad people can join the groups and take the opportunity. The groups try to address this problem by creating a plasma bank where they have more control and information about the people. Apart from this challenge, Facebook can create other different challenges like the spread of misinformation and fake news, which can contribute to erode citizens' trust and demotivate people to cooperate (Tang & Liu, 2015), but those problems were not that much applicable for these groups as the groups are confined groups, and have moderation team to check all the posts before approval for the groups.

Though these groups show some success in addressing the challenges of COVID-19, their activities are mainly limited to the capital city and some other major cities. For the COVID-19 crisis, such limited operation was not a big issue as most COVID-19 patients are also from major cities. But, if the diseases spread further in other parts of the country, then these groups will face challenges to operate. In Bangladesh, most people are still living in villages, and many live under the poverty line. In Bangladesh, the proportion of people who live below the poverty line is 20.5 in 2019 (ADB, 2021). These people and others who live close to the poverty line do not have access to the internet or have very limited internet access. The issue of internet usage is not only dependent on the affordability to buy internet packages, but it also depends on IT (Information Technology) literacy. Many people, particularly lower educated and older people, have very limited knowledge to use these technologies.

Luckily, for some reason, it appears that poor people from Bangladesh are not physically affected significantly by COVID-19; though they are supposed to be more vulnerable. They can not stay home without work, and often they work without any protection. One possible hypothesis for such a lower infection rate may be related to the exposure of those people to different microorganisms during their lifetime which helps them to acquire heterologous immunity from natural infections (Ahmed & Rahman, 2020). However, we do not know what will happen or how these social media-based groups will operate if the poor section of people will be affected. The older people may have limited knowledge of internet use, but for many of them, particularly aged people from the middle class and above, their children fulfill their needs as they are mostly efficient in using these technologies. The areas of the interventions of these groups, and the strategies that these groups so far have taken, can produce important learning points for us to deal with crises like COVID-19. These kinds of initiatives can help to address coordination gaps of a country and can ensure better use of limited resources.

Appendix

Fig. 2 Top 10 Leading countries based on Facebook audience size (as of October 2020) Source: Statista, 2021

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Declaration

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