



Research article

Public Relations in Bangladesh in the Digital Age: A Content Analysis of the Facebook Page of the Directorate General of Health Services

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ABSTRACT

This study examines the public relations practices used by the health department of the Bangladesh government to inform the public via a social media platform. It focuses on the content posted on Facebook by a government agency to explore communication patterns and audience interactions. A total of 308 Facebook posts dispatched by the Directorate General of Health Services (@dghsbd) for five consecutive months were analyzed to identify the kinds of communication patterns employed in the dissemination of messages and to find out the types of communication patterns that elicit the most enthusiastic responses from target audiences. Grunig and Hunt's public relations model underpinned the study, and the quantitative content analysis method was followed. Findings show a preference for one-way communication was still used more frequently than two-way communication; 64% of the 308 posts followed the public information model, 18% followed the press agency/publicity model, 13% followed the two-way asymmetrical model, and 5% trailed the two-way symmetrical model. The study recommends focusing on public relations specialists and implementing a two-way communication approach to enhance interactions between the government and the public by improving the skills and training of the public relations team, along with creating and implementing engaging health communication frameworks.

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Introduction

The internet has transformed public relations by allowing immediate communication, expanding audience reach, and encouraging interactive engagement (Zhou & Xu, 2021). This change has resulted in more interactive and engaging relationships between organizations and their stakeholders (Tong, 2021). The availability of social media serves not only as a source of knowledge but also as a source of engagement (Sutrisno & Rahmanto, 2019). According to a publication by the International Telecommunication Union (2024), sixty-eight percent of the world's population, or 5.5 billion people, are online in 2024, up from 65 percent a year earlier. The emergence of social media platforms such as Facebook has affected everyday operations, especially public relations activities. Social media platforms are used to post users' profiles, activities, and opinions and create a space for communication and engagement. Using social media in public relations is referred to as online public relations (Phillips & Young, 2009). The advent of new forms of communication including online PR has resulted in a shift

like public relations toward one that is more global, strategic, interactive, dialogic, and socially responsible (Grunig, 2009). One-way communication in public relations emphasizes the sharing of information without the opportunity for feedback or interaction, aiming to inform or persuade the audience (Macnamara, 2016). Governments frequently adopt this approach, using platforms like Facebook to broadcast announcements or updates without prioritizing public engagement (Brautović *et al.*, 2013). On the other hand, two-way communication encourages interaction and conversation between organizations and their stakeholders, to achieve shared understanding and develop relationships (Heath, 2004).

Governments are also experimenting with social media as a replacement for traditional modes of communication (Alotaibi *et al.*, 2018). According to John D. Millet, there are four primary roles for government public relations: observing and learning about the people's wishes and ambitions, advising the public on what it ought to seek, preserving a favorable rapport

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between the people and government leaders, and providing information about an organization's activities (Ruslan, 2008). Social media revolutionizes healthcare by changing how people acquire health information, contact healthcare providers, interact with family and friends, increase access to healthcare services, provide social support, and raise awareness of emerging health crises (Thompson *et al.*, 2011). There has been a notable increase in recent years in the use of social media sites like Facebook for health communication campaigns to achieve a variety of challenging health-related outcomes (Shi *et al.*, 2016). Social media, particularly Facebook, has become an important aspect of many people's lives in Bangladesh. There were 67,179,200 Facebook users in Bangladesh in November 2024, which accounted for 37.7% of its entire population, making it the most popular of the top five social media networks in Bangladesh (NapoleonCat, 2024). Recognizing this, the Directorate General of Health Services (DGHS), which functions under the Ministry of Health and Family Welfare, operates its official Facebook page (@dghsbd) as a crucial channel for sharing health-related information with the public (DGHS, 2021).

With the increasing significance of social media in public relations and healthcare communication, research on how government organizations in Bangladesh effectively use these platforms for outreach and engagement is still limited. Specifically, there is a need to analyze how the DGHS employs its official Facebook page to convey health-related messages and engage with the public. This study intends to examine the kinds of messages, contents, and communication strategies that DGHS employs on its Facebook page, assessing these practices through the lens of the four public relations models. The results may provide important insights into the efficacy of DGHS's social media strategies and suggest ways to improve government communication in Bangladesh, particularly in the healthcare sector.

Research Questions

This study searches for the answers to the following research questions:

- i. What kinds of contents and messages are public relations officers in the Directorate General of Health Services (DGHS) incorporating on Facebook?
- ii. Which public relations practice engages the audience the most?

Research Objectives

Based on the research questions, the objectives of this study are:

- i. To explore the public relations strategies applied in disseminating messages through the DGHS Facebook account
- ii. To identify the public relations approaches that generate the highest engagement from followers

Literature Review

Grunig (2009) showed that digital media has the potential to fundamentally revolutionize public relations when it is strategic, managerial, balanced, and integrated but not sublimated; it offers more value for organizations and society. Alotaibi *et al.* (2018) looked at the question of

using social media as a communication channel between citizens and government agencies (including government departments), taking into account a variety of aspects that influence the problem from the standpoint of a government department. Social media can be used for online public relations, including researching, advising, communicating, and informing, but it must first address its bureaucratic challenges before effectively enhancing social engagement and integration (Sutrisno & Rahmanto, 2019).

According to Otulak (2010), a company's social media presence can aid in the genuine knowledge of its stakeholders' needs and goals. Online public relations are all about cultivating multi-touch, multi-channel connections with small yet connected groups. Petrovici (2014) indicated that public relations professionals have huge potential in the digital age to communicate more effectively with a variety of audiences. Matias and Cardoso (2019) explained that the public relations practitioner (PRP) serves as the manager of organizational communication and is becoming more crucial as technology and the internet evolve. A PRP analyzes, organizes, and maintains effective two-way communication between a department and its public. Kriyantono *et al.* (2017) made a distinction between government and private public relations, where two-way communication approaches have been used in both government and commercial public relations in Indonesia, and the findings also revealed Indonesia's public relations techniques have progressed in lockstep with the country's democratic development.

Haryanti and Rusfian (2018) investigated how government public relations use various social media platforms and found opinion leaders are involved in communication, most feedback is indirect, and the information flow was suggested to take place in one or two steps rather than the ideal of one step. Coombs (2007) examined how crisis communication can protect reputational assets during a crisis and found that government, nonprofit, and for-profit organizations are unlikely to engage online unless they must defend their reputation after an institutional crisis. Sari and Soegiarto (2021) identified social media trends in Indonesian government agencies and the role and function of government organizations' public relations via the usage of social media. Their findings showed that Instagram and Twitter are the most widely used social media platforms in Indonesia, and the public relations responsibility of government agencies in handling social media is limited to that of a communication technician (Sari & Soegiarto, 2021).

The growing trends of healthcare information-seeking tendencies and the requirement for the allocation of reliable and valid healthcare information necessitate appropriate ways by government agencies to disseminate health information and obtain greater social media engagement in Malaysia, where health services have extensively applied digital platforms for promoting health, public health communication conveyance, and organizational public relations activities (Rahim *et al.*, 2019).

Kharisma and Kurniawan (2018) explained how public organizations use micro-level social media

(platforms with short, concise content such as Twitter or Facebook) to achieve public relations aims, and the results illustrated that the National Archives of the Republic of Indonesia (ANRI) employed micro-social media, specifically Twitter and Facebook. In social media management, a proactive strategy with clear communication reigns supreme. Social media participation is still regarded as low, although certain content has gotten substantial attention (Sangiorgio *et al.*, 2025).

According to Waters and Williams (2011), public sector organizations in the United States are making use of Twitter to satisfy a diverse range of organizational communications. The most common use of the service focused on disseminating information in a one-way manner. However, it was also used to a great degree to stimulate the establishment of relationships with other Twitter users (Waters & Williams, 2011).

Nurfurqonah and Rahmanto (2018) analyzed the contents of messages or tweets on the Directorate General of Taxes' Twitter accounts, viewed from the aspect of purpose and feedback of the tweets, examined the association between the purpose and feedback of the tweets and they discovered that Twitter is used to share information, teach people about taxes, share messages and events, and encourage people to join in.

Another study examines the communication practices seen in a message or tweet sent out by Indonesia's Directorate of General Taxes (DGT) Public Relations, and the findings show that DGT Public Relations continues to rely more heavily on one-way communication than two-way communication (Nurfurqonah *et al.*, 2019). Although not perfect, DGT Public Relations has successfully combined all four models of public relations into one. In a study, Koul (2009) found out that communication for the intended perception among the target audience and brand sustainability is an important PR responsibility for Public Sector Unions (PSUs) in India, but the establishment of full-fledged Communications Council (CC) departments was still in its early stages at many PSUs.

Glenny (2008) discovered a range of perspectives, mostly on the function communication plays and therefore should contribute to governance. Individuals with little or no professional skills or education in communication saw the role as one of persuasion and information exchange, whereas those with more expertise pushed for increased public participation. The understanding, knowledge, and intent of government communication in Australia remain limited due to the absence of detailed skills and/or application of public relations concepts. According to Brautović *et al.* (2013), the Croatian government failed to provide content (messages) for its citizens and instead uses Facebook for one-way communication rather than engaging and informing them. They advocated for the government to use two-way communication, which would entail the creation of instructive, instructional, and occasionally amusing information (Brautović *et al.*, 2013).

According to Petrovici (2014), a PR that does not adequately engage with the online community can no longer properly shape and maintain the public image. Online public relations may be a unique technique to

promote a government, its activities, or its services while increasing exposure in the virtual world (Petrovici, 2014). Government's usage of social media for public relations is new; therefore, it is crucial to examine what communication model prevails, how frequently it occurs, how effective it is, and what sort of information it provides.

Reviewing all the above-discussed literature, the authors examine the contents of the DGHS's Facebook account (@dghsbd) through the perspective of the four public relations models to see how it is being used for online public relations. To date, no single study has specifically addressed the public relations models of any health department or agency in Bangladesh. The present study aims to scrutinize the public relations practices employed in conveying messages through the DGHS Facebook profile and to determine the public relations practices that elicit the greatest engagement from followers.

Theoretical Foundation

According to Professor James Grunig and Todd Hunt's book "Managing Public Relations," published in 1984, this research conforms to the four public relations model paradigms. These models are as follows: (1) Press Agency/Publicity Model; (2) Public Information Model; (3) Two-Way Asymmetrical Model; and (4) Two-Way Symmetrical Model; here we provide an explanation of Grunig and Hunt's conventional public relations (Theaker, 2013) and their usage on social media, particularly Facebook (Waters & Williams, 2011).

Press Agency/Publicity Model: An organization's publicity model relies on a one-way connection between the organization and the public, whereas public relations rely on more propaganda, persuasion, and manipulation to get media attention, then accuracy of information gets less importance (Grunig *et al.*, 1995). On Facebook, this can be seen in short Reels, visually engaging posts, or catchy phrases designed to go viral. For example, DGHS might post eye-catching graphics or emotionally charged testimonials to encourage people to get vaccinated. The goal is to capture attention and spread the message widely, even if the information is simplified or lacks depth.

Public Information Model: It focuses on sharing accurate and factual information with the public. Like the press agency model, it uses one-way communication, but its goal is to inform, not persuade (Theaker, 2013). On Facebook, organizations can apply this model by posting updates, announcements, or news articles that provide clear and reliable information. For instance, DGHS might use Facebook to share announcements about free health check-up camps or explain steps to prevent dengue outbreaks. Tools like pinned posts or stories can ensure critical health information reaches the audience, prioritizing clarity and credibility.

Two-way Asymmetrical Model: This model adds public feedback to the mix but still prioritizes the organization's goals. Organizations using this model engage audiences for feedback, as seen in polls and surveys on social media, but primarily to refine their own strategies rather than achieve mutual understanding (Lovejoy *et al.*, 2012). DGHS could apply this on

Facebook by using polls or surveys to collect public input on health services. For example, they might ask people about their experience with telemedicine services and then use the feedback to refine the program. While the audience's feedback is valued, the primary focus remains on improving DGHS's operations and achieving its objectives, such as higher service uptake.

Two-way Symmetrical Model: The Two-Way Symmetrical Model fosters collaboration and mutual understanding between an organization and its audience. It uses two-way communication to address concerns, resolve issues, and build trust (Kent & Taylor, 2002). On Facebook, this model can be seen in engaging conversations in the comments, hosting live question and answer sessions, or interacting through social networking service Messenger or community groups. For instance, if people express confusion about a new vaccination schedule, DGHS could provide detailed responses and consider adjustments based on public concerns. This approach builds stronger relationships by showing the audience that their opinions matter and that the organization values collaboration.

Materials and Methods

Study Design and Approach

This study employs a quantitative content analysis approach, which Bernard Berelson defines as "an objective, systematic, quantitative description of communication content" (Stempel *et al.*, 2003). The selection of quantitative analysis is justified by its ability to systematically categorize and measure communication elements, making it well-suited for identifying patterns and trends within large datasets, such as social media posts. This method facilitates the assessment of audience engagement, reveals communication patterns, and allows for comparisons across different types of contents. Given the substantial volume and diversity of posts, a quantitative approach ensures both replicability and reliability in the findings.

The focus of the study is the official Facebook account of the Directorate General of Health Services (DGHS), @dghsbd, which has approximately two million followers (as of 2024), making it the government healthcare agency with the most followers, and therefore one of the most impactful health communication platforms in Bangladesh. The account serves as a critical platform for disseminating health information and engaging with the public. Through analyzing its communication patterns, the authors tried to get insights into how DGHS uses social media to effectively engage with its large audience base.

Unit of Analysis

The unit of analysis is the posts published on the @dghsbd Facebook account, which include diverse content types such as text messages, photos, videos, infographics, announcements, and links. These are chosen because they represent the various ways the DGHS communicates with its audience. The analysis evaluates the format and type of content, as well as its alignment with public relations models and engagement metrics. By studying these elements, the research seeks to understand

how different formats in different public relations models contribute to audience engagement.

Sampling

To maintain a manageable scope while reflecting communication trends, a probabilistic sampling method was employed. A total of 308 posts were examined from the timeframe of July 2022 to November 2022. This timeframe was chosen as it represents a period of active engagement for DGHS communication, including important public health events such as monsoon-related illnesses (like dengue outbreaks) and vaccination initiatives. These months are significant for assessing how DGHS addresses seasonal health challenges and promotes public awareness.

Content Categorization

The study categorizes posts using the four public relations models developed by Grunig and Hunt, as adapted by Waters and Williams (2011). The categories are mutually exclusive and exhaustive, and each post is assigned to one of the following models: (1) Press Agency/Publicity Model, (2) Public Information Model, (3) Two-Way Asymmetrical Model, and (4) Two-Way Symmetrical Model.

In addition, audience engagement is categorized into three metrics: (i) Reactions, (ii) Comments, and (iii) Shares. Posts are further categorized by format to evaluate their effectiveness, using the following six types: (i) Text posts, (ii) Videos, (iii) Motion graphics, (iv) News or article links, (v) Pictures, and (vi) Graphics. This categorization ensures a comprehensive understanding of how post formats and communication strategies impact audience interaction.

Data Collection

To collect quantitative data, this study has analyzed the government health department's Facebook page. Since this region is not very large, the focus of this study was placed on a single government department. To choose the appropriate department from among the many available options, the researchers chose the organization that had a large number of followers on Facebook, since it represented the highest reach and potential impact, especially during the COVID-19 period when social media interaction was at its peak.

However, this study has analyzed the department's Facebook posts that the department shared on its Facebook page from July 1, 2022, to November 30, 2022. This study has analyzed the department's Facebook page for five months. More than 90% of the total number of people who use social media in Bangladesh use Facebook as their primary social media platform, and the department places a greater emphasis on Facebook than it does on other platforms (Statcounter, 2024).

This study counted the number of each type of post shared by the department as well as how they were posted to collect quantitative data. To enhance the credibility and reliability of the categorization process for DGHS's Facebook posts according to Grunig and Hunt's four public relations models, Waters and Williams's (2011) research on government agencies in the USA was followed. Specifically:

- a) *Press Agency/Publicity Model*:
 - i. Posts featuring eye-catching, emotionally charged graphics and testimonials to capture attention and spread widely
 - ii. Prioritizing sensational content over accuracy
- b) *Public Information Model*:
 - i. Providing clear, factual updates and announcements
 - ii. Delivering accurate and reliable information without persuasive elements
- c) *Two-way Asymmetrical Model*:
 - i. Polls or surveys to collect audience feedback
 - ii. Using feedback to refine organization's strategies and services
- d) *Two-way Symmetrical Model*:
 - i. Engaging the audience through public conversations, live Q&A sessions, and interactions in community groups
 - ii. Fostering mutual understanding and trust by responding to public concerns and incorporating audience input into decision-making

The types of postings that gathered the most likes, shares, and comments were also tallied. This study was able to determine the public relations practices in which the department shared the most posts by tallying the type of post, the format of the post, and the reactions, shares, and comments of each post. For instance, if viewers are just reacting or if they are actively contributing by posting a comment on a post, each of these actions is a measure of audience engagement.

Results

This study has collected and analyzed its required quantitative data, and based on the analysis of the data, it finds the following results:

In the selected period (July 2022 to November 2022), the Directorate General of Health Services posted a total of 308 posts under four public relations models. During these months, the total reactions received by these posts are 303651; the total comments received are 6691; and the total shares received are 8696.

On average, each post receives 98,588 responses. Additionally, the average number of shares per post is 28.23, while the average number of comments attached to each post is 21.72.

This paper presents the findings in three sections. First, it describes the public relations practice that the Directorate General of Health Services primarily employs to spread messages. Secondly, it has presented which types of posts audiences are most engaged with, which means the most engaged public relations practice. Thirdly, it shows in which formats the department disseminates most of the posts and in which formats audiences are more engaged, which expresses the audience's involvement with a particular format and type of post, and which kind of public relations practice primarily uses this format.

(1) PR models practiced by DGHS

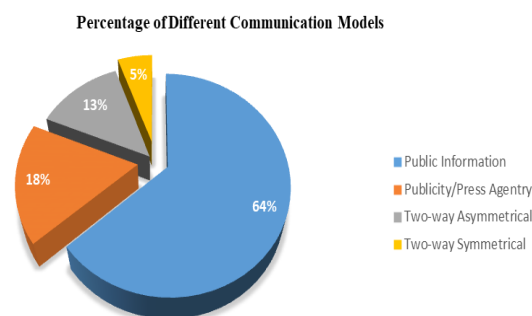


Figure 1: The percentages of different PR models

According to *Figure 1*, out of the total 308 posts, 196 (64%) followed the public information model, 54 (18%) followed the publicity/press agency model, 41 (13%) followed the two-way asymmetrical model, and 17 (5%) followed the two-way symmetrical model. The two-way symmetrical model is placed last with a total of 17 posts (5%). The two-way asymmetrical model is placed second last with a total of 41 posts (13%). These two models prefer the two-way communication practice. The public information model is placed first, followed by the press agency/publicity model, which is placed second. Their data are shown, respectively: 196 posts (64%) and 54 posts (18%). Both of these models are examples of one-way communication, which means that the audiences are not allowed to provide feedback.

(2) The most engaged public relation model by the audience

This section has detailed how Facebook users interacted with the posts that were shared and which communication strategy proved most successful. This study discovered that there are three ways in which users interact with a shared post: by displaying an emotional response (reactions include like, love, haha, wow, sad and angry), by leaving comments, and by sharing the article with others.

Based on *Table 2*, among the four models, on average, each post of the public information approach received the highest number of reactions. The two-way asymmetry strategy, however, earned 1289.63 % more reactions on average (*Table 2*).

Table 3 indicates the number of comment followed by each model. By dividing the total comments by the number of total posts of each model, this paper finds that each post of the publicity model received the highest number of comments. Each post of the publicity model received 53 comments, whereas the two-way asymmetric model got 16 comments and placed first in terms of receiving reactions (*Table 3*).

Table 4 shows the numbers of share received on each model. By dividing the number of total shares by the number of total posts for each model, this paper finds that each publicity model post received the highest number of shares among the four models. The two-way asymmetrical model received the second-highest number of shares, 44.4 (*Table 4*).

Table 1: The number of “Formats” used by each model

PR Model	Graphics	Motion Graphics	News/Article link	Picture	Text	Video	Grand Total
Publicity/Press Agency	11		6	26	5	6	54
Public Information	62	3	8	110	1	12	196
Two-way Asymmetrical	11	7	3	17		3	41
Two-way Symmetrical	3	1	2	7		4	17
Grand Total	87	11	19	160	6	25	308

Table 2: The number of “Reactions” received by each model

Unit of Analysis	Publicity/Press Agency	Public Information	Two-way Asymmetrical	Two-way Symmetrical
Number of total shared posts of each model	54	196	41	17
Number of total <i>Reactions</i> received by each type	68032	174522	52875	8222
Number of <i>Reactions</i> of each post in each model	1259.85	890.42	1289.63	483.65

Table 3: The number of “Comments” received by each model

Unit of Analysis	Publicity/Press Agency	Public Information	Two-way Asymmetrical	Two-way Symmetrical
Number of total shared posts of each model	54	196	41	17
Number of total <i>Comments</i> received by each type	2872	2819	671	329
Number of <i>Comments</i> of each post in each model	53.19	14.38	16.37	19.35

Table 4: The number of “Shared Posts” received by each model

Unit of Analysis	Publicity/Press Agency	Public Information	Two-way Asymmetrical	Two-way Symmetrical
Number of total shared posts of each model	54	196	41	17
Number of total <i>Shares</i> received by each type	1636	4732	1826	502
Number of <i>Shares</i> of each post in each model	30.31	24.14	44.4	29.53

(3) *Formats of the posts and audience involvement with different formats of posts*

This part has presented how many formats the government department uses to convey messages and in which format the audiences were most engaged.

The department shared all 308 posts in six different formats: graphics, motion graphics, news/article links, pictures, text, and video. Among the six formats, picture format was used in the most posts (160). Graphics, video, news/article links, motion graphics, and text formats were appeared in 87, 25, 19, 11, and 6 posts, respectively. The department shared the majority of its posts in picture format, with 52% of total posts in picture format and 28%, 8%, 6%, 4%, and 2% in graphics, video, news/article link, motion graphics, and text format, respectively (Figure 2).

This research examined the engagement metrics for various types of posts on the DGHS Facebook page.

According to Table 5, the findings indicate that posts featuring graphical formats received a total of 149,999 reactions, 2,016 comments, and 4,653 shares over 87 posts. When averaged per post, this equates to approximately 1,724 reactions, 23 comments, and 53 shares for each graphical post. Posts containing pictures generated 95,715 reactions, 2,714 comments, and 1,730 shares out of 160

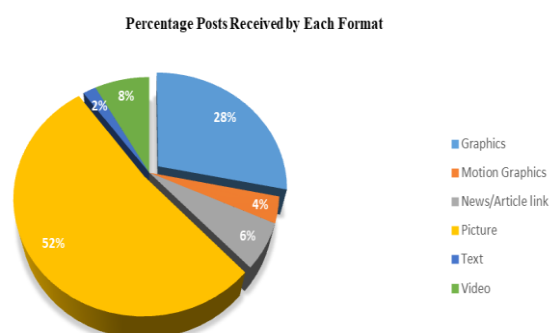


Figure 2: The percentages of different formats

posts. On average, each photo post received around 598 reactions, 17 comments and 11 shares. Links to news or articles accumulated 12,324 reactions, 197 comments, and 176 shares across 19 posts. This results in an average of around 649 reactions, 10 comments, and 9 shares for each news/article link. Motion graphics posts received a total of 2,663 reactions, 55 comments, and 636 shares across 11 posts, averaging around 242 reactions, 5 comments, and 58 shares per post. Video posts gained 8,438 reactions, 214

comments, and 607 shares from 25 posts, resulting in an average of around 338 reactions, 9 comments, and 24 shares for each video. The six text posts achieved 34,512 reactions, 1,495 comments, and 894 shares, which result in an average of around 5,752 reactions, 249 comments, and 149 shares per post (Table 5).

According to Table 6, the finding shows the frequency of each format in each model of public relations. It shows that graphics format has been used 28% of the time, but 20% of it was used in the public information model. The motion graphic format was mostly used in the two-way asymmetrical model, which is 2%. The news/article link format was mostly used in the public information model, and that is 3%. The picture format was mostly used in the public information model (36%). The text format was only used in the publicity/press agency model (2%). The video

format was mostly used in the public information model (4%) (Table 6).

According to Table 7, the two-way asymmetrical model achieved the highest levels of engagement, with an average of 1,289.63 reactions and 44.4 shares per post. However, the two-way symmetrical model, while lower in reactions and shares (483.65 and 29.53, respectively), garnered more comments (19.35). The publicity/press agency model also showed high reactions (1,259.85) and shares (30.3), while the public information model had the lowest engagement metrics. This indicates that while the two-way asymmetrical model may be more successful in generating reactions and shares, the two-way symmetrical model could offer more valuable engagement in the form of comments (Table 7).

Table 5: Reactions, comments, and shares received by each format of post

Format of Post	Reaction	Comment	Share	Total Posts in Each Format
Text	34512	1495	894	6
Video	8438	214	607	25
Motion Graphics	2663	55	636	11
News/Article link	12324	197	176	19
Picture	95715	2714	1730	160
Graphics	149999	2016	4653	87
Total:				308

Table 6: The number of frequencies for each model by format

Format of Post	Publicity/Press Agency	Public Information	Two-way Asymmetrical	Two-way Symmetrical	Grand Total
Graphics	4%	20%	4%	1%	28%
Motion Graphics	0%	1%	2%	0%	4%
News/Article	2%	3%	1%	1%	6%
Picture	8%	36%	6%	2%	52%
Text	2%	0%	0%	0%	2%
Video	2%	4%	1%	1%	8%
Grand Total	64%	18%	13%	6%	100%

Table 7: The highest engaged public relation model

Unit of Analysis	Publicity/ Press Agency	Public Information	Two-way Asymmetrical	Two-way Symmetrical
Number of <i>Reactions</i> of each post	1259.85	890.42	1289.63	483.65
Number of <i>Shares</i> of each post	30.3	24.14	44.4	29.53
Number of <i>Comments</i> of each post	53.19	14.38	16.37	19.35

Discussion

The findings suggest that the engagement of the audience with DGHS's Facebook posts is mainly influenced by reactions and shares, rather than comments, indicating a tendency towards one-way communication models like Public Information and Press Agency/Publicity. This aligns with the observations made by Brautović et al. (2013), who pointed out that Croatian government agencies similarly preferred one-way communication, utilizing Facebook mainly as a tool for disseminating information instead of encouraging dialogue.

In Bangladesh, the dependence on one-way communication may be attributed to structural issues within governmental organizations, including limited resources, inadequate training, or an emphasis on efficiently conveying urgent public health information.

Rahim et al. (2019) pointed out similar patterns in Malaysia, where governmental health agencies successfully utilized social media for extensive health promotion but faced challenges with interactive engagement. Although this method ensures quick dissemination of messages, it restricts opportunities for two-way communication that could improve trust, comprehension, and collaboration with the audience (Grunig, 2009).

Alotaibi et al. (2018) pointed out that effectiveness in governmental communication should correspond with the objectives of the organization. For DGHS, increased engagement figures may indicate that public health messages resonate well, even though the two-way symmetrical model—aiming for mutual understanding—remains the optimal approach for fostering relationships.

Grunig (2009) emphasized the importance of symmetrical communication in building trust and promoting lasting engagement with audiences. The DGHS's minimal implementation of this model points to a potential area for improvement. Embracing more dialogic approaches, similar to the emerging public relations strategies in Indonesia (Kriyantono et al., 2017), could enhance DGHS's capacity to tackle public health issues while encouraging significant interactions with the audience.

The study results indicate that visual elements like graphics and pictures are predominant in DGHS's posts, in line with the audience's desire for appealing and easily comprehensible content. However, the limited use of these elements for two-way communication (graphics: 5%, pictures: 8%) highlights potential opportunities to improve engagement. Rahim et al. (2019) noted comparable patterns in Malaysia, where visual formats successfully connected with audiences but fell short in terms of interactive richness.

To enhance engagement, DGHS might merge visual components with interactive formats. Petrovici (2014) highlighted that online public relations present distinct chances to cultivate multi-channel relationships. By incorporating visuals into dialogic posts or employing multimedia tools for immediate interaction, DGHS could boost both reach and audience involvement.

The predominance of one-way communication on DGHS's Facebook page illustrates wider patterns in government public relations, as highlighted by Sutrisno and Rahmanto (2019), who pointed out that structural limitations and an emphasis on efficiency are typical obstacles. Nevertheless, social media holds untapped possibilities for participatory and interactive communication, as evidenced by the effective implementation of dialogic practices in Indonesian government agencies (Kriyantono et al., 2017).

In the context of public relations in Bangladesh, the research underscores the necessity to progress beyond conventional dissemination approaches. Grunig (2009) pointed out that a strategic and balanced approach to digital media has the potential to transform public relations, changing it from a mere transactional interaction into one that nurtures significant connections with stakeholders. The DGHS could utilize these insights to implement a more cohesive communication strategy that harnesses the interactive capabilities of social media.

This study highlights the shortcomings of one-way communication in fully utilizing social media for public engagement. Although the DGHS successfully shares health messages, a stronger focus on two-way symmetrical communication could improve trust, collaboration, and public involvement. As government bodies in Bangladesh move through the digital age, embracing more participatory public relations approaches will be crucial for building meaningful relationships and tackling the intricate challenges of public health communication.

Conclusion

This research examined the communication strategies of the official Facebook account of the Directorate General of Health Services and found the organization's

significant emphasis on one-way communication. Although this method ensures the distribution of information, it restricts opportunities for audience interaction and feedback. The results highlight the necessity for government agencies to implement two-way communication models, which have been proven to encourage higher levels of engagement and trust with the public.

To overcome these issues, government agencies ought to invest in training public relations professionals to create targeted contents aimed at specific audiences. By incorporating interactive formats such as graphics and animated visuals, as well as providing structured feedback channels, agencies can move towards more inclusive communication approaches. Future studies should investigate communication trends across different government and private organizations to provide a comparative analysis and identify effective practices.

Given the growing dependence on social media as a key source of information, government agencies in Bangladesh need to adapt their communication strategies to be more inclusive and interactive. This transition will not only boost audience engagement but also enhance the overall efficacy of public service communication.

Ethics Statement

This research employed publicly accessible information from the official Facebook page of the Directorate General of Health Services. No identifiable personal details were gathered or examined, maintaining compliance with ethical research practices. The evaluation concentrated solely on collective data from public posts, thereby protecting the privacy and integrity of individuals.

Data Availability Statement

The data that support the findings of this study are openly available in the Facebook profile of the Directorate General of Health Services at <https://www.facebook.com/dghsbd>.

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Conflict of Interest

Regarding this study, the researchers affirm that there is no conflict of interest. The research was carried out independently and objectively, without the influence of any financial or personal relationships that might have influenced the results or the interpretation of the data.

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