

USE OF SOCIAL MEDIA BY THE FARMERS IN GAZIPUR DISTRICT OF BANGLADESH

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Abstract

Bangladesh has embraced digitalization to the point where social media has become an essential tool for communication among all sectors of people including agriculture. The current study was therefore attempted to ascertain the extent of use of various social media platforms by the farmers. The study was conducted in two Upazilas viz. Sreepur and Gazipur Sadar Upazila of Gazipur district. A total of 100 farmers were selected as a sample of the study following a proportionate random sampling technique. Four-fifths (80.0%) of them reflected poor to moderate knowledge on social media use. Among the digital social media knowledge on smartphones ranked first. The use of different social media by the majority (84.0%) of respondents was impressive where 33.0 percent had low use and 51.0 percent moderate. Watching the *Hridoye Mati O Manush* program on Facebook / YouTube ranked 1st position for using agricultural purposes. In the case of non-agricultural purposes, the use of Messenger / Imo / WhatsApp to communicate with relatives/Friends ranked in 1st position. Moreover, around half of the respondents (51.0%) preferred Facebook among other social media due to its multidimensional usage. The majority of the respondents showed as moderate users (4-9 years) of different social media using experiences. The vital preference of using social media is to communicate with others followed by entertainment and ease of handling. Level of education, farm size, and annual income showed positive significant relationship with the extent of use of different social media by the farmers while age and farming experience indicated a negative significant relationship. Network problems, load shedding, high cost, poor Wi-Fi service, and addiction to overuse of social media were some of the major problems identified by the respondents in using social media.

Keywords: Social media, use, farmers, Gazipur, Bangladesh.

Introduction

Social media is a significant communication tool in both developed and developing countries. It has been engrained in the society. Facebook, Messenger, WhatsApp, Imo, YouTube, Snapchat, Twitter, and Instagram are examples of social media (Borgohain *et al.*, 2020; Yang *et al.*, 2020).

Social media is an effective tool for educating a large audience and virtually connecting people. In fact, social media is presently utilized for a number of functions aside than communication (Azizi *et al.*, 2019; Foltean *et al.*, 2019; Rahman *et al.*, 2021). These days, farmers are not the only ones who see the benefits that these platforms offer. Farmers

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are aggressively using social media to give helpful and educational content so that people can virtually participate in the agriculture industry (Patel *et al.*, 2021). Social media platforms being used in agricultural extension service delivery worldwide with Facebook having the highest popularity (64.7%) though most of the agricultural stakeholders using social media are versatile users (33.5%) and 75.7 percent of them usually visit only to find information (Barau & Afrad, 2017). Due to the increased use of various digital services like social media, including mobile network operators and broadband service providers observed a significant increase in the number of internet subscribers (The Daily Star, 2023). The number of internet users become 120.61 million in March 2023. More over 110.40 million of them use mobile internet, while 10.20 million utilize broadband. Subscribers to mobile internet typically utilize this service for YouTube and social networking (The Business Standard, 2023).

With the proliferation of smartphones and its simplicity of use, social media has become an established means of communication on a global scale (Patel *et al.*, 2021). Agricultural extension professionals also use social media platforms to communicate with the farmers (Bhattacharjee *et al.*, 2016). It is important to encourage the widespread use of social media for correspondence between researchers, extension personnel, and farmers so that technology and knowledge can be shared in an affordable way (Ghosh *et al.*, 2022). The communication gap between rural groups, farmers, and development workers can be filled via social media. It can increase local knowledge demand, information sharing, and farmer-researcher connectedness, as well as

improve the quality of decisions that have an impact on rural, agricultural, and rural development (Crowder *et al.*, 1998).

Agricultural extension services have been relentlessly trying to use social media in Bangladesh to provide required information to the farmers. However, the agricultural extension agency was unable to provide farmers timely information because of a lack of adequate extension service providers and other restrictions. As a result, farmers face limited access to current and pertinent information, knowledge of new technologies, skills, practices, and methods of working with the market, as well as lack of resources to help them to get through these obstacles. Smallholders are therefore more likely to experience crop-related diseases, productivity issues, and missed farming opportunities (Ghosh *et al.*, 2022). The social media can be the most suitable method for immediate solution of all these problems. The government of Bangladesh has started certain initiatives with the cooperation of some non-governmental organizations and international aid to follow this method (Kafura *et al.*, 2016). Because social media communities are open networks where everybody has the chance to add their opinions.

However, farmers are still having trouble using social media, despite these advancements. Farmers struggle with a variety of issues, including poor network coverage, slow speed of internet, a lack of technological expertise, lack of training, lack of awareness and difficulties in locating pertinent information owing to the abundance of sources (Patel *et al.*, 2021; Ghosh *et al.*, 2021). In this context, the current study was carried out to (i)

investigate the extent of use of social media as an extension tool, (ii) find out the relationship between the selected characteristics of the respondents and their extent of use of social media; and (iii) identify the problems faced by the farmers in using social media.

Methodology

Descriptive and diagnostic research design was followed in the present study (Hasan *et al.*, 2022; Hasan *et al.*, 2021). Sreepur and Gazipur Sadar upazilas of Gazipur district were purposively selected as the locale of the study. The area offers easy access of the researcher and the level to which people use social media is really noticeable. Two villages from each of the two upazilas were selected following simple random technique. The sampling population for the study was the total number of farming households in the selected upazilas. The total number of farmers in the two selected villages of Sreepur upazila and two selected villages of the Gazipur Sadar was 1035. One hundred farmers were selected as the sample of the present study following proportionate random sampling technique (Hasan *et al.*, 2021). A predesigned interview schedule containing smooth combination of open-ended and closed-ended questions was prepared for gathering primary data at the household level, and it was pretested before being finalized.

The level of knowledge on social media was calculated using a knowledge scale. The scale consisted of ten (10) relevant questions regarding use of social media. Each query was assigned 2 marks. Respondents received full marks for correct responses, and half marks (i.e., 01) for incomplete ones. A score of '0'

was assigned in the event of an erroneous response. As a result, a respondent's score of social media knowledge could range from '0' to '20', with '0' denoting no knowledge and '20' denoting a very high level knowledge. Finally, based on the mean knowledge score and standard deviation, the knowledge of the respondents was divided into three categories: viz. low knowledge (up to 7), medium knowledge (8–15), and high knowledge (above 15). The respondents' responses to each question were added to determine the knowledge ranking.

Level of use of different social media was considered as the dependent variable. The formulated null hypothesis was 'there is no significant correlation between the chosen traits of the farmers and their level of social media use'. Fifteen statements were used to assess the extent of social media use. The scores were assigned for each statement: highly use (scoring 3), moderately use (score 2), rarely use (score 1), and don't use (score 0).

Ten of the fifteen assertions were about agricultural purposes, while the remaining five were for non-agricultural purposes. The respondents' level of use of various social media was calculated by adding up the ratings received by them for each statement. A respondent's level of use of various social media platforms might range from '0' (don't use any of the social media) to '45' (strongly utilize all of the social media platforms).

In order to determine which social media platforms are most frequently used by the farmer to obtain both agricultural and non-agricultural information. The rank orders were also prepared by multiplying the

number of respondents with the score of each scale for each tool and then adding the total scores. Two Focus Group Discussions (FGDs) consists of 08 and 10 respondents in each were conducted to list down the issues in using social media faced by them. Based on the quantity of citations, the discovered issues were ranked in order of importance. The SPSS program (version 26) was used for analysis of data (Hasan *et al.*, 2023; Parveen *et al.*, 2023; Saha *et al.*, 2022; Afrad *et al.*, 2021). In order to describe and explain the data, descriptive statistical metrics including range, number, mean, percentile distribution, and standard deviation were used. Coefficient of correlation was employed to explore the relationship among the dependent and independent variables.

Results and Discussion

The major findings and their logical discussions have been shown in the following sub-sections.

Socio-economic characteristics of the respondents

Results shown in Table 1 indicate the distribution of the respondent based on their socio-demographic characteristics. The age category reveals that nearly three-fifth (74.0%) of the respondents in the middle and old aged group, which makes the spacious majority of the respondents. Transactions, (2023) also noted in their study that farmer aging is prevalent in social media uses. Due to the fact that age determines how quickly people adopt new technology, this element may have an impact on how farmers utilize social media. More than half (58.0%) of the respondent were farmers by profession, while

one-fourth (25.0%) of them were practicing farming along with service, followed by 17.0 percent of them practicing farming in the combination with business. It is impressive that 93.0 percent of respondents were literate, therefore, introduction of new technology become easy to the community. Around half (51.0%) of them possessed medium-sized household, where majority (42.0%) of them belonged to medium farm size. Information presented in Table 1 also reveal that the majority of the respondents (43.0%) reflected farming experience which was over 21 years, which falls within the medium farming experience category. Similar results also found in another study (Patel *et al.*, 2021). More than half (52.0%) of the respondent belonged to medium income category. The average income (US\$3024.45) of the respondents was much higher than that of national average (US\$2025.42) (BBS, 2021). Near about two-thirds (66.0%) of the respondents had no training on agricultural production which is alarming. Also 58.0 percent of them showed low organizational participation.

Knowledge on social media uses

Knowledge score on social media use of the respondents varied from 8-20 against the possible range of '0' to 20; the average being 15.67 with standard deviation of 3.43. The respondents were divided into three groups according to their knowledge of social media use, as shown in Figure 1.

According to the results shown in Figure 1, 55.0 percent of the respondents possessed medium level of knowledge and 25.0 percent of the respondents had low level of knowledge in different aspects of social media use. Only 20.0 percent of the respondents had a high level

Table 1. Distribution of the respondents according to their socio-demographic characteristics

Characteristics	Unit of measurement	Categories	Number	Percent	Mean	SD
Age	Year	Young (up to 35)	26	26.0	44.87	12.81
		Middle (36-50)	40	40.0		
		Old (above 50)	34	34.0		
Profession	-	Only farming	58	58.0	1.67	0.85
		Farming + Business	17	17.0		
		Farming + Service	25	25.0		
Level of Education	Schooling year	Illiterate (0)	7	7.0	7.68	3.67
		Primary (1-5)	31	31.0		
		Secondary (6-12)	42	42.0		
		Higher secondary (12 and above)	20	20.0		
Family size	No of members	Small (up to 4)	39	39.0	4.91	1.64
		Medium (5-6)	51	51.0		
		Large (above 6)	10	10.0		
Farm size	Hectare	Landless (<0.20)	3	3.0	1.66	1.65
		Marginal (0.20 - 0.40)	8	8.0		
		Small (0.41-1.00)	32	32.0		
		Medium (1.01 – 3.03)	42	42.0		
		Large (above 3.03)	15	15.0		
Farming experience	Years	Low (2-10)	31	31.0	21.97	14.72
		Medium (11- 20)	26	26.0		
		High (above 21)	43	43.0		
Annual income	USD	Low (up to 1382.62)	13	13.0	3024.45	1891.17
		Medium (1382.63-3226.10)	52	52.0		
		High (above 3226.10)	35	35.0		
Training exposure	Score	No training (0)	66	66.0	0.57	0.99
		Low (1-3)	23	23.0		
		Medium (4-5)	2	2.0		
		High (above 5)	9	9.0		
Organizational participation	Score	Low (0-1)	58	58.0	1.82	1.65
		Medium (2-5)	37	37.0		
		High (above 5)	5	5.0		

Note: *1US\$ = BDT 108.49.

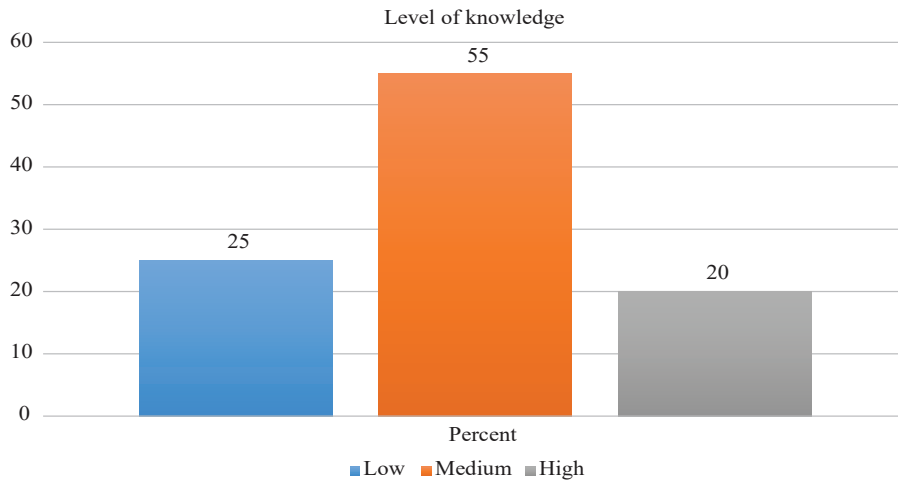


Figure 1. Distribution of the respondents according to their level of knowledge on social media.

of expertise in social media usage. The current findings show that four-fifths (80.0%) of the respondents had little to moderate understanding about social media use in the study area. The explanation for the respondents' medium to low level of understanding regarding social media usage may be due to 'lack of adequate education', 'lack of awareness', 'reluctance to learn about new technologies', and 'fear of using smartphones'.

Knowledge of smartphones came in first place among the questions posed to the respondents, earning a total score of '200' out of '200'. With a combined score of '199' and '198', knowledge of social media in its many forms came in second and third, respectively. The questions used to gauge respondents' familiarity with social media usage are listed in Table 2.

The respondents' expertise on 'interpersonal communication', 'new varieties', and 'online marketing' were low, scoring eighth, ninth, and tenth, respectively. The potential for using a certain social media platform to secure agricultural information increases

with increased knowledge of that instrument (Hansen *et al.*, 2015). Farmers can utilize social media tools more successfully to gather agricultural information if they have a general understanding of them. Farmers who having more expertise are also likely to use social media platforms more effectively when discussing agricultural practices.

Extent of use of different social media

The extent of social media use was examined to investigate how farmers now feel about using social media for both agricultural and non-agricultural purposes. The use score of different social media by the farmers ranged from 5-39. The average use score was 22 with a standard deviation of 7.55. Based on the extent of use of different social media respondents were categorized into three classes as shown in Table 3.

Results presented in Table 3 reveal that majority (51.0%) of the respondents use social media at medium extent and 33.0 percent of them use social media at small extent. Only

Table 2. Rank order of the knowledge of the respondents on social media usage

Sl#	Knowledge statements	Marks Obtained	Rank
1.	Meaning of smartphone	200	1 st
2.	Definition of social media	199	2 nd
3.	Two names social media	198	3 rd
4.	Usages of Facebook	180	4 th
5.	Usages of You Tube	176	5 th
6.	Meaning and use of WhatsApp/ Imo	174	6 th
7.	Usefulness of social media in learning crop management	138	7 th
8.	Types of knowledge gained on various new varieties and products by using social media	122	9 th
9.	Types of information communicated between farmers through social media	134	8 th
10.	Benefits of buying and selling products through social media	54	10 th

Table 3. Distribution of the respondents according to their level of use of different social media

Categories	Respondents		Mean	SD
	Number	Percent		
Low use	33	33.0	22.0	7.55
Medium use	51	51.0		
High use	16	16.0		
Total	100	100.0		

16.0 percent of respondents use social media at large scale. As a result, the respondents' use of social media is low to medium. Use of social media depends on awareness and knowledge on that the same. As they have low to medium knowledge about social media the extent of use of different social media was also low and medium.

Level of use of different social media

Almost cent percent of the respondent from whom the data were collected admitted that they mainly use social media for

communication, entertainment and passing out their leisure period. After all these, they are gradually using the social media in agriculture as well. In this study, it has been tried to find out the extent to which farmers are using social media in both agricultural and non-agricultural sectors.

Among the above social media, watching *Hridoye Mati O Manush* program on Facebook / YouTube ranked 1st position and watching *Mati O Manush* program on Facebook / YouTube ranked 2nd position. The respondents were questioned why they ranked those to

Table 4. Rank order of the extent of use of various social media for agricultural purposes

Sl#	Items	Total score	Rank
1.	Use Facebook to get agricultural news	119	6 th
2.	Use YouTube to get agricultural news	132	5 th
3.	Use YouTube to learn new profitable crop cultivation techniques	109	7 th
4.	Using Messenger to get information from experienced farmers	70	8 th
5.	Use WhatsApp/Imo to communicate with SAAO / AEO	49	10 th
6.	Use of Imo / Messenger / WhatsApp to communicate with Fertilizer / Seed / Pesticide Dealers	61	9 th
7.	Watch Mati O Manush program on Facebook / YouTube	188	2 nd
8.	Watch <i>Hridoye Mati O Manush</i> program on Facebook / YouTube	195	1 st
9.	Enjoy various videos of <i>Deepto Krishi</i> on Facebook / YouTube	134	4 th
10.	Use of Facebook to get weather news	155	3 rd

upper hand. In response, they informed that they enjoy watching these programs. Since every one of these programs features fresh agricultural goods and new agricultural technology, therefore, the accomplishments of several farmers are emphasized at the same time which will motivate them.

Use of Facebook to get weather news, enjoying various videos of *Deepto Krishi* on Facebook / YouTube, use of YouTube to get agricultural news, use of Facebook to get agricultural news was ranked 3rd, 4th, 5th and 6th position, respectively.

Respondent's also use social media in communication purpose. In this case, they specially use Messenger, Imo, WhatsApp etc. After COVID-19, with the availability of internet facility the use of those social media increased rapidly. Respondents use Messenger to contact with knowledgeable farmers, Imo, Messenger, and WhatsApp to communicate with dealers of fertilizer, seeds, and pesticides, and SAAO or AEO, which were placed eighth,

ninth, and tenth correspondingly.

Another ranking system was created to examine the extent to which various social media was used for non-agricultural purposes, and the results are shown in table 5.

Rural areas have also been impacted by the tide of IT sector and technological progress that has occurred since the current government announced Digital Bangladesh. Where the improvement in the communication sector is noticeable (Chowhan *et al.*, 2021). The rank order shown in Table 5 indicates the use of Messenger / Imo / WhatsApp to communicate with relatives / friends ranked in 1st position. The primary cause is that respondents' children and other family members live in various places or abroad due to employment or education. That's why they need to communicate with them regularly.

Respondent also resort to various social networking sites to spend their free time. That's why use of Facebook/YouTube to listen to Islamic *Waj Mahfil*, using YouTube

Table 5. Rank order of the extent of use of different social media by the respondents in non-agricultural purposes

Sl#	Items	Total score	Rank
1.	Use of Messenger / Imo / WhatsApp to communicate with relatives / Friends	257	1 st
2.	Using YouTube to listen and watch music	223	3 rd
3.	Use of Facebook/YouTube to listen to Islamic <i>Waj Mahfil</i>	230	2 nd
4.	Use of Facebook /YouTube / Messenger to share and learn about political news	146	4 th
5.	Use Facebook /Messenger to know various government instructions	132	5 th

to listen and watch music was ranked 2nd and 3rd respectively. The ranking of the various social media platforms based on how much they are used for non-agricultural purposes shows that there are many chances to use these platforms as extension tools to give farmers the information they need.

Use of social media

People are using social media in a greater extent every day as they become more conscious of the advantages of doing so. Moreover half of the respondents (51.0%) preferred Facebook above other social media, as evidenced by the statistics shown in Table 6. This is primarily due to the fact that people

can perform multiple tasks simultaneously on Facebook. They can communicate with each other and be aware of several information. Ghosh *et al.* (2021) also found similar findings in their study. Family, social issues can be shared with pictures. Can buy and sell various things in the market place. Can watch various videos at leisure. Community work can also be done by opening various pages and groups. Additionally, they can easily and rapidly learn about weather news and different government mandates which can assist in maintaining Facebook as their top option.

Nearly one third (30.0%) of the respondents preferred YouTube than other social media. The main reason of this is 'its ease of

Table 6. Distribution of the respondents according to their use of preferable social media

Characteristics	Categories	Number	Percent	Mean	SD
Preferable social media	Facebook	51	51.0	2.15	1.35
	Messenger	06	06.0		
	YouTube	30	30.0		
	WhatsApp	03	03.0		
	Imo	10	10.0		
Using time	Low (1-3 years)	33	33.0	1.83	0.68
	Medium (4-9 years)	51	51.0		
	High (above 10 years)	16	16.0		

operation'. In this case, majority of them are nearly illiterate. They frequently listen to Islamic proverbs and various tunes while working. The respondents who are female are more likely to use YouTube to watch dramas, learn how to sew, discover new recipes, and share cartoons with kids. In their spare time, they also watch different agricultural videos and other funny videos. The surprising finding is that very few (3-4.0%) of the young respondents upload videos on a variety of themes to their own YouTube channels. Particularly for communication, respondents favored Imo, Messenger, and WhatsApp. They communicate through audio and video call service more than these platforms with their relatives lived in both home and abroad. For business-related objectives, they mostly rely on this media for distributing photographs and videos. Another factor in choosing these platforms is their simplicity and lower vulnerability of hacking.

It is also evinced from Table 6 that around half (51.0) of the respondent were medium users with 4-9 years of different social media user experience followed by low users (1-3 years) and high users (above 10 years) 33.0 and 16.0 percent, respectively. Those who were higher users explore more platforms than others. Some of them also use Instagram, Twitter, Skype, Snapchat, Likee, TikTok but their percent was very low (2%).

Purpose of using preferred social media

Respondents use various social media platforms for communication, entertainment, and information collecting. They primarily utilize Facebook, Messenger, YouTube, Imo, and WhatsApp in the research area. Not everyone among them enjoys all media equally. The reason behind the selection in their preference of different social media is shown in Figure 2.

Among the many other reasons big majority of the (83.0%) respondents served their

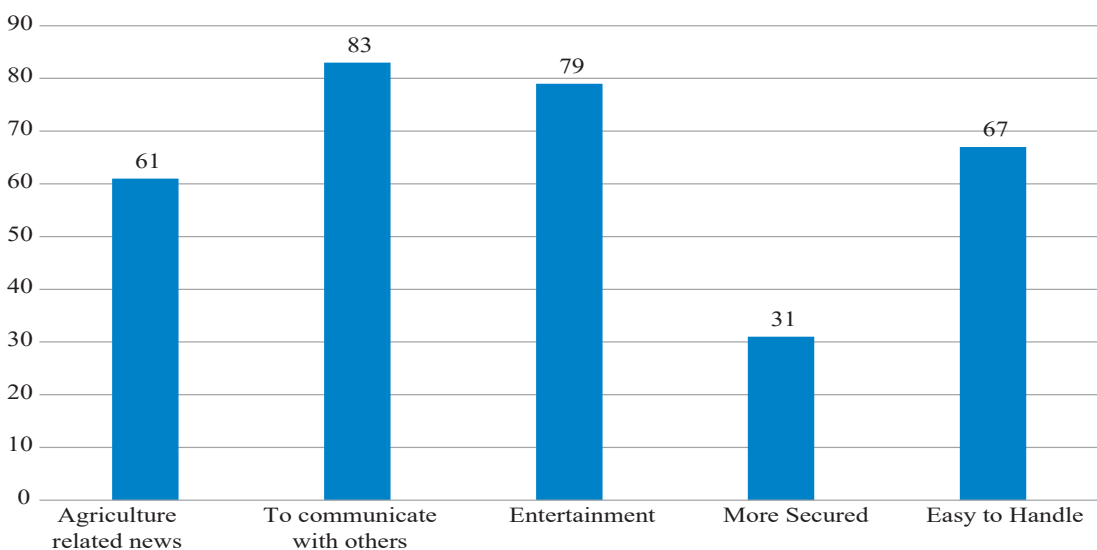


Figure 2 Percent distribution of the respondents' based on their reasons for using preferred social media.

communication purpose through their preferred social media. They mainly use Facebook, Messenger, Imo and WhatsApp for communication purposes. Similar results were also found by (Uddin & Karim, 2023). Seventy nine percent of the respondents use their preferred social media for entertainment. They mainly use Facebook and YouTube for their entertainment. Sixty seven percent of respondents indicate that YouTube, Imo and WhatsApp are easy to handle than other media. To learn agriculture-related news, new variety, and improved technology they, especially use Facebook and YouTube. Thirty one percent of the respondents admitted to hacking, cheating at some point during their social media usage. Usually, Facebook, Messenger users have faced this problem. So, many of them now use YouTube, Imo, WhatsApp and they think these are more secure.

Relationship between the selected characteristics of the respondents and their extent of use of different social media

Table 7 contains the findings of the examination

of the correlation coefficient (r) between the dependent and independent variables.

Results presented in Table 7 indicate that level of education, farm size, annual income had positive significant relationship with extent of use of different social media by the farmers while age and farming experience had negative significant relationship. Family size, training exposure and organizational participation had no significant relationship with the extent of use of different social media by the farmers.

Respondents' level of education showed positive significant relationship with their extent of use of different social media. It suggests that respondents' use of various social media platforms increases with increasing education levels. Since social media is in English version, many illiterate individuals find it difficult to understand. That's why, educated people are more likely to use social media than illiterate or less educated persons. Similar types of findings were also found by Kafura *et al.* (2016).

Table 7 Relationship between the selected characteristics of the farmers and their extent of use of social media

Dependent Variable	Independent Variables (Selected characteristics of respondents)	Co-efficients of Correlation
Level of use of different social media by the farmers	Age	-0.473**
	Level of education	0.543**
	Family size	-0.202
	Farm size	0.347**
	Farming experience	-0.304**
	Annual income	0.402**
	Training exposure	0.167
	Organizational participation	0.153

**Significant at 0.01 level of probability, *Significant at 0.05 level of probability (Two tailed)

Annual income of the respondents had positive significant relationship with their extent of use of social media. It states that the luxury to using smartphone, computer and the ability to utilize social media increased with the respondents' increased annual income. Since they have to spend certain amount of money to use social media, it is not possible for all respondents to afford it. Thus, the respondents with high annual income have engaged more with social media. The same kinds of observations were also found by Alhassan *et al.* (2023).

A positive significant relationship lied between the farm size of the respondents and their extent of use of social media. It signifies that the larger the farm size of the respondents, the more their extent of use of social media. Large-scale farmers also engage in a wide range of agricultural operations. To stay informed about new agricultural technologies in this situation, they use social media more frequently. But Alhassan *et al.* (2023) found different results in their studies.

The respondents' ages had a negative, significant link with how often they used social media. This indicates that respondents' use of social media decreases as respondents' age increases. The cause might be that the use of social media by older people serves as a form of fear. They are hesitant to use other social media because of this.

Farming experience of the respondents had negative significant relationship with their extent of use of social media. It implies that people who have more farming expertise use social media less frequently. The explanation for this

disparity might be that experienced farmers tend to be older, sometimes reluctant to adopt new technology, and require less information than new farmers, who need a lot more information and need to utilize various social media platforms to gather it. Ghosh *et al.* (2022) also reported similar results in their study.

Problems in using social media

The problems that the farmers face in using social media are shown in Table 8.

In utilizing social media, the respondent discovered a total of 13 problems. The biggest issue with them was network problem. Almost all users still have access to a 2G or 3G connection. Another significant factor in network problem was lack of mobile towers in rural areas. Network problem was also ranked first in a study conducted by Patel *et al.* (2021). Thakur *et al.* (2018) ranked network problem due to slow internet connectivity as third.

The country was experiencing a serious electricity crisis at the time when the data were collected. Especially in rural areas it has reached an unbearable level. As a result, respondents named load shedding as the second issue.

According to very big majority (89.0%) of the respondent's social media use was too expensive. Day by day the use of social media has increased, but the value of the data package has not decreased. Similarly poor Wi-Fi service was also a major hurdle in rural areas. In that case, if the service providers are brought under monitoring, they would get better services. Ghosh *et al.* (2021) and Iwuchukwu *et al.* (2023) also discovered comparable findings in their investigations.

Table 8 Problems faced by the respondents in using social media

Sl#	Problems	Number of citations	Rank
1.	Network problem	94	1 st
2.	Load shedding	91	2 nd
3.	Costliness	89	3 rd
4.	Poor Wi-Fi service	59	4 th
5.	Addiction	43	5 th
6.	Unethical matters often come forward	36	6 th
7.	Hacking	28	7 th
8.	Eye problem	27	8 th
9.	It takes time to get information	26	9 th
10.	Language barrier	25	10 th
11.	Phone hangs often	20	11 th
12.	Family problem	16	12 th
13.	Victims of fraud by buying products online	16	12 th

Social media use was like an addiction, according to nearly half of the respondents. Most boys and girls, particularly those who are younger, spend the majority of their time on social media and getting involved in various immoral activities. As a result, their regular activity was interrupted, which eventually encounter significant issues including family issues and their vision problems also.

Additionally, almost one-third of Facebook users have acknowledged experiencing ID theft at some point. The situation is substantially worsening. Because many illiterate people who are ignorant of these issues do not comprehend these problems.

Another problem was victims of fraud by buying products online. Although in rural places, this issue was less visible. However, almost all online shoppers claim to have fallen victim to fraud at least once.

Conclusion

Based on the findings of the study, it can be concluded that majority of the farmers had little to moderate understanding about social media use. Knowledge on smartphones was observed on the highest among the respondents. Extent of use of different social media by majority of the farmers was low to medium due to their low to medium knowledge. Among the different social media uses watching *Hridoye Mati O Manush* program on Facebook / YouTube ranked 1st position in agricultural purposes. In case of non-agricultural purposes use of Messenger / Imo / WhatsApp to communicate with relatives / Friends ranked in 1st position. More than half of them preferred Facebook above other social media due to its multiple uses and they have medium social media user experience. The main purpose of using their preferred social media is to communicate with others followed by entertainment and ease of handling. Level of education, farm size, annual income showed positive significant relationship with extent of use of different

social media by the farmers while age and farming experience had negative significant relationship. Network problem, load shedding, high cost, poor Wi-Fi service and addiction were some of the major problems identified by the respondent.

Recommendation

The present study was conducted in Gazipur district. To generalize the results, additional research may be conducted in other regions of Bangladesh. Government may take initiative to promote the positive features of social media in the field of agriculture to increase more knowledge and awareness among the farmer. Family size, training exposure and organizational participation had no significant relationship with the extent of use of different social media by the farmers. Therefore, further research can be conducted to determine how other aspects of farmers' traits interact. Government may monitor different service provider to minimize the network issues and load shedding especially in rural areas. Then effective and smooth use of social media will be ensured.

Declaration of competing interest

The authors declare that there are no conflicts of interest.

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