



Research article

YouTube as an information source of floating agriculture: analysis of Bengali language contents quality and viewers' interaction

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HIGHLIGHTS

- Established quality grading standards for floating agricultural contents on YouTube.
- Quantity of floating agricultural contents are on upward trend.
- Limited good-quality contents on floating agriculture are present on YouTube.
- Views, Likes, Durations can be considered to judge contents quality.
- Public possess satisfactory acceptance intensity to floating agricultural contents.

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ABSTRACT

Bangladesh is physically low-lying and prone to flooding, making floating agriculture an appropriate method for dealing with floods and assisting farmers in coping. This YouTube content study was conducted to investigate the quality of information found on YouTube regarding floating agriculture in Bengali language, as well as viewers' interactions to such videos. The inquiry began with a search on <https://www.youtube.com> for the keyword "ভাসমান কৃষি (Floating Agriculture)", which obtained 302 results. Following that, a total of 245 contents were discarded due to their inability to fulfill the inclusion criteria. Data on likes, dislikes, views, duration, comments, publisher type, and publishing year were retrieved from videos. The quality of contents was measured by a grading methodology that took into account two aspects: i) Comprehensive aspect; and ii) Floating agriculture aspect. The Kruskal-Wallis test was used to investigate multiple comparisons ($P < 0.05$ considered as statistically significant). Viewers' Sentiments, emotion, and intention towards the videos were analyzed from comments. A total of 26.32% contents were of high quality, with the majority of videos released by independent publishers and the quantity of videos on an upward trend. According to floating agriculture video demographics, mean view (70816.60 ± 177319.129), mean like (818.56 ± 1992.700), mean duration ($07:47 \pm 06:48$ min), and mean comment (18.40 ± 38.537). The amount of views, likes, and duration varied statistically significantly in relation to different content quality categories. Comments analysis revealed that the majority of the viewers' possessed positive sentiments and happy responses, whereas most of the comment was for feedback purposes. In conclusion, despite the fact that the number of high-quality videos on YouTube regarding floating agriculture was limited, viewers seem to be satisfied with those videos. This is the first paper that critically assessed the quality of floating agriculture-related YouTube videos as well as identified viewers' interaction towards those videos. This report highlights the present scenario of YouTube content regarding floating agriculture which will help content creators to produce quality videos. Understanding the viewers' interaction would set new dimensions in policy implications regarding effective information dissemination.

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1. Introduction

Bangladesh, a vulnerable country to climate change because of its geographical location faces many hindrances to sustain livelihood with ominous variation of climate. A country just stepping towards the expected development has to walk a slippery path including agriculture, its most reliable sustainable field is falling in a perturbed circumstance with a low adaptive ability to move in an equal echo with unfavorable impact of climate (M. B. Islam et al., 2010). Appearance of natural disasters as a common incidence with the rising of temperature and increment of global warming such as flooding assumed to endanger almost 80% area of total area of the country (Sikder and Xiaoying, 2014). Sea level expansion as a result of global warming intends land mitigation inspiring beach deterioration in the sea nearby area which has become an irreplaceable damage of land (Ali, 1999). Besides, the location of Bangladesh between Himalayas and Bay of Bengal assists in occurrence of high rainfall which ironically favors the low lying country, Bangladesh susceptible to flooding turned to an impasse situation of agriculture (Das, 2021). However, a large portion of total coverage of Bangladesh called coastal area regarded to be the most permeable area to the effects of climate change and natural disasters such as cyclones, storms and erosion of soil for its location is an innate barrier in agricultural flourishing (Minar et al., 2013). Alongside, soil erosion caused by deforestation, flooding, human activities has placed agriculture in an uninhabitable condition because of losing soil efficiency almost 50% (M. K. Hasan and Alam, 2006). Also the gradual rising in population inspires land alleviation every year in a rapid frustrating rate which becomes a regular but curse threat to land degradation (Rahman et al., 2012).

Alternative ways beyond general confinements and instead of only focusing on land cultivation exist which have been turned on to overcome impact of climate change, soil erosion and other natural disasters. Floating agriculture has been placed in one of the top categories. Floating Agriculture is the efficient adaptive popular technology in Bangladesh through which low lying traits and adverse weather conditions have been made productive features in agriculture (S. S. Hasan et al., 2017). Although the farmers used to apply floating agriculture in ancient time before invention of modern technology in a flooding area finding no other way, the adverse surrounding situation makes the farmers foregoing to adopt this as before (Pantarella et al., 2010). To make the water logged and flooding condition utilized efficiently as well as with an acceptable cost including recurrent use of compost has made floating agriculture admissible to the farmers with a positive attitude (M. A. Islam et al., 2015). Besides, eco-friendly including non-hazardous characteristics based on the traditional cultivation system followed by the farmers over years with a little disadvantage be rectifiable easily has made it to be predominant to do more agricultural practices (Chowdhury and Moore, 2017).

YouTube, an invention of modern time which assists to disseminate information with a strong sense of communication providing visual scenario as well as a medium of showing application of several adaptive measurements unknown to others along with entertaining purpose. Therefore, the new idea for the order of extension and making acceptable to the others YouTube acts as an important medium having contents of making the exclusive new idea comprehensible (Allgaier, 2020). Even in case of long distance for providing accurate technological information via any training, YouTube can be the best anchor as it carries the knowledge visible to the audience which is easily applicable after watching videos (Wickman et al., 2021). For being a great popular and highly used channel, YouTube can be the best option for spreading agricultural information more (Holt-Day et al., 2020). YouTube, as a medium, provides material related to public demand with the intent of disseminating a wide range of necessary demandable information (Redi Panuju, 2019).

In term of making the information of floating agriculture reachable to the farmers, YouTube shows an efficient result as it exhibits manual efforts in screen to expand agriculture in this specific way. YouTube with

its easily approachable unique traits, is regarded as the best medium for any new innovated technology to get enlarged (Agha et al., 2018). As the videos are made at hand on specific theme, some new perceivable information carried in the content has made the learning capability of viewers better (Moghavvemi et al., 2018). Besides, an illiterate farmer can also participate to view the shared videos of floating agriculture in YouTube as it does not require any special criterion or skill for enrolment. The farmers prefer YouTube videos as it is equipped with visual material so there is no problem if the language is unknown to them (Balkrishna and Deshmukh, 2017). Moreover, when compared to other websites for improving skills, especially in the medical sector, YouTube has a considerable upper hand over any other vulnerable websites since it prefers video over audio (Bhandarkar et al., 2021).

Although YouTube acts in creation of awareness of floating Agriculture with a lot of information providing trait, the quality of the videos is not undoubtedly maintained which is discussed with numerical data in the study. Many videos especially self-made ones are spotted in an unskilled manner which is clearly perceived during watching videos has raised question about its quality (Müller, 2009). Low educational video and a general tendency of biasness to make own video prevalent to others sometimes deteriorates its quality which need to be erased to capture its standard quality (Ward et al., 2020).

YouTube, a channel of sharing ideas along with a huge opportunity of expressing viewer's sentiment and a feature how they accept the idea regarding their rejection through comments part. The replies of other viewers in negative and positive comments specially more reactive replies in the negative comments than positive comment shows their sentiment how they feel about the represented videos (Thelwall et al., 2012). The video makers get chances to correct themselves with providing new informative videos with demanded relevant topic asked by the viewers according to the comments section.

The study has figured out efficiency of broadcasting floating agriculture in YouTube with experimental data along with the dissimulation of the viewers as well as the importance of the idea of Floating Agriculture, as a second prime thought for removing monopoly dependency on the tradition of land cultivation can aid in overcoming food insecurity in adverse condition along with easily available application and tutorial videos in YouTube. The study has regarded the attitude and thought of viewers towards YouTube in case of floating agriculture which may be associated to the YouTuber to realize the viewer's demands with inspiration to the researchers to investigate more on floating agriculture as an acceptable alternative means and encouragement to the interested ones to learn more about role of YouTube in floating agriculture.

2. Methodology

2.1. Data collection

For data searching on YouTube, the latest Windows version 94.0.4606.81 of the Chrome browser was used. The Chrome browser's history, cookies, site data, and cache files were cleared prior to data searching. Using the phrase "ভাসমান কৃষি (Floating Agriculture)," a data search was done on <https://www.youtube.com>. The standard sort by relevance option was used during the search, and a total of 302 videos were found. These 302 video links were listed in Microsoft Excel. A number of conditions were specified to exclude videos that were irrelevant to floating agriculture, whose language was not in Bengali, which were duplicated, which had no audio or video, and which were too long/short to be evaluated. Authors analyzed all 302 items based on those parameters, and 245 videos were discovered under elimination criteria. In content analysis, such criteria have previously been employed to exclude content from assessment (Li et al., 2020). Views, likes, dislikes, duration, comments, publisher type and publication year data were collected from each videos of the final list of 57 videos. YouTube comment extractor was utilized to extract data from videos, which was then loaded into Microsoft Excel to assess viewers' sentiment and

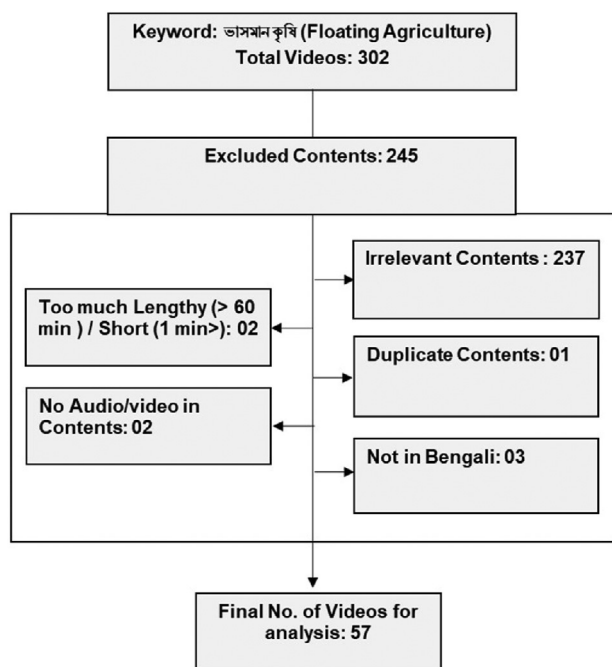


Figure 1. Detailed data search approach for floating agricultural video analysis.

Table 1. Customized scoring criteria.

A. Comprehensive Aspects (Range: 0 to 10)	
Features	Points given if
Resolution	720p and above
Subtitle	Present
Audio	Clear
Reliable Publisher	Organization, professional
Clips	Relevant
Comprehension	Easy
Flow	Good
Additional Resources	Present
Discussion	On point
Objectives of videos	Fulfilled
B. Floating Agriculture Aspects (Range: 0 to 12)	
Elements (Present = 1, absent = 0)	
Site selection	Time
Bed size	Materials for bed preparation
Procedure of bed preparation	Preparation of seedling
Sowing and planting	Care and management
Stake and platform	Cultivable crops
Harvesting	Cost-Benefit

reaction to floating agriculture information. Comments were initially screened and all irrelevant comments were eliminated. A total of 645 comments passed inclusion criteria, which were manually adjusted and prepared for further study.

A panel of three authors was in charge of evaluating video quality. To differentiate the quality of videos, a customized scoring technique was adopted. To assess content quality, a score was assigned to two aspects: the comprehensive aspect and the floating agriculture element aspect. The authors developed the content grading standards for floating farm element characteristics, and comprehensive features were updated by evaluating previous research (Hewitt et al., 2021). One point was awarded for meeting each metric, for a total of 22 criteria. By awarding a Content Score, this assessment was conducted in order to determine the appropriate value. Detailed search approach are given in Figure 1 and the

possible grading score range for each video is from 0 to 22. The customized scoring criteria are given in Table 1.

2.2. Data analysis

The data gathered from YouTube videos was input and analyzed using IBM SPSS Statistics 26. The kind of publisher and the year in which the video was released were recorded in percentages and frequencies. Numbers such as the number of likes, dislikes, views, and video time (min) were presented in Mean and Standard Deviation. All of the videos were divided into three categories based on their content score: good, medium, and bad. Following Blooms' cutoff criterion (Azanaw et al., 2021), a content score of 80% or more is regarded good quality, a content score of 60%–79.9% is considered medium quality, and a content score of less than 60% is considered poor quality. Multiple comparisons were carried out using the Kruskal-Wallis test in this study (P < 0.05 considered as statistically significant).

Sentiment, emotion and intention of comments were analyzed from the processed comments. A word cloud of comments was created, and audience sentiment was reflected in three categories: positive, negative, and neutral. These are reported in frequency number. The majority of the responses were in Bengali. Emotions from comments were classified as happy, angry, sad, excited, sarcasm, and fear, and the frequency of each was reported. And the purpose of their comments was divided into three categories: feedback, marketing, and query. Words from the comments were manually examined, and words recognized as positive, negative, and neutral are listed in Figure 2.

3. Results

In total, 57 videos were included in this study and summary of those contents were given in Table 2. In this regard, these were assessed based on existing known properties such as views, likes, dislikes, duration, and comments. The number of views of floating agriculture contents observed ranged from 25 to 1100000, with a mean view count of 70816.60 ± 177319.129 . There were videos with zero likes and 11000 likes, with an average of 818.56 ± 1992.700 . There were no dislikes detected on any of the videos. The runtime of the videos ranged from 1:28 to 33:02, with a mean duration of $07:47 \pm 6:48$. The number of video comments ranged from 0 to 229, with the average comment being 18.40 ± 38.537 .

YouTube is a platform which is easily accessible across the world for all kinds of people whether educated or uneducated and acts both as an entertaining channel and education channel simultaneously providing a source of learning if it is utilized in a proper manner. Figure 3 clearly illustrated that from 2016 to 2017 the frequency of YouTube contents containing information of floating agriculture carried a decreasing whereas from 2017 to 2019, frequency of certain YouTube contents was elevated showing greater than half of total frequency and from 2019 to 2021 it showed falling down. As YouTube follows an approachable form, it allows convenience to the users to reach uploading without maintaining in-depth study which aggrandizes its content quantity was observable from 2017 to 2019. In 2019, the highest frequency might be caused by an intense interest in floating agriculture of people, public demand for knowing floating agriculture even for climate issue as it is raising a worried thought of an environment opponent to agriculture. YouTube, being the most comprehensive video posting platform, is responsible for a greater quantity of videos and a more diverse content, resulting in a higher frequency (Chen et al., 2017). Overall, there was an increasing trend in YouTube content on floating agricultural from 2016 to 2021. A positive association between YouTube and youth is having a growing influence on making YouTube famous (Perifanou M. et al., 2021).

Figure 4 shows that YouTube content based on floating agriculture featured mean of Content score 14.7 ± 3.213 of total certain 57 contents. Although YouTube acts as a medium of spreading learning to all

Positive			
ভালো	১০০% খাটি	অসাধারণ	বাহ
(Good)	(100% accurate)	(Awesome)	(Wow)
চোখ জুড়ানো	লাভজনক	ধন্যবাদ	স্বাগতম
(Eyes satisfied)	(Profitable)	(Thanks)	(Welcome)
মন জুড়ানো	বুঝেছি	চমৎকার	এগিয়ে যাও
(Mind satisfied)	(Understandable)	(Excellent)	(Go ahead)
মশালাহ	দারুণ	ভাল কাজ	১ নম্বর
(Mashallah)	(Great)	(Good job)	(Number one)
আলহামদুলিল্লাহ	স্যালুট	ভালো পরামর্শ	গোছানো
(Alhamdulillah)	(Salute)	(Good advice)	(Organized)
সুন্দর	সময়োপযোগী	ভালো উদ্যোগ	সাবস্ক্রাইব
(Nice)	(Timely)	(Good initiative)	(Subscribed)
তথ্যবহুল	আগ্রহী		
(Informative)	(Interested)		
Negative			
অপ্রয়োজনীয়	বাটপার	ক্ষতি হচ্ছে	ফালতু
(Unnecessary)	(Cheater)	(Loss)	(Nonsense)
বিরজ্জিকর	বন্ধ কর	সমস্যা	আজাইরা
(Annoying)	(Stop)	(Problem)	(Boring)
লাভ কম	আধুনিক হও	ভালো লাগেনি	পাগল
(Low profit)	(Be modern)	(Didn't like it)	(Mad)
আগ্রহ নেই	অনেক খরচ	পুরাতন	বানোয়াট
(Not interested)	(High costs)	(Old)	(Bullshit)
লোকসান	অগোছালো	বাজে উপস্থাপনা	আগে শেখো
(Loss)	(Messy)	(Bad presentation)	(Learn first)
কথা বোঝা যায় না	আনসাবস্ক্রাইব		
(Not Understandable)	(Unsubscribed)		
Neutral			
চলে	ঠিক আছে		
(So so)	(OK)		

Figure 2. Word from comments considered as positive, negative and neutral.

Table 2. Summary of YouTube contents on floating agriculture in Bengali Language.

Features	Minimum	Maximum	Mean	Std. Deviation
Views	15	1100000	70816.60	177319.129
Likes	0	11000	818.56	1992.700
Dislikes	0	0	0.00	0.000
Duration	01:28	33:02	07:47	06:48
Comments	0	229	18.40	38.537

interested learners, it's easiest way of arrival makes its quality deteriorating which was figured out as good quality percentage of YouTube content of floating Agriculture 26.32% whereas both medium quality and low quality were appeared 36.84%. Usually good quality YouTube contents contain a comprehensible representation including a good quality sound with a well resolute video and new information from valid source in a logical manner. As YouTube prioritizes an easily reachable scheme, it cannot maintain a standard accepting good quality and most of the contents carried whether low or medium quality rather than good quality in this regard.

In this regard, publisher type was categorized in three including Independent, Organization and News Channel. Independent is performed by a person who may be a farmer or an agriculturist, as well as other professionals or a blogger, or a group of individuals who have knowledge about agriculture but are not affiliated with any organization or news channel. Meanwhile, organization type publishers elaborate their concept, technology, and performance of agriculture from recognized organizations that may be government operated, autonomous or other institutions such as educational or service providing. On the other hand, News channels generally broadcasts agricultural news regarding a farmer's success or failure with specific reasons, covers news regarding severe invasion of particular aspect in a specific area including criteria and measurements with possible suggestions to gain profitable response. In the study, it was found out that "Independent" shared the highest portion in case of frequency which was 28 as anybody could upload without following any policy whereas "Organization" and "News channel" shared 4 and 25 respectively (Table 3). Behind the reason for the abundance of independent publisher types may be a lack of copyright problem, which inhibits originality and motivates the creation of films identical to the previously existing ones without investing additional effort, resulting in a

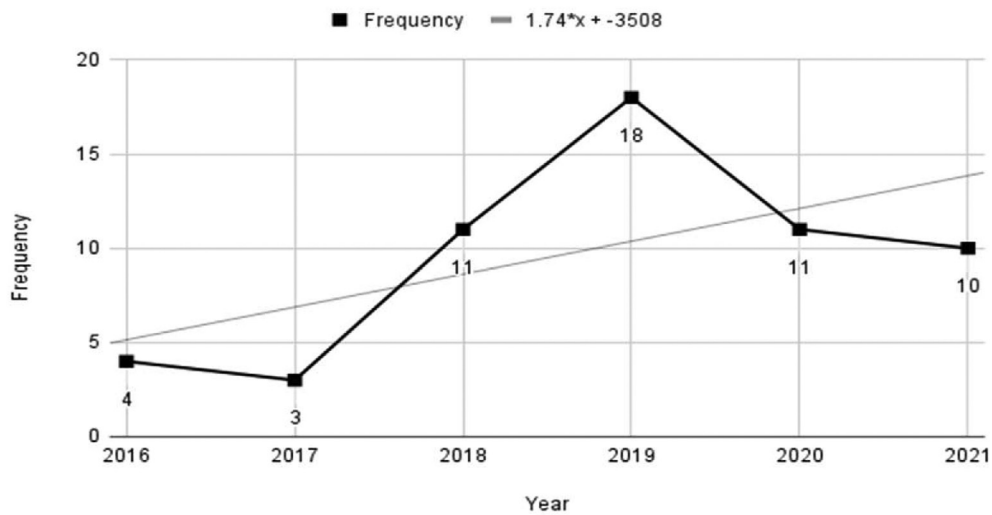


Figure 3. Distribution of frequency of YouTube contents of floating agriculture in Bengali language following year.

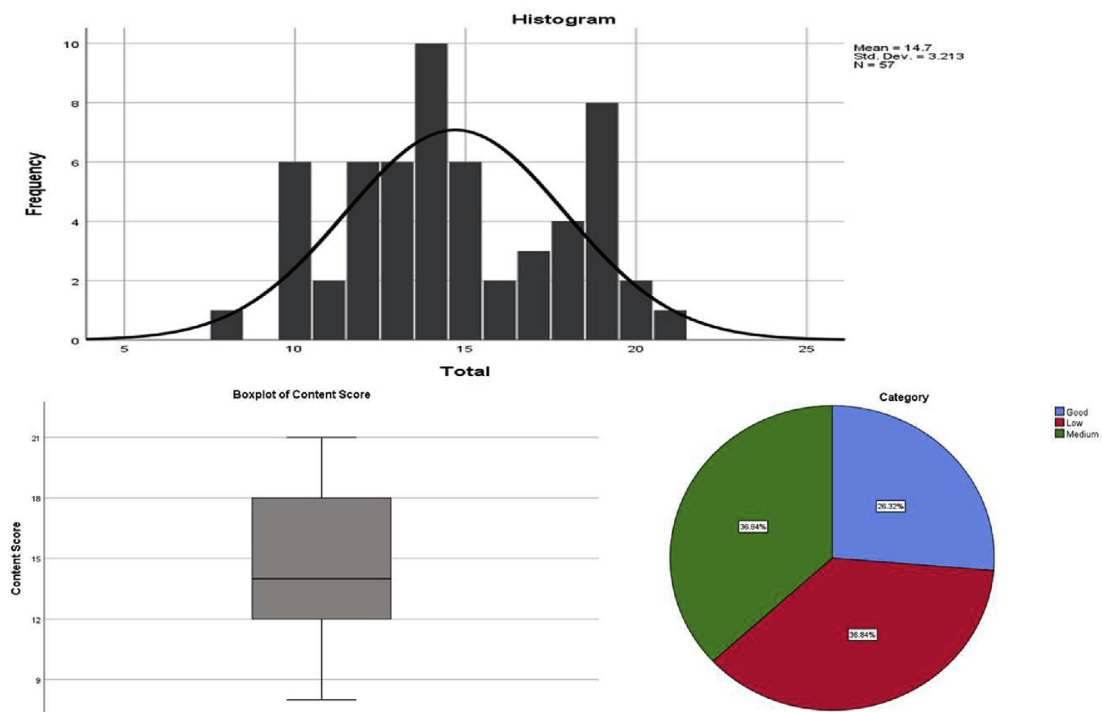


Figure 4. Distribution of YouTube contents of floating Agriculture based on quality.

Table 3. Publisher Type following Year of YouTube Contents on floating of Agriculture in Bengali Language.

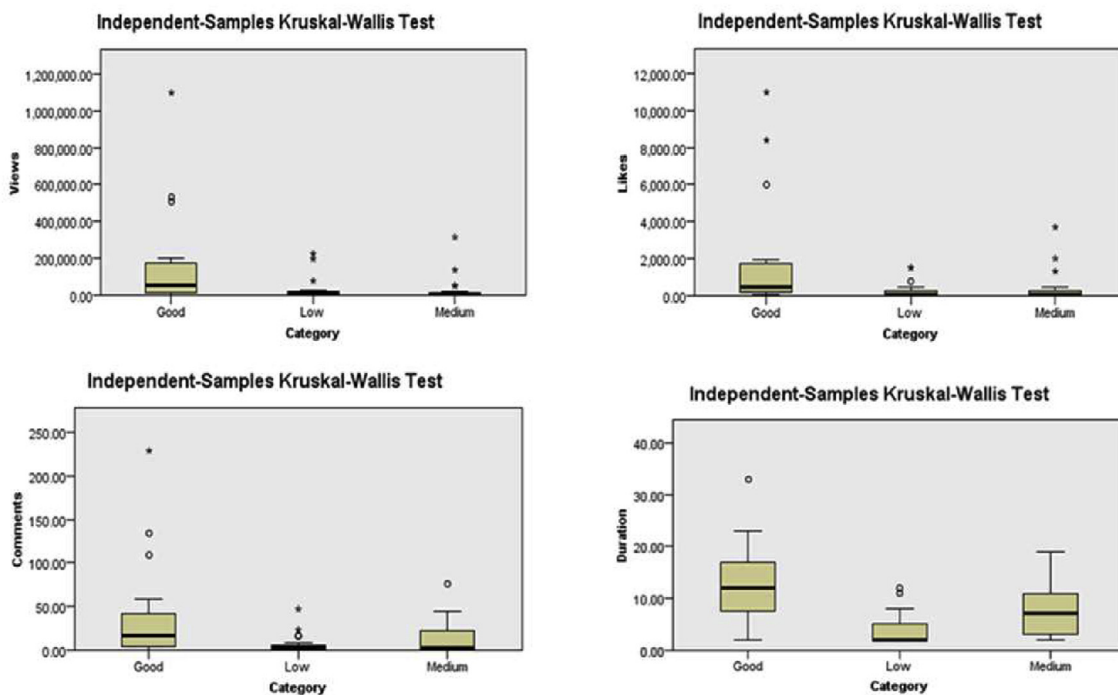
Features	Total (Frequency)	Total (Percent)	Quality of Contents		
			Good (Frequency)	Medium (Frequency)	Low (Frequency)
Publisher Type					
Independent	28	49.1	9	12	7
Organization	4	7.0	2	0	2
News Channel	25	43.9	4	9	12
Year	Total (Frequency)	Total (Percent)	Good (Frequency)	Medium (Frequency)	Low (Frequency)
2016 to 2018			6	5	7
2019 to 2021	39	68.4	9	16	14

high frequency of independent publisher types. The predicament of Bangladesh requires implementation of rules and policy of copyright issue to save own content in YouTube (Azam and Md. Gaosul, 2019).

As organization generally shows up their activities with knowledge and they do not prioritize dissemination like other publisher types, they shared lowest frequency. In terms of percent, “Independent”,

“Organization” and “News channel” occupied 49.1, 7 and 43.9 following a descending order which depicted more availability of independent than two ones (Table 3). An immense interest of content creators to expand their own idea regarding preferable content without significant barriers and access to approachable YouTube content made Independent publisher to score high regarding publishing floating agriculture based videos whereas organization scored low as it triggered to make content for dissemination of its own activity and knowledge without focusing on usual content. In maintaining quality, Independent possessed the highest value 9 whereas Organization and News channel possessed 2 and 4 following ascending order (Table 3). Trying of independent users to make own content competitive than any other contents as availability of independent content is greatest might provide Independent highest good quality. The study showed a poor quantity of YouTube contents of

organization following a poor quality might be due to negligence of organization as they focused their practical performance more than dissemination via YouTube. The study investigated medium quality which figured out “Independent” and “News Channel” 12 and 9 respectively with 2,7 and 12 value of low quality for “Organization”, “Independent” and “News Channel” respectively (Table 3). A direct upload without modifying the audio and video quality to be comprehensible made low quality high in case of News Channel. Following year, the study revealed that from 2016 to 2018 frequency of YouTube contents containing agriculture information was less than the year range from 2019 to 2021. A leisure time due to Covid-19 pandemic led most of the youth to involve more in creating content including a growing interest inspired by seeing other content creators sped up the frequency of certain YouTube contents from 2019 to 2021. Following similar reason, in case of percent,



Hypothesis Test Summary

	Null Hypothesis	Test	Sig.	Decision
1	The distribution of Views is the same across categories of Quality.	Independent-Samples Kruskal-Wallis Test	.033	Reject the null hypothesis.
2	The distribution of Likes is the same across categories of Quality.	Independent-Samples Kruskal-Wallis Test	.039	Reject the null hypothesis.
3	The distribution of Dislikes is the same across categories of Quality.	Independent-Samples Kruskal-Wallis Test	1.000	Retain the null hypothesis.
4	The distribution of Duration is the same across categories of Quality.	Independent-Samples Kruskal-Wallis Test	.000	Reject the null hypothesis.
5	The distribution of Total comments is the same across categories of Quality.	Independent-Samples Kruskal-Wallis Test	.111	Retain the null hypothesis.

Asymptotic significances are displayed. The significance level is .05.

Figure 5. A representation of Views, Likes, Comments and Duration in relation to content quality.

(Figure 7A). Most of the viewers admitted their satisfied or positive approach towards certain content which provided sign of application of knowledge by them got from YouTube. The frequency of favorable and negative comments conveying viewer tone determines the level of acceptability of material on YouTube (A. N. Muhammad et al., 2019). The study discussed about emotion categorized into Happy, Angry, Sad, Excited, Sarcasm and Fear towards YouTube on floating of Agriculture which found out 529 happy response of total count 645 response of viewers (Figure 7B). The response Excited, Sad and Angry shared in descending order after counting of Happy response while both of them carried far lower count of total emotion. The response Sarcasm and Fear placed almost similar portion and less notably than the response Excited, Sad and Angry. Under the guise of anonymity, the conspirators with a dishonest motive hurl an incorrect feeling that discards the perception of the fundamental concept of particular YouTube material to transmit to other candid viewers and promote dread, ridicule against the content (Obadium A. et al., 2019). YouTube shares purpose including a portion to get feedback along with canvas of marketing and removal of thirst of knowing providing scope of query. The study found out the largest portion 610 feedback of total 645 intention including a marketing of good quality input of agriculture such as seed, fertilizer, water producing pump, insecticide with descriptive advantage and side effect which possessed a little portion of total intention of content (Figure 7C). Query to provide answers to certain frequently asked questions, including suggestions from agriculturists and other successful farmers, to take necessary actions in insect and disease eradication owned a higher percentage than marketing.

4. Discussion

YouTube is a fantastic resource for information sharing, and it can be used to disseminate learning materials as well as technology. Using YouTube as a source of information allows farmers to improve their knowledge and skills, which affects their actions. The University of Arkansas made YouTube videos to disseminate information on Blackberry cultivars, which they considered as a new dimension of exchange of information (Clark et al., 2015a). These YouTube videos found to be enhanced the visibility of fruit cultivars (Clark et al., 2015b). According to a study on the effect of using YouTube as a source of information on farmers' skills, YouTube videos showed a positive influence on increasing farmers' skill (Ilham and Jamna, 2021). In Bangladesh, both farmers and extension personnel were enthusiastic about YouTube and used it to bridge the gap between them (Ghosh et al., 2021). To communicate with large audience, determining the quality of YouTube videos and usage of frames in agriculture is essential (Holt-Day et al., 2020). A recent YouTube content analysis on cassava production was conducted in Nigeria, demonstrating the importance of content analysis in agriculture (Ban-meke et al., 2021). In the twenty-first century, YouTube is an innovative tool that is also useful as a teaching resource, but to provide the best experience for students, quality assurance is required (Jones and Cuthrell, 2011). From students' perspective, perceptions of YouTube as a learning tool are positive and they think that YouTube videos are more helpful than other tools (Fleck et al., 2014). The presence of all key elements in the videos makes the contents appropriate as a learning resource. To judge quality initially views, likes, dislikes and comments are considered by viewers'. In terms of viewership and likes that varies significantly in relation to quality and these are usually high in good quality videos. Holt-Day et al., (2020) observed that high-quality videos drew a lot of attention, although not always, and that material aimed at a specific audience drew a lot more attention than high-quality videos. To comprehend public opinion in agriculture, sentiment analysis is a strong method. However, very few studies have been undertaken in agriculture, thus Novák et al. (2021) advocated sentiment analysis to investigate public opinion. Our understanding to the public opinion through sentiment, emotion, and motivation analysis revealed that public engagement is favorable for floating agriculture contents.

5. Limitations

Only Bengali language content about floating agriculture was included in this study, and the grading system was subjective.

6. Conclusion

YouTube is a wide spread medium in extension of floating agriculture, a breakthrough in the era of crisis of climatic condition and land development. The study has analyzed a prominent number of videos of YouTube based on floating agriculture to describe the significance of YouTube to stream information of floating agriculture including approach of a countable number of viewers. Vast positive and happy response through the investigation of the study has explicated an acceptable attitude towards YouTube in term of enlargement of floating agriculture which may assist the thinkers to arrange more programs to expand this. Notwithstanding questionable quality of videos, YouTube can be the best utilized medium for floating agriculture to convey. Greater percentage of videos regarding low quality in recent years than previous ones has showed negligible efforts of content creators with belief in quantity than quality need to be changed. The study has showed the significance of making suitable videos of floating agriculture so that the content creators can use YouTube efficiently to follow up floating agriculture. Alongside, independent publisher may rectify themselves in shaping video quality with an enthusiasm of captured positive sentiment of the viewers through the study about floating agriculture.

Declarations

Author contribution statement

Kakon Chakma: Conceived and designed the experiments; Performed the experiments; Analyzed and interpreted the data; Wrote the paper.

Umama Begum Ruba: Conceived and designed the experiments; Wrote the paper.

Susmita Das Riya: Analyzed and interpreted the data; Wrote the paper.

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Data included in article/supp. material/referenced in article.

Declaration of interest's statement

The authors declare no conflict of interest.

Additional information

No additional information is available for this paper.

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