

Content Analysis of Agriculture YouTube Channels in Tamil Nadu

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ABSTRACT: Social media is now a mainstream form of communication around the world, and continues to grow in popularity with the increase in the number of smart phones. There are 4.62 billion social media users around the world in January 2022. The agricultural sector is using social media to promote relevant information and to network with other like-minded agricultural professionals. Content analysis is a qualitative research tool or technique that is used widely to analyze the content and its features. YouTube is the 2nd largest search engine and 3rd most visited site on the web. Tamil Agriculture YouTube Channels was purposefully selected based on the number of subscribers. The research was guided by Goffman's framing theory to guide the analysis and categorization of visual framing for vlog and video media. Framing theory investigates how a message is presented or told to a specific audience. This study sought to explore how farm vlogs are creating user-generated content to share information through YouTube videos, to identify the Top 5 Agriculture YouTube channels views, like and comment and duration of videos in the past three years. This study confirmed that content provided in the YouTube channel should be validated before to release. Content and quality of the information in farming YouTube videos needs to be improved with input from professionals.

Keywords: YouTube, Videos, Content, Quality, Agriculture, Validation, Duration.

INTRODUCTION

YouTube is one of the most visited websites in the world and one of the most used search engines. As the second largest search network after Google, YouTube has an extensive audience reach (Johnson, 2017). According to Statista 2021, YouTube is currently the second largest social media platform with 1.86 billion users where people share videos. The platform's content, user-generated videos, has become a valuable informational source and can be utilized by activists to recruit new followers and engage online communities (Arthurs *et al.*, 2018). Research conducted at Arkansas University found that YouTube videos led to increased awareness of fruit cultivars, and the feedback from those who propagate and grow these cultivars was highly positive (Clark *et al.*, 2015). Farmers watch YouTube to acquire knowledge and incorporate new technologies into their practices. Multiple studies have identified farmers from various countries relying on YouTube as a source of information (Das *et al.*, 2021). YouTube serves as a widely favored media platform for information-seeking and agricultural innovation among both young farmers and professional agriculturists. The content produced on YouTube enhances farming knowledge, facilitates the adoption of innovations, Nivedha *et al.*,

boosts productivity, and enhances farm income (Tambade *et al.*, 2020). Despite the advantages the platform offers in delivering valuable content, this study seeks to evaluate a significant drawback it presents to information seekers, which is the absence of standardized quality in the content and information accessible on the platform (Ocak, 2018). Enhancing farmers' proficiency, YouTube has proven to be a valuable resource for instructing the pilot method of sowing rice seeds (Ilham and Jamna 2021). YouTube is a reliable source of knowledge. However, the problem with YouTube is that anyone can upload any type of content, and there is no peer review system that ultimately defects the quality of content. Thus, the quality of the contents remains unknown, increasing the chance of contaminating information sources with low-quality content. Content analysis in Agriculture YouTube channels is essential for audience engagement, content improvement, and strategic decision-making. It can help creators better understand their viewers, stay competitive, and ultimately achieve their content goals. Tamil Agriculture YouTube channel was purposively selected based on the number of subscribers. It is imperative to analyze whether the data or information covered in them meets the

expectations of the farm community. In order to fulfill this demand, content analysis can be used as an effective tool for research. It can be used with a variety of data sources, including textual data, and visual and audio data. The methodology is also highly flexible and hence can be analyzed both empirically and theoretically. Using content analysis, we can determine the extent to which changes should be made in the textual and visual presentation so that it could help in effective information dissemination. This study will encourage farmers, researchers, and content creators to focus on delivering high-quality content through YouTube as an information platform and to make efficient use of YouTube for disseminating valuable information. This study sought to explore how farm vlogs are creating user-generated content to share information through YouTube videos. This paper focuses on the following objectives.

1. To study the extent of coverage of farm information in the top 5 Agriculture YouTube channels.
2. To identify the selected Agriculture YouTube channels views, like and comment and duration of videos.

METHODOLOGY

Steps involved in Quantitative content analysis (QCA)

This research is based on a quantitative study carried out using the content analysis method. Content analysis can be both quantitative and qualitative.

Defining universe of content. YouTube is currently the second largest social media platform with 1.86 billion users where people share videos. Agriculture YouTube channels was selected purposefully as a universe of content for this study. The research was guided by Goffman's (1974) framing theory to guide the analysis and categorization of visual framing for vlog and video media. Framing theory investigates how a message is presented or told to a specific audience.

Selecting the sample. Three years viz., 2020, 2021 and 2022 was selected purposively. Top 5 Agriculture

YouTube channels in Tamil Nadu based on the number of subscribers were selected.

Categorization of sample. The division of content was categorized into different meaningful categories such as Organic farming, Crop production, Crop protection, farm machinery, Marketing, post harvesting, Agripreneurship. Analyzing the likes, views, comments, duration and video quality of selected YouTube channels.

Unit of Analysis. Unit of analysis refers to the measures in terms of which content analysis can be done. The unit of analysis in this study was selected as duration of videos, Video quality and mode of video uploaded in the YouTube channel. And also gathered the following information from each channel: year established, total channel views, subscribers, likes, comments. Percentage analysis was carried out to perform the basis of content analysis

Extent of coverage. For this study, it was measured in terms of number of videos uploaded in those defined categories which listed above.

Data collection. Data are collected from YouTube web platform. The investigator has viewed all these selected videos, made a checklist of certain characteristics, collected the necessary data and finally filled those checklists for subsequent data analysis. The characteristics under taken for assessment can be listed as follows: No. of Views, Video Duration, Likes, Comments.

RESULTS AND DISCUSSION

A. Channels' descriptive information

The channels' descriptive information can be found in Table 1 and Table 2. The researchers also gathered the following information from each channel: year established, total channel views, subscribers, and video count, comments, were also recorded for each video. The data such as total number of views, likes, comments and average views, likes, comments were also analyzed and presented in Table 2.

Table 1: Information Regarding Top 5 Agriculture YouTube Channels.

Sr. No.	Name of the channel	Subscribers	Total views	Total uploads	Established year
1	Naveena Uzhavan	1.06M	153,427,414	510	2017
2	Sirkali TV	874K	89,216,502	1741	2015
3	Pasumai vivasayam	827K	41,132,867	1384	2017
4	Vivasaya ulagam	788K	208,907,110	754	2017
5	Pasumai vikatan	689K	126,562,697	826	2015

Table 1 revealed that Naveena Uzhavan is the top most Agriculture YouTube channel in Tamil Nadu. This channel was started in the year of 2017. This channel holds 1.06M subscribers, 510 videos were uploaded in this channel. The aim of this channel is to provide videos about farm machineries. Sirkali TV YouTube channel was started in the year of 2015. This channel is having 827K subscribers. This channel compiles videos to farmers and traders. Traditional Tamil farming, traditional Tamil medicines, market price situation, best cultivation practices, organic manure preparation can be seen daily in this channel. Pasumai Vivasayam

YouTube channel was started in the year of 2017. This YouTube channel is only for the benefit of farmers. Videos related to farming experiences, water conservation, organic methods, pest control technology, high yielding seeds, soil enrichment technology, organic farming were provided under this channel. Vivasaya Ulagam channel was started in the year of 2017. This channel provide videos about cow farming etc. Pasumai vikatan YouTube channel was started in the year of 2015. Pasumai vikatan YouTube channel releasing videos about success stories of popular farmers, farm visit of celebrities and politicians.

Table 2: Assessment of Views, Likes, Comments of Top 5 Agriculture YouTube Channels.

Sr. No.	Name of the channel	No. of videos	Total views	Average views	Total likes	Average likes	Total comments	Average comments
1.	Sirkali TV	821	37314823	46224.79	1511632	1875.23	37298	45.45
2.	Naveena uzhavan	302	76240340	346599.27	1765314	6658.69	26814522	194.59
3.	Pasumai vivasayam	308	15674884	56446.82	245431	879.56	10609	37.66
4.	Vivasaya ulagam	342	183917773	401496.43	8604662	18675.32	74211	169.78
5.	Pasumai vikatan	627	111341537	178228.24	8604662	18675.31	74211	169.78

Table 3: Video duration of Top 5 Agriculture YouTube channels.

Sr. No.	Name of the channel	Duration of videos	
		<8 minutes	>8 minutes
1	Naveena Uzhavan	140	162
2	Sirkali TV	450	371
3	Pasumai vivasayam	107	201
4	Vivasaya ulagam	128	214
5	Pasumai vikatan	343	284

The best YouTube video length for monetization is 8 minutes. There is no minimum length for monetizing videos. But for optimal revenue makes is making video is at least 8 minutes, because YouTuber can place extra mid-role ads in the video. Length of duration has definitely had some impact on the uploading as well as viewership of such streaming videos. The length of a streaming video can influence the spreading popularity of it as people might find it too lengthy and hence boring. So, the researcher intended to find out the length of each video in terms of their duration.

B. Extent of coverage of information of Top 5 Agriculture YouTube channels

Videos are categorized and assessed based on the parameters such as Organic farming, Crop production, Crop protection, farm machinery, Marketing, post harvesting, Agripreneurship.

Table 4 depicts that 42.05 per cent of the videos covered under farm machineries category in Naveena Uzhavan channel. Mostly videos uploaded in this

channel is Interview and success stories mode, the videos clarity are good. But Video shaking is more in field vlogs. 26.79 per cent of videos in Sirkali TV is about organic farming. Followed by 21.92 per cent of the videos covered under crop protection category. This channel videos seems like that most of the videos were shoted in mobile. But for interview, tripod stand camera were used. 35.71 per cent of videos in pasumai vivasayam is about traditional farming. Quality level of information provided by this channel is to be quite insufficient. Mode of videos present in this channel are Success stories, interview. 47.82 per cent of videos in this channel is comes under the animal husbandry category. The clarity of video is good, but during field level vlogs outside noise sound occurs. 28.00 per cent of the videos covered under crop protection category. Video quality is good on both field level videos and interviews. Videos were shoted on more angels. Drone cameras also used. Most of the videos were presented as interview mode.

Table 4: Extent of coverage of information.

Category	Videos uploaded in the Top 5 Agriculture YouTube channels									
	Naveena Uzhavan		Sirkali TV		Pasumai Vivasayam		Vivasaya Ulagam		Pasumai Vikatan	
	No	%	No	%	No	%	No	%	No	%
Crop Production	25	8.27	151	18.39	45	14.61	32	9.27	175	28.00
Crop Protection	35	11.5	180	21.92	89	28.89	44	12.75	123	19.68
Post Harvesting	40	13.24	113	13.76	11	3.57	21	6.08	56	8.96
Farm machineries	127	42.05	46	5.60	7	2.27	5	1.44	34	5.44
Marketing	40	13.24	52	6.33	12	3.89	12	3.47	44	7.04
Agripreneurship	25	8.27	40	4.87	4	1.29	10	2.89	52	8.32
Organic farming	-	-	220	26.79	110	35.71	53	15.36	78	12.48
Others	10	3.31	19	2.31	30	9.74	165	47.82	63	10.08

Top 5 Tamil Nadu Agriculture YouTube channels were mostly having more number of subscribers. Those channels videos quality is quite insufficient. The videos are mostly beneficial for farmers, students, and Agri-professionals. However, the content theme “practical application” was mostly found to be implied in “poor quality” videos. Comments analysis revealed that the majority of the viewers’ possessed positive sentiments and happy responses, whereas most of the comment was for feedback purposes. It found that the video having short duration is mostly preferable by the viewers. High-quality videos were found to have longer durations. Some videos uploaded in those channels are out of theme content, therefore irrelevant content should be avoid.

CONCLUSIONS

YouTube is popular video sharing site used in worldwide. The popularity YouTube has been increasing rapidly in the world. YouTube site is freely accessible by every category of peoples and used this site for his/her own needs. This study confirmed that content provided in the YouTube channel should be validated before to release. Regarding the quality aspect, video clarity should be improved. Most of the channels are providing some out of theme content, therefore irrelevant content should be avoiding. Content and quality of the information in farming YouTube videos needs to be improved with input from professionals. the study analyzed videos on likes,

comments, views, duration of videos. The filtering algorithms on video platforms need to be improved so that high-quality videos are given preference while searching. The study performed on contents during specific period. It may get changed.

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