Social Media Utilization by the Farmers of Coimbatore District in Tamil Nadu – An Analysis

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Authors' contributions

This work was carried out in collaboration among all authors. All authors read and approved the final manuscript.

Original Research Article

ABSTRACT

Social media is an innovative, interactive communication tool used for social networking, sharing of text, audio, video to individuals, groups and mass audience over internet and social media platforms. According to Global Digital 2023 as of February, social media users in India is about 467 million. Considering the wide use of social media by the farmers and public, it is imperative to understand the usage behaviour of farmers, as it is essential for researchers, extension officials and policy makers to develop appropriate strategies for improving the technology delivery among farmers. Hence, a study was conducted among 120 randomly selected farmers in Annur and Kinathukadavu blocks of Coimbatore district during 2023 to find out the utilization pattern of social media. This study mainly focused on the understanding the usage pattern of farmers of Coimbatore

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district how they are engaged with social media platforms. It was observed from the study that majority of the farmers were young, educated up to higher school level, practised farming as the major occupation with medium level of information seeking, innovativeness and with high level of digital literacy. It is evident that WhatsApp is the most used tool (78%) for communication while Facebook and YouTube for entertainment purpose. It is found that the utilization index was high for messaging friends and family in using WhatsApp whereas looking for funny and entertaining content ranked top in both Facebook and YouTube. Further, significant relationship was found between age, education, occupation, farming experience, information seeking behaviour, perception and digital literacy with utilization pattern of social media. People should be made aware that it can provide real time information and support and has the potential to improve the efficiency and effectiveness, facilitate interactive collaboration and communication.

1. INTRODUCTION

In the last 20 years, India's economy has seen a great deal of change as a result of the globalization. Information is power in any sphere of development, information and communication technologies (ICT) have recently included social media, putting this power at the people's fingertips [1]. The rapid expansion and extensive use of social media platforms, in recent years, have brought about a significant change in communication and networking across different sectors [2]. One such sector that recognized the potential of social media is agriculture where this approach has emerged to address the significant issues such as shortage of skilled personnel, trustworthiness, civic participation, social and economic disparities. It involves using Information and Communication Technology (ICT), information networks, internet and multimedia learning system to enhance information accessibility for farmers, research scientists and agricultural professionals [3].

In olden days, information exchange has been heavily influenced by media such as newspapers, radio, television and magazines. However, in recent years, there is an increase in technical knowledge and awareness, computer literacy, smart phone and internet usage across all people in India. At present, a variety of cyber extension tools are utilizing by the farming community which provides timely, pertinent, and usable information to farmers [4]. Social networking is described as "a group of people and the relationships among them" by Penuel and Riel [5]. These social networking services that supports the growth of online communities of individuals can be found nowadays. Users can share photographs and ideas online, talk with

friends and family, and make new friends on these sites, something they cannot do offline. Social media offers additional advantages that broaden users' perspectives on society, themselves and humanity [6].

According to Digital 2023: Global Overview Report, social media makes it easier for people to communicate with one another online. It is the digital and online method of transmitting information. Social media encompasses a wide range of applications and platforms including Facebook, Instagram, Twitter and YouTube, that let users share content, communicate online and create communities. More than 4.7 billion individuals, or nearly 60% of the world's population, utilize social media. Nearly 467 million are active social media users among the total population of India [7].

The users of social media have a platform to actively engage in knowledge seeking and sharing. The present study was carried to document the major social media apps used, utilization index and the relationship between profile of farmers and their utilization pattern and this research was carried out to fill the gap.

2. METHODOLOGY

The study was undertaken in Coimbatore district of Tamil Nadu, considering the widespread usage of digital tools and the vast coverage of farmers where 84 % use social media on a regular basis with a frequency of 94% daily users. Among 12 blocks, two blocks namely, Annur and Kinathukadavu were selected randomly due to the diversity in farming community. Totally, four villages were chosen randomly from two blocks. A total of 120 farmers

viz., thirty farmers from each village, using smart phones who were using social media applications are randomly chosen. Ex-post facto research design was used. The primary data were gathered through personal interview with the help of structured interview schedule. The thirteen variables, including age, gender, educational status, occupational status, farm size, farming experience, annual income, innovativeness, information seeking behaviour, perception, experience and digital literacy level were chosen to measure the profile of farmers. The scores were recorded for all the independent variables to find out their relationship with utilization pattern (dependent variable). The measurement on the dependent variable namely social media usage pattern was referred as the farmer's ability or capacity to perceive, sense or to be responsive of different social media sources. To measure the utilization pattern, they were given 13 statements which includes source of joining, frequency, time spent on each day, format, language, pattern of response, purpose of usage and the factors influencing the perceived effectiveness and the responses were noted. Based on the respondents' overall score, it was divided into three categories: low, medium and high, with the help of mean and standard deviation. The data were analyzed using the Statistical Package for Social Sciences (SPSS) for computing percentage, mean, standard deviation, correlation, regression and garret ranking.

A three- point rating system was used for measuring the utilization index of social media tools. When questioned about the usefulness pattern of the sources of information they used, respondents received one of three possible scores: 3, 2 or 1 respectively, fully, partially and never.

$$UI = \frac{O_i}{S} \times 100$$

Where UI = Utilization Index, Oi = Sum of respondents' utility scores for each information source and S = The total possible score

3. RESULTS AND DISCUSSION

The results, along with pertinent discussions are presented under the following main headings as listing the various social media tools used, utilization index of various activities done in social media and the contribution of profile in utilization pattern of social media.

3.1 Profile Characteristics of Farmers

From the Table 1, it is evident that the respondents were found equally among all age groups where in 37 per cent are young, 30 per cent are from 36- 45 years of age and 32.5 per cent are old aged. Nearly more than half of the respondents are male (56.70%) and nearly three-fourth completed school level education (74%) with farming as predominant occupation (67.50%). The respondents mostly are small farmers with 2.5-5 acres (40%), with an experience of less than 10 years (57.5%), had medium level of income of 1.1-3.5 lakhs (50.80%). The results are in relevant with Khou and Suresh [8].

Table 2 revealed that majority of the respondents seek medium level of information (78.3%) from different sources such as television, family members, neighbors, friends and fellow farmers. Nearly three fourth of the respondents had medium level of innovativeness (62.5%) with medium perception (60.8%) on social media. The respondents had medium level (70%) of experience in using social media with high level (71.7%) of literacy in digital media. Most farmers step towards adopting different innovations and regular updates media and have credibility and reliability towards the information gained social media. It is believed that one of the fastest and quickest way to reach people. Also, when farmers use social media more frequently and become more aware of its advantages, their opinions may also shift and lean in favour of them.

3.2 Ranking Associated with Major Social Media Apps Used among Farmers

Social media are online platforms and websites that allow users to produce and share information, communicate with others and take part in virtual communities. WhatsApp, Facebook, YouTube, Twitter, Google, Uzhavan app, Weather based apps, OTT platforms like Hotstar, Amazon are some of the major social media platforms popular among the farmers.

Table 1. Distribution of farmers according to their personal and socio economic – characteristics (n=120)

Characteristics	Categories	No	Per cent
Age	Young (up to 35)	45	37.50
	Middle (36-45)	36	30.00
	Old (above 45)	39	32.50
Gender	Male	68	56.70
	Female	52	43.30
Education	Illiterate	13	10.80
	Primary & middle	47	39.10
	Secondary & high school	42	35.00
	Graduate	18	15.00
Occupation	Farming as primary	81	67.50
	Farming as secondary	39	32.50
Farming Experience	Less than 10 years	69	57.50
	11 – 24 years	27	22.50
	More than 24 years	24	20.00
Farm Size	Marginal (up to 2.5 acres)	24	20.00
	Small (2.51-5 acres)	48	40.00
	Medium (5.1-10 acres)	31	25.80
	Big (above 10.1 acres)	17	14.20
Annual income	Low (below 1.1 lakh)	38	31.70
	Medium (1.1 – 3.5 lakh)	61	50.80
	High (above 3.5 lakh)	21	17.50

Table 2. Distribution of farmers according to their knowledge level in social media (n=120)

Characteristics	Categories	No	Per cent
Information seeking behaviour	Low (<23)	14	11.70
	Medium (23-31)	94	78.30
	High (>31)	12	10.00
Innovativeness	Low (<22.2)	22	18.30
	Medium (22.2-31.8)	75	62.50
	High (>31.8)	23	19.20
Farmer's perception on social media	Low (<30.4)	24	20.00
	Medium (30.4-39.6)	73	60.80
	High (>39.6)	23	19.20
Experience in using social media	Low (<14)	23	19.20
	Medium (14-20)	84	70.00
	High (>20)	13	10.80
Level of literacy	Low (<17)	13	10.80
	Medium (17-27)	39	32.50
	High (>27)	68	56.70

According to Table 3, WhatsApp has the highest score of (69) and was rated as the most influential among the farmers, followed by Facebook (41.45) and YouTube (39.55) where Facebook was mostly preferred by the male farmers and YouTube by female farmers. As the first messaging app, WhatsApp helps farmers in a variety of ways, including by facilitating simple communication with coworkers and friends, serving as a good platform for media and location sharing, instant messaging, voice and video calls, privacy and security, and boosting connectivity, productivity and social interaction in both personal and professional ways. Second, while less used by women may be due to trust difficulties, Facebook is mostly used for connecting with friends, sharing life updates, entertainment, and media consumption. Finally, YouTube was primarily chosen by women for more flexible and accessible self-directed learning, acquiring new skills, and personal growth. The results are in relevant with Balkrishna and Deshmukh [9] which shows that the most popular social media in the farming community is WhatsApp followed by Facebook, YouTube, Twitter and LinkedIn.

Table 3. Ranking associated with major social media apps used among farmers (n=120)

S. No	Social media apps	Rank			Average score	Rank
		1	2	3		
1	WhatsApp	120	0	0	69.00	I
2	YouTube	0	54	66	39.55	III
3	Facebook	0	66	54	41.45	II

Table 4. Utilization index for different activities of social media apps (n=120)

S. No	Category	WhatsApp		YouTube		Facebook	
		UI	Rank	UI	Rank	UI	Rank
a)	**Social Media Activities**						
1.	Looking for funny or entertaining content	33.33	V	88.33	I	89.17	I
2.	Following research brands and products	53.89	IV	65.56	III	60.56	III
3.	Keeping up to date with news and current events	66.39	III	72.50	II	70.00	II
4.	Messaging friends and family	78.06	I	33.33	V	35.56	V
5.	Posting or sharing photos or videos	75.56	II	43.61	IV	54.72	IV
b)	**Content preferred while watching online videos**						
1.	Music videos	39.17	V	68.33	II	48.33	V
2.	Comedy, meme or viral videos	70.28	I	81.39	I	85.28	I
3.	Vlogs or influencer videos	52.50	IV	49.17	IV	52.22	IV
4.	Educational videos	65.00	II	43.33	V	54.44	III
5.	Product review videos	60.28	III	53.06	III	63.61	II
c)	**Content preferred while watching online audios**						
1.	Listening to music streaming services	53.61	II	71.67	I	89.17	I
2.	Listening to online radio shows or stations	33.33	V	45.56	IV	56.94	II
3.	Listening to podcasts	48.33	III	49.72	III	48.33	III
4.	Listening to audio books	40.00	IV	66.11	II	43.06	IV
5.	Listening to audio from friends/ family	94.72	I	38.06	V	36.94	V

* UI = Utilization Index

3.3 Utilization Pattern of Social Media

Social media platforms are made easier to share information, concepts, messages, and multimedia assets like text, photos, videos and audio. Mainly used for entertainment purposes, connecting friends and family, helps in updating with news and current events and mainly acts as content sharing platform.

The data shown in Table 4 represents the utilization index by farmers for different activities carried out in social media platforms especially WhatsApp, YouTube and Facebook. Messaging friends and family using WhatsApp was found maximum with utilization index 78.06 followed by posting or sharing photos or videos ranked second with utilization index 75.56 whereas looking for funny content ranked minimum with utilization index of 33.33 for WhatsApp users. YouTube is a popular media sharing platform as looking for entertaining content along with news and current events ranked first and second by the users with the utilization index of 88.33 and 72.50 respectively. YouTube as a messaging platform becomes minimum with utilization index 43.61 as there is no option for messaging privately, only comment sections for videos are available. Similarly, Facebook ranked first in watching funny content with utilization index 89.17 followed by updating with news assigned second and researching brands & products assigned third rank with utilization index 70.00 and 60.56 respectively. These findings are in line with those of investigations carried out by Meena and Goyal [10].

The content preferred while watching videos are diversified based on the farmer's preferences, taste, personal interests and the dynamic nature in seeking contents. Comedy, meme or viral videos ranked first in all the three media. Educational videos ranked second with utilization index 65.00 followed by product review videos assigned third with utilization index 60.28 which is commonly shared among all the farmer's WhatsApp chats and creates a global learning community. YouTube is often used for watching music and entertaining videos by the farmers which ranked second with utilization index 68.33 whereas least ranked is watching educational videos. Facebook is mostly used in watching product review and educational videos which assigned second and third with utilization index 63.61 and 54.44 respectively.

The content mostly heard by the farmers in online audios is maximum from friends or family through WhatsApp with utilization index 66.11 while others are found to be least. Both YouTube and Facebook ranked first in listening to music streaming services with utilization index 71.67 and 89.17 respectively whereas minimum is found in receiving or listening audio clips from friends or family.

3.4 Relationship between Profile of the Farmers and their Usage Pattern of Social Media

This method is used to look into the connections between the quantitative factors that explain how much the independent variables contribute to the way social media usage is utilized to exhibit significance.

Table 5. Relationship between profile of farmers with their usage pattern of social media (n=120)

S. No	Variables	Correlation coefficient ('r' value)	Regression coefficient (B value)
1	Age	-0.193*	0.253
2	Gender	0.113[NS]	-0.012
3	Educational status	0.180*	0.314
4	Occupational status	0.191*	0.432
5	Farming experience	-0.267**	-0.053
6	Annual income	0.004[NS]	0.268
7	Information seeking behaviour	0.870**	0.046
8	Innovativeness	0.567**	0.278
9	Farmer's perception on social media	0.877**	0.456
10	Experience in using social media	-0.109[NS]	0.021
11	Level of literacy	0.797**	0.820
			$R^2 = 0.534$

* = Significant at 5 % level; ** = Significant at 1% level; NS = Non-Significant

The results given in Table 5 revealed that the independent variables *viz.,* age (0.05 level of significance) and farming experience (0.01 level of significance) are negatively correlated whereas educational and occupational status (0.05 level of significance), information seeking behaviour, farmer's perception and experience in using social media (0.01 level of significance) are positively correlated with utilization pattern of social media while gender, farm size, annual income, innovativeness and level of literacy had no significant relationship with social media usage pattern. This might be due to the fact that young farmers are more interested and also the education, type of occupation, information contact, perception and also the digital literacy increases farmer's social media use and build a positive attitude towards social media. Added to that, the regression analysis produced an R^2 value of 0.534, indicating that the twelve independent variables used for the study could account for 53.4 per cent of the variation in the usage pattern of social media. The findings are supported by Singh et al*.,* [11] where most of the respondents who are young, educated and familiar with digital technology showed positive relationship in using social media. Also, concluded that higher education makes it easier to access online resources for information and the older people favour traditional information sources, whereas younger and middle-aged people are more engaged in social media for information sharing and seeking [12].

4. CONCLUSION

The study on farmers' social media usage pattern revealed the growing significance of digital platforms in farming communities. Social media is being embraced by farmers more and more as a useful tool for networking, exchanging knowledge, and gaining access to the resources. The findings indicated that majority of the farmers prefer WhatsApp as the primary and predominant for its robust features, large user base, privacy focused and compatibility while YouTube and Facebook are more for entertainment. Also, it revealed that young educated and digitally experienced farmers have positive relationship with utilization pattern. Farmers also have opted for marketing and brand development on social media. The farmers expressed that the platform not only enables them to learn about cutting-edge farming practices and effectively market their products, but also gives them a simple and convenient way to connect with a larger agricultural community across geographical boundaries.

COMPETING INTERESTS

Authors have declared that no competing interests exist.

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