

# The Role of New Media towards sustainable agricultural development among farmer's of Kancheepuram District, Tamilnadu

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**Abstract -** India is agriculture rich economy; more than 67% of Indian population still depend on agriculture or its allied sectors for their livelihood. It is the need of the hour to discuss more towards balancing or enriching the agriculture production in order to bring in food security for the growing population. Agriculture in recent years is facing great downfall due to uncertain monsoons, decline of soil fertility, population pressure, lack of support services and so on. To overcome these, there is a need for communication such as dissemination of right information on right time to the farmer's, which would help them towards advancing their knowledge on agriculture. The objective of the study is to understand the usage pattern of new media among farmers and to identify the perception and challenges of farmers towards new media usage in Kancheepuram District, Tamilnadu.

A Quantitative study has undergone to identify the farmer's usage of new media. The study consists of 150 samples of farmers from Kancheepuram District. The study identifies that majority of the farmers has greater awareness and access to New media and is also found new media technologies were widely used for weather forecasting and environment related information and to know Market trend, such as price and stock available. It is also identified that farmers in Kancheepuram District has positive perception towards new media in bringing agricultural development.

**Keywords:** New media, Agriculture, Development, Sustainability, Technologies.

## I. INTRODUCTION/ BACKGROUND OF THE STUDY

New media technologies are the services which provide information or entertainment, which can bring in far reaching implication on society. New media refers to an interactive two way communication involving some form of computing (Neese, 2016). According to Pierre Levy a French philosopher, 'World Wide Web is an open, flexible, and dynamic information environment, which allows human beings to develop a new orientation to knowledge and thereby engage in a more interactive, community-based, democratic world of mutual sharing and empowerment.' New media technologies are a powerful tool of social change. The study on the role of New media towards sustainable agriculture which would help us to identify how new media technologies can bring in changes among the farming community.

### Agriculture in India

Indian economy is agriculture rich economy where majority of the population still depends on agriculture for their livelihood. This agriculture rich economy in recent years

are facing drastic downfall. The agricultural sector is facing huge strides in achieving food security.

The agriculture sector in recent years has faced downfall not only in terms of productivity. This sector in comparison to the other Industrial and services sector from 1950 to 2015 is facing huge downfall. The sector where 50% of human workforce is involved would able to generate only 16 to 17 percentage of the GDP while the others 20 and 55 percentage respectively. The contribution of less productivity is due to various factors like decline of soil fertility, production pressure, poor land holdings, socio economic factors which includes poor marketing, lacking infrastructure were the few.

This situation led to innovative development goal focusing the farmer's welfare and prosperity which prompt in renaming the department of Agriculture and cooperation into Department of Agriculture, Cooperation and farmers welfare by Prime Minister of India on Independence Day 2015. This will awake agriculture and its allied sector not only ecologically sustainable but also sustainable in terms of socio-economic sustainability of farmer's welfare and social security (Welfare, 2016).

## New media technologies and Development:

Internet has brought in various opportunities for new media technology to communicate and to reach people in to every aspect of the human life. One among the technology which revolutionizes the new media is telephony. In India the penetration of mobile phone is much higher where it breaks in all barriers of digital divide and it reaches all people from Urban to the rural.

Sustainable Development is the concept of development that meets the need of the current generation without compromising the need of the future. Sustainable agriculture is all about creating viable rural livelihoods by feeding growing global population also safeguarding the natural environment. The farmers act as the key personal in meeting up this challenge (First, 2019).

## The objective of the study is

1. To understand the usage pattern of new media tools among farmers.
2. To identify the perception and challenges of farmers towards New Media usage in Kancheepuram District, Tamilnadu.

## II. REVIEW OF LITERATURE

### New Media and Sustainable Development:

Dr. Dilip Kumar et al. in their study on New media and sustainable development in India has stated new media because it trending the youth in a very passionate manner. In a country with 2.4 percent of the world's land, while supporting 16 percent of the world's population is facing rapid and widespread environmental degradation at alarming rates. Sustainable development and growth is most important everyone should think of. Media plays an important role in creating awareness among large population particularly new media, which is more powerful in bringing large population towards it (Dr. Dilip Kumar, 2015).

Oka for et al. in their study on 'New Media and Sustainable Agricultural Development in Nigeria' has identified new media plays a pivotal role in agriculture. It is found that 65% of the extension workers report that the coverage of people through mobile phone has increased to large extend and majority of farmers use mobile phones towards agricultural practices; while farm produce merchants report increased income of about 56% through mobile phone use (Okafor, 2013).

### Social Media in agriculture:

Social media which acts the role of mainstream form of communication continues to grow with the increase in the number of smart phones. Amith Lathiya et al. (2015) depicts four main pillars of the value of social media for agriculture industry viz., Networking, Industry Knowledge, Extension and Marketing, Consumer Engagement and Crisis communication (AMIT LATHIYA, 2015).

Prof. Deshmukh et al. from the analysis they found social media as a useful tool in agricultural marketing. It saves time and cost of the farmers for getting information. Facebook is the most likely social media for pages and profiles. YouTube videos are most popular for information getting with applications. WhatsApp is the handy use of social media and mostly preferred for related groups. Challenges were adoption of social media as tool of marketing. People are less trusted on e-buying, e-selling of agricultural commodity on social media (Deshmukh, 2017).

## Theoretical Framework

Diffusion of Innovation model of Everett Rogers was considered to be the leading theory in the field of agriculture research. According to Rogers adoption of innovation brings in universal process of social change. It explains how over time an idea spreads through a specific population. This theory can be adopted to identify how new media is adopted among the farmers and how it persuades in bringing socio- economic change and bring in sustainable development among farmers and their community as a whole.

## III. METHODOLOGY

The researcher has used cross sectional studies to identify his samples for survey research. He has adopted Questionnaire as a research tool. A purposive sampling method a non-probability sample that is selected based on characteristics of a population and the objective of the study. Purposive sampling is also known as judgmental, selective, or subjective sampling. The researcher has used 150 samples of farmers from different Taluks of Kancheepuram district. The quantitative information was analyzed using the Statistical Package for Social Sciences (SPSS version 15). In data analysis, emerging patterns were matched and analyzed. The researcher has used frequency, correlation and cluster analysis method to test the data.

## IV. FINDINGS & INTERPRETATION

**Table: 1 Demographic and Socio Economic characteristics of farmers (n=150)**

S/N Item	Values	Percentage (%)
Age	20 – 30	18.0
	31 – 40	30.0
	41 – 50	18.7
	51 – 60	25.3
	61 - 75	8.0
Sex	Male	82.0
	Female	18.0
Education	Pre Primary/Primary	6.0
	Middle	44.7
	Secondary	26.7
	H. Secondary	12.7
	Graduate/Post Graduate	4.7
Annual Family Income	Diplomas/ITI	5.3
	20,001 to 50,000	9.3
	50,001 to 1 Lakh	53.3

	Above 1 Lakh	37.3
Crop Cultivated by Farmers of Kancheepuram District.	Paddy	73.3
	Banana plant	3.3
	Sugarcane	44.7
	Cereals & Millets	18
	Pulses	1.3

Results in Table 1 shows that 82% were male farmers and 18% were female which also indicates that males participate more in agriculture activities than female. 31% had age ranging from 31 – 40 years, 51 to 60 of 25.3%, 20 to 30 and 41-50 age group are 18 and 18.7 % respectively which shows equal representation of farmers from every age group and also majority of farmers (44%) having completed middle education and 26% are having secondary education indicating a moderate literacy level among farmers. The majority (53%) of the farmers have an annual family income of 50,001 to 1 Lakh and above one lakh (37%).

**Table: 2 Usage Pattern of New media among farmers**

New media Awareness	Yes	98.0
	No	2.0
Known New media Tool	Social Media	85
	Blogs/ Website	15
	Mobile Apps	24
	Others	3
Preferred Technology	Agri-Apps	10.0
	Agri-Websites	2.7
	Social media	54.0
	None	33.3
Owning a smart phone	Yes	62
	No	38
Social media usage	Yes	35.3

**Table 3**

Perception of farmers	SA	A	N	DA	SDA
New media brings in more commercial economic orientation in agriculture	44.0	26.0	16.7	13.3	0
It brings in social participation	44.0	34.7	14.7	6.7	0
New media brings in urban contacts	30.7	43.3	18.7	7.3	0
Mass media exposure is higher through new media	26.7	34.0	21.3	18.0	0
New media bring more information on agriculture	1.3	62.7	36.0	0	0
New media helps to bring in agricultural development	25.3	52.7	22.0	0	0
New media helps to identify right market for my product	20.7	48.0	20.0	11.3	0
New media bring in development among farmers	0	31.3	40.7	28.0	0
New media helps me to get more updated policy information from government	3.3	73.3	10.7	12.7	0

**Table 4 Perception Cluster**

Perception Cluster	High perception	68.000
	Low perception	34.000
	Moderate perception	48.000
Valid		150.000
Missing		.000

through mobile phone	No	64.7
Agri- Apps Usage	Yes	15.3
	No	84.7
Time spent on New media	less than 1 hr	22.3
	1 to 2 hour	4.0
	2 to 4 hour	.7
	No time	73.0
Purpose of new media usage	Technological information	5.3
	Government agricultural policies and plans	8.3
	Weather condition and Environmental information	12.3
	Credit facilities, source, terms and conditions	8.3
	Market trend, price and stock available	12.0
	None	53.8

Findings in Table 2 shows that 98% of the respondents were aware of new media in which majority of the farmers are familiar with social media and 24% of the respondents know mobile apps and 15% of the respondents know about blogs/websites and social media is a preferred by majority of farmers and 33.3 % does not prefer new media as they practice age old traditional agricultural practices. It is also found that 62% of the respondent own a smart phone and 35.3% of the respondent use social media through phone and 15.3% of the respondent have access to agri-apps in phone and is found majority of farmers used Uzhavan app in the phone as recommended by extension officers and agricultural experts. Also 73% of farmers spent no time on New media while 22.3 % less than one hour. It is also found that the purpose of new media usage is mainly towards identifying weather conditions (12.3%) and *Market trend, price and stock available* (12%) respectively.

Findings on Table 3 & 4 shows farmers have higher perception 68% towards new media and 48% of farmers have moderate perception and 34% low perception. It is also found that majority of the farmers believe New media brings in agricultural development and also it brings in more commercial economic orientation in agriculture, New media also helps farmers to get more updated government policies and initiatives.

**Table 5 Challenges faced by farmers towards new media**

Challenges of farmers	SA	A	N	DA	SDA
Cost of Access	16	20	26	38	0
Knowledge of new media usage	16	25.3	24	34.7	0
Lack of Infrastructure	20	18.7	34	27.3	0
Knowledge/Awareness of using technology	23.3	10	35.3	31.3	0
Illiteracy	0	41.3	42.7	16	0
Satisfaction on tradition method/ technologies	0	39.3	41.3	9.3	0

**Table 6 Number of Cases in each Cluster**

Challenges	High Challenges	57.000
Cluster	Moderate Challenges	47.000
	Low Challenges	46.000
Valid		150.000
Missing		.000

In regard to challenges faced by the farmers it is found that there is 57% of high challenges and 47 % moderate and 46% Low challenges. And among challenges Illiteracy and satisfaction on traditional farming methods as highest challenges, cost of access and knowledge /awareness of using technology as the least challenge.

## V. CONCLUSION

Agriculture being the backbone of Indian economy and majority of population in rural and urban areas still depending on agriculture for their livelihood it is less in focus by the policy makers and technology experts. India being rich in technological advancement in every aspect of human development, agriculture is one area where technology experts have least attention to. This research paper shows that majority (98%) of the farmers have greater awareness towards new media and major share of farmers use social media tools towards personal as well as agricultural communication. It is found that the farmers have positive or high perception towards new media and also illiteracy and satisfaction towards traditional farming pattern being the challenge among farmers in new media usage.

Though state and central government is bringing in larger initiatives in agricultural development mostly it is not in reachable limits of farmers as majority of farmers sweat hard in bringing economic stability in their family life. It is the need of the policy makers to make in effective strategies to disseminate new media technology among farmers through which they can provide more updated and timely advices for farmers in the course of which they can bring in sustainable development in agriculture.

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