

Online and Digital Learning Behaviour of Farmers in Andhra Pradesh

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ABSTRACT

Online and digital learning is the process of acquiring new understanding, knowledge, behaviour and skills by the use of internet enabled electronic devices. Learning behaviour included learning activities that enable respondents to access online and digital content and interact with others productively in the community. The study was conducted in Andhra Pradesh during 2021-22 using exploratory research design. The respondents for the study included 50 farmers. The farmers who were using online and digital learning tools for problem solving in agriculture were selected using simple random sampling procedure. Farmers possessing smart phones and using them for at least a period of one year were sampled for the study. Data was collected using online questionnaire coupled with telephonic interview. Data was analyzed using descriptive statistics. The Online and digital learning behaviour of farmers was studied in terms of learning behaviour, frequency of using and time spent in browsing internet for problem solving in agriculture. Nearly two third of the respondents had medium learning behaviour (64.00%), followed by low (20.00%) and high (16.00%) learning behaviour. Only ten per cent of the respondents used internet daily, followed by alternate days (16.00%), weekly (70.00%) and fortnightly (4.00%) for agricultural purpose. While majority of them used internet daily (90.00%), followed by alternate days (3.00%) and weekly (4.00%) for entertainment and other purposes. Nearly half of the respondents spent their time on internet for 1-2 hours (48.00%), followed by half an hour (42.00%).

Keywords : *Digital learning, ICTs, Learning behaviour, Online.*

The value of information has increased significantly as the agricultural systems in developing countries become knowledge intensive. Access and use of current information is critical not only for financial success of farmers, but also to support sustainable agricultural systems. Information and Communications Technologies (ICTs) have facilitated learning and knowledge sharing, generated global information flows, empowered citizens and communities in ways that have redefined governance and have created significant wealth and economic growth resulting in a global information society. The new addition to the ICT world is the concept of online

and digital learning. Agriculture is the backbone of Indian economy and farmer is the main player in it and extension personnel support farmers for technology backstopping. The national objective of the doubling of farmer's income cannot be achieved without the successful delivery of information on latest technologies and modern practices. These days everybody are actively using mobiles to search agricultural information, related audio and video files. Even the extensionists are giving agro advisories to farmers via electronic platforms.

Online and digital learning is the process of acquiring new understanding, knowledge, behaviour

and skills by the use of internet enabled electronic devices. Learning behaviour is defined as learning activities that enable respondents to access online and digital content and interact with others productively in the community. A better understanding of farmers' online and digital learning behaviour could help, guide extension and other agricultural programs to better target specific groups of farmers.

MATERIAL AND METHODS

The study was conducted in Andhra Pradesh during 2021-22 using exploratory research design. The entire state of Andhra Pradesh was purposively selected as the researcher hails from this state. The respondents for the study included 50 farmers. The farmers who were using online and digital learning tools for problem solving in agriculture were selected using simple random sampling procedure. Farmers possessing smart phones and using them for at least a period of one year were sampled for the study. Data was collected using online questionnaire coupled with telephonic interview. Data was analyzed using descriptive statistics.

RESULTS AND DISCUSSION

An attempt was made in the present investigation to understand the online and digital learning behavior of farmers. The Online and digital learning behaviour of farmers was studied in terms of learning behaviour, frequency of using and time spent in browsing internet for problem solving in agriculture.

Online and digital learning behaviour of farmers

For the purpose of the study Online and digital learning behaviour was operationalized as the way the farmers learn about agriculture using digital devices with internet connection. It was studied using a schedule developed for the study. The schedule consisted of 8 statements studied on a five point

continuum viz., always, very often, sometimes, rarely and never.

It is evident from Table 1 that more than three fourth of the farmers browsed internet for information in agriculture very often (76.00%), followed by always (18.00%) and sometimes (6.00%). More than half of farmers are active in the WhatsApp group related to agriculture sometimes (52.00%), followed by very often (26.00%), never (10.00%), always (8.00%) and rarely (4.00%). Less than one third of farmers are asking for an elaboration in the WhatsApp group sometimes (30.00%), followed by never (26.00%), rarely and always 16.00 per cent each and very often (14.00%). Nearly half of the of farmers contacted scientists/ extension personnel for problem solving in agriculture sometimes (48.00%), followed by rarely (24.00%), never (12.00%), always (10.00%) and very often (6.00%). Less than half of the farmers connected their mobile data with TV/Laptop rarely (44.00%), followed by and never and very often 22.00 per cent each and sometimes (12.00%). Half of the farmers contacted Scientists for agro advisories on WhatsApp sometimes (50.00%), followed by rarely (24.00%), very often (16.00%), always (6.00%) and never (4.00%). Less than half of the farmers sent crop related pictures, videos to scientists for agro advisories sometimes (40.00%), followed by rarely (30.00%), very often (6.00%) always (4.00%) and never (20.00%). More than half of the farmers sometimes (54.00%) downloaded the information & videos that are useful, followed by rarely (26.00%), always (14.00%) never and very often 6.00 per each.

Based on the mean and SD, online and digital learning behaviour of farmers was categorized into three categories namely low, medium and high. The results are presented in the Table 2. Similar results have been reported Jyothi and Vijayabhinandana (2020).

Table 1. Online and digital learning behaviour of farmers (n=50)

S.No	Statement	Always		Very often		Sometimes		Rarely		Never	
		F	%	F	%	F	%	F	%	F	%
1.	How often you browse internet for information in agriculture	9	18.00	38	76.00	3	6.00	--	--	--	--
2.	How often you are active in the WhatsApp group related to agriculture	4	8.00	13	26.00	26	52.00	2	4.00	5	10.00
3.	How often you ask for an elaboration in the WhatsApp group	8	16.00	7	14.00	15	30.00	8	16.00	12	24.00
4.	How often you contact scientists/extension personnel for problem solving in agriculture	5	10.00	3	6.00	24	48.00	12	24.00	6	12.00
5.	How often you connect mobile data with TV/Laptop	--	--	11	22.00	6	12.00	22	44.00	11	22.00
6.	How often you contact Scientists for agro advisories on WhatsApp	3	6.00	8	16.00	25	50.00	12	24.00	2	4.00
7.	How often you send crop related pictures, videos to Scientists for agro advisories	2	4.00	3	6.00	20	40.00	15	30.00	10	20.00
8.	How often you download the information & videos that are useful	--	--	7	14.00	27	54.00	13	26.00	3	6.00
Mean=23.54						SD= 7.133611					

Table 2. Distribution of farmers according to their online and digital learning behaviour (n=50)

S.No.	Category	Frequency	Percentage
1	Low	10	20.00
2	Medium	32	64.00
3	High	8	16.00
Total		50	100.00

Table 3. Distribution of farmers according to frequency of using internet (n=50)

S. No	Category	Agricultural Purpose		Entertainment & other purposes	
		F	%	F	%
		1	Daily	5	10.00
2	Alternate Days	8	16.00	3	6.00
3	Weekly	35	70.00	2	4.00
4	Fortnightly	2	4.00	--	--
5	Rarely	--	--	--	--
6	Never	--	--	--	--
Total		50	100.00	50	100.00

*F= frequency *%=percentage

The data on overall online and digital learning behaviour of farmers is presented in the table 2 which indicated that nearly two third of the respondents had medium learning behaviour (64.00%), followed by low (20.00%) and high (16.00%) learning behaviour.

Frequency of using internet by the farmers for problem solving in agriculture

The frequency of using internet by the farmers refers to the extent of use of internet by the farmers. It was studied on a five point continuum namely daily, alternate days, weekly, fortnightly, rarely and never.

It is evident from Table 3 that 10.00 per cent of the respondents used internet daily, followed by alternate days (16.00%), weekly (70.00%) and fortnightly (4.00%) for agricultural purpose. While majority of them used internet daily (90.00%), followed by alternate days (3.00%) and weekly (4.00%) for entertainment and other purposes. Similar results have been reported Ramya (2021), Ramya *et al.* (2022) and Ramya *et al.* (2021).

Table 4. Distribution of farmers according to time spent in learning from internet (n=50)

S.No	Time spent (Per week)	Agriculture Purpose		Entertainment & other purposes	
		F	%	F	%
1	30 min	21	42.00	--	--
2	1-2 hours	24	48.00	--	--
3	2-3 hours	5	10.00	5	10.00
4	3-4 hours	--	--	17	34.00
5	> 4 hours	--	--	28	56.00
	Total	50	100.00	50	100.00

*F= frequency *%=percentage

Time spent by the farmers in online and digital learning

Based on the responses the respondents were grouped into five categories of time spent namely 30 min, 1-2 hours, 2-3 hours, 3-4 hours and more than 4 hours.

It is evident from Table 4 that nearly half of the respondents spent their time on internet for 1-2 hours (48.00%), followed by half an hour (42.00%) and 2-3 hours (10.00%) for agriculture purpose. Ten per cent of farmers spent their time on internet for 2-3 hours, followed by 3-4 hours (34.00%) and more than 4 hours (56.00%) for entertainment and other purposes. Similar results have been reported Dhayal *et al.* (2013), Faderogaya (2018), Kishore Kumar. (2019), Naresh *et al.* (2016) and Soni (2016).

CONCLUSION

Based on the information needs, the farmers accessed internet to solve their problems in agriculture. The results corresponds to their information needs. The results revealed that farmers used internet more for entertainment and other purposes compared to agriculture purpose. The frequency of use corresponds to their need for problem solving in agriculture. Further it can be said that internet is one source of information among many. This clearly indicates that farmers are actively using internet on

daily basis. Extension personnel need to make efforts to train the farmers to effectively utilise internet for problem solving in agriculture. Farmers spent more time on internet for entertainment and other purposes than for agriculture purpose. the time spent corresponds to their needs.

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