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Relationship between profile characteristics of farmers and their attitude towards use of information and communication technology

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Abstract

The present study was conducted in Marathwada region of Maharashtra state during the year 2020-21 to explore the relationship between profile characteristics of farmers and their attitude towards use of information and communication technology (ICT) for seeking agricultural information. Two districts namely, Parbhani and Hingoli were selected randomly from Marathwada region. Two talukas from each selected district and four villages from each talukas were selected randomly for the study. From each selected village, ten farmers those having mobile phones with internet facilities and engaged in agricultural operations were selected randomly, in this way total 160 respondents were considered for the study. An Ex-post-facto research design was followed for the study. Data was gathered using a well-structured interview schedule created with the study's objectives in mind. The collected data was analyzed, classified and tabulated. Statistical tools such as frequency, percentage, mean, standard deviation, and coefficient of correlation were used to interpret findings and draw conclusions. The study noticed that, independent variables like education, Innovativeness, social participation, mass media exposure, scientific orientation, and extension contact had positive and significant relationship with the attitude. Whereas age and farming experience had negative and significant relationship with the attitude. While land holding, annual income and family size had non- significant relationship with attitude towards the use of ICT.

Keywords: profile characteristics of farmers, attitude, relationship, ICT

Introduction

Milestones in Indian agriculture development includes: Green revolution, White revolution, Blue revolution, yellow revolution, Bio technology revolution and The most recent one is the revolution in information and communication technologies. The significance of ICT is that it is a type of technology that enables functions such as access to knowledge, intelligence, and connectivity, both of which are essential in today's economic and social interactions. ICT, particularly the Internet, has a significant impact on all human activities that rely on knowledge, including rural development and other fields. Cost-effective, strong, autonomous, and in the hands of civil society, capable of producing and exchanging knowledge. Farmers have the least expertise and access to information, making it difficult for them to function effectively in a diverse global world. Besides that, agricultural transformation would necessitate making a developed method more competitive and successful by incorporating cutting-edge technologies. Consequently, consumer force trends affecting agriculture are projected to become more important in the future. As a result, focus your efforts on overcoming concerns about the digital divide.

ICTs have the ability to not only improve existing channels of information sharing, but also to establish new ones that allow for the location of content-rich items and information resources, as well as their distribution in real time across multiple channels. In agriculture and its allied sectors, where ICT is widely used, it has contributed significantly to growth and socioeconomic development. Some modern ICT tools or applications which are used by the farmers for accessing agril information according to their farm needs, Like Smartphone, internet, agricultural apps, mobile advisory services and kiosk etc. With this background in mind the current study was conducted to study the relationship between profile characteristics of farmers and their attitude towards use of information and communication technology (ICT) for seeking agricultural information.

Materials and Methods

The present study was conducted in Marathwada region of Maharashtra state during the year 2020-21. Two districts namely, Parbhani and Hingoli were selected randomly from Marathwada region. Two talukas from each selected district and four villages from each talukas were selected randomly for the study. From each selected village, ten farmers those having mobile phones with internet facilities and engaged in agricultural operations were selected randomly, in this way total 160 respondents were considered for the study. An Ex-

post-facto research design was followed for the study. Data was gathered using a well-structured interview schedule created with the study's objectives in mind. The collected data was analyzed, classified and tabulated. Statistical tools such as frequency, percentage, mean, standard deviation, and coefficient of correlation were used to interpret findings and draw conclusions.

Results and Discussion

Profile Characteristics of farmers

Table 1: Profile characteristics of farmers

Sr. No.	Characteristics	Farmers (n = 160)	
		Frequency	Percentage
1	Age		
	Young (Up to 28 years)	35	21.87
	Middle (29 to 49 years)	89	55.63
	Old (50 years & above)	36	22.50
2	Education		
	Illiterate	2	1.25
	can read & write only	4	2.50
	Primary school level	30	18.75
	Middle school level	71	44.38
	High school level	30	18.75
	Graduate	23	14.37
3	Land holding		
	Marginal (up to 1.00 ha)	44	27.50
	Small (01 to 2.00 ha)	67	41.87
	Semi medium (2.01 to 4.00 ha)	41	25.63
	Medium (4.01 to 10.00 ha)	6	3.75
	Large (above 10.00 ha)	2	1.25
4	Family size		
	Small (up to 4 members)	49	30.63
	Medium (5 to 8 members)	96	60
	Large (above 8 members)	15	9.37
5	Annual income		
	Low (Up to Rs. 41232)	3	1.87
	Medium (Rs. 41233 to Rs. 319268)	140	87.50
	High (above Rs. 319268)	17	10.63
6	Farming Experience		
	Low (up to 7 years)	29	18.12
	Medium (8 to 29 years)	97	60.63
	High (above 29 years)	34	21.25
7	Innovativeness		
	Low (up to 8)	49	30.62
	Medium (9 to 10)	58	36.25
	High (above 11)	53	33.13
8	Social participation		
	Low (up to 4)	28	17.50
	Medium (5 to 6)	82	51.25
	High (7 & above)	50	31.25
9	Mass media exposure		
	Low (up to 3)	31	19.37
	Medium (4 to 5)	81	50.63
	High (6 & above)	48	30
10	Scientific orientation		
	Low (up to 17)	34	21.25
	Medium (18 to 23)	89	55.62
	High (24 & above)	37	23.13
11	Extension contact		
	Low (up to 34)	35	21.87
	Medium (35 to 40)	87	54.38
	High (41 & above)	38	23.75

Table 1 indicated that the profile characteristics of farmers, majority of the farmers were medium aged (55.63%), educated up to middle school level (44.38%), small land

holder (41.87%), medium size family (60%), medium level of annual income i.e. Rs. 41,233 to Rs. 3,19,268 (87.5%), medium farming experience (60.63%), medium level of

innovativeness (36.25%), medium level of social participation (51.25%), medium level of mass media exposure (50.63%), medium level of scientific orientation (55.62%), medium level extension contact (54.38%).

Overall attitude of farmers towards the use of ICT

Table 2: Distribution of farmers according to their overall attitude towards use of ICT

Sr. No.	Category	(n=160)	
		Frequency	Percentage
1	Less favourable (up to 75)	29	18.13
2	Moderately favourable (76 -100)	99	61.87
3	Highly favourable (above 100)	32	20.00
Total		160	100

Table 2 revealed that more than half (61.87%) of the farmers had moderately favourable attitude towards ICT, followed by 20 per cent had highly favourable attitude and only 18.13 per cent of the farmers had less favourable attitude towards the ICT. The above result was in line with the earlier findings of Kabir (2015) [2] and Naik (2018) [4].

Relationship between profile characteristics of farmers and their overall attitude towards use of information and communication technology (ICT)

Table 3: Relationship between selected profile characteristics of farmers with overall attitude towards use of ICT

Sr. No.	Independent variable	Coefficient of correlation (r)
1	Age	-0.420**
2	Education	0.699**
3	Land holding	0.120 NS
4	Family size	-0.075 NS
5	Annual income	0.045 NS
6	Farming experience	-0.470**
7	Innovativeness	0.570**
8	Social participation	0.408**
9	Mass media exposure	0.633**
10	Scientific orientation	0.680**
11	Extension contact	0.700**

* Significant at 0.05 level of significance NS- Non Significant
**Significant at 0.01 level of significance

Age with Attitude

It was observed that there was a negative and significant relationship found between age and attitude of farmers towards the use of ICT. It indicates that as people become older, their favourable attitude toward ICT technologies declines. It might be because as a person grows older, he tends to lean more toward his traditional view. As a result, convincing he and altering his mind about modern technology will be more challenging. On the other hand younger individuals accept change and strive to implement new ICT technologies. The above result was in accordance with earlier findings of Shankaraiah and Swamy (2012) [10].

Education with Attitude

It was observed that there was a positive and significant relationship found between education and attitude of farmers towards the use of ICT. It shows that education has a significant influence on people's attitudes about new technologies. Education brings about an inherent and permanent change in a person's skills, knowledge, thinking

and capability to perform things. As a result, if people are more educated, then their favourable attitude towards modern technology will also increase. The result was in accordance with earlier findings of Devaraja (2011) [1] and Kabir (2015) [2].

Land holding with Attitude

It was observed that there was a positive and non significant relationship found between land holding and attitude of farmers towards the use of ICT. It means that the land holding did not have a significant role in farmers' attitude towards ICT. Because of majority of the farmers are small and marginal. The result was in accordance with earlier findings of Samatha (2011) [9] and Kumar *et al.* (2017) [3].

Family size with Attitude

It was observed that there was a negative and non significant relationship found between family size and attitude of farmers towards the use of ICT. It indicates that people's attitudes about ICT were unaffected by their family size. The result was in accordance with earlier findings of Devaraja (2011) [1] and Parmar *et al.* (2015) [5].

Annual income with Attitude

It was observed that there was a positive and non significant relationship found between annual income and attitude of farmers towards the use of ICT. It shows that people's attitudes about ICT were unaffected by their annual income. The result was in accordance with earlier findings of Shankaraiah & Swamy (2012) [10].

Farming experience with Attitude

It was observed that from there was a negative and significant relationship found between farming experience and attitude of farmers towards the use of ICT. It is might be due to that the older people have more farming experience and continue to practice traditional farming methods. They are extremely resistant to new things. On the other hand, the younger generation has less agricultural expertise but likes to adopt new technology, thus they are more oriented toward ICT. The result was in accordance with earlier findings of Kabir (2015) [2].

Innovativeness with Attitude

It was observed that there was a positive and significant relationship found between innovativeness and attitude of farmers towards the use of ICT. Innovative peoples are those who are prone to coming up with new ideas. Having a more favourable view toward technology and its use, these elements naturally affect how people think about ICT tools. The result was in accordance with earlier findings of Parmar *et al.* (2015) [5] and Naik (2018) [4].

Social participation with Attitude

It was observed that there was a positive and significant relationship found between social participation and attitude of farmers towards the use of ICT. It means that the farmers who are actually involved in general societal activities have a better knowledge of ICTs, which led to a more favourable attitude toward ICT. The result was in accordance with earlier findings of Parmar *et al.* (2015) [5] and Kumar *et al.* (2017) [3].

Mass media exposure with Attitude

It was observed that there was a positive and significant

relationship found between mass media exposure and attitude of farmers towards the use of ICT. It indicated that the farmers who are actively exposed to modern mass media have a better knowledge of ICTs, which led to a more favourable attitude toward ICT. The result was in accordance with earlier findings of Rajoria *et al.* (2018) ^[7].

Scientific orientation with Attitude

It was observed that there was a positive and significant relationship found between scientific orientation and attitude of farmers towards the use of ICT. It means that the scientific orientation highly influences farmers' attitude towards ICT. The result was in accordance with earlier findings of Raksha & Meera (2015) ^[8].

Extension contact with attitude

It was observed that there was a positive and significant relationship found between extension contact and attitude of farmers towards the use of ICT. It might be due that those farmers who participate in various extension programmes have many opportunities to learn more about digital technologies, and most extension programmes may influence their attitude level through different instructional ways, resulting in a favourable attitude toward ICT tools. The result was in accordance with earlier findings of Samatha (2011) ^[9] and Raghuprasad *et al.* (2012) ^[6].

Conclusion

The study conclusively proven that education, innovativeness, social participation, mass media exposure, scientific orientation, and extension contact had positive and significant relationship with the attitude. Whereas age and farming experience had negative and significant relationship with the attitude, while land holding and annual had positive and non significant relationship with attitude and there was no relationship between family size and attitude towards the use of ICT.

References

1. Devaraja SC. A study on Knowledge and Attitude of Farmers Using ICT tools for Farm Communication (Master's Thesis). University of Agricultural Sciences GKVK, Bengaluru, 2011.
2. Kabir KH. Attitude and Level of Knowledge of Farmers on ICT based Farming. *European Academic Research*. 2015;2(10):13177-13196.
3. Kumar M, Ansari MN, Singh AK. Attitude of Radio Listeners Towards Farm Broadcast Programmes. *International Journal of Science, Environment*. 2017;6(2):1485-1490.
4. Naik BJ. A Study on ICT Tools Usage by the Farmers in Anantpur District of Andhra Pradesh (Master's Thesis). Acharya N. G. Ranga Agricultural University, Guntur. (A.P), 2018.
5. Parmar VS, Sharma OP, Bhuvra RM, Patel AI. Relationship Between Personal and Socio- Economic Characteristics of Farmers and their Attitude Towards the Use of Kisan Call Center, *Trends in Biosciences*. 2015;8(3):693-694.
6. Raghuprasad KP, Devaraja SC, Gopala YM. Attitude of Farmers towards Utilization of Information Communication Technology (ICT) Tools in Farm Communication. *Research Journal of Agricultural Sciences*. 2012;3(5):1035-1037.

7. Rajoria S, Rewani SK, Singh V, Singodia M, Nanda B, Bhumra H. Attitude of Livestock Farmers towards the ICT based Livestock Extension Services in Jaipur District of Rajasthan, India. *International Journal of Current Microbiology and Applied Sciences*. 2018;7(2):1014-1021.
8. Raksha, Meera SN. Determinant's of ICT's in Agricultural Extension Systems. *Indian Research Journal of Extension Education*. 2015;15(1):1-7.
9. Samatha J. Extent of Use of Information and Communication Technologies (ICT's) in Selected Crops by the Farmers of Guntur District in Andhra Pradesh. (Master's Thesis). Acharya N.G. Ranga Agricultural University, Hyderabad, 2011.
10. Shankaraiah N, Swamy BK. Attitude of Farmers and Scientists towards Dissemination of Technologies through Mobile Message Service (MMS). *Tropical Agricultural Research*. 2012;24(1):31-41.