

**RESEARCH ARTICLE :**

Knowledge of information and communication technology tools by orange growers

■ N.N. Dhote, S.U. Mokhale, S.S. Kadam and B.P. Bind**ARTICLE CHRONICLE :****Received :**
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SUMMARY : The present study on knowledge of information and communication technology tools by orange growers” was undertaken in Chandur Bazar and Morshi taluka in Amravati district with sample size of the 120 respondents. The data were collected on personal, socio-economic, communicational and psychological characteristics of respondents, knowledge about of ICT tools studied with the help of pre structured interview schedule. Findings revealed that majority (45.00%) of the respondents belonged to middle age group *i.e.* between 36 to 50 years, high proportion of respondents (38.33%) were educated upto junior college level, large proportion of respondents (30.83%) had medium land holding, high proportion of the respondents (37.50%) had medium annual income between Rs. 2,00,001 to 3,00,000/-, majority of respondents (80.00%) had undertaken orange on an area of (0.65 to 3.80 ha), majority of respondents (60.00%) had medium experience between 4.10 to 24.41 years in orange cultivation, majority of the respondents (49.00%) belonged to medium category of social participation, majority of the respondents (72.50%) were in medium level of extension contact and majority of the respondents (67.50) had medium market orientation. In case of knowledge about ICT tools majority of respondents (64.16%) were having medium knowledge about ICT tools. In case of ICT tool wise knowledge, great majority of the respondents had knowledge about ICT tools *viz.*, majority (95.83%) of the respondents had knowledge about mobile phones, followed by internet (94.16%) and SMS service (94.16%), 93.33% respondents had knowledge about television. Findings of relational analysis revealed that education and market orientation were positive and highly significant with the knowledge at the level of 0.01 per cent of probability. Land holding, annual income, area under orange cultivation, social participation and extension contact were found to be positive and significant relationship at 0.05 per cent level of significant with knowledge of whereas, age and experience in orange cultivation was found negative and highly significant relationship with the knowledge of respondents at 0.01 per cent level of probability.

Author for correspondence :

S.U. Mokhale
Department of
Extension Education,
Shri Shivaji Agriculture
College, Amravati (M.S.)
India
Email : shekharmokhale17@gmail.com

See end of the article for
authors' affiliations

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BACKGROUND AND OBJECTIVES

Information played an important role in all societies since the dawn of civilization.

However, in recent years its increase in volume and accuracy as well as greater access, have significantly elevated its value

in all aspects of social life. The world community has recognized the revolutionary nature of information society. The world is undergoing an information and communication technology (ICT) revolution, a revolution that has enormous socio-economic implications for the developed and developing countries. Science and technology have undergone revolutionary changes in recent past. Only a few decades ago, all telecommunications services were delivered over copper wires. More recently, the world has witnessed the exponential growth of ICT.

Computers were the beginning of the new information technology. Information (facts, knowledge, data and news) technology (materials, tools, systems and techniques) is the key to economic growth. It is likely to bring about substantial changes in the society and may change the lives for better or worse in a very short time.

The term ICT was coined by Dennis Stevenson in 1997. ICT stands for the information and communication technologies which can be broadly interpreted as technologies that facilitate communication, processing and transmission of information by electronic means.

The ICTs can create new opportunities to bridge the gap between information haves and information have-nots in the developing countries. The task force on India as knowledge superpower emphasized the need to harness ICTs for societal transformation.

The orange of this region is known as 'Nagpur Santra' throughout India. There is a historical background behind its name. At the end of 18th century, Maharaja Rahuji Bhosle brought few plants of loose skinned oranges from Aurangabad and planted in his garden at Nagpur. These plants under the soil and climatic condition of Nagpur grow very well and produced fruits of excellent quality. Since then orange cultivation has earned an important place in the agriculture economy of Vidharbha region. The Nagpur Santra has earned fame and name in country for its exceptional quality.

Specific objectives of the study :

- To study the personal, socio- economic, communicational and psychological characteristics of orange growers
- To study the knowledge of orange growers about information communication technology (ICT) tools
- To study the relationship between characteristics of orange growers with their knowledge about

Information Communication Technology (ICT) tools.

RESOURCES AND METHODS

Amravati district was purposively selected for the study. The orange growers were interviewed with the help of structured interview schedule personally. Total 120 respondents were selected for the research purpose. The interview schedule was constructed by formulating relevant questions in accordance with objectives of the study. The schedule included questions pertaining to age, education, land holding, annual income, area under orange, experience in orange cultivation, social participation, extension contact, market orientation and knowledge. The information from the respondent was collected by personal interview methods and their responses were considered for the purpose of present study. Data were collected. Mean, S.D. and co-efficient of correlation methods were used for analysis of the data.

OBSERVATIONS AND ANALYSIS

The findings of the study as well as relevant discussion have been summarized under the following heads :

Knowledge about information and communication technology tools to the orange growers :

It is observed from the Table 1 that majority 95.83 per cent of the respondents had knowledge about mobile phones, followed by internet 94.16 per cent and SMS service 94.16 per cent. About 93.33 per cent respondents had knowledge about television and 86.66 per cent respondents had knowledge about smart phone, whereas, knowledge about radio was observed to 77.50 per cent. About 65.00 per cent respondents had knowledge about computer and laptop. Knowledge about telephone and video compact disc was observed to 60.00 per cent. 59.16 per cent respondents were observed such as having knowledge about you tube. Knowledge about bluetooth was observed to 50.00 per cent respondents. Knowledge about e-mail and e- magazine was observed to 58.00 per cent respondents. 29.16 per cent respondents had knowledge about information kiosk and 27.50 per cent knowledge about google drive. Knowledge about e-book was observed to 26.66 per cent and 20.83 per cent knowledge about e-newspaper. Knowledge about videoconferencing was observed to 20 per cent. Only

19.16 and 15.83 per cent respondents had knowledge about google earth and skype, respectively.

From the Table 1 it was also depicted that majority 84.16 per cent of the respondents had no knowledge about skype, about 80.83 per cent respondents had no knowledge about google earth. 80.00 per cent respondents had no knowledge about videoconferencing. It was also observed that 79.16 per cent respondents had no knowledge about e-newspaper. Unawareness about e-book was observed 73.33 per cent. 72.50 per cent respondents had no knowledge about google drive. Unawareness about information kiosks was observed to 70.83 per cent respondents. About 51.66 per cent respondents had no knowledge about e-mail, bluetooth service was not known to 50.00 per cent respondents. 40.83 per cent respondents were unaware about youtube. 40.00 respondents had no knowledge about telephone and video compact disc. 35 per cent had no knowledge about computer and laptop/ LCD, 22.50 per cent no knowledge about radio. 13.33 per cent no knowledge about smart phone. Unawareness about television was observed 6.66 per cent respondents. 05.83

per cent had no knowledge about internet and SMS service. 04.16 per cent had no knowledge about mobile phone, these findings are supported by Adamides and Stylianou (2013) and Jamdhade (2016).

The data in Table 2 depict that the knowledge of ICT tools to the orange growers. Majority of 64.16 per cent of the respondents were having medium knowledge about information and communication technology tools followed by 25.83 per cent respondents had high knowledge and only 10.00 per cent respondents had low knowledge about ICT tools, respectively. Knowledge is possible only through education. It can be acquired and develop through lifelong learning process. Knowledge can be over whelmed with more experience and training. It is obvious that they have medium knowledge level. Thus, they should be made aware about ICT tools.

Relational analysis :
Relationship between selected personal, socio-economic, communicational and psychological characteristics of the respondents with their knowledge about ICT tools :

Table 1 : Distribution of respondents according to their knowledge about ICT tools (n=120)

Sr. No.	ICT tools	Respondents	
		Yes, Frequency (%)	No, Frequency (%)
1.	Telephone	72 (60.00)	48 (40.00)
2.	Radio	93 (77.50)	27 (22.50)
3.	Television	112 (93.33)	8 (6.66)
4.	Computer	78 (65.00)	42 (35.00)
5.	Laptop	78 (65.00)	42 (35.00)
6.	Videoconferencing	24 (20.00)	96 (80.00)
7.	Bluetooth	60 (50.00)	60 (50.00)
8.	VCD (Video Compact Disc)	72 (60.00)	48 (40.00)
9.	Internet	113 (94.16)	7 (5.83)
	e-Mail	58 (48.33)	62 (51.66)
	SMS service	113 (94.16)	7 (5.83)
	e-Magazine	58 (48.33)	62 (51.66)
	e-Newspaper	25 (20.83)	95 (79.16)
	e-Book	32 (26.66)	88 (73.33)
	Information kiosks	35 (29.16)	85 (70.83)
10.	Mobile phone	115 (95.83)	5 (4.16)
11.	Smart phone	104 (86.66)	16 (13.33)
12.	You tube	71 (59.16)	49 (40.83)
13.	Skype	19 (15.83)	101 (84.16)
14.	Google drive	33 (27.50)	87 (72.50)
15.	Google earth	23 (19.16)	97 (80.83)
16.	Other	-- (00.00)	-- (00.00)

Table 2 : Distribution of respondents according to their overall knowledge about ICT tools (n=120)

Sr. No.	Knowledge about ICT tools	Respondents	
		Frequency	Percentage
1.	Low	12	10
2.	Medium	77	64.16
3.	High	31	25.83
	Total	120	100.00

Table 3 : Relationship between selected characteristics of the respondents with their knowledge about ICT tools

Sr. No.	Variables	'r' Value
1	Age	-0.4974**
2	Education	0.7164**
3	Land holding	0.2277*
4	Annual income	0.2372*
5	Area under orange	0.2007*
6	Experience in orange cultivation	-0.4576**
7	Social participation	0.2281*
8	Extension contact	0.2203*
9	Market orientation	0.3609**

* and ** indicate significance of values at P=0.05 and 0.01, respectively at 0.05 level of probability NS=Non-significant

The knowledge about information and communication technology tools has been function of different factors. In order to identify the factors influencing knowledge about information and communication technology tools the data were subjected to correlation analysis and results obtained were depicted in Table 3.

It is observed from Table 3 that education and market orientation were positive and highly significant with the knowledge at the level of 0.01 per cent of probability. Five of the nine independent variables namely land holding, annual income, area under orange cultivation, social participation and extension contact were found to be positive and significant relationship at 0.05 per cent level of significant with knowledge of information and communication technology tools. Age and experience in orange cultivation was found negative and highly significant relationship with the knowledge of respondents at 0.01 per cent level of probability. It means that as increase in age and experience in orange cultivation of respondents, it decreases the knowledge about ICT tools

(Tekale *et al.*, 2016).

Conclusion :

Majority of 64.16 per cent of the respondents were having medium knowledge about information and communication technology tools followed by 25.83 per cent respondents had high knowledge and only 10.00 per cent respondents had low knowledge about ICT tools, respectively.

Majority (95.83%) of the respondents had knowledge about mobile phones, followed by internet (94.16%) and SMS service (94.16%). About 93.33 per cent respondents had knowledge about television and 86.66 per cent respondents had knowledge about smart phone, whereas, knowledge about radio was observed to 77.50 per cent. About 65.00 per cent respondents had knowledge about computer and laptop. Knowledge about telephone and video compact disc was observed to 60.00 per cent. 59.16 per cent respondents were observed such as having knowledge about you tube. Knowledge about bluetooth was observed to 50.00 per cent respondents. Knowledge about e-mail and e- magazine was observed to 58.00 per cent respondents. 29.16 per cent respondents had knowledge about information kiosk and 27.50 per cent knowledge about google drive. Knowledge about e-book was observed to 26.66 per cent and 20.83 per cent knowledge about e-newspaper. Knowledge about videoconferencing was observed to 20 per cent. Only 19.16 and 15.83 per cent respondents had knowledge about google earth and skype, respectively.

Authors' affiliations :

N.N. Dhote, S.S. Kadam and B.P. Bind, Department of Extension Education, Shri Shivaji Agriculture College, Amravati (M.S.) India

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