



# REVIEW OF RESEARCH

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## THE REQUIREMENT OF KNOWLEDGE TO RURAL FARMERS IN MAHARASHTRA: A STUDY

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### ABSTRACT:

At present, knowledge is a primary requirement of everyday life. For whatever and every where knowledge is required. Knowledge can be achieved or retrieved from a variety of sources. Farmers compose a particular group of users whose knowledge requirements is very clear-cut. The present paper allots with the knowledge requirements of the farmer groups in rural areas. The study conducted through survey method and reveals that 71 (40.58%) farmers require daily knowledge for various agriculture works. It is additionally found that the first choice sources of the knowledge of the farmers are colleague or fellow farmers following by newspapers and Government office.



**KEYWORDS:** Knowledge, Knowledge Requirements, Indian Farmers, Rural Farmers, etc.

### 1. INTRODUCTION:

The current age has been fairly called as a Knowledge Age. Knowledge has become the very crucial element for progress in society. Allot to Kemp "knowledge has been described as the fifth requirement of man ranking after air, water, food and shelter". Every body requires knowledge nearby everything even in his day today life. In agriculture environment, appropriate and timely knowledge support farmer's community to take right decision to sustained growth of agriculture activity.

Service of knowledge in agriculture area is boost farming productivity in a number of ways. Providing knowledge on weather trends, best practice in farming, timely access to market knowledge helps farmer make right decisions relating to what crop to plants and where to sell their product and buy inputs. India is an agriculture situated country with farming and connected activities constituting to a huge chunk of the GDP and employment. According to Malhan & Rao (2007), the Indian agriculture sector provides employment to about 65% of the labour make, accounts for 27%

of the GDP and assists 21% of entire exports and provides raw material to many industries. Hence knowledge is a strong tool in focus on the agricultural requirements and if it is used properly it could be change nations economic.

### 2. BACKGROUND OF THE STUDY:

The study is carried out in Omerga tehsil. The town of Omerga is situated on National Highway 9 (Pune to

Hyderabad). It is located 85 km by road east of the city of Solapur, 95 km by road from the district capital of Osmanabad, and 20 km west of the Karnataka-Maharashtra State boundary. A brief description of the demographic knowledge of the state, district and tahasil (subdistrict) provides the background and context of the study.

### 2.1 Maharashtra:

Maharashtra is the third biggest state about the geographical area and second largest state in respect of population in India. The state is renowned for Industrial sector and Mumbai, its capital which is also known as financial capital of India. It is located in the northern center part of India, surrounded by the Arabian sea in the west, Gujarat and the Union territory of Dadra & Nagar Haveli to the northwest, Madhya Pradesh to the northeast, Chhattisgarh to the east, Karnataka and Andhra Pradesh to the south, and Goa to the southwest. The rare feature of the state is a series of crowning plateau which is lying among the Arabian Sea and the Sahayadri range, Konkan is close coastal lowland and Satpura hills along the northern border and Bhamragad-Chiroli-Gaikhuri ranges on the eastern border. Maharashtra state includes 35 districts which are ranked into six divisions for administrative purpose. As per the 2011 census, Maharashtra has a population of 112,372,972 with a population density of 365 per sq. kms. Out of the total population males constitute 58.3 million and females constitute 54.0 million.

### 2.2 Osmanabad District:

Osmanabad district lies in the southern division of state. It lies on the Deccan plateau, about 600 m above sea level. The Manjira and Terna River flow through the district. The district is located on the east side of the Marathwada region between latitude 17.35 to 18.40 degrees north, and longitude 75.16 to 76.40 degrees east.

The city of Osmanabad has an elevation of 653 metres (2,142 ft). Osmanabad city is located in the west central part of Osmanabad Tahsil, but relatively central for the district as a whole. Tuljapur, Bhoom, Paranda, Washi, and Kalamb are the nearby towns. Solapur, located southwest of Osmanabad in Solapur district, is the nearest sizable city. Osmanabad is on Balaghat Pathar. Bhogavati river flows through the city & meets Sina River near Mohol in Solapur district.

In the 2011 Indian census, the city of Osmanabad had 106,644 inhabitants, with 41,982 males (52.1%) and 38,643 females (47.9%), for a gender ratio of 920 females per thousand males. In 2001, Osmanabad had an average literacy rate of 74%, higher than the national average of 59.5%, male literacy was 80%, and female literacy was 67%. In 2001 in Osmanabad, 14% of the population was under 6 years of age.

Agriculture is the main occupation of the people in the district with about 74 % of the population depending on it. It also records for the major share of their economic activity.

### 2.3 Omerga:

Omerga Tahsil is a tahsil/taluka (subdistrict) in Osmanabad district, Maharashtra on the Deccan Plateau of India. The town of Omerga is the administrative headquarters of the tahsil. There are 79 panchayat villages in Omerga Tahsil.

In the 2001 Indian census, Omerga Tahsil had a population of 241,339, with 123,852 (51.3%) males and 117,487 (48.7%) females, for a gender ratio of 949 females per thousand males. The tahsil was 80.4% rural in 2001.

In the 2011 census, Omerga Tahsil had 269,849 inhabitants and a gender ratio of 946 females per thousand males. The tahsil was 74.5% rural. The literacy rate in 2011 was 75.28% overall in Omerga Tahsil, with a rate of 84.73% for males and 65.35% for females. In 2011 in Omerga Tahsil, 11.7% of the population was 0 to 6 years of age.

Marathi is the most commonly used language in Omerga, with around 68% speaking Marathi as their primary language. Urdu and Kannada are also spoken by some.

The Killari earthquake of 1993 affected most parts of the OmergaTahsil. Approximately 2,500–3,000 lives were lost.

Keeping the above facts in the view, a survey was conducted on rural farmer knowledgerequires and which sourced widely used by the farmer for satisfying oftheir knowledgerequires.

### 3. OBJECTIVES OF THE STUDY:

The major objectives of the study are:

- To determine the knowledgerequires of the rural farmers.
- To determine the character and types of knowledgerequired by the farmers.
- To determine the origin of knowledgeconsumed by the farmers.

### 4. REVIEW OF LITERATURE:

The knowledge requirement of the rural areas has been examined by different types of studies. Beside, sex wise (male or female) knowledgerequires of farmerscommunity was also carried by different investigator. These studies appear that therequirement of the farmers is variousal lot to the state of developments of theconcerned rural areas. Knowledgerequirement are as wellchange from village to village, fore.g. farmers of the wheat manufacture area are required the knowledge aboutmarket rate, transport amenity etc. Some studies are found. Saravan R. et al (2008)carried the study on knowledge pattern and knowledgerequirement of the tribal farmersin Arunachal Pradesh specify that most of the farmers requirementknowledge on severaltopics such as pest management, disease management. Tologbonse D, et al. (2008)convey the study of knowledgerequirement of rice farmers community in Niger statedisclosed that majority of farmers (89.9%) requirementknowledge about the cropproduction. Meitei & Devi (2009) operate the study of farmer's community inManipur (India) to find the knowledgerequirement of the rural farmer's community inManipur state. This study exhibit that majority of farmers did not access toknowledge for their activities. Besides they stress that ICT based agriculturalknowledge support systems should be improve. Byamugisha et al. (2009)conducted study on knowledge seeking and use of urban farmers in Uganda foundthat the knowledgerequires of the urban farmers in study area seemed to be assorted as the farming activities and also emergedto vary from one urban farmer toanother. Achugbue&Anie in 2011 carried the study in Delta State, Nigeria onRural Female farmer's knowledgerequirement and importance of ICT in deliveringknowledgerequires of female farmers. Babu et al. (2011) carried the study onfarmers' knowledgerequires and search behaviors in Tamil Nadu found that themajor constraints to knowledge access for the farmers is poor availability, poorreliability, lack of awareness of knowledge sources available among farmers anduntimely provision of knowledge. Akanda&RoknuzzamanMd (2012) surveyedagricultural information literacy of 160 farmers in the northern region ofBangladesh. The survey shows that farmersrequirementknowledge for various purposesof agricultural activities, and they use different sources and media for access tosuch knowledge.

### 5. METHODOLOGY:

The survey method was apply to complete the study and questionnaire was applied as a data collection tool for the fulfilling the objectives of the study. The stratifiedcasual sampling technique was applied for the spot selection of farmers. The datacollected around questionnaire, observation and informal interviews washthoroughly arranged and tabulated using simple statistical method, tables andpercentage. The table and graphs were generated using MS-Excel-2007. Thequestionnaire was arranged in Marathi language for respondents could simply understand the items mentioned in questionnaire. Absolute 180 questionnaires werespread randomly to the farmers. The investigators composed only 175questionnaires from the respondents. This constitutes 97 % of the i.e. 175/180 ofthe total response. It is important to note that some of the respondents could neitherread nor write even in Marathi language which is chief language of the state.

## 6. SCOPE AND LIMITATIONS:

The scope of the present study is limited to the farmers of Omergatahsil and whose main occupation is agricultural. The study was involving only male farmer's community and therefore it is not projectable of the entire population of the region. Further the knowledge collected was based on a small numbers (n=175) of farmers. Therefore the result cannot apply to the whole population of the tahasil and all farmers of the Maharashtra State.

## 7. DATA ANALYSIS:

Sr. No.	Item	Response	Percentage
1	<b>Language Know</b>		
	Marathi	175	100.00
	Hindi	53	30.29
	English	23	13.15
2	<b>Age in Years</b>		
	20-30	18	10.29
	31-40	59	33.72
	41-50	63	36.00
	50 & above	35	20.00
3	<b>Education Status</b>		
	Illiterate	33	18.81
	Secondary Education	103	58.86
	Graduation & P.G.	18	10.28
	Other	22	12.57

*Table 1: Data Analysis*

Table 1 displays that all respondents understand Marathi language because it is native language while 30.29% understand Hindi language whereas 23 respondents know English language. The highest percentage (36.00%) applying the age group 41-50 years attended by the age groups of 31-40 (33.72%). Below educational status, maximum numbers of people i.e. (58.86%) are attained up to the higher secondary school, 12.57% are pass out diplomas, polytechnic, whilst 10.28% are graduate and only 18.81% person are base illiterate in the study.

## 8. USE OF MOBILE PHONES BY FARMERS:

Sr.No.	Age	No of Respondents	Percentage
1	Yes	138	78.84
2	No	37	21.14

*Table 2: Use of Mobile Phones by Farmers*

The result presents that the greater number of the farmers (78.84%) are using mobile phone for communication and other purpose. It is sufficient sign that almost of the farmers of the rural area are now use or familiar with the mobile device.

## 9. KNOWLEDGE REQUIRES BY FARMER:

Sr. No.	Types of Response	No. of Response	Percentage
1	Daily	71	40.58
2	Sometimes	83	47.43
3	Never	22	0.12

*Table 3: Knowledge Requires by Farmer*

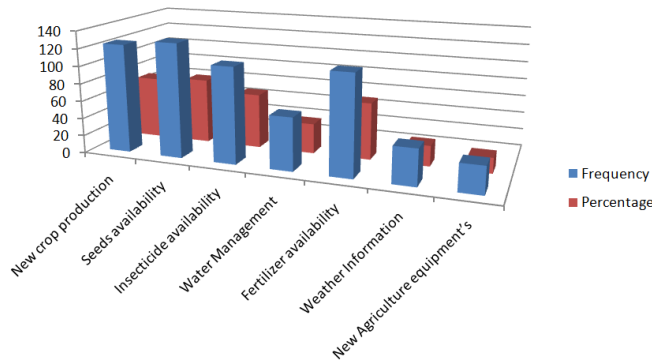
As for the distribution of respondents with respect of knowledge requirement is concerned, majority (40.58%) of the farmers require daily knowledge, while (47.43%) farmers require knowledge sometimes. Only 0.12 % farmers are stated that they do not require knowledge for agriculture activities. The above results are more or less similar to those of Metitei and Devi (2009), who concluded from a study in Manipur state, India that most of the farmers seek daily knowledge (46.17%) followed by sometimes (38.18%)

#### 10. AREAS OF KNOWLEDGE REQUIRES OF THE FARMERS:

Sr. No.	Item	Frequency	Percentage
1	New crop production	124	70.86
2	Seeds availability	130	74.29
3	Insecticide availability	109	62.29
4	Water Management	60	34.28
5	Fertilizer availability	113	64.58
6	Weather Knowledge	41	23.43
7	New Agriculture equipment's	31	17.72

*Table 4: Areas of Knowledge Requires of the Farmers*

(Percentage is more than 100 because multiple choice questions.) The analyst asked to the respondent the areas of knowledge which require for day to day action. As apparent from above table, majority of the farmers require knowledge on availability of seeds (74.29%) crop production (70.86%) and insecticide availability (62.29%) followed by fertilizer availability (64.58%). Others areas that were specified by farmers comprise water management (34.28%), weather knowledge (23.43%) and agricultural tools (17.72%). The results to some extent agrees with the finding of Metitei and Devi (2009) and Achugube & Anie (2011) that male and female farmers required knowledge on crop production, seeds & fertilizers availability.



*Figure 1: Areas of Knowledge Requirement of the Farmers*

#### 11. KNOWLEDGE REQUIRES OF THE FARMERS REGARDING THE FARMING ACTIVITIES:

Sr. No.	Item	Frequency	Percentage
1	Market knowledge of Agricultural production	136	77.72
2	Bank Credit Knowledge	83	47.43
3	Transport Facilities	94	53.72
4	Government Scheme	115	65.72
5	Government Scheme	32	18.28
6	Crop Insurance	63	36.00



7	Irrigation	34	19.43
8	Medicinal Plants	15	8.58
9	Milk Production	51	29.15

**Table 5: Knowledge Requires of the Farmers regarding the farming activities**

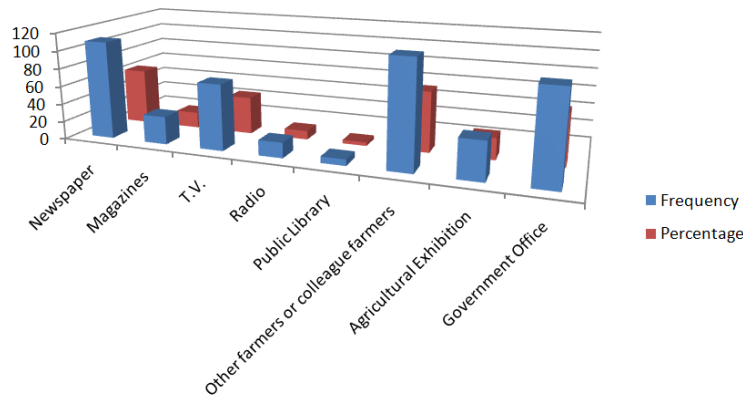
(Percentage is more than 100 because multiple choice questions) Table 5 reveals that 77.72% farmers require market knowledge of agriculture production and 65.72 % farmers requirement knowledge about Government Scheme such as subsidies, import & export policy of agriculture production. Further, 47.83 % farmers' requirement knowledge about Bank credit facilities. Others areas that were mentioned by farmers include transport facilities (53.72%), water management (34.28%), weather knowledge (23.43%) and agricultural equipments (17.72%)

## 12. SOURCE OF KNOWLEDGE USED BY FARMERS:

Sr. No.	Item	Frequency	Percentage
1	Newspaper	109	62.29
2	Magazines	31	17.72
3	T.V.	73	41.72
4	Radio	17	9.71
5	Public Library	7	4.00
6	Other farmers or colleague farmers	117	66.86
7	Agricultural Exhibition	42	24.00
8	Government Office	100	57.15

**Table 6: Source of Knowledge used by Farmers**

Percentage is more than 100 because multiple choice questions. Table 6 shows that majority of the farmer's rely on their colleague for obtaining the knowledge when second important channel of knowledge is the newspaper 62.29% followed by Government office 57.15% for accessing the knowledge to the daily farming activity. There are similarity between the results of previous studies, similar as those by Metiteian and Devi (2009), Babuet. al (2011) and Akanda & Rognizzamanu (2012) this investigation shows the main source for acquiring knowledge of the farmers is colleague farmer & newspapers.



**Figure 2: Source of Knowledge used by Farmers**

## 13. DISCUSSION AND CONCLUSION:

The analysis establishes that most of the farmers of the rural areas in the state are requirement knowledge relating to their agriculture activity. Newspapers, fellow farmers and government offices

were the major sources of knowledge to farmers in ordinary and a few farmers also attempt knowledge against other sources like television, magazines, agricultural exhibition etc. It was established that 80% of farmers bear mobile phones and most of the farmers reported that they were using mobile phones for some agricultural activity. Government's offices and market departments have begun to send daily knowledge through the SMS to the farmers regarding the price of commodity, weather forecasts, fertilizers, general news items etc. It appears mobile phones have started making a difference in the agricultural activity in rural areas. The finding further exposed that majority (41.72%) of the farmers used television for hearing agricultural news because it is widely accessible in rural areas. Newspapers are the most important communication channels in rural areas as they are easily available and published in local language. Many newspapers published in Marathi language have been publishing weekly supplements on farm mechanization, crop security and disease, horticulture, animal husbandry, food processing, professional suggestions and new innovations in agriculture etc. A daily newspaper printed in Marathi language provides significant knowledge on the agricultural activity. Numerous farmers subscribed to this newspaper for acquiring knowledge. Since the area is drought-prone and average rainfall occurs only 45 to 52 cm yearly but analysts establish that there is less awareness about water management techniques between the farmers. Only 34.28% of farmers require knowledge around water management techniques. Government of India has held many enterprises for adoption and absorption of knowledge technologies for agriculture knowledge communication. Both the central and state government are now working towards the development of ICT infrastructure in all the rural areas in Maharashtra so as to help the rural farmers' access agricultural knowledge for optimal farm production. However, it is found that local offices of the government in rural areas are not well equipped with up-to-date knowledge and communication gadgets, such as computers & communication resources, internet resources, local area and wide area networks, telephone lines in rural areas. Most of the farmers are not familiar with the ICT-based tools such as computer, internet application.

This study has provided a first look at the potential of knowledge in affecting the agricultural sector as a whole. The study has reported the growing awareness and importance of knowledge and its use among the farming community. Farmers must be able to get knowledge delivered to them at a time and place of their choosing and it will be beneficial to farmers to realize productivity gains from the choice of new farming practices and actions to mitigate crop losses. K. Sarada has rightly emphasized back in 1999 that there is a requirement of the hour to set up the Community Knowledge Centers (CKCs) as a nodal point for all knowledge services for the benefit of society.

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