

## Attitude of Farmers Towards Use of Combine Harvester

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### ABSTRACT

The present study was undertaken in Akola district of Maharashtra State. An exploratory design of social research was used. A sample of 100 farmers who harvested their crop with the help of combine harvester were drawn and information was collected which was considered for tabulation and analysis of the data. The farmers who used combine harvester were in middle age group (45.00%), educated up to high school level (48.00 %) and possessed large land holding (50.00%). Half of the respondents possessed the hand operated and bullock drawn implements. Very few of them possessed the power operated implements. In case of attitude, the farmers showed the favorable attitude (65.00%) towards the use of combine harvester.

**Key words:** Attitude, farm implements, combine harvester

### INTRODUCTION

Use of combine harvester is one of the components involved in farm mechanization, which facilitates timeliness of agricultural operations, reduces cost of operations as well as reduces drudgery in carrying crop harvesting operations. Equipments for harvesting and threshing are generally being used by farming community. The fact, however, is that farmers, utilize these machineries for efficient farm operations through custom hiring. As per the previous studies the losses estimated due to combine harvester are upto 24.88 per cent. In spite of that the farmers are using the combine harvester, hence it was thought appropriate to study the attitude of the farmers towards the combine harvester and the components involved which are unfavorable according to the users.

### OBJECTIVE

1. To study socio-personal and psychological characteristics of selected farmers.
2. To study attitude of farmers towards combine harvester.

### METHODOLOGY

The study was conducted in Akot and Akola *Tahsils* of Akola District of Vidarbha region of Maharashtra State. These *Tahsils* were purposively selected. Five villages were selected from each Akot and Akola *Tahsil*. From each village, 10 farmers were selected with disproportionate random sampling method. Thus, in all 100 farmers constituted sample for this study. A structured

interview schedule was prepared and used for data collection. In accordance with the objectives of the study questions were framed in the schedule. The respondents were contacted either at farm or home and the information in the interview schedule was collected. Thus, the information obtained from 100 farmers was taken for analysis. An exploratory design of social research was used in the present investigation.

### RESULTS AND DISCUSSIONS

#### 1. Socio-personal and psychological characteristics of selected farmers

##### 1.1 Age

It is seen from the table 1 that 45 per cent of the respondents belonged to young age category. This was followed by 35 per cent respondents who were observed under the middle age group and one fifth of the respondents were under the old age group.

##### 1.2 Education

Moderate (48.00 %) percentage of farmers had high school level education followed by 26 per cent of the respondent who were having college level education. The respondents in the category of secondary school, primary school were 16 per cent and 08 per cent, respectively. Only 02 per cent respondents had no formal schooling but could read and write.

##### 1.3 Land holding

In case of land holding, majority of the respondents belonged to the group of large land holders *i.e.* 43 per cent,

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followed by the medium land holding *i.e.* 27 per cent. About 23 per cent of the respondent possessed semi medium land. Only 7 per cent respondents were found to possess the land in the category of small land holding.

#### 1.4 Possession of farm implements and machinery.

It is observed from the Table 1 that almost all the respondents (92.00%) possessed hand operated tools and bullock drawn implements were possessed by 68 per cent respondents. Only 16 per cent respondents possessed the power operated implement and machineries.

**Table 1: Distribution of the respondents according to socio-personal and psychological characteristics.**

	Frequency (n= 100)	Percent
<b>Age</b>		
Young (Up to 35)	45	45.00
Middle (36 to 50)	35	35.00
Old (Above 50)	20	20.00
<b>Education</b>		
Can read and write	2	02.00
Primary school	8	08.00
Secondary school	16	16.00
High school	48	48.00
College	26	26.00
<b>Land Holding</b>		
Marginal (upto 1 ha)	00	00.00
Small (1.01 to 2.00 ha)	07	07.00
Semi medium (2 to 4 ha)	23	23.00
medium (4.1 to 10 )	27	27.00
large ( 10.1 and above )	43	43.00
<b>Possession of Farm implements</b>		
Hand operated tools	92	92.00
Bullock drawn implements	68	68.00
Power operated implements	16	16.00
<b>Annual income (₹)</b>		
Below poverty line	04	04.00
Upto 50,000.	11	11.00
50001 to 75000.	10	10.00
75001 to 100000.	21	21.00
Above 100000.	64	64.00
<b>Economic Motivation</b>		
Low (up to 10)	00	00.00
Medium (11 to 20)	16	16.00
High (21 and above)	84	84.00
<b>Scientific Orientation</b>		
Low (up to 4)	05	05.00
Medium (5 to 8)	38	38.00
High (9 and above)	57	57.00

#### 1.5 Annual income

The distribution of the respondents according to their annual income indicated that majority of the respondents *i.e.* 64.00 percent had annual income above ₹ 1,00,000 followed by the 21 per cent respondents having annual income between ₹ 75,001 to 1,00,000. One tenth of the respondents had annual income between ₹ 5,001 to 75,000 and upto ₹ 50,000. Very few respondents *i.e.* 04 per cent had annual income upto ₹ 25,000. *i.e.* BPL

#### 1.6 Economic motivation

In case of economic motivation, it was revealed that majority of the farmers (84 %) were in high category of economic motivation and only 16 per cent belonged to medium category of economic motivation.

#### 1.7 Scientific orientation

As regard the level of scientific orientation of the respondents, it is revealed that nearly half of the respondents (57 %) were in the high scientific orientation category, followed by medium scientific orientation (38 %) and only few (05 %) respondents were in low level of scientific orientation.

#### 2 Attitude of respondents towards use of combine harvester

Attitude in terms of reaction of an individual towards a particular technology is a key determinant for its adoption. Although the respondents selected under study possessed the various equipments and machineries, it was thought appropriate to understand their attitude towards use of combine harvester. For these purpose the attitude scale was developed and attitude score was worked out. Then it was converted into attitude index. The respondents on the basis of attitude scale score were classified in to three categories less favorable, favorable and highly favorable as given below.

**Table 2: Attitude of respondents towards use of combine harvester**

Attitude	Frequency n=100)	Percentage
Less favorable (Up to 53)	16	16.00
Favorable (54 to 83)	66	66.00
Highly Favorable (84 and Above)	18	18.00
Total	100	100.00

It can be seen from above Table 2 that majority (66 %) of the respondents were in the favorable attitude category. Eighteen per cent of respondents were found to be in highly favorable category of attitude scale score followed by less favourable (16 %).

An attempt has been made to place the respondents as per the statement wise attitude score of the farmers and studied on three point continuum *i.e.* Agree. Undecided and Disagree and results are as given in Table 3.

From Table 3, it is revealed that majority of the respondents agreed that, timeliness in harvesting can be best achieved by use of combine harvester (92 %), followed by statement that, Combine harvester is beneficial to the big farmers and not to the small farmers (89 %), Combine harvester reduces the cost of harvesting (87%), Combine harvester saves the labour (85 %), Owner of the combine harvester prefers the road side

fields only (75 %), Combine harvester saves the time required for harvesting the crop (73 %), Use of combine harvester strictly depends upon the availability of combine harvester in time (65 %), Use of combine harvester does not allow the inter-cropping system (62 %), and Combine harvester facilitates the timely sowing of next crop (48 %). One fourth respondents were undecided about the statements as Combine harvester facilitates the timely sowing of next crop followed by Use of combine harvester strictly depends upon the availability of combine harvester in time (20 %) and Use of combine harvester does not allow the inter-cropping system (15 %).

**Table 3: Distribution of respondents according to their statement wise response to their attitude towards use of combine harvester.**

Statements	Agree		Undecided		Disagree	
	No.	Percent	No.	Percent	No.	Percent
Combine harvester reduce the cost of harvesting	87	87.00	8	08.00	5	05.00
Combine harvester is beneficial to big farmers and not to the small farmers	89	89.00	5	05.00	6	06.00
Combine harvester save the labour	85	85.00	2	02.00	13	13.00
In use of combine harvester losses are more as compare to traditional method	57	57.00	19	19.00	24	24.00
Timeliness in harvesting can be best achieved by use of combine harvester	92	92.00	5	05.00	3	03.00
Combine harvester save the time require for harvesting the crop	73	73.00	11	11.00	16	16.00
Use of combine harvester is strictly depend upon the availability of combine harvester in time	65	65.00	20	20.00	15	15.00
Combine harvester facilitate the timely sowing of next crop	48	48.00	25	25.00	27	27.00
Use of combine harvester does not allow the intercropping system	62	62.00	15	15.00	23	23.00
Owner of the combine harvester prefers the road side fields only	75	75.00	11	11.00	14	14.00

### CONCLUSION

It is concluded from findings of the study that the farmers had favourable attitude towards the use of combine harvester with perceived advantages of timeliness in harvesting, reduction in cost, saving in labour and saving in time required for harvesting in spite of losses at harvest.

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