

UTILIZATION OF AGRICULTURAL EQUIPMENT AND FARMERS SATISFACTION: A CASE STUDY OF SALEM DISTRICT

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Abstract- The present era of information technology has opened new vistas for transfer of methodology and technology between the producers and the users of information in least possible time. Information technology has become a medium for communication of ideas and a resource necessary for the sustenance and promotion of the progress in agriculture and thus in GDP of country. Agriculture is the main occupation of the majority of population in Salem district. The farmers of the district rely heavily on agriculture for earning their livelihood. The development of agriculture depends on effectiveness of utilization of agriculture equipment's. The impact of these aspects of agriculture varies in different areas of the district. Especially now a days agricultural machineries and equipment's plays important role in maximise the yield for the farmers. When there is maximum yield utilizing by the agricultural equipment's, the farmers get satisfaction. The satisfaction of the farmers turns to continue the agriculture and endorse to their next generation. Keeping these points in view, the Salem district has been selected as the study area because there has been significant development in agriculture in the district in the post-independence era. This research paper entitled "A study on the farmers satisfaction towards utilization of agricultural equipment in Salem district" has been studied. The study was undertaken with the objective of analysis of the farmers satisfaction and their attitude towards modern agriculture equipment's. The objective was achieved by using the instrument by questionnaire. The findings have been summarized, and the suggestions have been enumerated. The study analyzed the overall farmers satisfaction towards the agricultural equipment's in Salem district.

Keywords: Farmers satisfaction, agricultural equipment and impact of technology.

1. INTRODUCTION

India is a developing country with major agrarian society which basically depends on agricultural outputs. Agriculture sectors have major contributing role in GDP of our country. It is necessary that technology trusts should be precise with easy transfer of scientific and technical information from research institutes to rural farmers. The present era of information technology has opened new vistas for transfer of methodology and technology between the producers and the users of information in least possible time. Information technology has become a medium for communication of ideas and a resource necessary for the sustenance and promotion of the progress in agriculture and thus in GDP of country.

Nowadays, everything is modernized using equipment's. Several equipment's has replaced even the most recent techniques for better and efficient outcomes. Earlier everything was artificial; now everything is automatic and more superior. Agricultural equipment's has been a great asset for humankind. One of the biggest requirements of humanity for its existence is farming. Even the agriculture sector is not untouched by modern equipment's. Further agricultural practices have now been changed by utilising equipment's. Now, it is possible to develop crops even in a desert with the aid of equipment's. Crops have become advanced and secure. Significant changes have been made in the irrigation, farming and planting techniques. Here we will discuss the uses and impacts of equipment's in Agriculture.

2. USE OF EQUIPMENT'S IN AGRICULTURE

Nowadays, equipment's is widely used in farming. Equipment's has enabled farmers to get rid of the manual efforts that put into agriculture. Now there are machines to help him. Here are some of the primary uses of equipment's in the agricultural sector.

2.1 Use of Devices

The most essential factors in cultivation are time and production. The production should be great and time consumed must be low. With the aid of equipment's like tractors, cutters etc. farming has turn out to be faster and more productive. Previously bulls were utilised for the same which was labor intensive as well as time-consuming.

2.2 Modern Transportation Method

No more bullock carts are required for transporting the harvest to sell. Current transportation methods have enabled the cultivators to transport their crops to sale within a short period. This way the authenticity of the produce is also controlled. Crops are no more injured during transportation, and new products are obtainable for the consumers.

2.3 Weather forecast Systems

One of the biggest boons of technology to agriculture is the weather forecast system. Now farmers can know the weather beforehand and take necessary precautions to prevent damage to their crops.

2.4 Irrigation of Plants

Canals are no more a great issue for agriculture. Water pumps are utilised to deliver water for irrigating the crops. Farmers have successfully utilised water pumps in Egypt to take water from the Nile and irrigate their crops.

2.5 Genetic Engineering

At present, certain plants are manufactured genetically which make them resistant to insects and other status and at the same time make sure them to manufacture a good yield. These are termed as hybrid products.

3. THE IMPACT OF TECHNOLOGY IN AGRICULTURE

Modern equipment's has had a great impact on agriculture. The output and yield of supplies have increased, and at the meantime, it has proved to be gainful for the farmers. Equipment's has not only made the farmers profitable but has brought us good products. It is a difficult task to meet up the food demand of such a big inhabitant. In such a situation equipment's, has enabled the farmers to produce a much larger yield than ever before. With the modern equipment's, we have obtained better and hybrid goods. The dietary value of crops has now greater than before, and plants are no more level to diseases. Now our cultivators no more depend on rain, they have pumps to water their fields. Thus, the price of foodstuff has gone down considerably. Scientists have set better DNAs of plants which are influential enough to maintain any attack. Equipment's have mostly impacted this sector.

4. STATEMENT OF THE PROBLEM

Agriculture is the main occupation of the majority of population in Salem district. The farmers of the district rely heavily on agriculture for earning their livelihood. The development of agriculture depends on effectiveness of utilization of agriculture equipment's. The impact of these aspects of agriculture varies in different areas of the district. Especially now a days agricultural machineries and equipment's plays important role in maximise the yield for the farmers. When there is maximum yield utilizing by the agricultural equipment's, the farmers get satisfaction. The satisfaction of the farmers turns to continue the agriculture and endorse to their next generation. Keeping these points in view, the Salem district has been selected as the study area because there has been significant development in agriculture in the district in the post-independence era. The level of agricultural development is not the same throughout the district of Salem which is inhabited by various social groups of people. This is because they live in different geographical areas, economic conditions and their attitudes to agriculture are different.

5. OBJECTIVES OF THE STUDY

- To study the demographical factors of farmers.
- To ascertain the attitude and behaviour of farmers towards the equipment's
- To analyse the level of satisfaction of farmers in agriculture equipment's.

6. REVIEW OF LITERATURE

Rao (1978) investigated the effect of the use of tractors on yield, employment of labour and cropping pattern. The methodology employed was on recall basis i.e. data obtained before and after tractor acquisition. 4000 tractor-owning farmers were contacted through a mailed questionnaire but only 1500 responded. As evident, of all the crops raised on different sizes of farms, tractor owning farms obtained higher yields per acre and the increase was more for the larger sizes of tractor owning farms.

NCAER (1980) reveals in its study, a survey of Agri farms possessing tractors, utilising tractors on custom-hire and having bullocks in seven states belonging to three chief agro climatic zones. A sample of 815 agriculture households was chosen randomly from 85 villages. It was reported that on a standard tractor-having farms obtained higher yields than a bullock farm lands, which differed from crop to crop and ranged from 72 % in the case of sorghum to 7% in the case of cotton.

Report of the Project Planning and Monitoring Cell of the Government of Kerala (1986) states that the small size of farm holdings constituted a large segment of the arable land in Kerala and the small farmers have little access to appropriate farm equipment, especially power machines. The report has known the subsequent constraints: economic and socio-cultural restrictions, lack of foreign exchange to import apparatus, low quality of locally

produced equipment, lack of rural artisans to supply equipment's and implements and unsuitability of imported equipment's to the resource endowments of the state.

Nandal and Rai (1986), his study revealed by dividing Haryana in three similar zones based on intensity of mechanization. In all, 54 farms were taken from each of the three zones setting a total sample of 162 farming households. The effect of mechanization on crop yield was analysed on three different categories of farms. The study shows that the tractor operated farms had higher yield of wheat and paddy. In case of farms utilizing tractors on custom-hire basis, the yield was moderately less.

7. DATA ANALYSIS & INTERPRETATION

Table-7.1 Demographic details of the Respondent

Factors	Category	No. of Respondent	Percentage (%)
Gender	Male	36	36
	Female	64	64
Age group	Below 25 years	24	24
	26- 35 years	26	26
	36 – 45 years	32	32
	Above 46 years	18	18
Marital Status	Married	72	72
	Unmarried	28	28
Monthly income	Rs.5000 – 10, 000	28	28
	Rs.10,001 – 15, 000	38	38
	Rs.15, 001 – 20, 000	20	20
	Rs.20,000 & above	14	14

7.1 Interpretation

64% of the respondents are female farmers, 32% of the farmers in the age group of 36-45 years, 72% of the farmers are married and 38% of the respondent's monthly income is Rs.10,001- 15,000.

Table-7.2 Attitude of farmers towards Agricultural Equipment's

Details	Category	No. Of the respondent	Percentage (%)
Type of equipment's	Tractors	30	30
	Wagon	34	34
	Cultivators	20	20
	Plows	16	16
Year of usage	1 yr – 2yrs	10	10
	2 yrs - 3 yrs	30	30
	3yrs - 4 yrs	24	24
	Above 4 yrs	36	36
Mode of purchase	Cash	36	36
	Finance mode	24	24
	Cheque	30	30
	E-bill	10	10
Reason to purchase	Save time	40	40
	Reduce labour cost	34	34
	Maximum yield	14	14
	Improves fertility of the soil	12	12

7.2 Interpretation

34% of the respondents are using wagon for their agriculture. 36% of the respondents are using equipment's for above 4 years, 36% of the respondents purchase the equipment's by cash and 40% of the respondents purchase the equipment's to save time.

Table-7.3 Level of Satisfaction of farmers towards Agricultural Equipment's

Level of satisfaction in save time	Highly satisfied	24	24
	Satisfied	26	26
	Neither satisfied nor dissatisfied	32	32
	Highly dissatisfied	18	18
Level of satisfaction in reducing labour cost	Highly satisfied	24	24
	Satisfied	26	26
	Neither satisfied nor dissatisfied	32	32
	Highly dissatisfied	18	18
Level of satisfaction in yield	Highly satisfied	24	24
	Satisfied	26	26
	Neither satisfied nor dissatisfied	32	32
	Highly dissatisfied	18	18
Level of satisfaction in improving fertility of soil	Highly satisfied	24	24
	Satisfied	26	26
	Neither satisfied nor dissatisfied	32	32
	Highly dissatisfied	18	18

8. SUGGESTIONS

- The agriculture equipment's must be able to use both male and female. Farmers will get satisfy when it is weightless and easy to use.
- The agricultural equipment's must be affordable one in its price. Then only all sort of farmers would buy and utilise the agricultural equipment's.
- Government must provide subsidy and financial assistance to the farmers to motivate farmers to buy.
- The agricultural equipment's must be fulfilled the expectation of the farmers. The companies must get feedback from the farmers to design the equipment's.
- It must save the time and money of the farmers. The manufacturing company must design the products and test it before marketing the equipment's.
- The equipment's are purchased by the farmers only to reduce the cost of the production. The labour cost is essential one to reduce. So the anticipation of the respondents is to reducing labour cost.
- The reason for changing from traditional cultivation to modern is only to expect maximum yield. So the equipment's must fulfil and satisfy the expectation of the farmers.

CONCLUSION

This research paper entitled "A study on the farmers satisfaction towards utilization of agricultural equipment in Salem district" has been studied. The study was undertaken with the objective of analysis of the farmers satisfaction and their attitude towards modern agriculture equipment's. The objective was achieved by using the instrument by questionnaire. The findings have been summarized, and the suggestions have been enumerated. The

study analysed the overall farmers satisfaction towards the agricultural equipment's in Salem district. There are some recommendations in the study based on the analysis. The farmers would satisfy when the recommendations will be followed by the equipment manufacturer to design the products.

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