

IMPACT OF KRUSHIGOVIDYA FARM MAGAZINE ON SUBSCRIBER FARMERS

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ABSTRACT

The farm magazine is one of the important media to disseminate agricultural information to the farming community. Among various farm magazine published in Gujarat, Krushigovidya Farm Magazine (KFM) is the oldest farm magazine. There was hardly any research work carried out in past to measure the impact of farm magazine in terms of adoption of agriculture technology and techno-economic change on subscriber farmers. The Anand and Vadodara districts of the Gujarat state having more number of life members of KFM were selected for the study. The total 80 KFM subscriber farmers and 80 non-subscriber farmers were included for the study. The farmers having the higher education were more subscribers of KFM. Due to the subscriber of KFM subscriber farmers, the membership had significant increase in their knowledge and adoption of selected agriculture technology which was resulted in significant techno-economic change in them. The significant impact of KFM was observed on many characteristics of the KFM subscriber farmers were : Social participation, Socio-economic status, Cropping intensity, Farm machinery and implements possession, Annual income, Market intelligence, Scientific orientation, Innovativeness, Risk-preference, Economic motivation, Overall modernity, Reading behaviour, Attitude towards farm literature, Mass media exposure and Extension participation. It means there was a great impact of KFM on the KFM subscriber farmers.

INTRODUCTION

The farm magazine is one of the important media to disseminate agricultural information to the farming community. Among various farm magazine published in Gujarat, *Krushigovidya* Farm Magazine (KFM) is the oldest farm magazine. It is publishing regularly since May 1948 with the main aim to 'disseminate and to popularize the scientific methods of agriculture in farming community'.

There was hardly any research work carried out in past to measure the impact of farm magazine in terms of adoption of agriculture technology and techno-economic change on subscriber farmers. The main objective of this investigation was to study the impact of AFM on extent of adoption of selected agriculture technology and techno-economic change.

METHODOLOGY

The Anand and Vadodara districts of the

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Gujarat state having more number of life members of KFM were selected for the study. Among Anand district, Anand, Borsad and Petlad talukas whereas in Vadodara district, Dabhoi, Jetpur Pavi and Sankheda taluka and from each talukas, three villages were purposively selected. Total 40 KFM subscriber farmers were selected proportionately and 40 non-subscriber farmers were randomly selected from each village for district. Thus, total 80 KFM subscriber farmers and 80 non-subscriber farmers were included for the study. An interview schedule was prepared and data were collected by personal interviews.

RESULT AND DISCUSSION

Some personal, social, economic, psychological and communication characteristics were selected to find out

impact of KFM. In case of techno-economic change, 8 aspects viz., change in irrigation area, change in land use, change in cropping pattern, change in crop production, change in farm machinery and implements possession, change in savings and investment and change in annual income were studied. For the study of knowledge and adoption of selected agriculture technology, eleven agriculture technology viz., soil testing, high yielding varieties, seed treatment, vermicompost, bio-fertilizers, micronutrients, fertilizer management, irrigation management, weed management biological control and value addition were studied. The impact regarding all the characteristics of the KFM subscriber farmers and non-subscriber farmers were presented in Table 1 .

Table 1 : Impact of krushigovidya farm magazine on the selected characteristics of the respondents n=160

| Characteristics | Mean value | | 't' value | |
|-----------------|--|----------------------------------|-----------|--------|
| | KFM subscriber farmers (n=80) | Non-subscriber farmers (n=80) | | |
| I | PERSONAL | | | |
| 1 | Age | 46.83 | 46.24 | 0.74NS |
| 2 | Education | 4.85 | 3.84 | 3.82** |
| II | SOCIAL | | | |
| 1 | Social participation | 1.94 | 1.18 | 3.17** |
| 2 | Socio-economic status | 108.76 | 78.06 | 9.75** |
| III | ECONOMIC | | | |
| 1 | Size of land holding | 5.26 | 2.88 | 1.30NS |
| 2 | Irrigation potentiality | 94.03 | 93.00 | 0.73NS |
| 3 | Cropping intensity | 148.75 | 114.25 | 2.11* |
| 4 | Farm machinery and implements possession | 35.05 | 15.30 | 8.49** |
| 5 | Occupation | 2.45 | 2.06 | 0.03NS |
| 6 | Annual income | 188015.00 | 109281.88 | 7.27** |
| 7 | Credit orientation | 8.36 | 6.90 | 0.01NS |
| 8 | Market intelligence | 8.59 | 5.79 | 8.03** |

| | Characteristics | Mean value | | 't' value |
|----|--|----------------------------------|----------------------------------|-----------|
| | | KFM subscriber farmers (n=80) | Non-subscriber farmers (n=80) | |
| IV | PSYCHOLOGICAL | | | |
| 1 | Scientific orientation | 33.16 | 29.06 | 2.36* |
| 2 | Innovativeness | 2.51 | 1.65 | 3.48** |
| 3 | Risk preference | 31.60 | 26.84 | 4.32** |
| 4 | Economic motivation | 33.04 | 27.69 | 4.66** |
| 5 | Overall modernity | 20.68 | 17.05 | 3.37** |
| 6 | Reading behaviour | 18.74 | 9.66 | 5.31** |
| 7 | Knowledge regarding selected agriculture technology | | | |
| A | Soil testing | 4.08 | 3.05 | 2.36* |
| B | High yielding varieties | 5.84 | 3.88 | 1.54NS |
| C | Seed treatment | 4.98 | 2.59 | 3.23** |
| D | Vermicompost | 4.83 | 2.14 | 3.51** |
| E | Bio-fertilizers | 7.11 | 2.21 | 7.22** |
| F | Micronutrient | 4.86 | 1.41 | 8.43** |
| G | Fertilizer management | 8.01 | 6.19 | 3.54** |
| H | Irrigation management | 6.90 | 4.18 | 3.68** |
| I | Weed management | 8.48 | 5.38 | 6.17** |
| J | Biological control | 5.46 | 1.26 | 4.41** |
| K | Value addition | 7.71 | 2.84 | 8.59** |
| L | Overall knowledge of selected agriculture technology | 68.33 | 35.11 | 2.40* |
| 8 | Attitude towards farm literature | 72.85 | 64.13 | 2.34* |
| V | COMMUNICATION | | | |
| 1 | Mass media exposure | 11.34 | 7.43 | 2.25** |
| 2 | Extension participation | 26.95 | 11.73 | 4.02** |
| VI | ADOPTION OF SELECTED AGRICULTURE TECHNOLOGY | | | |
| A | Soil testing | 7.44 | 1.93 | 6.98** |
| B | High yielding varieties | 9.83 | 9.65 | 0.27NS |
| C | Seed treatment | 8.16 | 2.06 | 2.21* |
| D | Vermicompost | 1.94 | 0.56 | 0.01NS |
| E | Bio-fertilizers | 4.75 | 1.35 | 2.67** |
| F | Micronutrient | 7.75 | 1.50 | 1.99* |
| G | Fertilizer management | 8.67 | 7.48 | 0.01NS |
| H | Irrigation management | 9.23 | 7.63 | 5.16** |
| I | Weed management | 8.27 | 8.28 | 0.95NS |
| J | Biological control | 0.69 | 0.63 | 0.32NS |
| K | Value addition | 6.41 | 5.06 | 4.32** |
| L | Overall adoption of selected agriculture technology | 66.59 | 42.00 | 2.73** |

| Characteristics | Mean value | | 't' value | |
|-----------------|--|----------------------------------|-----------|--------|
| | KFM subscriber farmers (n=80) | Non-subscriber farmers (n=80) | | |
| VII | TECHNO-ECONOMIC CHANGE | | | |
| A | Change in irrigation area | 21.73 | 2.23 | 2.43* |
| B | Change in land use | 0.94 | 0.46 | 0.16NS |
| C | Change in cropping intensity | 45.81 | 6.93 | 5.31** |
| D | Change in cropping pattern | 1.95 | 1.43 | 2.91** |
| E | Change in crop production | 39.14 | 9.36 | 2.22* |
| F | Change in farm machinery and implements possession | 54.88 | 7.73 | 7.21** |
| G | Change in savings and investment | 2.98 | 2.08 | 3.03** |
| H. | Change in annual income | 50.00 | 14.46 | 7.65** |
| I. | Overall techno-economic change | 217.94 | 44.66 | 4.09** |

* Significant at 0.05 level of probability

** Significant at 0.01 level of probability

NS Non-Significant

1 Impact of KFM on personal characteristics

The Table 1 clearly indicates that there was highly significant difference in the level of education between the KFM subscriber farmers and non-subscriber farmers. It means that farmers having the higher education were more subscribers of KFM.

2 Impact of KFM on social characteristics

The social participation and socio-economic status of the KFM subscriber farmers were observed significantly superior than the non-subscriber farmers. It means that the KFM showed highly significant impact in improving social participation and socio-economic status of the KFM subscriber farmers.

3 Impact of KFM on economic characteristics

The significant difference shown between cropping intensity of KFM subscriber farmers and non-subscriber farmers. It means that cropping intensity was significantly more

due to KFM. This might be because of the possibility of taking more than one crops in a year in some piece of land due to canal irrigation facility and better knowledge as well as higher adoption of improved agricultural technology.

The highly significant progress was observed in the KFM subscriber farmers in terms of their farm machinery and implements possession due to KFM. It is quite natural that KFM subscriber farmers have more crop production and more earning. The farmers with higher earning will always think to bring changes in their farm machinery and implements possession. Thus, KFM acts as an initiating factor for promoting overall picture of economic condition of the farmers.

4 Impact of KFM on psychological characteristics

There was significant difference between

scientific orientation, innovativeness, risk preference, economic motivation and overall modernity of KFM subscriber farmers and non-subscriber farmers. It means that the KFM subscriber farmers had more faith in science and improved agricultural technology by gained scientific knowledge through KFM.

There was highly significant difference between the KFM subscriber farmers and non-subscriber farmers regarding their reading behaviour. It means that the KFM subscriber farmers and non-subscriber farmers were differ with reading behaviour due to KFM as it is received regularly, it leads to conformity to see the new things in farm magazine. The another reason might be that they were well educated and had favourable attitude towards farm literature.

This indicates highly significant impact on knowledge of selected agriculture technology (viz, soil testing, seed treatment, vermicompost, bio-fertilizers, micronutrients, fertilizer management, irrigation management, weed management, biological control and value addition) of the KFM subscriber farmers. It means that significant impact of KFM was observed in improving knowledge of selected agriculture technology of the KFM subscriber farmers. The probable reason for above finding might be the membership of KFM could have expanded their knowledge regarding improved agricultural practices and more extension as well as social participation.

The attitude of KFM subscriber farmers was more favourable than the non-subscriber farmers towards farm literature. It was due to the facts that KFM subscriber farmers were in advantage of reaping maximum benefits of improved agriculture technology through

KFM. Secondly members were found better contact with various extension agencies and personnel. Moreover due to their participation in various extension programmes.

5 Impact of KFM on communication characteristics

KFM showed its impact on mass media exposure and extension participation of the KFM subscriber farmers. The KFM subscriber farmers had higher level of mass media exposure though using radio, television, newspapers, magazine etc. It means KFM had played significant role in establishing a larger contact with various extension agencies.

6 Impact on adoption of selected agriculture technology

The highly significant impact on the KFM subscriber farmers regarding adoption of soil testing, seed treatment, bio-fertilizers, micronutrients, irrigation management and value addition. It means that KFM has shown its impact on adoption of selected agriculture technology of the KFM subscriber farmers. This might be due to favourable attitude towards farm literature, knowledge of agricultural recommendations increased through KFM. Moreover, frequent extension contact, utilization of mass media, socio-economic status and social participation which might have motivated the members for adoption of selected agriculture technology.

7 Impact on techno-economic change

The Table 1 indicates highly significant difference between cropping intensity, cropping pattern and crop production of KFM subscriber farmers and non-subscriber farmers. It means that cropping intensity and crop production were significantly increased

due to taking more than one crops in a year in some piece of land for minimizing the risk and better knowledge as well as higher adoption of improved agricultural technology.

The Table 1 clearly indicates that highly significant progress was observed in the KFM subscriber farmers in terms of their change in farm machinery and implements possession due to higher income. It is quite natural that KFM subscriber farmers have more crop production and more earning. The farmers with higher earning will always think to bring changes in their farm machinery and implements possession. Thus, KFM acts as an initiating factor for promoting overall picture of economic condition of the farmers.

The change in savings and investments of KFM subscriber farmers was significant at 0.01 level of probability than the non-subscriber farmers. This might be due to more possibility of earning more money through the higher adoption of improved agriculture technology by the KFM subscriber farmers.

The Table 1 indicates that the impact on change in annual income of the KFM subscriber farmers was significantly higher than the non-subscriber farmers. It means that KFM played significant indirect role in increasing annual income of the KFM subscriber farmers. This might be due to various changes occurred as a result of impact of KFM, which might have made the KFM subscriber farmers economically more sound and technically well-equipped by adopting improved agriculture technology.

The Table 1 clearly indicates that significant difference was observed in the KFM subscriber farmers in terms of their overall techno-economic change. It is quite natural that

KFM subscriber farmers having influence and impact of KFM will have more crop production and more earning. The farmers with higher earning naturally will always think to bring changes in their social status as well as techno-economic changes of various aspects. Thus, KFM acts as an initiating factor for promoting overall picture of techno-economic condition of the KFM subscriber farmers. This might be the possible reason for above findings.

CONCLUSION

The farmers having the higher education were more subscribers of KFM. Due to the subscriber of KFM subscriber farmers, the membership had significant increase in their knowledge and adoption of selected agriculture technology which was resulted in significant techno-economic change in them. The significant impact of KFM was observed on many characteristics of the KFM subscriber farmers were : Social participation, Socio-economic status, Cropping intensity, Farm machinery and implements possession, Annual income, Market intelligence, Scientific orientation, Innovativeness, Risk-preference, Economic motivation, Overall modernity, Reading behaviour, Attitude towards farm literature, Mass media exposure and Extension participation. It means there was a great impact of KFM on the KFM subscriber farmers.

IMPLICATION

The study implies that more and more farm literature should be published and distributed among the farming community to increase the knowledge and adoption level of the farmers for getting higher crop production and annual income which can be resulted in higher techno-economic change.