Association between Profile of the Respondent and Impact of Integrated Farming System in Terms of Change in Employment Generation

ABSTRACT

The present study was undertaken with the main objective impact of integrated farming system on doubling farmers' income. The study was conducted in four district of Konkan region of Maharashtra namely Ratnagiri, Sindhudurg, Raigad and Palghar district. In all 200 respondents were selected by using multi stage sampling techniques. The "Ex-Post-Facto" research design was used for conducting the study. The data were collected through the personal interview. The data collected were processed and statistically analyzed by using statistical technique like frequency, percentage, mean, standard deviation and chi square test. Among the thirteen selected independent variables namely age, farming experience, major occupation, annual income, cropping pattern, livestock possession, information seeking behavior, economic motivation, irrigation status and risk orientation were shown significant association with impact of integrated farming system while education, land holding and productivity level shows highly significant association with impact of integrated farming system in term of change in employment generation.

Key words: -Association, profile of the integrated farming system adopters, impact and integrated farming system

INTRODUCTION

India's economy is heavily dependent on agriculture. For almost seventy percent of rural households, farming is the main source of income. It employs more than 60.00 percent of the workforce and accounts for over 18.80 percent of the GDP of India, making it a key sector of the economy (Economic Survey 2021-22). Based on the country's cultivable land, it seems that the bulk of India's economy is rural and agricultural, with the majority of the country's farmers (86.08 percent) being small-scale and marginal.The population is growing more quickly than the size of the holding but our land resources are limited. The Integrated Farming System (IFS) is the only option for a secure life for resource-poor farmers can sustain their livelihood.

Sustainable livelihood through integrated farming modules that are appropriate for farmers to promote scientific farming practices, crop diversification including the introduction of high-value crops and planned strategies for resolving a number of challenges and the path of profitable marketing. During the last few decades, various authors have given definition of IFS as a combination of at least one component of farming plus one component of livestock (Edward 1997, Jayanthi et al. 2000 and Radhamani et al. 2003). As a result, small and marginal farmers can combine a viable crop with horticulture, livestock, fisheries and other components to reduce risks while generating additional revenue and employment from the same plot of land. By recycling the trash from one component into other integrating diverse components with the crop will boost profitability. A system approach is urgently needed to meet the demands of an everincreasing population while, maintaining ecological balance. Integrated farming systems appear to be a viable solution to the ever-increasing demand for food production, economic stability and nutritional security. Especially for small and marginal farmers with limited resources. It is a concept of ecological soundness that leads to sustainable agriculture as well as a reliable means of attaining pretty high productivity with a significant fertilizer economy.

Keeping above fact in view, the present study was designed to analyze the association between the profile of the respondents and impact of integrated farming system.

OBJECTIVE:

1. To study the association between the profile of the respondents and impact of integrated farming system.

METHODOLOGY:

The present study was conducted in four district of Konkan region of Maharashtra. A multistage sampling procedure was adopted for the selection of integrated farming system adopters. In all 200 respondents were selected for study from the four districts of Konkan region. The “Ex-Post-Facto” research design was used for the proposed study. The data were collected through the personal interview. The data collected were processed and statistically analyzed by using statistical technique like chi-square test. The independent variable studied were age, education, farming experience, land holding, major occupation, annual income, cropping pattern, productivity level, livestock possession,

information seeking behavior, economic motivation, irrigation status and risk orientation. The dependent variable under study was impact of integrated farming system.

RESULTS AND DISCUSSION:

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

1. Association between profile of the respondents and impact in terms of change in employment generation.

Table 1: Association between profile of the respondents and impact in terms of change in employment generation due to IFS

S.I. No.	Independent Variable	Variable Code	X Value	Degree of freedom
1.	Age	X_1	11.84*	4
2.	Education	X_2	27.96**	10
3.	Farmingexperience	X_3	10.72*	4
4.	Landholding	X_4	24.84**	8
5.	Majoroccupations	X_5	12.90*	4
6.	Annualincome	X_6	9.912*	4
7.	Croppingpattern	X_7	10.50*	4
8.	Productivitylevel	X_8	13.36**	4
9.	Livestockpossession	X_9	12.90*	4
10.	Information seekingbehavior	X_{10}	13.22*	4
11.	Economicmotivation	X_{11}	11.05*	4
12.	Irrigationstatus	X_{12}	10.37*	4
13.	Risk orientation	X_{13}	13.20*	4

* = Significance at 0.05 level

** = Significance at 0.01 level

1.1 Age and change in employment generation

The association between age of the respondents (X_1) and impact in term of change in employment generationwas significant. It means that age was influencing to increase employment generation of the integrated farming system adopter.

This indicated that as age of the beneficiaries increased, there was decrease in their employment generation and *vice versa*. It means middle age respondents had taken more advantage of integrated farming system. The middle age might be more eager in creating employment by practicing various farming system.

1.2Education and change in employment generation

The association between education of the respondents (X_2) and impact in term of change in employment generationwas significant. It means that education was influencing factor to increase employment generation by integrated farming system adopters.

The probable reason for this trend might be that educated integrated farming system adopters had better access to farm information sources and had ability to grasp things, analyze and interpret them in a proper way in creation of employment through integrated farming system.

1.3 Farming experience and change in employment generation

The association between farming experience of the respondents (X_3) and impact in term of change in employment generation was significant. It means that farming experience of adopters was influencing to increase in employment generation by integrated farming system adopters.

The findings show that with increasing farming experience, the integrated farming system of the respondent improved remarkably. The individuals having small to medium area and satisfactory farming experience look towards agriculture as an economic activity. This might have been help for more utilization of labour.

1.4 Land holding and change in employment generation

It is observed from Table 1 that, the association between land holding of the respondents (X_4) and impact in term of change in employment generation by integrated farming system

adopters was highly significant. It means that land holding was influencing to increase in employment generation by integrated farming system adopters.

The finding shows that as the area under integrated farming system increases, the number of labour required to carry out integrated farming system practices increase. A farmer who has brought more area under integrated farming system is obviously interested in adoption of innovative practices on their farm. Such individuals look towards agriculture as an economic activity. Therefore, they might have been required more labour to increase integrated farming system production.

1.5 Major occupation and change in employment generation

It is observed from Table 1 that, the association between major occupationof the respondents (X_5) and impact in term of change in employment generation was significant. It means that major occupation of adopterswas influencing to increase employment generation under integrated farming system.

1.6 Annual income and change in employment generation

It is observed from Table 1 that, the association between annual incomeof the respondents (X_6) and impact in term of change in employment generation was significant. It means that annual income of adopterswas influencing to increase employment generation under integrated farming system.

This indicated that annual income was significant aspect in generation of employment in integrated farming system. It can be concluded that as the annual income of the respondent increased, the increased change was noticed in employment generation through adoption of integrated farming system.

1.7 Cropping pattern and change in employment generation

It is observed from Table 1that, the association between cropping patternof the respondents (X_7) and impact in term of change in employment generation was significant. It means that cropping patternwas one of the factors in influencing to increase in employment generation by integrated farming system adopters.

The farmers with fair cropping system instead of mono cropping pattern obliviously create employment.

1.8 Productivity level and change in employment generation

It is observed from Table 1 that, the association between productivity levelof the respondents (X_8) and impact in term of change in employment generation was highly significant. It means that productivity levelwas influencing to increase in employment generation by the integrated farming system adopters.

It can be concluded that higher the productivity, higher was the economic motivation and *vice-versa*. Other way round, it can be said that higher yield gained by the respondent under integrated farming system definitely motivate to adopt more practices on their farm which result into creation of employment.

1.9 Livestock possession and change in employment generation

It is observed from Table 1 that, the association between livestock possessionof the respondents (X_9) and impact in term of change in employment generationwas significant. It means that livestock possessionwas influencing to increase in employment generation by the integrated farming system adopters.

Integration of livestock with agriculture was taken up seriously by more number of farmers under integrated farming system because of this they can afford to utilize more labour on their farm. Livestock is vital for practicing integrated farming system. In fact livestock possession more effective in creating additional income and employment to farmers.

1.10 Information seeking behaviour and change in employment generation

It is observed from Table 1 that, the association between information seeking behaviour of the respondents (X_{10}) and impact in term of change in employment generation was significant. It means that information seeking behaviour was influencing to increase in employment generation by the integrated farming system adopters.

The probable reason might be thatan individual, who utilizes maximum sources of information frequently, for seeking guidance on new developments and his own field problems, gains better knowledge about the integrated farming system. His frequent interactions with

various sources of information lead to development of positive attitude towards new technology, learning of new skills and getting motivation to adopt the new technology fully on his farm. This adoption of new technologies results in increasing employment generation and the same is proven in this result.

1.11 Economic motivation and change in employment generation

It is observed from Table 1 that, the association between economic motivationof the respondents (X_{11}) and impact in term of change in employment generation was significant. It means that economic motivationwas influencing to increase in employment generation by integrated farming system adopters.

It might be due to the reason that every farmer involved in the integrated farming activity was expected higher yield and returns.

1.12 Irrigation status and change in employment generation

It is observed from Table 1 that, the association between irrigation status of the respondents (X_{12}) and impact in term of change in employment generation was significant. It means that irrigation facility was influencing to increase in employment generation by integrated farming system adopters.

Availability of irrigation facilities and their irrigation potential significantly affect the cropping pattern, and also the integration of livestock, poultry and fishery farming by many folds which result into utilization of more labour as compare to mono cropping. Thus availability of irrigation under integrated faming system affects employment creation.

1.13 Risk orientation and change in employment generation

It is observed from Table 1 that, the association between risk orientationof the respondents (X_{13}) and impact in term of change in employment generation was significant. It means that risk orientationwas influencing to increase in employment generation by the respondents.

Therefore, respondent who take at least a calculated risk would necessarily have more favorable attitude towards integrated farming system and employment generation.

Conclusion:

The study has identified certain independent variables that have significant impact on integrated farming system. The variables like education, land holding and productivity level were having highly significant association with impact of impact of integrated farming system in terms of change in employment generation. This implies that these factors should be given more importance and be suitably manipulated for increasing extent of adoption of integrated farming system among the farmers.

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