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Factors affecting the technological gap of bamboo growers

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Abstract

Present study was conducted to technological gap of bamboo growers of Nagpur district. Twenty four villages of Nagpur district and three bamboo farmers from each village were selected for the study. Thus, in all 120 bamboo growers constituted the sample for the study. Out of different ten variables education, bamboo farming experience, economic motivation, source of information, training received were negative but significantly correlated with the technological gap and knowledge and innovativeness are highly negative significant with technological gap. Whereas, age, land holding, area under bamboo cultivation and annual income is non-significantly associated with overall technological gap.

Keywords: Technological gap, bamboo growers, bamboo farming

Introduction

Bamboo has been used for many applications from food source to building material. From picture-frames to room-dividing screens, bamboo can make some elegant and exotic decorations for the home. A fabulous trend right now is bamboo fibres being used in fabrics and clothing. Bamboo is also grown as a garden plant as well, the woody grass being an excellent addition to any garden. It is also used to make many different types of weapons (www.bamboogrove.co.m)

However, despite the above facts and credentials, bamboo sector has not yet received the prominence due to lack of information at ground level. The primary difficulties preventing farmers from planting bamboo includes a lack of information, as well as market and legislative disincentives. Although bamboo plays many roles in the life of rural people and support the life of locals, very little is known about the cost and benefit of bamboo to farmers. Private bamboo farms established by large farmers provide the households with huge income and sustenance. A better understanding of the bamboo farming, its contribution to rural household economy, and the factors associated with the farm income levels is essential. Amidst these opportunities, benefits and issues, there is a need to understand the factors responsible for farmer's decision on cultivating bamboo at farm level and its economic feasibility.

So, there is a need to find out the factors affecting the gap existed between technologies available and actually applies by farmers in their fields. Therefore, the study entitled "Factor affecting the technological gap of bamboo growers" in Nagpur district was undertaken.

Objectives

1. To study the personal profile of bamboo growers
2. To find out factors affecting the technological gap of bamboo grower

Methodology

Twenty four villages of Nagpur district and five bamboo farmers from each village were selected purposively for the study. Thus, in all 120 bamboo growers constituted the sample for the investigation. The data of this study were collected by arranging personal interview schedule and survey performa. The data were analyzed in light of objectives.

Results and Discussion

Profile of the bamboo growers

The bamboo respondents were categorized into different groups on the basis of their some of the important personal, socio-economic, situational, communication and psychological characteristics of bamboo growers were selected and studied the findings are as follows.

Table 1: Profile of tribal wheat growers n = 120

Variables	categories	Frequencies	Percent
Age	Young (Up to 35 years)	31	25.84
	Middle (36 to 50 years)	64	53.33
	Old (Above 50 years)	25	20.83
Education	Illiterate (No. schooling)	00	00.00
	Primary school (1-4 Standards)	09	07.50
	Middle school (5-7 Standards)	10	08.30
	High school (8-10 Standards)	29	24.20
	Higher secondary school (11-12 Standards)	43	35.90
	College (Above 12 Standard)	29	24.10
Land holding	Marginal (Up to 1.00)	07	05.83
	Small (1.01 to 2.00)	35	29.17
	Semi-medium (2.01 to 4.00)	63	52.50
	Medium (4.01 to 10.00)	15	12.50
	Large (Above 10.00)	00	00.00
Annual income	Up to - Rs. 2,00,000	16	13.34
	Rs.2,00,001 to Rs.4,00,000	41	34.16
	Rs.4,00,001 to Rs.6,00,000	36	30.00
	Rs.6,00,001 to Rs.8,00,000	15	12.50
	Above Rs.8,00,000	12	10.00
Area under bamboo cultivation	Low (up to 0.7 ha)	25	20.83
	Medium (0.8 to 2.7 ha)	82	68.34
	High (above 2.7 ha)	13	10.83
Bamboo farming experience	Low (up to 5 years)	29	24.16
	Medium (6 to 10 years)	72	60.00
	High (Above 10 years)	19	15.84
Sources of information	Low (Up to 11 score)	25	20.83
	Medium (12 to 17 score)	78	65.00
	High (Above 17 score)	17	14.17
Innovativeness	Low (Up to 11 score)	17	14.16
	Medium (12 to 15 score)	92	76.66
	High (Above 15 score)	11	09.18
Economic motivation	Low (Up to 8 score)	11	09.16
	Medium (9 to 17 score)	95	79.16
	High (Above 17 score)	14	11.68
Knowledge	Low (up to 33.33)	47	39.16
	Medium (33.34 to 66.66)	73	60.84
	High (Above 66.66)	00	00.00

It is evident from the Table 1 that majority of bamboo farmers were in middle age, higher secondary school education, semi-medium farmers, annual income between Rs.2,00,001 to Rs.4,00,000, area under bamboo cultivation between 0.8 to 2.7 ha, 6 to 10 years of bamboo farming experience, medium sources of information, medium innovativeness, medium economic motivation and medium knowledge about bamboo cultivation practices.

Technological gap of bamboo growers

The respondents were grouped according to their overall technological gap on the basis of their degree of technological gap in relation to all the aspect together. The respondents were categorized into three groups i.e. low, medium and high. The data in this regards are presented in Table 2.

Table 2: Distribution of respondents according to their level of overall technological gap

Sr. No.	Category	Respondents (n = 120)	
		Frequency	Percentage
1	Low (Up to 33.33)	22	18.33
2	Medium (33.34 to 66.66)	90	75.00
3	High (Above 66.66)	08	06.67
	Total	120	100.00
Mean = 60.12			

It is clear from the Table 2 that, 75.00 per cent of the bamboo growers were found in medium level of technological gap category, followed by low level of technological gap with 18.33 per cent of the respondents and 06.67 per cent of the respondents belonged to high level of technological gap category.

Factor affecting the technological gap of bamboo growers

With a view to understand the nature of relationship between independent and dependent variable, the data were subjected to correlation co-efficient and presented in Table-3.

Table 3: Factor affecting the technological gap of bamboo growers
n=120

Sr. No.	Independent variable	Correlation coefficient
1	Age	-0.1382NS
2	Education	-0.1891*
3	Land holding	-0.0929NS
4	Annual income	-0.1017NS
5	Area under bamboo cultivation	-0.1365NS
6	Bamboo farming experience	-0.1881*
7	Source of information	-0.1492*
8	Innovativeness	-0.2162**
9	Economic motivation	-0.1774*
10	Knowledge	-0.3287**

** Significant at 0.01 level of probability

* Significant at 0.05 level of probability

N.S. – non significant

It is depicted in Table 3 that the innovativeness and knowledge were found negative and highly significant with technological gap at 0.01 per cent level of probability, whereas education, bamboo farming experience, training received, source of information and economic motivation had negatively significant with technological gap at 0.05 per cent level of probability. Whereas the variable age, annual income and area under bamboo cultivation were found non-significant relationship with technological gap.

Conclusion

As per results the three fourth (75.00%) of the respondents were observed under medium category of technological gap of bamboo recommended practices, followed by 18.33 per cent of the respondents were observed in low level of technological gap. Selected independent variables *viz.*, education, bamboo farming experience, economic motivation, source of information, training received were negative but significantly correlated technological gap and knowledge and innovativeness are highly negative significant with technological gap. Whereas, age, land holding, area under bamboo cultivation and annual income is non-significantly associated with overall technological gap.

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