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Role of agri-input dealers in transfer of technology in Chhattisgarh plains

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Abstract

The present study was conducted to study the role and performance of input dealers in extension services and the farmer-dealer relationship from a farmer perspective. For this study, a survey was conducted at Chhattisgarh state Chhattisgarh plain region. The sample size was made up of 150 farm input dealers selected from four districts Raipur, Rajnandgaon, Raigarh and Dhamtari districts. The respondents were interviewed with the help of a specially designed schedule. In terms of business experience, majority of (30.00%) of DAESI dealers had 15-20 years of experience in this business, majority of Agri-input dealers covers 11 to 20 villages (46.00%). In study found the farm input dealers have perceived high role in providing agro-advisory and transfer of technology. It was revealed that (72.00) per cent of the farm input dealers had 'high' role performance. The most performed roles were 'Delivering and checking relevant and timely agro-advisory services to the farmers in the study area " to the farmers' followed by the roles "Assisting the Product Demonstration" to farmers, "Visiting the farmers field on fixed day", "Ensuring quality, low cost agri-input to the farmers", "Arranging for company employees to visit the field in order to get solution when he is unable to get satisfactory solution during field visits/training programs", "Dealers often promote new hybrid seeds, tools or chemical products and "Trying to get feedback from farmers regarding". The results of the study helped establish that more than three-fifth of the farm input dealers have assessed High role in transfer of technology. Due to the agriculture input supply and service connection of farm input dealers, there is a greater trust level by the farmers to farm input dealers. Agri-input dealers emerge as the first point of contact for farmers at the village level, due to their deep integration into the local advisory and input-supply systems.

Keywords: Role performance, farm input dealers, Training

Introduction

Agriculture is the foundation of India's economy in terms of income, employment generation and ensuring food and nutrition security. Agri-input dealers are those dealers selling farm inputs (fertilizers, seeds, pesticides etc) to the farmers, and also provides various additional services like providing extension services to the farmers. Three important services from agri- input dealers to farmer provision of agronomic practices for seeds, pesticides and fertilizer information (Etyang, 2013) [2]. The Agri input dealers collaboratively work with Companies facilitate demonstration of new varieties of seeds, pesticide and herbicides in farmers fields. They also provide information on new technologies very efficiently. Governments' extension service to the farmer is very inadequate. (Kumar, Subodh 2020) [4] "Most of input dealers have direct touch with the farmers and aware of pests, diseases, fertilizers, seeds, technology and recent developments. For the development of farmers, the government could provide a productive channel and keep information at dealers for education of farmers, paste notice boards and likewise informed dealers regarding recent

changes and developments in agriculture. (Leelavani, 2011)

[5] Agri-input dealers were the primary source of farm information to farming community with the highest credibility. Besides the supply of inputs and credit their transfer of Agricultural technology rigor was fabulous, all the farmers acclaimed them for their accessibility and adorability. (Argade, 2015) [1]. Agricultural development can only happen through farmers and input dealers with their emotional, financial, social bond in them (Kumar, 2024) [3]. This has led to an improved performance of providing agro-advisory services to farmers (Panja et al., 2022) [8]. Training on issues such as identification of different pest and pesticides, diagnostics of symptoms and crop management is very important (Singh et al.2015). [10] The most common roles was 'providing credit based agro-advisory services to the farmers', 'delivering and checking relevant and timely agro-advisory services to the farmers in the study area', 'conducting demonstrations/campaigns/shows/ seminar on productive technology concerning different crops to farmers, visiting the farmers field on fixed day' and 'providing quality, low cost agro-advisory services to the

farmers etc. (Mayekar, 2021)^[6]; where stability, rationality, and economic viability of the individual depend on annual individual income (Prasad, 2019)^[9]. Input dealers have to be empowered to perform their extension roles through higher training and access to sources of agricultural knowledge through institutionalized research-extension-inputs-companies and input dealers linkages (Owoade, 2022)^[7].

Methodology

The study was carried out in four purposely of Raipur, Rajnandgaon, Raigarh and Dhamtari, districts of Chhattisgarh plains. In this way a minimum of 150 respondents were expected to provide the data for this investigation during 2019-20. The data was collected by using a well-prepared Questionnaire. The questionnaire is a research technique which consists of a sequence of questions or other prompts that assess an individual's beliefs, attitudes, or opinions; that is, questionnaire is a research instrument which consists of a sequence of questions or other prompts that are used to solicit information from a respondent. The open-end questions were also given to the input suppliers and taken into consideration for their needed suggestions in that way, the accumulated data was classified, tabulated and analyzed as per aim of this study for drawing meaningful interpretations of the received responses. The statistical tools such as frequency, percentage, wetted mean, and rank were used for rationalization of data was use one under study.

Results and Discussions

Business experience

The distribution is given in the Table 1. and Fig. 1. Regarding business experience, that majority of (30.00%) of DAESI dealers had 15-20 years of experience in this business, followed by 27.33 %, 24.67 %, 13.33 % and 4.67 dealers had 20 to 25 years, 10 to 15 years, above 25 years and up to 10 years of business experience respectively.

Table 1: Respondents according to their business experience as Input dealers (n=150)

S. No.	Category	Number	Percentage
1.	Up to 10 ye rs	7	4.67
2.	10-15 years	37	24.67
3.	15-20 years	45	30.00
4.	20-25 years	41	27.33
5.	Above 25 years	20	13.33

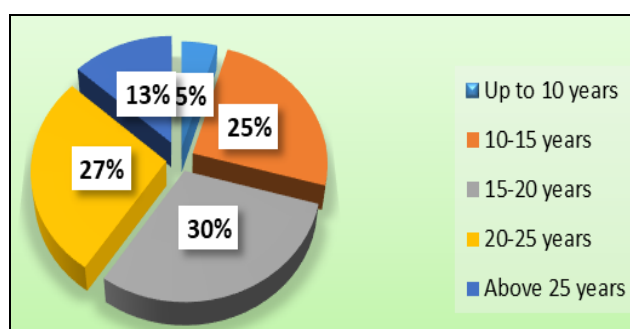


Fig 2: Respondents according to their business experience as Input dealers

Number of villages covered for extension services by Input Dealers.

Krishi kendra covers a certain number of villages from where the farmers are in continuous contact. Number of villages covered by each Krishi Kendra is the basis for the preparation of various categories. It is evident from the table 2. that majority of agri- input dealers covers 11 to 20 villages (46.00%) followed by 21 to 30 villages (25.33 %), 1 to 10 villages (16.67 %), 31 to 40 villages (6.67 %) and 41 to 50 villages (5.33 %). The probable reason may be increasing competition in agriprenurship business. More number of shops had opened and due to which each shop covers less number of villages. It could be observed that more and more people are diverted towards agri-input business which results in more number of shops.

Table 2: Distribution of agri-input dealers according to the number of villages covered by their shop (krishi Kendra) (n=150)

S. No.	Category	Number	Percentage
1.	1- 0 villages	25	16.67
2.	11-20 villages	69	46.00
3.	21-30 villages	38	25.33
4.	31-40 villages	10	6.67
5.	More than 40 villages	8	5.33



Fig 2: Number of villages covered by their shop (Krishi Kendra)

Role performance of the input dealers with regard to agro-advisory services

In this study role performance is measured by the actual behaviour of the farm input dealer that relates to the practice of his job. A clearly defined job chart of farm input dealers in respect of agro-advisory services was derived from previous studies on input dealers and consultation with the input dealers, company agents, Department of Agriculture officials and crop extension experts.

It can be concluded in the table 3 that 72.00 % of the farm input dealers had 'high' role performance, followed by 14.67 % 'medium' and 13.33 % blow' role performance in providing agro-advisory services to the farmers.

Table 3: The data regarding the role performance of farm input dealers in providing agro-advisory services to the farm input dealers are presented

(n=150) S. No.	Role performance (Score)	Category	Percentage
1	Low (<23 score)	20	13.33
2	Medium (23-31 score)	22	14.67
3	High (> 31 score)	108	72.00



Fig 3: Role performance of the input dealers in terms of agro-advisory services

Item-wise Analysis of Role Performance of the Input Dealers in the Agro-Advisory Services

The different roles performed by Input Dealers were examined in detail. The item-wise analysis of the agro advisory roles was summarized in Table No. 4. It was found that the role "Providing and verifying relevant and timely agro-advisory services to the farmers in the study area was

rank I with a mean (4.09). followed by the Role "Providing farmers quality, low cost agri - inputs" was Rank II with mean (3.69); "Visiting the farmers field, if there was any relevant issue. was Rank III with mean (3.65); "Motivating farmers for using new and additional prescribed agro-advisory services. was Ranked IV (3.62), "Arranging for company employee to visit the field in order to get solution when he is unable to get satisfactory solution during field visits/training programmes" was Ranked V (3.61), "Dealers often promote new hybrid seeds, tools or chemical products" was Ranked VI (3.55), "Assisting the Product Demonstration" was Ranked VII (3.46), "Participating actively in training sessions conducted by company/ AO's to get knowledge on agro advisory services" was Ranked VIII (3.39), Maintaining a daily record of discussed agro-advisory services with farmers while farmers visit the shop was Ranked IX (3.34) and Trying to get feedback from farmers regarding the working/progress of adaptation of agro- advisory services was Ranked X with mean (2.97). The average mean score was 3.59, indicating generally positive performance across all roles.

Table 4: Role performance of farm input dealers in providing Agro-Advisory services to the farm input dealers

S.N.	Statement	SA	A	N	DA	SDA	Mean	Rank
1	Delivering and checking relevant and timely agro-advisory services to the farmers in the study area	57	74	4	10	5	4.09	I
2	Ensuring quality, low cost agri - inputs to the farmers	38	49.33	2.67	6.67	3.33	3.69	II
3	Visiting the farmers field on fixed day	43	65	7	29	6	3.65	III
4	Motivating the farmers to adopt new and additional recommended agro-advisory services.	28.67	43.33	4.67	19.33	4.00	3.62	IV
5	Arranging for company employee to visit the field in order to get solution when he is unable to get satisfactory solution during field visits/training programmes.	37	73	6	26	8	3.61	V
6	Dealers often promote new hybrid seeds, tools or chemical products.	24.67	48.67	4.00	17.33	5.33	3.55	VI
7	Assisting the Product Demonstration	41	69	6	22	12	3.46	VII
8	Participating actively in training sessions conducted by company/ AO's to get knowledge on agro advisory services.	27.33	46.00	4.00	14.67	8.00	3.39	VIII
9	Maintaining a daily record of discussed agro-advisory services with farmers while farmers visit the shop	35	60	7	36	12	3.34	IX
10	Trying to get feedback from farmers regarding the working/progress of adaptation of agro- advisory services.	23.33	40.00	4.67	24	8	2.97	X

Conclusion

Finding the study More than three-fifths of farm-input dealers perceive their role in technology transfer as High. As key providers of seeds, fertilizers, pesticides, and advisory services, they are heavily relied upon by farmers who turn to them due to their ease of access, trustworthiness, transparent intentions, and minimized uncertainty. To enhance the effectiveness of these dealers in disseminating new agricultural technology, the Department of Agriculture should organize targeted, need-based training programs and ensure they are kept up to date with the latest technical knowledge and best practices.

It can be inferred that farm-input dealers generally fulfilled their role in providing credit-based agro-advisory services, supplying quality, cost-effective inputs on time, conducting demonstrations, and making field visits as part of their advisory services. However, many dealers did not systematically collect feedback from farmers regarding both

the inputs and the advice rendered, nor did they relay this feedback to the suppliers or agencies. This factor limits opportunities for improvement in dealer service. Therefore, farm-input dealers should be encouraged to gather farmer feedback regularly and communicate it to relevant agencies. By using this feedback, the farm input dealers may improve their role performance.

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