

Original Research Article

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Profile Characteristics of Agro Input Dealers after Completion of Certificate Course on Pesticide Management

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ABSTRACT

Agro input dealers serves as an important link between the manufactures and the farmers and he has the responsibility to disseminate latest farm technology up to the field level. So, knowledge about pesticides is crucial for the agro input dealers. The farmers have more trust on the agro input dealers as they are more localize. There is a high need that proper recommendations should be communicated for sustainable usage of inputs and for proper understanding by the farmers about the product and process. The present study was conducted across the districts of Junagadh, Rajkot, Porbandar and Amreli in the Gujarat state. Data was collected from 160 agro input dealers who had completed a certificate course on pesticide management. Both purposive and random sampling techniques were employed. Distribution of the respondents based on personal, socio-economic, Situational and communicational and psychological characteristics showed that majority of the agricultural input dealers were middle aged (50.00 per cent), education up to middle school (55.00 per cent), high annual income (48.75 per cent), medium social participation (51.25 per cent), Medium experience as a dealer (51.87 per cent), medium utilization of source of information (54.37 per cent), medium level of mass media exposure (53.13 per cent), most of had no training received (51.25 per cent), medium extension contact (61.87 per cent), medium level of economic motivation (51.25 per cent), medium level of management orientation (55.62 per cent), medium level of innovativeness (55.62 per cent), medium level of risk orientation (67.50 per cent), high level of achievement motivation (35.00 per cent), high level of scientific orientation (29.37 per cent).

Keywords

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Introduction

Agro input dealers are business persons with or without a technically qualification and a service provider. In order to overcome the possible negative effects, it is necessary

to make technical qualification in agriculture as mandatory for issuing retailer ship license to provide agro advisory services besides selling agricultural inputs. The input dealer has no specifically for qualification to get license from the government and has inadequate

knowledge about agricultural technology. So, training has to be provided to get better knowledge and skill to act as an extension service provider by competent institutes (Sharma, 2017). Agro input dealers serves as an important link between the manufactures and the farmers and he has the responsibility to disseminate latest farm technology up to the field level.

Pesticide is one of the important agri inputs in agriculture. The pesticides is mostly marketed by dealers, distributors and retailers. Most of the farmers are dependent on pesticides dealers/retailers for information related to insecticides and pest management. However, majority of the pesticides dealers do not have formal education in agriculture. It is essential therefore to impart technical knowledge on pesticides, pest management and advisory based on scientific recommendations. In this context, the National Institute of Plant Health Management (NIPHM) has been entrusted the role of coordinator for the 72 hours certificate course for pesticides dealers and distributors and to equip them to acquire professional competency on pesticides and pest management and advisory services thereof. The main objective of this course is to impart the basic technical knowledge on pesticides and pest management to the pesticides dealers and distributors and to provide knowledge about the rules and laws governing the insecticides.

The present study was conducted to know the profile of agricultural input dealers who had completed the certificate course on pesticide management under four major category of variables i.e. personal, socio-economic, Situational and communicational and psychological variables in Rajkot, Junagadh, Porbandar and Amreli districts of Gujrat.

The primary objective of this study is to examine the personal, socio-economic, situational, communicational, and psychological characteristics of agricultural input dealers who completed the pesticide management certificate course, in order to understand their professional profile and assess factors influencing their competency in providing pesticide and pest-management advisory services.

Materials and Methods

The present study was conducted in Junagadh, Rajkot, Amreli and Porbandar district of Gujarat state, where there are more number of input dealers with completion

of certificate course on pesticide management and the study was confined to “ex-post facto” research design. The purposive and random sampling technique was used for the selection of district and respondents. The total numbers of 160 input dealers were selected from four district by random sampling method. For the selection of independent variables, which were found most relevant were finally selected for the study. The tools and techniques used in the present study was interview schedule along with the suitable scales and indices for measurement of dependent and independent variables. For the data collection, pretested and structured interview schedule was prepared after discussing with a group of expert and necessary modifications were made. Due to the potentiality of the areas in agricultural production, this four the districts are having a large number of agricultural input dealers who had completed the certificate course on pesticide management. Considering these facts and specific reasons, these four districts i.e. Junagadh, Rajkot, Amreli and Porbandar district of Gujarat were purposively selected for the study.

Selection of respondents

The district wise list were obtained from office of Directorate of extension education, JAU, Junagadh and district wise 40 respondent were selected from each district with purposive random sampling method. Thus, total 160 respondents were selected from four district for the study.

Results and Discussion

Profile of the agricultural input dealers were studied with respect to four major category of variables: personal, socio-economic, Situational and communicational and psychological variables.

Personal variable

Age

The data presented in Table 1 indicated that half (50.00 per cent) of the agro input dealers belonged to middle age group followed by old age group (28.75 per cent) and young age group (21.25 per cent).

Education

The data presented in the Table 1 indicated that more

than half (55.00 per cent) of agro input dealers were having middle school education followed by higher school (20.00 per cent), primary school education (15.62 per cent) and collage/post-graduation (09.38 per cent). None of the agro input dealers was found to be functionally literate and illiterate.

Socio-economic variables

Annual income

The data from Table 2 revealed that nearly half (48.75 per cent) of the agro input dealers belonged to very high annual income category (above Rs. 2,00,000), followed by 25.63 per cent had high annual income and 13.75 per cent belonged to medium annual income group.

It was also observed that very few (07.50 and 4.38 per cent) agro input dealers had low and very low annual income, respectively.

From the above discussion, it can be concluded that majority (74.38 per cent) of agro input dealers had very high to higher level of annual income. The possible reason might be due to success in their enterprise.

Social Participation

The data from Table 2 revealed that slightly more than half (51.25 per cent) of the respondents had medium social participation, followed by high social participation (28.13 per cent) and low social participation (20.62 per cent). The possible reasons for this distribution could be a lack of interest in participation activities or perceived lack of benefits associated with participation.

Experience as dealer

It was evident from Table 2 and graphically depicted in Fig. 10 that slightly more than half (51.87 per cent) of the respondents had medium experience as a dealer, followed by low experience as a dealer (26.88 per cent) and high experience as a dealer (21.25 per cent). The possible reason for this distribution could be the involvement of the respondents in the input business from a young age.

Input dealers with more business experience are likely to have a better understanding of the various inputs used by farmers, enabling them to provide farm information more effectively. This accumulated expertise and knowledge

gained through years of experience could contribute to their medium to high social participation levels.

Situational and communicational variables

Source of information

Table 3 shows that slightly more than half (54.37 per cent) of the respondents had medium utilization of source of information, followed by 28.13 per cent respondents had high utilization of source of information and 17.50 per cent respondents had less utilization of source of information.

Mass media exposure

From the Table 3 observed that little more than half (53.13 per cent) of the agro input dealers had medium level of mass media exposure, followed by 26.25 per cent and 20.62 per cent of them were with low and high level of mass media exposure, respectively.

Training undergone

From the Table 3 observed that slightly more than half (51.25 per cent) of the agro input dealers had no training undergone, followed by 35.63 per cent had 1 to 2 training undergone, 8.75 per cent had 3 to 5 and 4.37 per cent had more than 5 training undergone.

Psychological variables

Extension contact

From the data presented in Table 4 it can be summarized that slightly more than three-fifth of (61.87 per cent) agro input dealers had medium extension contact, followed by high extension contact (23.75 per cent).

Whereas, only 14.38 per cent agro input dealers had low extension contact.

Economic motivation

The data from Table 4 revealed that slightly more than half (51.25 per cent) of the agro input dealers had medium level of economic motivation, followed by 30.00 per cent with high level of economic motivation and 18.75 per cent of agro input dealers with low level of economic motivation.

Table.1 Distribution of respondents according to personal and socio-economic variables (n = 160)

Sl. No.	Variables	Frequency	Percentage
1.	Age group		
	Young age (Up to 35 years)	34	21.25
	Middle age (36 to 50 years)	80	50.00
	Old age (Above 50 years)	46	28.75
2.	Education		
	College/post-graduation	15	9.38
	Higher school (11 th & 12 th)	32	20.00
	Middle school (9 th to 10 th standard)	88	55.00
	Primary school (1 st to 8 th standard)	25	15.62
	Functionally literate	0	0.00
	Illiterate	0	0.00

Table.2 Distribution of respondents according to socio-economic variables (n = 160)

Sl. No.	Variables	Frequency	Percentage	Mean	Standard deviation
1.	Annual Income				
	Very high (above ₹ 2,00,000)	78	48.75		
	High (₹ 1,50,001 to ₹ 2,00,000)	41	25.62		
	Medium (₹ 1,00,001 to ₹ 1,50,000)	22	13.75		
	Low (₹ 50,001 to ₹ 1, 00,000)	12	7.50		
	Very low (Up to ₹ 50,000)	7	4.38		
2.	Social participation			2.14	0.82
	Low (Up to 1.32 score)	33	20.62		
	Medium (1.33 to 2.97 score)	82	51.25		
	High (Above 2.97 score)	45	28.13		
3.	Experience as a dealer			15.37	7.06
	Low (Up to 8.31 score)	43	26.88		
	Medium (8.32 to 22.43 score)	83	51.87		
	High (Above 22.43 score)	34	21.25		

Table.3 Distribution of respondents according to situational and communicational variables (n = 160)

Sl. No.	Variables	Frequency	Percentage	Mean	Standard deviation
1.	Source of information			12.70	4.89
	Less (Up to 7.83 score)	28	17.50		
	Medium (7.84 to 17.57 score)	87	54.37		
	High (Above 17.57 score)	45	28.13		
2.	Mass media exposure			11.95	4.89
	Low (Up to 07.06 score)	33	20.62		
	Medium (07.07 to 16.84)	82	51.25		
	High (Above 16.84 score)	45	28.13		
3.	Number of training undergone				
	Zero or no training	82	51.25		
	1 to 2	57	35.63		
	3 to 5	14	8.75		
	Above 5	7	4.37		
4.	Extension contact			32.56	9.32
	Low (Up to 23.24 score)	23	14.38		
	Medium (23.25 to 41.89 score)	99	61.87		
	High (Above 41.89 score)	38	23.75		

Table.4 Distribution of respondents according to psychological variables (n = 160)

Sl. No.	Variables	Frequency	Percentage	Mean	Standard deviation
1.	Economic motivation			19.54	5.43
	Low (Up to 14.11 score)	30	18.75		
	Medium (14.12 to 20.98 score)	82	51.25		
	High (Above 20.98 score)	48	30.00		
2.	Management orientation			32.91	8.70
	Low (Up to 24.21 score)	29	18.13		
	Medium (24.22 to 41.60 score)	89	55.62		
	High (Above 41.60 score)	42	26.25		
3.	Innovativeness			3.74	1.33
	Low (Up to 02.61 score)	20	12.50		
	Medium (02.62 to 04.88 score)	89	55.62		
	High (above 04.88 score)	51	31.88		
4.	Risk orientation			18.99	4.25
	Low (Up to 14.71 score)	27	16.87		
	Medium (14.72 to 23.27 score)	108	67.50		
	High (Above 23.27 score)	25	15.63		
5.	Achievement motivation				
	Very low (07 to 09.8 score)	12	07.50		
	Low (09.9 to 12.6 score)	23	14.37		
	Medium (12.7 to 15.4 score)	33	20.63		
	High (15.5 to 18.2 score)	56	35.00		
	Very high (18.3 to 21.00 score)	36	22.50		
6.	Scientific orientation				
	Very low (6.00 to 10.80 score)	14	08.75		
	Low (10.81 to 15.60 score)	23	14.38		
	Medium (15.61 to 20.40 score)	42	26.25		
	High (20.41 to 25.20 score)	47	29.37		
	Very high (25.21 to 30.00 score)	34	21.25		

Management orientation

The data from Table 4 revealed that more than half (55.62 per cent) of agro input dealers had medium level of management orientation, followed by high level (26.25 per cent) and low level (18.13 per cent) of management orientation, respectively.

In general, more than half (55.62 per cent) of agro input dealers had medium level management orientation.

The probable reason for the above finding might be that they are aware about the importance of proper management of their enterprises but they are not so careful about planning, organizing and also for marketing of their product.

Innovativeness

The data from Table 4 revealed that more than half (55.62 per cent) of the agro input dealers had medium level of innovativeness, followed by high (31.88 per cent) and low (12.50 per cent) level of innovativeness, respectively.

Hence, it can be concluded that (87.50) of the agro input dealers had medium to high level of innovativeness.

The probable reason behind this finding was that agro input dealers, as professionals in their field,

Constantly seek to update their knowledge and explore innovative ways to improve their business.

Risk orientation

The data from Table 4 revealed that slightly more than two-third (67.50 per cent) of agro input dealers had medium level of risk orientation, followed by low level (16.87 per cent) and high level (15.63 per cent) of risk orientation, respectively.

The probable reason might be the business itself is challenging job, the dealers have to always vigilant about market fluctuation and they have to face the risk to sustain in the market.

Achievement motivation

The data in Table 4 clearly indicated that slightly more than one-third (35.00 per cent) of the agro input dealers had high level of achievement motivation, followed by 22.50 per cent, 20.63 per cent and 14.37 per cent of the agro input dealers had very high, medium and low level of achievement motivation, respectively. Whereas only 07.50 per cent of agro input dealers had very low level of achievement motivation.

The probable reason might be due to achievement motivation forces an individual towards reaching some goals, which he/she has to set him/herself. Higher the motivation of the individual, higher will be his/her effort.

Scientific orientation

Table 4 makes it clear that 29.37 per cent of the agro input dealers had a high level of scientific orientation, followed by 26.25 per cent, 21.25 per cent, 14.38 per cent and 8.75 per cent of the input dealers had medium, low, very high and very low level of scientific orientation, respectively.

In conclusion, agro input dealers knowledge level about certificate course on pesticide management was found maximum under the medium level of knowledge category as revealed by the 58.13 per cent of the input dealers. The proper extension strategy like training undergone and extension contact may be found more important in updating the knowledge level of agro input dealers. The characteristics like education, social participation, experience as a dealer, source of

information, mass media exposure, economic motivation, management orientation, innovativeness, achievement motivation and scientific orientation were positive and significant with knowledge level of agro input dealers except annual income and risk orientation which and non-significant relationship with knowledge level. Therefore, During the training programme more attention should be given on psychological variable *viz.*, economic motivation, management orientation, achievement motivation, scientific orientation *etc.* for better effectiveness of the training programme and give more priority to young agro input dealers in training programme.

Author Contributions

N. M. Pithiya: Investigation, formal analysis, writing—original draft. H. C. Chhodavadia: Validation, methodology, writing—reviewing. N. B. Jadav:—Formal analysis, writing—review and editing.

Data Availability

The datasets generated during and/or analyzed during the current study are available from the corresponding author on reasonable request.

Declarations

Ethical Approval Not applicable.

Consent to Participate Not applicable.

Consent to Publish Not applicable.

Conflict of Interest The authors declare no competing interests.

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