



Research Article

PROFILE OF DAESI INPUT DEALERS IN DISADVANTAGED DISTRICTS OF MADHYA PRADESH

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Abstract: The system of transfer of technology from research to the farmers through proper stakeholders is very essential to reach the desired standard. Agri-input dealers who are one of the prime stakeholders play a main role in ensuring that farmers should have access with important and major agricultural inputs required to improve agricultural productivity in their respective farms. Number of programmes have initiated to boost the capacity of these farm advisors. 'Diploma in Agricultural Extension Services for Input Dealers (DAESI)' is among one of them. Therefore, the following study was conducted in two disadvantaged districts of M.P. to know the socio-personal, economic, communicational and psychological profile of Diploma holders input dealers. It was reported that majority of the DAESI had middle age group, educated up to graduation level, experience up to 6-10 years, annual income lies above Rs. 2,00,000, found medium level of mass media utilization, extension contact and awareness about government policies. It was found medium level of mass media utilization, extension contact and awareness about government policies.

Keywords: DAESI, GVA, Mass media utilization, Extension contact

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Introduction

Agriculture plays a powerful role in the economy of developing countries. More than 70% of rural households are dependent on agriculture [1]. It is the prime source of food, income and employment to its rural populations. 54.6 per cent of the total workforce is engaged in agricultural and allied sector activities and accounts for 17.8 per cent of the country's Gross Value Added (GVA) for the year 2019-20 at current prices [2]. It has been realized that the public sector extension system on its own is not capable enough to meet the ever increasing and multifaceted demands of the farming community due to several constraints or weaknesses in the system [3]. Therefore, agricultural development has a leading position in the field among input dealers [4]. An input dealer serves as an important link between the manufacturers and the farmers [5].

Agri-input dealers are one of those important stakeholders. In India, there are about 2.82 lakh practicing agri-input dealers, who are the prime source for communicating the farm information to the farming community [6]. Agri-input dealers play a main role in ensuring that farmers should have access with portent and major agricultural inputs required to improve agricultural productivity in their respective farms also they have become one of the key sources of agri-farm information related to good farming practices such as integrated farming, integrated pest management, cattle feeding and rearing, and other related techniques to the farming community though not equipped with adequate knowledge [7]. Different agri inputs required for farming operations, the farming community naturally tries to find out from the agri input dealer about the quantitative and qualitative use and handling of inputs. However, majority of them do not have formal agricultural education. In this context, the National Institute of Agriculture Extension Management (MANAGE) had developed a one-year diploma course titled 'Diploma in Agricultural Extension Services for Input Dealers (DAESI)', which imparts relevant and location-specific agricultural formal education to equip these input dealers with sufficient knowledge so as to facilitate them to attend the day-to-day problems being faced by the farmers at field level efficiently and they can serve the farming community in a better way.

The population of Madhya Pradesh is 72.62 million out of which 15.31million (21.1%) are tribes representing 46 tribes' communities. the tribal population is concentrated mainly in and around the forest area of Madhya Pradesh [8]. The districts namely Balaghat and Mandla are the two major poorest districts with the highest number of people under poverty in the state of M.P. and having extensive social mobilization base. Therefore, the following study was conducted in two disadvantaged districts to know the attributes of diploma holder input dealers [9].

Objectives of Study

To know the socio-personal and economic profile of diploma holder input dealers.
To know the communicational and psychological profile of diploma holder input dealers.

Material and Methods

The study was carried out in two disadvantaged districts, Balaghat with semi tribal population and Mandla with tribal population of Madhya Pradesh. Balaghat had three nodal training. i) Farmers training center, ii)-COA, Balaghat and iii)-KVK, Badgaon and Mandala has only one training center at KVK, Mandla. All these institutes were selected for the study. These 4 centers consisting total of 160 input dealers (40 in each center) from the batch 2019-20 under DAESI programme. Also 100 non DAESI input dealers were selected randomly from the list obtained from DDA office. Thus, making a total sample size of 200.

Results

Age

The distribution of DAESI and Non-DAESI input dealers according to their age category is presented in [Table-1] reveals that majority (67.00 %) of the DAESI dealers belonged to middle age category (35 to 50 years), followed by 19.00 per cent young age category (18 to 35 years) and 14.00 per cent old age category (above 50 years).

Profile of DAESI Input Dealers in Disadvantaged Districts of Madhya Pradesh

Table-1 Distribution of input dealers according to their age

SN	Age Group	DAESI Dealers		Non -DAESI Dealers		Total input Dealers	
		F	%	f	%	f	%
1	Young Age (Up to 35 years)	19	19	23	23	42	21
2	Middle Age (36-50 years)	67	67	46	46	113	56.5
3	Old Age(Above 50 years)	14	14	31	31	45	22.5
	Total	100	100	100	100	200	100

Table-2 Distribution of input dealers according to their education

SN	Education	DAESI Dealers		Non -DAESI Dealers		Total input Dealers	
		f	%	f	%	f	%
1	Illiterate	0	0	0	0	0	0
2	Primary education	0	0	0	0	0	0
3	Middle School	0	0	0	0	0	0
4	High School	0	0	15	15	15	7.5
5	Higher Secondary	16	16	23	23	39	19.5
6	Graduate	40	40	35	35	75	37.5
7	Post Graduate	44	44	27	27	71	35.5
	Total	100	100	100	100	200	100

Table-3 Distribution of input dealers according to their business experience

SN	Business Experience	DAESI Dealers		Non -DAESI Dealers		Total input Dealers	
		F	%	f	%	f	%
1	Up to 5 years	12	12	28	28	40	20
2	6-10 years	69	69	45	45	114	57
3	11-15 years	10	10	19	19	29	14.5
4	16-20 years	6	6	4	4	10	5
5	Above 20 years	3	3	4	4	7	3.5
	Total	100	100	100	100	200	100

Whereas, higher percentage (46.00 per cent) of Non-DAESI dealers belonged to middle age, followed by 31.00 per cent to old age category and 23.00 per cent to young age category respectively.

The distribution of total input dealers (DAESI and Non-DAESI) according to their age category is presented in [Table-1] which showed that higher percentage (56.50 %) of the input dealers belonged to middle age category followed by 22.50 per cent to old age category and 21.00 per cent to young age category. Thus, it can be concluded that higher percentage of the DAESI dealers (67.00%), Non-DAESI dealers (46.00%) and total input dealers (56.50 %) belonged to middle age.

Education

Based on the educational background, the DAESI and Non-DAESI dealers were grouped into seven categories starting from "Illiterate" to "Post Graduation" level and the findings regarding the education level reveals that higher percentage (44.00%) of DAESI dealers belonged to post graduation level followed by 40.00 per cent graduate and 16.00 per cent with higher secondary level and none of them fall in the category of high school, middle school, primary education and illiterate. Whereas, in case of Non-DAESI dealers, higher percentage (35.00%) belonged to graduate level followed by post graduation level (27.00 %), higher

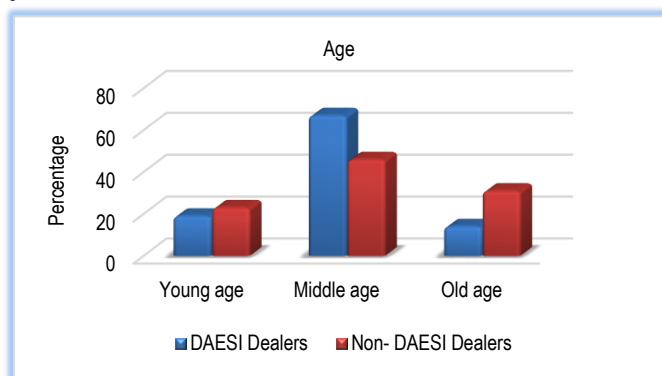


Fig-1 Distribution of DAESI and Non-DAESI input dealers according to their age

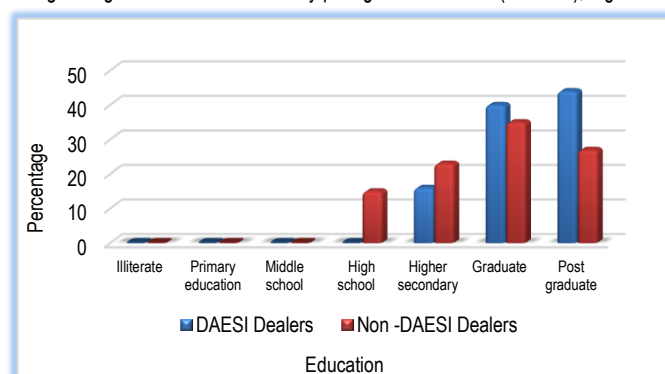


Fig-3 Distribution of DAESI and Non-DAESI input dealers according to their education

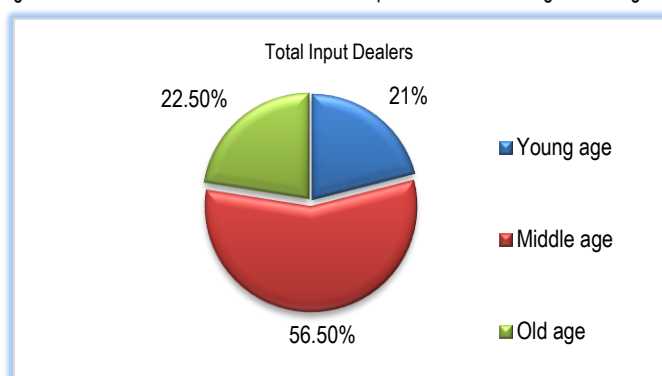


Fig-2 Distribution of total input dealers according to their age

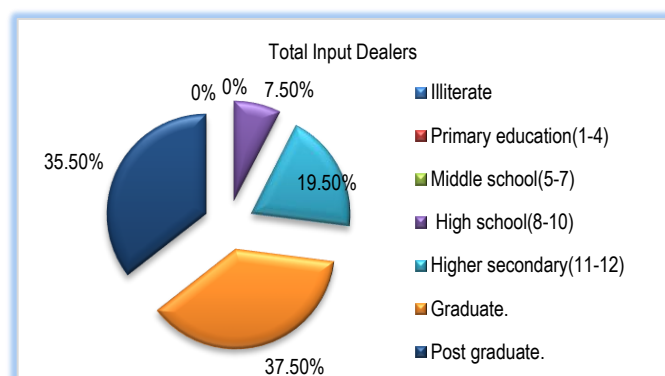


Fig-4 Distribution of total input dealers according to their education

Table-4 Distribution of DAESI and Non-DAESI input dealers according to their income

SN	Annual Income (in Rs.)	DAESI Dealers		Non -DAESI Dealers		Total input Dealers	
		F	%	f	%	f	%
1	Up to 50,000	0	0	0	0	0	0
2	50,001-100,000	3	3	20	20	23	10.5
3	100,001 to 150,000	8	8	40	40	48	24
4	1,50,001 to 200,000	34	34	10	10	44	23
5	>200,001	55	55	30	30	85	42.5
	Total	100	100	100	100	200	100

Table-5 Distribution of input dealers according to their level of mass media utilisation

SN	Mass Media Utilization	DAESI Dealers		Non -DAESI Dealers		Total input Dealers	
		f	%	f	%	f	%
1	Low (<5.90)	5	5	24	24	29	14.5
2	Medium(5.90-10.89)	66	66	66	66	132	66
3	High(>10.89)	29	29	10	10	39	19.5
	Total	100	100	100	100	200	100

Mean=8.40 SD =2.49

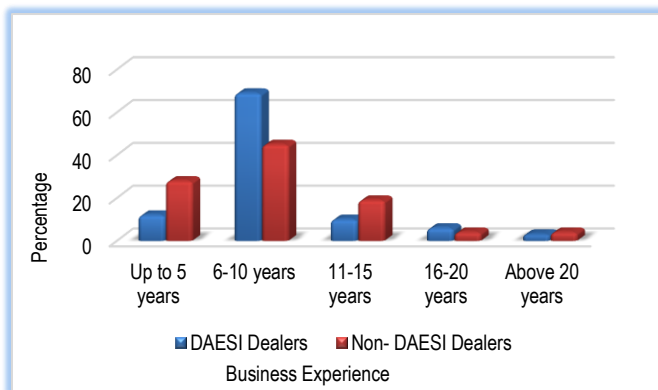


Fig-5 Distribution of DAESI and Non-DAESI input dealers according to their business experiences

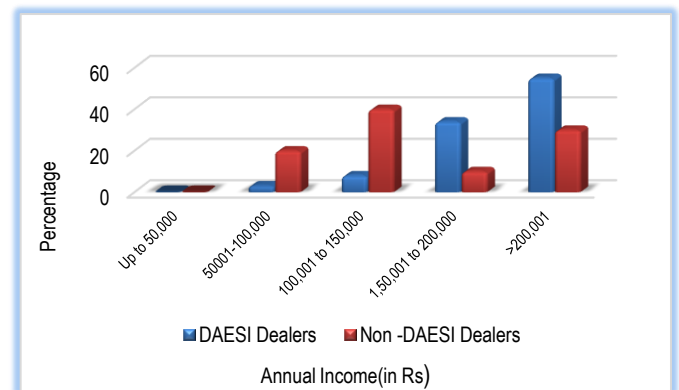


Fig-7 Distribution of DAESI and Non-DAESI input dealers according to their income

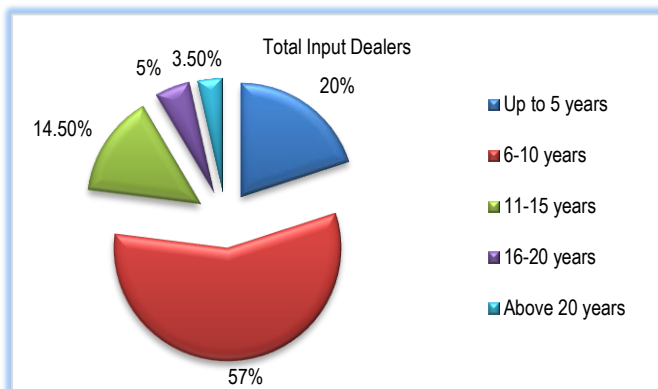


Fig-6 Distribution of total input dealers according to business experiences

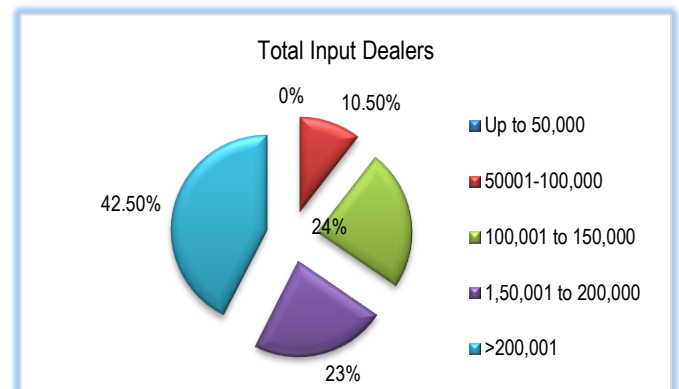


Fig-8 Distribution of total input dealers according to their annual income

Business Experiences

Based on business experiences, the DAESI and Non-DAESI dealers were categorised into five categories. The distribution is presented in the [Table-3] and [Fig-5]. Regarding business experience, the data reveals that majority of (69.00 %) of DAESI dealers had 6 to 10 years of experience in this business, followed by 12.00 per cent, 10.00 per cent, 6.00 per cent and 3.00 per cent dealers who had up to 5 years, 11 to 15 years, 16 to 20 years and above 20 years of business experience respectively.

Economic variable

Annual Income

On the basis of the annual income distribution, the input dealer was categorised into five categories from up to a Rs.5,00,000 to above Rs.2,00,000 and the distribution is depicted in the [Table-4] and [Fig-7]. [Table-4] and [Fig-7] reveals that the annual income of 55.00 per cent of DAESI dealers lies above Rs. 2,00,000 followed by 34.00 per cent, 8.00 per cent,

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Table-6 Distribution of input dealers according to their level of extension contact

SN	Extension Contact	DAESI Dealers		Non -DAESI Dealers		Total input Dealers	
		f	%	f	%	f	%
1	Low (<5.18)	21	21	25	25	46	23
2	Medium(5.18-9.34)	60	60	59	59	119	59.5
3	High(>9.34)	19	19	16	16	35	17.5
	Total	100	100	100	100	200	100

Mean=7.26 SD=2.08

Table-7 Distribution of input dealers according to their level of awareness about government policies

SN	Awareness about government Policies	DAESI Dealers		Non -DAESI Dealers		Total input Dealers	
		f	%	f	%	f	%
1	Low (<4.06)	19	19	25	25	44	22
2	Medium(4.06-7.10)	65	65	67	67	132	66
3	High(>7.10)	16	16	8	8	24	12
	Total	100	100	100	100	200	100

Mean=5.58 SD=1.52

Table-8 Distribution of input dealers according to their level of decision making ability

SN	Decision Making	DAESI Dealers		Non -DAESI Dealers		Total input Dealers	
		f	%	F	%	f	%
1	Low (<5.82)	17	17	13	13	30	15
2	Medium(5.82-11.17)	71	71	83	83	154	77
3	High(>11.17)	12	12	4	4	16	8
	Total	100	100	100	100	200	100

Mean=8.50 SD=2.68

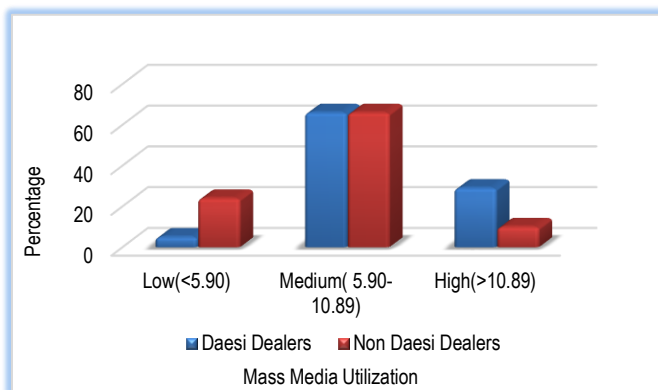


Fig-9 Distribution of DAESI dealers and Non-DAESI dealers according to their level of mass media utilisation

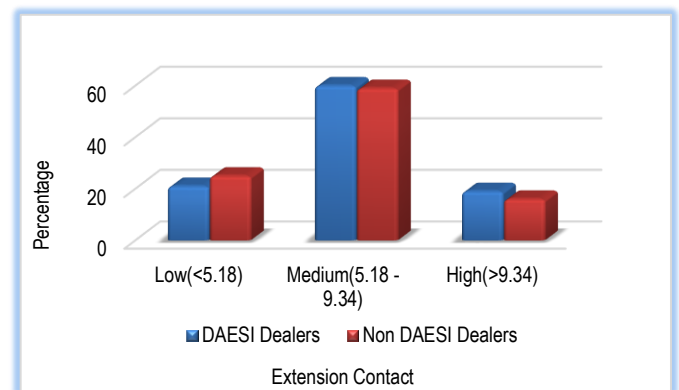


Fig-11 Distribution of DAESI dealers and Non-DAESI dealers according to their level of extension contact

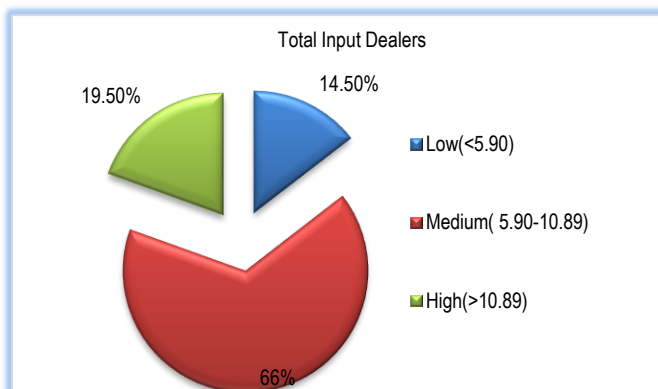


Fig-10 Distribution of total input dealers according to their level of mass media utilisation

03.00 per cent with annual income of Rs. 1,50,001 to Rs. 2,00,001, Rs. 1,00,001 to Rs. 1,50,000, 50,001 to 1,00,000 annual income. None of them fall in the category of annual income up to Rs. 50,000. Whereas in case of Non-DAESI dealers, higher percentage (40.00 %) of dealers had Rs. 1,00,001 to 1,50,000 annual incomes followed by 30.00 per cent, 20.00 per cent, 10.00 per cent with annual income above Rs. 2,00,000, Rs. 50,001 to 1,00,000, Rs. 1,50,001 to 2,00,000 respectively. Here also none of them fall in the category of annual income up to Rs. 50,000. Similarly higher percentage (42.50 %) of total input dealers income lies above Rs 2,00,000, followed by 24.00 per cent, 23.00 per cent and 10.50 per cent dealers had an annual income of Rs. 1,00,001 to 1,50,000, Rs. 1,50,001 to 2,00,000 and Rs. 50,001 to 1,00,000 respectively.

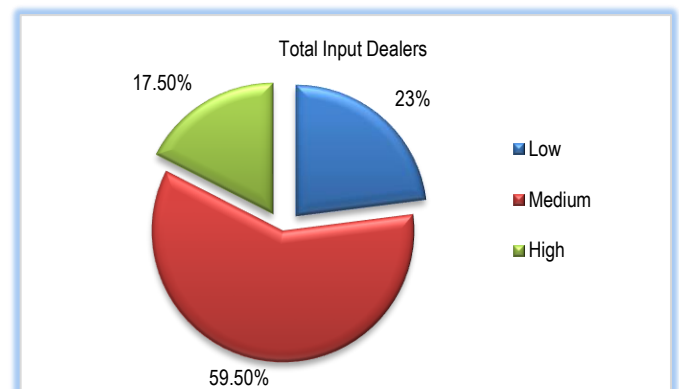


Fig-12 Distribution of total input dealers according to their level of extension contact

Here also none of them fall in the category of annual income up to Rs. 50,000. Thus, it can be concluded that higher percentage of the DAESI dealers (55.00 %) income lies above Rs 2,00,000., Non-DAESI dealers(40.00 %) had Rs. 1,00,001 to 1,50,000 annual income and 42.50 per cent of total input dealers income lies above Rs 2,00,000.

Communicational variables

Mass media utilization

The distribution of the input dealers according to their extent of mass media utilisation [Table-5] and [Fig-9]. [Table-5] and [Fig-9] reveals that majority (66.00%) of DAESI input dealers had medium level of mass media utilisation;

Table-9 Distribution of input dealers according to their level of risk orientation

SN	Risk Orientation	DAESI Dealers		Non -DAESI Dealers		Total input Dealers	
		f	%	f	%	f	%
1	Low (<9.38)	3	3	35	35	38	19
2	Medium(9.38-24.28)	60	60	63	63	123	61.5
3	High(>24.28)	37	37	2	2	39	19.5
Total		100	100	100	100	200	100

Mean=16.83

SD=7.45

Table-10 Distribution of input dealers according to their level of confidence

SN	Confidence Building	DAESI Dealers		Non -DAESI Dealers		Total input Dealers	
		f	%	F	%	F	%
1	Low (<17.06)	11	11	35	35	46	23
2	Medium(17.06-35.13)	47	47	62	62	109	54.5
3	High(>35.13)	42	42	3	3	45	22.5
Total		100	100	100	100	200	100

Mean= 26.10

SD=9.04

Table-11 Distribution of input dealers according to their level of management orientation

SN	Management Orientation	DAESI Dealers		Non -DAESI Dealers		Total input Dealers	
		f	%	F	%	f	%
1	Low (<11.41)	7	7	39	39	46	23
2	Medium(11.41-23.65)	62	62	53	53	115	57.5
3	High(>23.65)	31	31	8	8	39	19.5
Total		100	100	100	100	200	100

Mean=17.53

SD=6.12

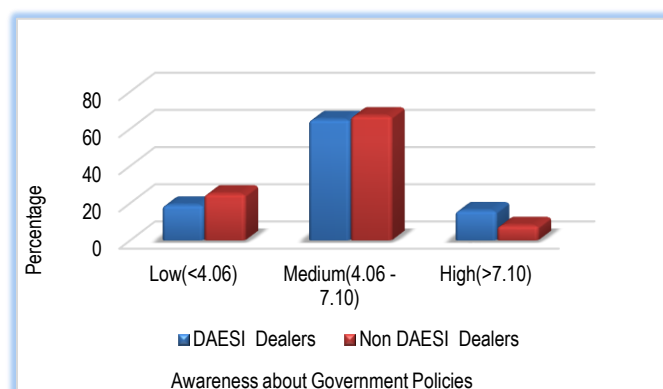


Fig-13 Distribution of DAESI dealers and Non-DAESI dealers according to their level of awareness about government policies

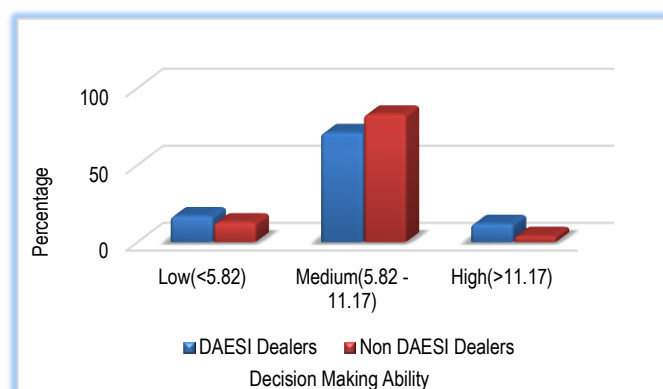


Fig-15 Distribution of DAESI and Non-DAESI dealers according to their level of decision making ability

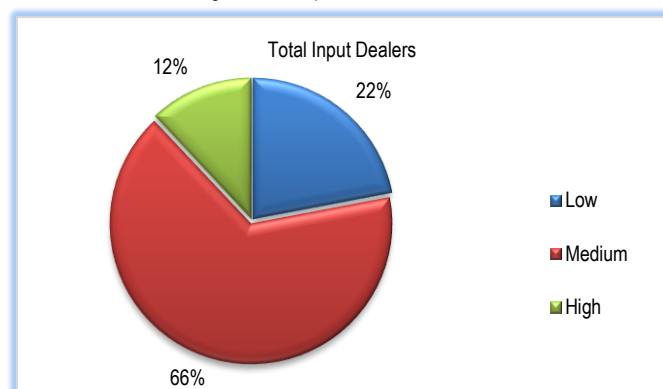


Fig-14 Distribution of total input dealers according to their level of awareness about government policies

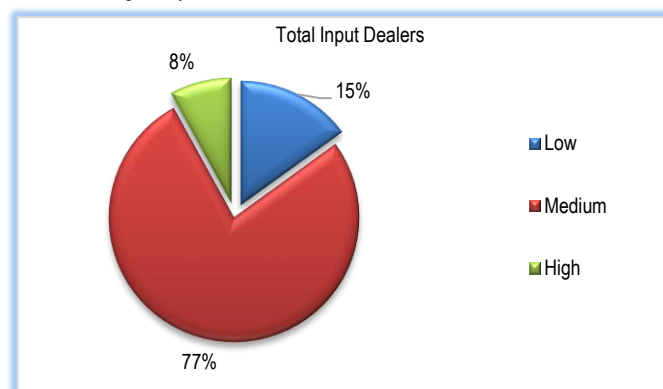


Fig-16 Distribution of total input dealers according to their level of decision making ability

followed by 29.00 per cent and 05.00 per cent DAESI input dealers had high and low level of mass media utilisation respectively. Whereas in case of Non-DAESI dealers, majority (66.00%) had medium level of mass media utilisation, followed by 24.00 per cent and 10 per cent of Non-DAESI dealers had low and high level of mass media utilisation, respectively. From [Table-5] and [Fig-10], it is cleared that majority (66.00%) of total dealers had medium level of mass media utilisation, followed by high (19.50%) and low level (14.5%) of mass media utilisation. Thus, it can be concluded that higher percentage of the DAESI dealers (66.00%), Non-DAESI dealers (66.00%) and total input dealers (66.00%) had medium level of mass media utilisation.

Extension Contact

The distribution of level of extension contact was given in [Table-6] and [Fig-11]. The data revealed that majority (60.00%) of DAESI dealers had medium level of extension contact; followed by 21.00 per cent and 19 per cent of DAESI dealers had low and high level of extension contact respectively. Similarly in case of Non-DAESI input dealers, majority (59.00%) of input dealers had medium level of extension contact, followed by 25.00 per cent and 16.00 per cent of dealers had low and high level of extension contact, respectively. From [Table-6] and [Fig-12] it was evident that majority (59.50%) of total input dealers had medium level of extension contact, followed by 23.00 per cent and 17.50 per cent of total input dealers had low and high level of extension contact respectively.

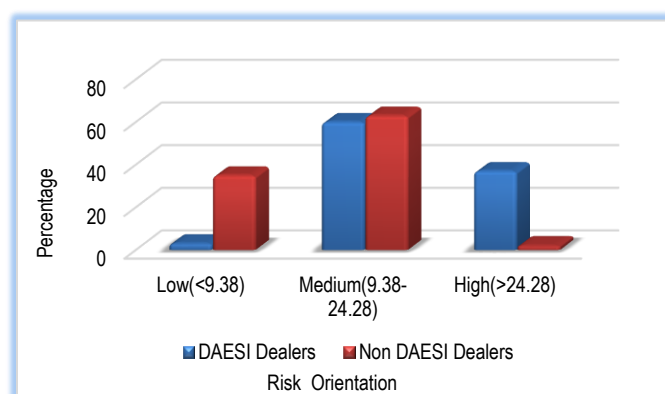


Fig-17 Distribution of DAESI and Non-DAESI dealers according to their level of risk orientation

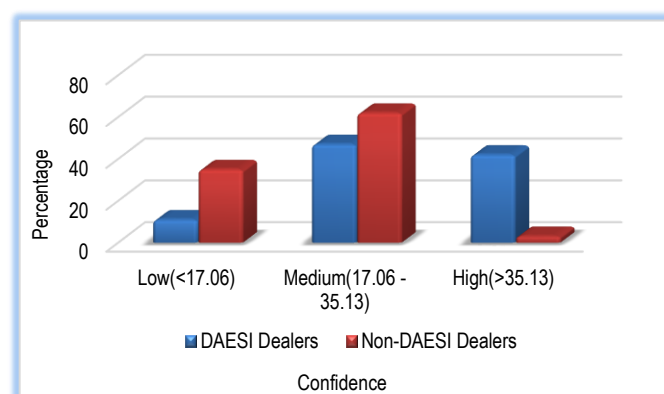


Fig-19 Distribution of DAESI and Non-DAESI dealers according to their level of confidence

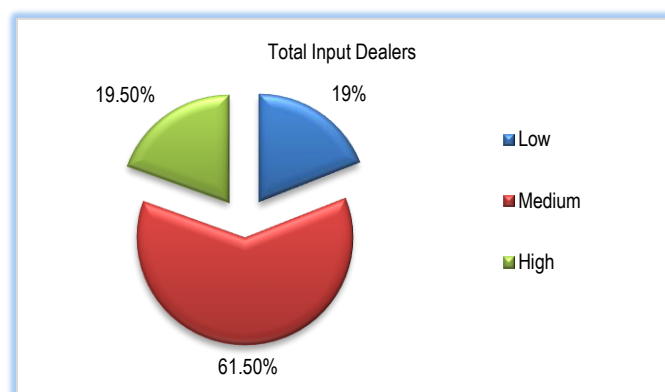


Fig-18 Distribution of total input dealers according to their level of risk orientation
Thus, it can be concluded that higher percentage of the DAESI dealers (60.00%), Non-DAESI dealers (59.00%) and total input dealers (59.50%) had medium level of extension contact.

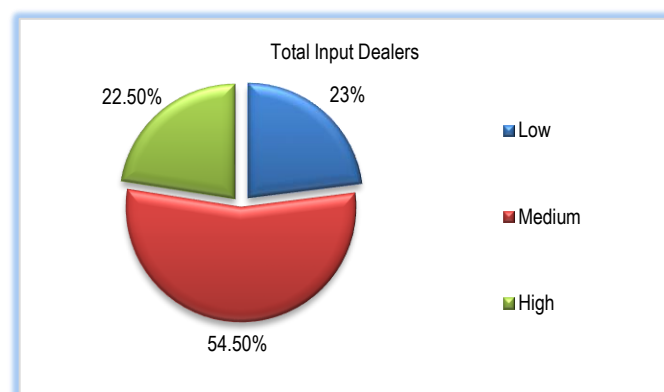


Fig-20 Distribution of total input dealers according to their level of confidence

Awareness about government policies

The findings regarding awareness about government policies are presented in [Table-7] and [Fig-13]. The table reveals that majority (65.00 %) of DAESI input dealers had medium level of awareness about government policies, followed by 19.00 per cent and 16.00 per cent of DAESI dealers had low and high level of awareness about government policies, respectively. However, in case of Non-DAESI dealers, majority (67.00 %) of dealers had medium level of awareness about government policies, followed by 25.00 per cent and 8.00 per cent of Non-DAESI dealers had low and high level of awareness about government policies.

It was clear that majority (66.00 %) of total input dealers had medium level of awareness about government policies, followed by 22.00 per cent and 12.00 per cent of Non-DAESI dealers had low and high level of awareness about government policies. Thus, it can be concluded that higher percentage of the DAESI dealers (65.00%), Non-DAESI dealers (67.00%) and total input dealers (66.00%) had medium level of awareness about government policies.

Decision making

Based on their decision making, input dealers were categorised into three categories and the distribution is given in [Table-8] and [Fig-15]. Results obtained from [Table-8] and [Fig-15] depicted that majority (71.00%) of DAESI dealers had medium level of decision making ability, followed by low level (17.00%) and high level (12.00%) of decision making ability. Similarly in case Non-DAESI dealers majority (83.00%) had medium level of decision making ability, followed by low level (13.00%) and high level (04.00%) of decision making ability. [Table-8] and [Fig-16] showed that majority (77.00 %) of total input dealers had medium level of decision making ability followed by 15.00 per cent and 08.00 per cent of total input dealers had low level and high level of decision making ability respectively. Thus, it can be concluded that majority of the DAESI dealers (71.00%), Non-DAESI dealers (83.00%) and total input dealers (77.00%) had medium level of decision making ability.

Risk Orientation

On the basis of their risk orientation, the input dealers were grouped into three categories and the distribution is given in [Table-9] and [Fig-17]. [Table-9] and [Fig-11] reveals that most (60.00%) of the DAESI input dealers had medium level of risk orientation, followed by 37.00 per cent and 03.00 per cent of DAESI input dealers had high level and low level of risk orientation, respectively. Whereas, higher percentage (63.00%) of Non-DAESI input dealers had medium level of risk orientation, followed by 35.00 per cent and 02.00 per cent of Non-DAESI dealers had low and high level of risk orientation respectively.

It was also indicated from [Table-9] and [Fig-18] that higher percentage (61.50%) of total input dealers had medium level of risk orientation, followed by 19.5 per cent and 19.00 per cent of total input dealers had high level and low level of risk orientation, respectively. Thus, it can be concluded that most of the DAESI dealers (60.00%), Non-DAESI dealers (63.00%) and total input dealers (61.50%) had medium level of risk orientation.

Confidence building

On the basis of their level of self confidence the input dealers were categorised into three categories and the distribution is portrayed in [Table-10] and [Fig-19].

[Table-10] and [Fig-19] reveals that higher percentage (47.00%) of DAESI dealer had medium level of self confidence, followed by 42.00 per cent and 11.00 per cent had high and low level of confidence respectively. Whereas in case of Non-DAESI dealers, most (62.00%) of them had medium level of confidence, followed by 35.00 per cent and 3.00 per cent Non-DAESI dealers had low level and high level of confidence respectively. It was clear from the [Table-10] and [Fig-20] that most (54.5%) of total input dealers had medium level of confidence, followed by 23.00 per cent and 22.50 per cent of total input dealers had low and high level of confidence respectively. Thus, it can be concluded that most of the DAESI dealers (47.00%), Non-DAESI dealers (62.00%) and total input dealers (54.50%) had medium level of confidence.

Management Orientation

Based on their management orientation, the input dealers were grouped into three

groups and the distribution is depicted in [Table-11] and [Fig-21]. From the results of [Table-11] and [Fig-21], it is clear that majority (62.00%) of DAESI dealers had medium level of management orientation, followed by high level (31.00%) and low level (7.00%) of management orientation respectively. However, higher percentage (53.00%) of Non-DAESI dealers had medium level of management orientation, followed by low level (39.00 %) and high level (8.00 %) of management orientation respectively.

It was also evident from the data in [Table-11] and [Fig-22], that higher percentage (57.5%) of total input dealers belonged to medium level of management orientation, followed by low level (23.00 %) and high level (19.50%) of management orientation, respectively. Thus, it can be concluded that higher percentage of the DAESI dealers (62.00%), Non-DAESI dealers (53.00%) and total input dealers (57.50%) had medium level of management orientation.

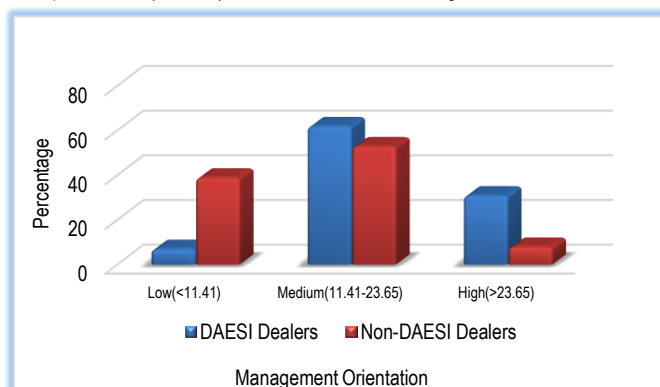


Fig-21 Distribution of DAESI and Non-DAESI dealers according to their level of management orientation

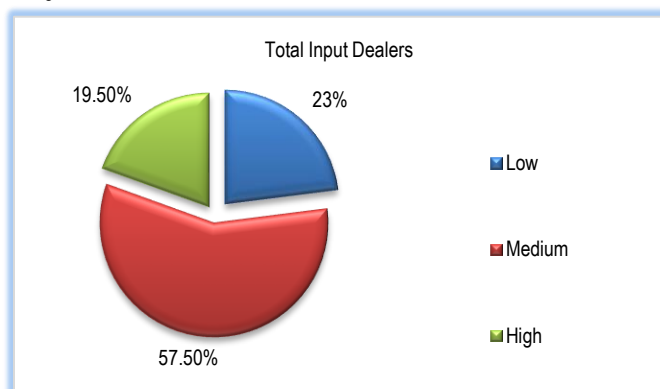


Fig-22 Distribution of total input dealers according to their level of management orientation

Conclusion

As far as socio-personal variables, majority of the DAESI, Non-DAESI and total input dealers had middle age group, educated up to graduation level, and experience up to 6-10 years. Regarding economic variable, the data revealed that majority of DAESI dealers' annual income lies above Rs. 2,00,000, Whereas most of Non-DAESI dealers had Rs. 1,00,001 to 1,50,000 of annual income. For total input dealers most of them income lies above Rs 2,00,000. Regarding communicational variable, It was revealed for both, higher percentage of DAESI(66.00 %), Non- DAESI dealers(66.00 %) and total input dealers (66.00%) had medium level of mass media utilisation. Also, data depicted that majority (60.00%) of DAESI dealers, Non- DAESI dealers (59.00%) and total input dealers (59.50%) had medium level of extension contact. It is evident from the finding that higher percentage (65.00 %) of DAESI input dealers, (67.00%) of Non- DAESI dealers and (66.00 %) of total input dealers had medium level of awareness about government policies.

Regarding psychological variable it was concluded that majority (71.00%) of DAESI dealers and Non-DAESI dealers, (83.00%) dealers and majority (77.00 %) of total input dealers had medium level of decision making ability. Also, the study presented that higher percentage (60.00%) of the DAESI input and Non-DAESI

dealers (63.00%) and total input dealers (61.50%) had medium level of risk orientation. Also it was indicated that higher percentage of DAESI dealers (47.00%), Non- DAESI dealers (62.00%) and total input dealers (54.5%) had medium level, of had medium level confidence.

Application of research: The findings of the study are useful in making some key modifications in the implementation of DAESI program more effectively.

Research Category: Agricultural Extension

Abbreviations: GVA-Gross Value Added

DAESI-Diploma in Agricultural Extension Services for Input Dealers

MANAGE-National Institute of Agriculture Extension Management

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Study area / Sample Collection: Balaghat and Mandla, Madhya Pradesh

Cultivar / Variety / Breed name:

Conflict of Interest: None declared

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Ethical Committee Approval Number: Nil

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