



ISSN (E): 2277-7695
ISSN (P): 2349-8242
NAAS Rating: 5.23
TPI 2023; SP-12(10): 997-1000
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www.thepharmajournal.com
Received: 07-08-2023
Accepted: 16-09-2023

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Effectiveness of DAESI programme in enhancing the knowledge of rural entrepreneur

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Abstract

Rural entrepreneur/ Agri-input dealer is considered the gap filling element in the farming activities. In order to make an rural entrepreneur competent enough in terms of knowledge and skill so that they serve the farming community better by acting as 'Para Extension Professionals', "National Institute of Agricultural Extension Management" (MANAGE) had launched a individual financed One-year Diploma in Agricultural Extension Services for Input Dealers (DAESI) Programme during the year 2003 for the input dealers. In Chhattisgarh, under the flagship of Indira Gandhi Krishi Vishwavidyalaya Raipur, Directorate of Extension Services had initiated a yearly Diploma course which was started in the year 2017-18. This study is focused to access the effectiveness of DAESI programme in enhancing the knowledge of rural entrepreneur. The data was collected through a well prepared Questionnaire and need based online data methods and ex-post facto research design was used. The study reveals that majority of the respondents reported DAESI programme 2019-20 as 'Moderate Effective' followed by 'Less Effective' and 'Highly Effective'. Further, it was observed that Overall satisfaction from diploma course was rated high in terms of effectiveness with diploma efficiency index of 85.2 percent. In the same manner, Subject specific knowledge acquired by the rural entrepreneur wherein majority of them had moderate increase in knowledge level in most of the aspects of knowledge. Moreover, majority of respondents were moderately benefited from DAESI programme 2019-20 in terms of increase in knowledge, gain in skills and enhancement in entrepreneurial ability whereas majority of them had slightly benefited in terms of initiation of new enterprise or diversification. It was also concluded that the major benefit perceived from DAESI programme was enhancement in entrepreneurial ability with overall index of 70.33 percent. This result reflects the areas which are majorly affected by diploma programme.

Keywords: DAESI programme, Effectiveness, Agri-input dealers, rural entrepreneur, Diploma effectiveness index, Knowledge items

1. Introduction

Agri-input dealer acts as rural entrepreneur which are responsible for triggering paradigm shift in Indian Agriculture. These individuals are source via. which a majority of information is conveyed to the farmers along with that these individuals also ensures that the farmers should get the supply of agri- inputs and credit whenever they require. They have the potential to act as para-extension professionals and if their technical competency is build up via. significant and constant knowledge through various modes or ways of education, then they can maneuver the extension activities in accordance with the prevailing market situation. A one year Diploma course known as DAESI (Diploma in Agricultural Extension Services for input dealers) was launched by "National Institute of Agriculture Extension Management" in order to incorporate the requisite understanding and the location-specific agricultural knowledge for the rural entrepreneurs dealing with agricultural inputs so that they can follow the rules and the regulatory norms in their business along with coalescences of their business with extension services. In Chhattisgarh, under the flagship of Indira Gandhi Krishi Vishwavidyalaya Raipur, Directorate of Extension Services had initiated a yearly Diploma course which was started in the year 2017-18. The present study is planned to access the effectiveness of DAESI programme in enhancing the knowledge of Rural Entrepreneur.

2. Material and Methods

The current study was carried out in four purposely selected KVKs of Raipur, Dhamtari, Rajnandgaon and Raigarh districts implementing DAESI programme in 2019-20. As per the list of participants provided by the respective four KVK, all the 154 trainees/ agri-input dealers trained during 2019-20 were approached and a random sample of 100 participants were selected out of 154 participants.

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The data was collected through a well prepared Questionnaire and need based online data methods like e-mail, telephone calls, Google forms, etc. and ex-post facto research design was used. Data were analyzed using frequency distribution, percentage, mean and standard deviation. The effectiveness of

different aspects of DAESI programme was measured on a five point continuum ranging from very high effectiveness to very low effectiveness. The Diploma Effectiveness Index was developed to measure the effectiveness using following formula:

$$\text{Diploma Effectiveness Index} = \frac{\text{Score obtained by the respondents}}{\text{Maximum possible score}} * 100$$

In the same manner, various knowledge items were analyzed in the present investigation covering whole syllabus of DAESI programme. The whole syllabus is categorized into 17 knowledge items and the results are recorded in 4 pointer scale i.e. extremely increase in knowledge level, moderate increase in knowledge level, slightly increase in knowledge level and not increased or no changes in knowledge level after availing DAESI programme. Moreover, various benefits perceived from DAESI programme was measured using four point continuum ranging from not benefited to highly benefited and an overall index was calculated.

$$\text{Overall Index} = \frac{\text{Score obtained by the respondents}}{\text{Maximum possible score}} * 100$$

3. Results and Discussion

3.1 Mass media utilization

The major objective of DAESI programme is to transform practicing agri-input dealers into para-extension professionals thereby strengthening the agricultural extension system so as to enable these agri-input dealers to serve the farmers better at grass root level. Many rural entrepreneurs had attended this diploma course and got benefitted.

Status of Rural Entrepreneurs: The business profile of agri-input dealers/ rural entrepreneur who had attended DAESI programme 2019-20 which is organized by different KVK's of Chhattisgarh plains is presented in Table 1. The outcome is portrayed as follows

1. Business Experience as Agri-input dealers

The results regarding business experience reveals that most (32.00%) of the agri-input dealers had upto 5 years of business experience which is followed by 11-15 years (27.00%) of business experience, 6-10 years (25.00%) of business experience, 16-20 years (13.00%) of business experience and very few had more than 20 years (3.00%) of business experience.

2. Annual turnover

The study revealed that majority (31.00%) of the agri-input dealers participated in DAESI 2019-20 had annual turnover more than 20 lakhs trailed by 28 percent having annual turnover of 10-15 lakhs, 25 percent having annual turnover of 15-20 lakhs, 13 percent having annual turnover of 5-10 lakhs, 2 percent having annual turnover of 2-5lakhs and 1 percent having annual turnover of 1-2 lakhs. None of the respondents had annual turnover below 1 lakhs.

3. Number of villages covered

Considering number of villages covered, majority (61.00%) of agri- input dealers who had attended DAESI programme in 2019-20 batch covers 1 to 10 villages followed by 11 to 20 villages (24.00%), 21 to 30 villages (7.00%), 41 to 50 villages (5.00%) and 31 to 40 villages (3.00%).

4. Farmers turnout

With regard to the farmers' turnout, 35.00 percent of the agri-input dealers who had attended DAESI programme had farmer's turnout in the range of 501 to 1000 farmers annually. Progressively, 26.00 percent of agri-input dealers had farmers turnout in the range of 100 to 500 farmers annually followed by 16.00 percent had farmer's turnout in the range of 1001 to 2000 farmers, 6.00 percent had farmers turnout in the range of 3001 to 4000 farmer's, 5.00 percent had farmer's turnout in the range of 2001 to 3000 farmers, 4.00 percent had farmer's turnout in the range of 4001 to 5000 farmers, 3.00 percent had farmer's turnout in the range of 5001 to 6000 farmer's and 7001 to 8000 farmer's and only 2.00 percent had farmer's turnout in the range of 6001 to 7000 farmers.

Table 1: Distribution of rural Entrepreneur according to their business profile

Sl. No.	Components	Frequency	Percentage
Business profile:			
Business Experience as Agri-input dealers			
	Up to 5 years	32	32.00
	6-10 years	25	25.00
	11-15 years	27	27.00
	16-20 years	13	13.00
	Above 20 years	3	3.00
Annual turnover			
	Up to 1 lakh	0	0.00
	1 lakh – 2 lakhs	1	1.00
	2 lakhs – 5 lakhs	2	2.00
	5 lakhs -10 lakhs	13	13.00
	10 lakhs – 15 lakhs	28	28.00
	15 lakhs -20 lakhs	25	25.00
	More than 20 lakhs	31	31.00
Number of villages covered			
	1-10 villages	61	61.00
	11-20 villages	24	24.00
	21-30 villages	7	7.00
	31-40 villages	3	3.00
	41-50villages	5	5.00
Farmers turnout			
	100-500 farmers	26	26.00
	501-1000 farmers	35	35.00
	1001- 2000 farmers	16	16.00
	2001-3000 farmers	5	5.00
	3001-4000 farmers	6	6.00
	4001- 5000 farmers	4	4.00
	5001- 6000 farmers	3	3.00
	6001- 7000 farmers	2	2.00
	7001- 8000 farmers	3	3.00

Effectiveness of DAESI programme 2019-20 organized by different KVK's was measured on a five point continuum ranging from very high to very low effectiveness. Data pertaining to Table 2 portrays that majority (73.00%) of the respondents reported DAESI programme 2019-20 as 'Moderate Effective' followed by 'Less Effective' (16.00%)

and ‘Highly Effective’ (11.00%). These results bring out the weaknesses in organizing diploma course by different KVK’s of Chhattisgarh plains. The probable reason may be pandemic situation.

various aspects of DAESI programme using Diploma efficiency index. It can be observed from Table 3 that Overall satisfaction from diploma course was rated high in terms of effectiveness with diploma efficiency index of 85.2 percent trailed by relevancy of course content (DEI= 81.80%), immediate usefulness (DEI= 80.80%) and adequate information in a particular area (DEI= 80.20%). Timeliness of Diploma course and easy understanding are rated equal in terms of efficiency with diploma efficiency index of 79.40% followed by clarification of doubts and queries during diploma course (DEI = 79.00%). Respondents reported that the diploma was slightly based on participatory need assessment (DEI = 74.80%). Need assessment is the backbone of any effective diploma programme and it must be participatory in order to increase the effectiveness of diploma programme.

Table 2: Distribution of agri-input dealers based on effectiveness of DAESI programme (n=100)

Sl. No.	Category	Frequency	Percentage
1.	Less effective (< 31score)	16	16.00
2.	Moderate effective (31- 37 score)	73	73.00
3.	Highly effective (> 37 score)	11	11.00
$\bar{X} = 33.97 \sigma = 3.319$			

The effectiveness was further measured based on eight

Table 3: Effectiveness of DAESI programme under various aspects

Sl. No.	Various Aspect of DAESI Programme	Percentage of respondents					DEI
		Very low	Low	Medium	High	Very high	
1.	Relevancy of course contents.	0.00	2.00	12.00	61.00	5.00	81.80
2.	Easy understanding.	0.00	1.00	18.00	64.00	17.00	79.40
3.	Immediate usefulness.	0.00	0.00	23.00	50.00	27.00	80.80
4.	Timeliness of Diploma course.	0.00	2.00	22.00	53.00	23.00	79.40
5.	Clarification of doubts and queries during diploma course.	1.00	2.00	15.00	65.00	17.00	79.00
6.	Adequate information in a particular area.	0.00	1.00	19.00	58.00	22.00	80.20
7.	Overall satisfaction from diploma course.	0.00	0.00	11.00	52.00	37.00	85.20
8.	Based on participatory need assessment.	0.00	3.00	30.00	57.00	10.00	74.80
DEI= Diploma Effectiveness Index							

Effectiveness achieved in accordance to various knowledge items

Data pertaining to Table 4 reveals the Subject specific knowledge acquired by the rural entrepreneur wherein

majority of them had moderate increase in knowledge level in most of the aspects of knowledge except knowledge about herbicide, knowledge about fungicide and symptoms of pest attack which had extremely increase in knowledge level.

Table 4: Topic wise increase in knowledge level of agri-input dealers after attending DAESI programme (n=100)

Sl. No.	Knowledge items	Percentage of respondents			
		EI	MI	SI	NI
1.	Soil testing	13.00	70.00	17.00	0.00
2.	Plant nutrients	14.00	79.00	7.00	0.00
3.	Deficiency symptoms of plant nutrients	28.00	68.00	4.00	0.00
4.	Nutrient content in fertilizers	41.00	50.00	9.00	0.00
5.	Fertilizers required in rice farming	25.00	63.00	11.00	1.00
6.	Irrigation scheduling in rice	23.00	60.00	17.00	0.00
7.	Seed treatment	42.00	51.00	7.00	0.00
8.	Seed certification colour	33.00	49.00	16.00	2.00
9.	Resistant varieties	30.00	55.00	12.00	3.00
10.	Herbicides	68.00	23.00	9.00	0.00
11.	Fungicides	72.00	22.00	3.00	3.00
12.	Miticides and acaricides	26.00	42.00	22.00	10.00
13.	Symptoms of pest attack	70.00	23.00	6.00	1.00
14.	Bio fertilizers	37.00	56.00	7.00	0.00
15.	MSP	30.00	60.00	10.00	0.00
16.	Farm impliments	32.00	54.00	11.00	3.00
17.	Suitable crops according to agro-ecological zones	16.00	52.00	25.00	7.00
EI= Extremely increased, MI = Moderately increased, SI = Slightly increased, NI= Not increased/ no changes.					

Perceived benefits of diploma

Agri-input dealers were asked to respond on the perceived benefits of DAESI programme 2019-20 and the results are presented in Table 5. Majority of respondents were moderately benefited from DAESI programme 2019-20 in terms of increase in knowledge (65.00%), gain in skills (85.00%) and enhancement in entrepreneurial ability

(67.00%) whereas majority (51.00 %) of them had slightly benefited in terms of diversification of enterprise. It can be also concluded that the major benefit perceived from DAESI programme was enhancement in entrepreneurial ability with overall index of 70.33 percent. This may be due to high risk involved in diversification of enterprises. If further financial, technical and marketing support will be provided to agri-input

dealers, they will definitely go for diversification of their enterprises.

Table 5: Distribution of respondents according to the benefits of DAESI programme perceived by the agri-input dealers (n=100)

Sl. No.	Benefits of Diploma course	Percentage of respondents			Overall index (%)
		Highly benefited	Moderately benefited	Slightly benefited	
1.	Increase in knowledge	18.00	65.00	17.00	67.00
2.	Gain in skills	6.00	81.00	13.00	64.33
3.	Enhancement in entrepreneurial ability	22.00	67.00	11.00	70.33
4.	Diversification of enterprise	12.00	37.00	51.00	53.66

4. Conclusion

2002;38(3&4):133-138.

On the basis of above findings, it can be concluded that there is gain in knowledge and skill of agri-input dealers. But there were some areas of concern where progress was limited. Respondents reported that the diploma was slightly based on participatory need assessment. Those who were trained, only few of them were ready for the diversification of their agricultural enterprise. Thus, there is a need for government to provide some extra benefits to the DAESI dealers so that they can expand their business while including the sale of all agri-inputs. Aspects such as economic motivation and need assessment will be helpful for them. Moreover, diploma course should involve more practical session at grassroot level so that knowledge in accordance to pest attack, disease symptoms and use of various pesticides can be enhanced. Therefore these factors should be included under the course curriculum of DAESI programme.

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