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Role Performance of Trained Input Dealers as Para Extension Workers in Andhra Pradesh

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ABSTRACT

Timely agro advisory services one of the critical inputs for scientific farming. Agro advisory service is provided to farmers through public or private extension system. In the rural domain, agri input dealers are very close to farmers in providing extension services to the farmers. The first contact point is the agri-input dealer for majority of farmers. However, majority of these input dealers do not have technical knowledge on Agriculture. Hence, the National Institute of Agricultural Extension Management (MANAGE) launched an innovative program namely, "Diploma in Agricultural Extension Services for Input Dealers (DAESI)" with the motto of transforming these input dealers as para extension workers. An Agri input dealer plays multiple roles at a time by providing seeds, fertilizers or pesticides in advance without taking cash, it acts as financing body. Considering the importance of role of input dealers in agro-advisory services, the present study on role performance of agro input dealers in advisory services was conducted by taking 60 trained and 60 non trained dealers randomly from 3 districts of Andhra Pradesh. The findings of the study revealed that majority of trained input dealers had high role performance, followed by medium and low role performance towards agro-advisory services where as non-trained dealers' majority were under medium role performance, followed by low and high. The diploma programme had contributed to good (high to medium) role performance of the input dealers and might be due to their change in knowledge, skills and attitude during the diploma programme.

Key words: Role performance of trained input dealers; Agro advisory services.

Agricultural development in India is very important because 69% of the population is dependent on agriculture for their livelihood. 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 (Bortamuly, 2018). In the midst of all this, there are a large number of input dealer's agencies. Farmers maintain direct contact with input dealers for advice and for input and credit.

There is an extensive network of about 2.82 lakh agricultural input dealers in rural areas across the country and is the second most important source of agricultural information for the farming community after progressive farmers. Therefore agricultural

development has a leading position in the field among input dealers (Chandrashekhar, 2007). Input dealers serves as an important link between the manufactures and the farmers. So he/she has the responsibility to disseminate latest farm technology up to the field level especially in the era of the free economy and the world trade organization (Khose, 2004). If these input dealers are made para-extension professionals by providing the necessary knowledge, they can commercialize extension services and contribute to the paradigm shift in Indian agriculture and thereby help the farming community.

The Directorate of Extension is working hard to transform the technical capabilities of input dealers into para extension workers and to provide efficient and effective extension services to farmers. If they are transformed into para extension professionals

by imparting systematic knowledge in remote education, they can expand into market leadership and bring about change in Indian agriculture. With this in mind, the National Institute of Agricultural Extension Management (MANAGE) developed the Diploma in Agricultural Extension Services for input dealers (DAESI), a one-year diploma course offering formal education to input dealers. For Improving their technical efficiency in agriculture and for providing better services to farmers and to act as para-extension professionals, a "One Year Diploma in Agricultural Extension Services for Input Dealers (DAESI) Program was started in the year 2003" by National Institute of Agricultural Extension Management (MANAGE, 2012). Keeping all this in mind, a comprehensive study was conducted to assess to what extent the diploma course had contributed to increased role performance of trained input dealers and what difference it created in the performance of trained and non-trained input dealers.

METHODOLOGY

In this study ex-post facto research Design was used for the present study. Andhra Pradesh state was purposively selected for the present study area, keeping in view the success of DAESI programme in transforming input dealers into para professionals and enabling them to serve the farmers better thereby strengthening the agriculture extension system. Three districts namely Guntur, Kurnool and Nellore were selected purposively based on the pilot survey where the programme is highly successful. For the present study, an input dealer, who had undergone the diploma course three years before the study and input dealers who have not undergone the course were taken as the respondents. A list of dealers who had undergone course was taken from MANAGE website. Subsequently; by using simple random sampling method, 15 input dealers who have undergone diploma course and 15 input dealers who have not undergone the diploma course were selected from each district at initial level, later for more clarification we interviewed 10 more from each district. In this way we personally interviewed 120 input dealers for the present study.

Operationalization and measurement of role performance: In the present study the role performance was operationalized as the manner in which the input dealers carry out or actually perform their perceived roles of agro advisory services. In this study the role performance is measured by the actual behavior of the

input dealer which is relevant to the pursuance of his job. In general, questions were asked to measure the dependent variable role performance.

A schedule was developed to measure the role performance of input dealers in relation to agro-advisory services by taking into consideration of earlier studies on the input dealers in various states and in consultation with the input dealers, company agents, Department of Agriculture officials and extension experts. The responses for each statements were rated on a three point continuum namely Agree, Disagree and Undecided with the scores of 3, 2 and 1 respectively. The maximum score an individual could obtain was 60 and minimum was 15. The respondents were grouped into three categories based on cumulative square root frequency method.

RESULTS AND DISCUSSION

Agri-input dealers are the potential localite sources of information having high credibility among the farmers. As they are the connecting bridges between researchers, extension functionaries, input agencies and farming community, their role is more significant in meeting the demands of the farmers. The average performance scores of respondents indicated that the overall role performance of DAESI dealers was on medium to high level and Non DAESI dealers was low level towards agro-advisory services (Table 1). The standard deviation of the total role performance scores of DAESI dealers was 0.118 and that of and Non DAESI dealers was 0.125 indicating significant variations in their performance. For further analysis, the respondents were classified in three categories on the basis of their role performance scores. It was found that from the data, that majority (60.0%) of the DAESI dealers had high role performance, followed by medium (26.67%) and low role performance (13.33%), towards agro-advisory services. Some of the possible reasons for good (medium to high) role performance of the input dealers might be due to their change in knowledge, skills and attitude during the diploma programme. Further due to technical support from the company agents/Department of Agriculture during field visits, his ability to provide credit based, low cost and quality agro advisory services. The dealers by visiting farmers' fields advise them on various good practices of agriculture such as rate of application of fertilizer, management of pests and diseases, assessing the quality of the farm produce, and also, encouraged

them on direct marketing of produce, farmers' collective etc. In case of non DAESI dealer's majority (48.33%) were medium role performance, followed by low (30.00%) and high (21.67%). This finding is in consonance the finding of *Ganiger (2012)*. This medium role performance of Non DAESI dealers as compared with DAESI dealers is due to lack of educational qualifications which prohibited them from acquiring the diploma programme.

In order to find out (Table 2) the significant difference of Role performance of input dealers in terms of agro-advisory services, scores of DAESI and non DAESI dealers 'Z' test was applied. It was evident from the Table 2 that the calculated 'z' value is greater than Table value at 0.05 level of probability. Hence the null hypothesis was rejected and it was concluded that there exists a significant difference between the mean role performance scores of DAESI and non DAESI dealers. DAESI programme enhanced the ability of input dealers to perform their roles as a para extension worker. The diploma programme enabled the input dealers to be well aware of existing marketing needs and perceived well about the availability and demand for agro advisory services, dealers also learnt how to convince farmers to adopt the recommendations on agro-advisory services made during the diploma programme, this might be the reasons for DAESI dealers to act as Para extension workers to that of non DEASI dealers. The observations from table clearly depicts that there is significant difference between performance levels of input dealers who have undergone the diploma course (DAESI) and the input dealers who had not undergone the diploma course (non DAESI).

The observations of Table 3 reveals that variables education and awareness about government policies were positively and significantly related with the role performance of the DAESI dealers at 1 per cent level of significance whereas in case of Non DAESI dealers there was a positive and significant correlation at

Table 1. Distribution of respondents according to their role performance as para extension workers

Role of performance	DAESI dealers (n=60)		Non DAESI dealers (n=60)	
	No.	%	No.	%
Low (<15)	8	13.33	29	48.33
Medium (15-18)	16	26.67	18	30.00
High (>18)	36	60.00	13	21.67

Table 2. Analysis of difference in role performance of DAESI & Non-DAESI dealers

Category	No.	Mean	S.D.	Z-value
DAES dealers	60	5.844444	0.118729	
Non DAESI dealers	60	1.977778	0.125081	22.42089*

*Significant at 0.05 level of probability

(5.00%) level and information dissemination variable was significantly related to role performance at 1 per cent level of significance in case of both DAESI and Non DAESI dealers, business experience of DAESI and Non DAESI dealers was significantly related to role performance at 5 per cent level of significance. Risk orientation, mass media exposure and extension contact were positively and significantly related with the role performance of the DAESI dealers at 1 per cent level of significance where as in case of Non DAESI dealers there was a non-significant relationship with risk orientation, mass media exposure and extension contact. Economic Motivation was non-significantly correlated with role performance of DAESI dealers and in case of Non DAESI dealers' economic motivation was significantly related with the role performance at 1 per cent level of significance, but age had negative association at 5 per cent level of significance with role performance of both DAESI and Non DAESI dealers. Remaining of the independent variables viz. family size, gross Annual income, business size was non-significantly correlated with role performance of both DAESI and Non DAESI dealers.

It can be inferred that role performance of the respondents decreased with increase in age. It meant that younger to middle aged respondents were performing better as para extension workers than respondents who were older in age. Age significantly influenced the role performance as Farm input business was mostly carried out by middle aged individuals, whereas younger generation was slowly getting attracted for an opportunity to carry out the business. Usually the respondents of middle age are enthusiastic and have more work experience and efficiency than older and younger ones. This might be due to that the young people were always more enthusiastic and interested to try out new things in delivering their services to farmers which were reinforce them to support their family. Young people are more open to new ideas than the old ones.

A look at the computed coefficient of correlation (r) between education and awareness about government

Table 3. Relationship of independents variables with the role performance of DAESI and Non DAESI dealers

Independent variables	Correlation co-efficient	
	DAESI Dealers	Non DAESI dealers
Age	-0.09384*	-0.03048*
Education	0.64454**	0.20766*
Family size	-0.10441 ^{NS}	0.19145 ^{NS}
Gross Annual income	0.04573 ^{NS}	0.11447 ^{NS}
Awareness about policies	0.51037**	0.21963*
Information dissemination	0.66152**	0.33048**
Business experience	0.06361*	0.29525*
Business size	0.13220 ^{NS}	0.12880 ^{NS}
Risk orientation	0.50350**	0.11309 ^{NS}
Economic Motivation	0.05712 ^{NS}	0.29928**
Mass media exposure	0.51001**	0.03312 ^{NS}
Extension contacts	0.82465**	0.02451 ^{NS}

* Significant at 5 per cent level of significance,
 **Significant at 1 per cent level of significance,
 NS=Non-significant.

policies were positively and significantly related with role performance of the DAESI dealers at 1 per cent level of significance whereas in case of Non DAESI dealers there was a positive and significant correlation at (5.00%) level. Education is one of the most important component to gain knowledge. Input dealing agro-advisory service delivery requires certain education for understanding technical information of inputs and agricultural information in providing inputs and agro-advisory services. The focus was to ensure that the programme they must understand the subject and after completion of DAESI programme these should act as para extension professional in that village. Awareness on government policies helps to build up their performance towards respective production technologies. DAESI dealers were aware of ATMA and the programmes conducted by ATMA institution for input dealers. Input dealers were aware about schemes like National agricultural insurance scheme; rural godown national e-governance plan in agriculture. Reddy *et al.* (2019) revealed results of their study that Information dissemination variable was significantly related to their performance at 1 per cent level of significance in case of both DAESI and Non DAESI dealers. Similarly in a study conducted by Das *et al.* (2016) stated in their results that that utilization of information source, agricultural training received,

knowledge about general agriculture except plant protection, knowledge about plant protection, retailing ability/skill, communication skill, services provided for agricultural development, sale promotional activity, number of farmers dealt with and investment in purchasing agricultural inputs had positive and significant relation with the retailing performance of the input retailer. The thought through reason might be the majority of input dealers had high communication skills and collegiate education and abilities obtained from diploma programme. Providing information to farmers by using brochures, leaflets etc. helped the dealers to know the required production technologies and also field level problems. Farmers perceived that the trained dealers listen to the problems of farmers more than the untrained dealers. Also, they provide latest and advanced information on seeds, fertilizers, pesticides, good practices of agriculture, farm price and marketing etc. Information dissemination is one of the important components for input dealers to act as para extension professionals by Agri. Input dealers. There was a positive and significant correlation at (5.00%) level observed between business experience and role performance of DAESI dealers and non DAESI dealers. The reason may be the majority of the input dealers had high business experience; it helped the input dealers to get more practical knowledge regarding production technologies of crops at field level which has enhanced their performance in disseminating production technologies.

Risk orientation, mass media exposure and extension contact were positively and significantly related with the knowledge level of the DAESI dealers at 1 per cent level of significance where as in case of Non DAESI dealers there was a non- significant relationship with risk orientation, mass media exposure and extension contact. . It might be due to the fact that majority of the DAESI dealers were oriented towards selling new products and risk orientation paves the way to perform better. This may be due to that most of the dealers were more exciting and challenging to learn new skills to improve their business and at the same time helping the farming community. DAESI dealers had high mass media exposure than Non DAESI dealers as they were accessing different sources like print media, radio, television etc. for latest information in agriculture. Mass media exposure helps in giving credible information to the farming community. The regular contact with extension officers of agricultural

department helps them in knowing new methods of demonstrations, new crop varieties, new location specific technologies and getting updated knowledge from them might be the reason the extension contact had positive and significant relation with their role performance. Dealers are having high contact and they maintain good relationship with agricultural extension officers to get updated information regarding the agro advisory services, use and application of various inputs for different crops grown in that area. The DAESI trained input dealers have realized the importance of extension advisory services (EAS) in meeting the advisory needs of farmers, their interaction with extension professionals, personnel of the line departments and scientists has increased after the DAESI training. This might have encouraged the input dealer to regularly contact the available agricultural and horticultural assistant, research and extension scientists and input supply companies. The independent variables family size, gross Annual income, business size was found to be non-significant in contributing to role performance of the input dealers. Economic motivation was found to be positively significant at 1 per cent level of significance in case of Non DAESI dealers but in case of DAESI dealers it was non-significant in contributing to role performance as para extension workers.

CONCLUSION

The present study provided insightful views on

role performance of input dealers as para extension workers. As agri-input dealers are linked with supply & service of agri-inputs, there is more reliance on agri input dealers by the farmers. So the farmers will approach them with easy access, high dependence, more credibility, clear intension and less ambiguity. Hence the role of agri-input dealers is very prominent as para extension workers and their faithful performance is always a yardstick for their growth. Trained input dealers have shown relatively higher importance to the sensitiveness of the problems faced by farmers. They also have gained greater confidence in providing advisories to the farmers. This signifies that the DAESI input dealers have become an important service provider to farmers. Majority of the profile characteristics of the input dealers had positive and significant relation. It shows that mostly role performance depended on profile characteristics. Henceforth, the government may leverage and enhance the participation of these DAESI trained para extension professionals on the extension advisory services. They can play an important role in complementing the extension services of public extension and strengthening public-private extension system in the county. It envisages that the public private extension model would be a new normal extension advisory system.

CONFLICTS OF INTEREST

The authors have no conflicts of interest.

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