
An Analysis of Products and Services Delivered by Agri-input Dealers trained under DAESI

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ABSTRACT

Agricultural input dealers, also known as agri-input dealers, play a critical role in the agricultural ecosystem as vital intermediaries between agricultural technology providers and farmers. This research paper aims to explore the product and services being offered by the DAESI trained agri-input dealers. By exploring the products and services offered by them to the farmers, this paper aims to understand the current trend of products and services to provide a comprehensive analysis of these offerings. Ex-post facto research design was used for the present study. Based on Census method, all the 20 states where DAESI is being implemented were selected. Selection of respondents was done using Simple Random Sampling method. The data was collected physically during July-December 2022. Only fully filled responses were selected for analysis of data which brought rendered the final sample size to be 166. The results revealed that majority (94.58%) of the respondents were male, the average age of the respondents was 37.26 years, about (42.78%) possessed a Graduation degree, more than half of the respondents (56.63%) had business as their prime occupation, maximum number of the respondents (75.90%) sold fertilizers, 69.88 per cent of them dealt in pesticides/insecticides while 65.66 per cent of the respondents offered seeds as agri-inputs to the farmers. About 65.06 per cent of the respondents have established Extension Corners in their shops after going through DAESI diploma course. The services they provided consultancy/advisory services (42.78%), market-support (32.53%), soil-testing (27.11%) and water-testing (12.05%).

Key words: Agri-Input Dealers, Agricultural Extension, Agricultural Products, DAESI, Extension Services

Introduction

Agriculture plays a pivotal role in the sustenance and growth of economies worldwide. Agricultural input dealers emerge as vital stakeholders, bridging

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the gap between innovative farming solutions and the hands that cultivate the land. The success of agricultural practices largely depends on the knowledge and expertise of both agri-input dealers and farmers. Keeping in mind a low extension worker to farmer ratio, DAESI program was envisioned in 2003 by the National Institute of Agricultural Extension Management (MANAGE), Hyderabad. The Diploma in Agri Extension Services for Input Dealers program holds immense significance for both input dealers and the farming community. This specialized diploma equips input dealers with in-depth knowledge and skills related to agricultural extension services. Input dealers are educated about the latest agricultural technologies, sustainable farming practices, pest management, and market trends. By enhancing their expertise, DAESI aims to transform agri-input dealers into para-extension workers who would strengthen the agri-extension scenario in India.

In the ever-evolving realm of agriculture, knowledge is akin to fertile soil – the foundation upon which prosperous harvests are built. Agricultural input dealers armed with comprehensive and up-to-date knowledge are equipped to provide farmers with valuable insights into cutting-edge technologies, crop management practices, and environmental sustainability. In an era where climate change and resource scarcity challenge traditional farming methods, informed input dealers serve as beacons of expertise, guiding farmers towards resilient and sustainable agricultural practices. Dealers with higher education are better equipped to disseminate relevant and up-to-date agricultural information to farmers, leading to improved farming practices and enhanced productivity (Kadam and Deshmukh, 2018). The agri-input dealers with formal agricultural education are more adept at providing specialized advice and technical information to farmers, leading to increased knowledge and adoption of best agricultural practices. In this way, their knowledge encompasses a myriad of fields, from the latest advancements in seeds, fertilizers, and pesticides to precision farming techniques, enabling farmers to optimize yields and minimize environmental impact. Adesina and Zinnah (1993) highlighted that both farmers and dealers with higher education exhibit greater knowledge and competence in managing crop diseases, pest control, and soil health. Thus, numerous research findings have also underscored the potential of education to enhance agricultural productivity.

Agri-input dealers are not just business-minded individuals; they are visionaries who recognize the intrinsic value of agriculture in society. Entrepreneurial input dealers do not merely sell products; they cultivate rapport with the farmers, foster trust, and contribute significantly to the socio-economic fabric of farming communities. Agri-input dealers, in this context, are community builders,

educators, and facilitators, connecting farmers with transformative knowledge and resources.

The role of agricultural input dealers as extension workers extends far beyond the transactional realm. By acting as conduits between agricultural research institutions, governmental initiatives, and local farming communities, these dealers play a pivotal role in disseminating best practices and innovative techniques. Research studies have highlighted their crucial function in bridging the gap between farmers and agricultural experts, especially in remote areas where direct access to extension services is limited. These dealers serve as key intermediaries, providing farmers with essential information about modern farming techniques, crop varieties, pest management strategies, and the proper use of fertilizers and pesticides. Their proximity to the farming community allows for personalized guidance, addressing the specific needs and challenges faced by individual farmers. Therefore, their capacity to effectively communicate complex agricultural concepts in a manner accessible to farmers ensures the democratization of knowledge, empowering even the most remote agricultural practitioners. The agri-input dealers, thus, enhance the agricultural acumen of farmers, enabling them to make informed decisions that elevate their livelihoods and agricultural productivity. Consequently, they serve as indispensable para-extension personnel, playing a vital role in the agricultural extension system and contributing significantly to the overall development of the farming community. Therefore it becomes imperative to explore and understand the current trend of products and services to provide a comprehensive analysis of these offerings. Keeping this in mind, the current study was undertaken to comprehensively evaluate the range of products and services provided by agricultural input dealers, including seeds, fertilizers, pesticides, machinery, equipment, and advisory services after completing DAESI diploma course.

Research methodology

For the present study, an Ex post facto research design was followed. The study was conducted in 20 states across the country. Based on Census method, all the 20 states where DAESI is being implemented were selected. The respondents were the input dealers who were trained under DAESI between years 2018 and 2021. Selection of respondents was done using Simple Random Sampling method. The data was collected physically during July-December 2022. A total of 200 responses were collected by administering a structured questionnaire but only fully filled responses were selected for analysis of data which brought down the final sample size to 166.

Results and discussion

Frequency, percentage and mean were used to enumerate the personal profile of the respondents and to ascertain the products and services delivered by them. The results have been presented as follows:

1. **Gender:** The demographic profile of the respondents revealed that majority (94.58%) of the respondents were male while 5.42 per cent of them were female. This points at the huge gender gap in the DAESI enrolments. The fair sex still does not have much representation when it comes to business ventures or enterprises.
2. **Age:** The average age of the respondents was 37.26 years. Maximum age for agri-input dealers was 69 years while the minimum age was 18.

Table 1: Distribution of the respondents according to age:

S. no.	Category	Frequency (n)	Percentage (%)
1.	Young (18-35 years)	78	46.99
2.	Middle (36-53 years)	66	39.76
3.	Senior (54-69 years)	22	13.25
Max= 69 years Min= 18 years	Total	166	100

It is evident from Table 1 that maximum number of the respondents (46.99%) belonged to the young age category, 39.76 per cent of them belonged to middle age category while only 13.25 per cent belonged to senior age category. This data reveals that youth is venturing into agri-enterprises in the prospect of self-employment. The broad range of age is due to DAESI diploma being synonymous to adult-education which has no upper age limit.

3. **Education:** As displayed in the Figure 1, majority of the respondents (42.78%) possessed a Graduation degree, 33.13% of them held a Highschool certificate while 16.87% of the respondents had an Intermediate certificate. Only 11 per cent of the respondents had a post-graduation degree with only 0.60 per cent having a diploma.

To meet the present competition in agri-input market as well as the entry of innovative products in different agri-inputs in the recent past, the importance of education for the success of agri-input dealers might have become imperative. This condition might have encouraged for educated people as agri-input dealers.

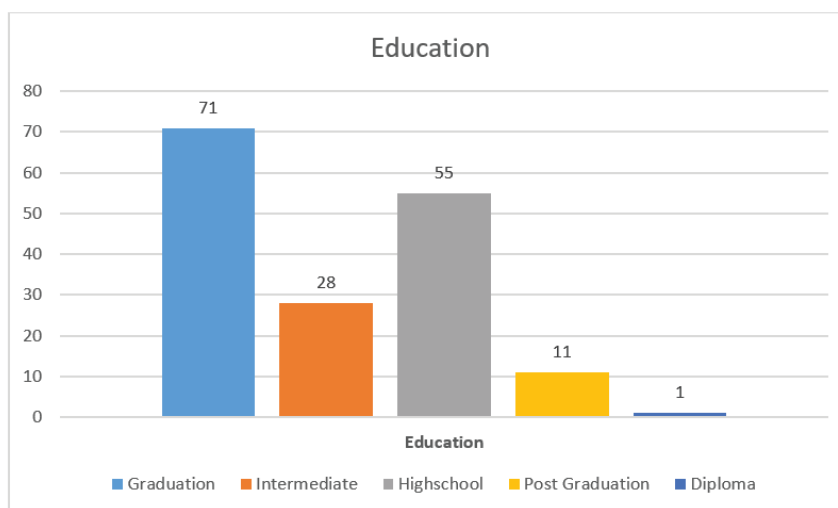


Figure 1: Education level of the respondents

These results are similar to the findings of Reddy et al. (2020) and Ganiger (2012) which reveal the trend of people with higher education going for self-employment ventures instead of routine jobs.

4. **Occupation:** More than half of the respondents (56.63%) had business as their prime occupation while 42.17 per cent had farming as their prime occupation. DAESI has been made mandatory by the Government of India for possession and renewal of agri-input licenses. This might be the reason why a lot of candidates come from a prior business background.
5. **Agri-based products offered:** There are a variety of products that are offered by the agri-input dealers through their shops to the farmers. The results are presented in the Figure 2. Maximum number of the respondents (75.90%) sell fertilizers, 69.88 per cent of them deal in pesticides/insecticides while 65.66 per cent of the respondents offering seeds as agri-inputs to the farmers. Around 25.30 per cent of the respondents offered small machinery/equipment while only 8.43 per cent of them dealt in large agricultural machinery. As DAESI trained input dealers are better equipped to cater to the needs of the farmers by providing timely and quality agri-inputs with appropriate application dosage. The input-dealers are yet to explore the contract based agro-machinery rental services and very few of them offer heavy agricultural equipment. The results are similar to the findings of Panja et al. (2021) who revealed that most of the input dealers dealt in fertilizers and pesticides.

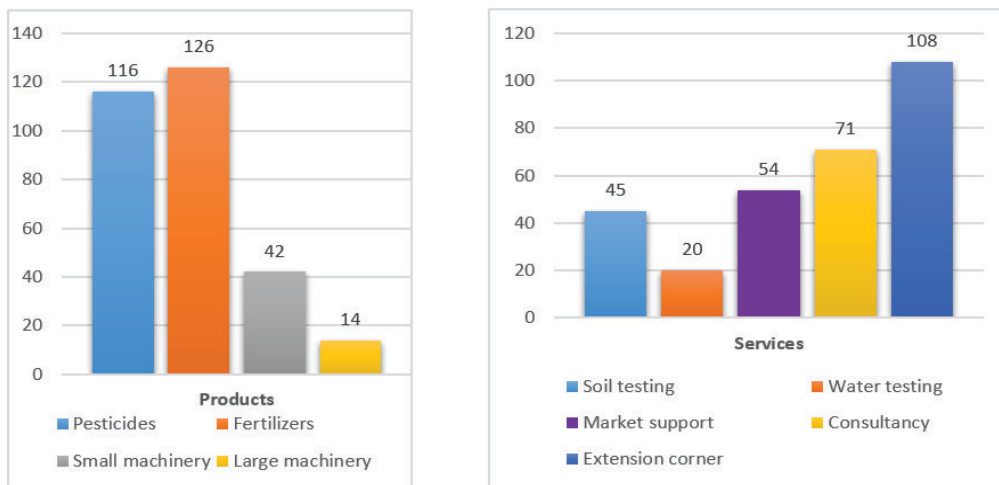


Figure 2: Products and services offered by agri-input dealers

6. **Agri-based services offered:** The main objective of DAESI is to establish agri-input dealers as para-extension agents at the grassroots level capitalizing on their proximity to the farmers. In addition to the sale of agri-input products the services provided by the agri-input dealers helps the farmers in optimum utilization of the agri-inputs, resources, schemes, policies, etc. One of the ways through which service delivery is ensured in DAESI is by the establishment of dedicated 'Extension Corners' in the agri-input shops. This serves as the point of information dissemination in input shops. It is evident from the Figure 2 that 65.06 per cent of the respondents have established Extension Corners in their shops. Other agri-based services provided to the farmers by the input dealers include consultancy/advisory services (42.78%), market-support (32.53%), soil-testing (27.11%) and water-testing (12.05%). The data reveals that there is still so much that the input-dealers can do in terms of the agri-services provided to the farmers. Figure 3 indicates various sources of information which the input dealers place in the Extension Corners. As evident from the data, most of the agri-input dealers keep newspapers, posters and books in the extension corners. It may be because these can be easily sourced and are an effective means of quick display of information. Adesina, A. A., & Zinnah, M. M. (1993). Technology characteristics, farmers' perceptions and adoption decisions: A Tobit model application in Sierra Leone. *Agricultural economics*, 9(4), 297-311.

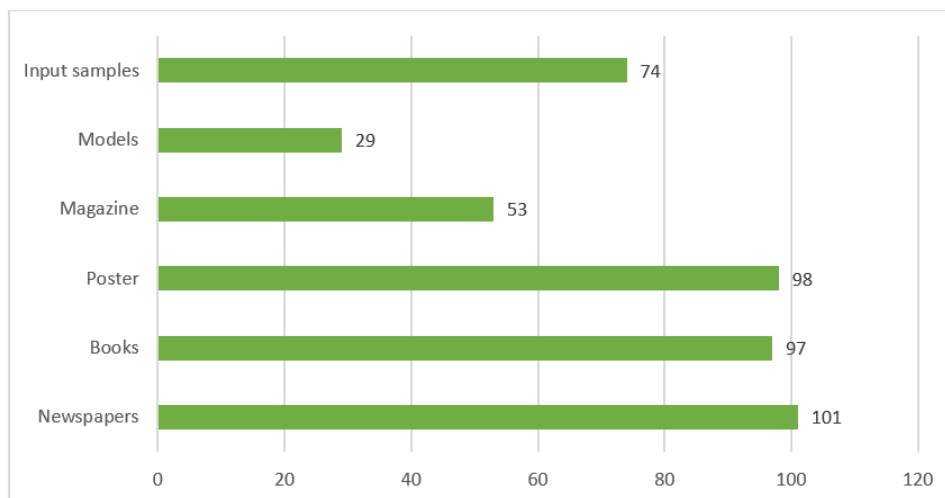


Figure 3: Sources of information in Extension Corner

Conclusion

In conclusion, the products and services offered by agricultural input dealers play a pivotal role in shaping the success and sustainability of farming practices worldwide. From seeds and fertilizers to machinery and advisory services, these dealers form the backbone of the agricultural industry, empowering farmers with the tools and knowledge necessary to optimize their yields while minimizing environmental impact. Although they deal mostly in chemical inputs and fertilizers, agri-input dealers can play a major role in warming farmers up for organic/natural farming practices. The comprehensive support in the form of extension corners provided by agricultural input dealers will have several positive effects on farming practices and outcomes. By continually innovating and adapting to the evolving needs of farmers, agri-input dealers not only contribute to the growth and prosperity of agricultural communities but also foster a more resilient and sustainable future for global food production. Overall, the effect of the products and services offered by agricultural input dealers is to support farmers in achieving higher yields, greater efficiency, and long-term sustainability in their agricultural practices.

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