

Original Research Article

Empirical Investigation into Attendees' Outlook and Experiences of DAESI Training

ABSTRACT

Input dealers serve as a key source of agricultural information for farmers at the village level, functioning as a one-stop shop. Therefore, they need to be well-versed in location-specific crop production technologies related to broad-based agriculture and proficient in managing agricultural inputs. This expertise ensures they can offer accurate advice to farmers dealing with field issues. In this context, MANAGE introduced the Diploma in Agricultural Extension Services for Input Dealers (DAESI), a significant national program by the Ministry of Agriculture and Farmers' Welfare. This program aims to train agri-input dealers across the country, equipping them to serve as para extension workers and provide farmers with reliable technical knowledge. This empirical study on the attendees' perception and experiences of DAESI programme showcases not only their socio-economic profile of the input dealers undergoing training but also their insights on training programme package (satisfactorily good as a whole); their feedback on resource material and mode of delivery (suitable); their outlook of the facilitator of the programme (cooperative and favourable) as well as their experience regarding the activities performed during the training (satisfactory); and lastly the attendees' perception regarding the objective to attend the DAESI Training Programme (amongst which majority of them attended the programme to either obtain certificate or to become a para-extension worker). The DAESI program is a trailblazing way that offers participants, who lack formal agricultural qualifications, a chance to acquire agricultural knowledge. Obtaining the diploma is a compulsory step for renewing their licenses, which drives many, particularly those with business interests, to enroll in the DAESI program.

Key words: Input dealers, Diploma in Agricultural Extension Services for Input Dealers (DAESI), attendees' perception, Training Programme

1. Introduction

Agri-input dealers serve as a crucial source in disseminating agricultural information to farmers, instead of supplying inputs and credit. Nevertheless, most of these dealers lack formal education in agriculture. The Diploma in Agricultural Extension Services for Input Dealers (DAESI) is a significant national program initiated by the Ministry of Agriculture and Farmers' Welfare. This program aims to train all agri-input dealers across the country, enabling them to serve as para extension workers and provide farmers with reliable technical knowledge.

In order to enhance their technical competency in agriculture and enable them to better serve farmers as para-extension professionals, the National Institute of Agricultural Extension Management (MANAGE) launched a self-financed "One-year Diploma in Agricultural Extension Services for Input Dealers (DAESI) Program" in 2003. Recognizing the program's beneficial outcomes, the Ministry of Agriculture & Farmers' Welfare, Government of India, has sanctioned its rollout for input dealers throughout all states nationwide. Initially launched in one state during 2003-04, the program has now expanded to be operational in 20 states across the country. (Mahantesh Shirur, et al., 2021).

Objectives of DAESI Program

- Training input dealers on crop production technologies tailored to local agricultural challenges.
- Enhancing the skills of input dealers in managing agricultural inputs effectively.
- Educating input dealers about regulations and laws related to agricultural inputs.
- Transforming input dealers into reliable sources of agricultural information for farmers at the village level (a one-stop shop).

Implementation

The program is administered by MANAGE in collaboration with State Agricultural Management and Extension Training Institutes (SAMETIs). The Department of Agriculture and Cooperation & Farmers' Welfare (DAC & FW), Government of India, will cover 50% of the course fee, amounting to Rs. 10,000 per input dealer. In cases where agribusiness companies participate, the company will provide Rs. 10,000, while DAC and the input dealer will each contribute Rs. 5,000. The technical content is delivered through weekly contact classes at designated Nodal Training Institutes (NTIs) by agricultural experts and practitioners at the district level, typically on Sundays or market holidays. The program spans 48 weeks, comprising 80 sessions and eight field visits throughout the year.

Monitoring

At the national level, MANAGE oversees the program, while SAMETIs manage it at the state level, and Agricultural Technology Management Agency (ATMAs) monitors it at the district level through a network of Nodal Training Institutes (NTIs). MANAGE has established a dedicated DAESI cell to provide ongoing monitoring and support to SAMETIs and NTIs, as well as to administer examinations with the help of qualified consultants.

Amendment of DAESI Program Guidelines and Curriculum of DAESI

The DAESI program, spanning a year with weekly classes, offers ample opportunities for input dealers to apply the knowledge gained during these sessions in their daily business activities. The comprehensive curriculum developed by MANAGE allows SAMETIs and NTIs flexibility to tailor sessions according to local needs. Participants suggested increasing the practical component of the program. They also proposed reducing session durations, as many felt that three hours was too long. Another recommendation was to allocate credit for activities like herbarium preparation and success story documentation, and to standardize marks for practical components to encourage self-learning and assist farmers in their roles as para-extension workers. New assessment criteria will be effective for batches sanctioned from April 2021 onwards. DAESI programs from the 2020-21 fiscal year and earlier batches can choose to conduct their examinations according to either the old or the new pattern.

2. Materials and Methods

The current research was carried out in Jagdalpur district of Chhattisgarh in 2024 to assess participants' perceptions of the DAESI training program initiated by MANAGE, Hyderabad. The study employed a purposive sampling design, selecting 80 input dealers who had completed the DAESI training program. To gather the necessary data, both primary and secondary sources were utilized. Considering the study's objectives and variables, a structured interview schedule was developed in consultation with experts to gather primary data. Additionally, online resources were utilized to collect the necessary secondary data for the study. The schedule was pre-tested, and necessary modifications were made based on the pre-test. The finalized schedule was then used for data collection through personal interviews. The data collected from respondents were scored, tabulated, and analyzed using Likert's five-point scale, percentage analysis, and Chi-square analysis.

3. Results and Discussion

The finding that highlights the socio-personal attributes of input dealers who participated in the DAESI training program is portrayed in Table 1.

Table 1. Demographic profile the attendees of the Training Programme

S.No.	Demographic profile	Frequency	Percent
1.	GENDER		

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	Female	06	07.50
	Male	74	92.50
	Total	80	100.00
2.	AGE GROUP		
	18-30	30	37.50
	31-45	41	51.25
	46-55	09	11.25
	Total	80	100.00
3.	EDUCATION		
	10 th	13	16.25
	Higher secondary/ Diploma	36	45.00
	Graduation and above	31	38.75
	Total	80	100.00
4.	OCCUPATION		
	Agriculture	29	36.25
	Business	51	63.75
	Total	80	100.00
5.	ANNUAL INCOME		
	0 –1,00,000	32	40.00
	1,00,001 –3,00,000	42	52.50
	Above 3,00,000	06	07.50
	Total	80	100.00

- As shown in Table 1, a significant number of input dealers are males (92.50%), but the female attendees in the DAESI training program has also come up front (07.50%).
- 51.25 percent belonged to middle age between 31 and 45 years. Additionally, 37.50 per cent were on the younger side within the 18-30 age range, 11.25 per cent fell between 46 and 55 years old. The DAESI program equips middle-aged and young participants with early technical knowledge in agriculture, enabling them to provide enhanced advisory services to farmers over an extended period.
- Notable quantity of attendees (45%) of the input dealers have completed Higher secondary/ Diploma. Meanwhile, 38.75 per cent of the respondents have an education level of graduation or higher and only 16.25 per cent have studied up to the 10th class.
- 63.75 per cent of the input dealers primarily engaged in business (agri-input trading and agriculture related), while the majority, 36.25 per cent, were primarily engaged in agriculture.
- Over half (52.50%) of the participants fall in the slab of Rs. 1,00,001 – 3,00,000 p.a. as their annual income, 40 per cent of them had annual income less than Rs. 1,00,000 and only 7.50 per cent of the participants' income was above Rs. 3,00,000.

The study is in line with Anitha (2005), Santos *et al.* (2003), Tsai *et al.* (2003), Kumari *et al.* (2019), Jhansi *et al.* (2022).

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Table 2. Attendees' Outlook on Training Programme

S.No.	Statements	Outlook factors				
		Excellent	Good	Average	Poor	Total
1.	Suitability of the training package offered viz., classroom sessions; visits to farmers' fields, research stations / SAUs; Demonstrations / Field trials/ Hands-on experience	31(38.75%)	41(51.25%)	08(1%)	00	80(100%)

2.	Adequacy of the training course and exposure visits duration.	22(27.50%)	39(48.75%)	19(23.75%)	00	80(100%)
3.	Fulfillment of training course and exposure visits objectives	15(18.75%)	53(66.25%)	11(13.75%)	01(1.25%)	80(100%)
4.	Relevance of the training course and exposure visits.	28(35%)	45(56.25%)	07(8.75%)	00	80(100%)
5.	Utility of the equipment used during the training course	23(28.75%)	36(45%)	19(23.75%)	02(2.50%)	80(100%)
6.	Beneficial outcomes from training course and exposure visits	20(25%)	53(66.25%)	07(8.75%)	00	80(100%)

Table 2 Illustrates the perspective of participants regarding the Training Programme, interpreted as follows

- It is evident that 51.25 per cent participants rated the "suitability of the training package offered" as good, 38.75 per cent participants rated it as excellent, 1 per cent found it average.
- From the table 2, it's clear that 48.75 per cent participants found the "adequacy of the training course and exposure visits duration" as good, 27.50 per cent rated it excellent, and 23.75 per cent found it average.
- Greater part of them (66.25%) regarded the "Fulfillment of training course and exposure visits objectives" as good, 18.75 per cent rated it excellent, 13.75 per cent participants found it average and only 1.25 per cent participant rated it poor.
- 56.25 per cent participants opined that the "Relevance of the training course and exposure visits" as good, 35 per cent participants judged it as excellent, 8.75 per cent have rated as average.
- It is understood from the table 2 that, 45 per cent participants felt good about the "Utility of the equipment used during the training course", 28.75 per cent of them rated excellent, 23.75 per cent found it average and 2.50 per cent stated it poor.
- A major chunk of participants (66.25%) rated "Beneficial outcomes from training course and exposure visits" factor as good, 25 per cent have assessed it as excellent and 8.75 per cent judged it as average.

The research aligns with Ford (2014), Mande *et al.* (2011), Sitzmann *et al.*(2018), Kumari *et al.*(2019), Balasubramani (2017).

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Table 3. Attendees' feedback on resources material & mode of delivery used in Training Programme

S.No.	Statements	Outlook factors				
		Excellent	Good	Average	Poor	Total
1.	The study materials for the training program are clear and easy to understand	41(51.25%)	36(45%)	03(3.75%)	00	80(100%)
2.	The study materials for the training program provide sufficient information	44(55%)	34(42.50%)	02(2.50%)	00	80(100%)
3.	The topics covered in the study materials and exposure visits are relevant to the training program	39(48.75%)	35(43.75%)	06(7.50%)	00	80(100%)

4.	The training program includes adequate activities and exercises	31(38.75%)	32(40%)	11(13.75)	06(7.50%)	80(100%)
5.	The training program offers sufficient practical sessions	29(36.25%)	32(40%)	12(15%)	07(8.50%)	80(100%)
6.	Satisfactory usage of audio-visual aids during training programme	37(46.25%)	35(43.75%)	08(10%)	00	80(100%)

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Table 3 displaying the Attendees' feedback on resources material & mode of delivery used in Training Programme is constructed below

- Over half of them (51.25%) rated "The study materials for the training program are clear and easy to understand" as excellent, 45 per cent stated it good and 3.75 per cent judged it average.
- Majority of them (55%) opinionated "The study materials for the training program provide sufficient information" as excellent, 42.50 per cent rated it as good and mere 2.50 per cent found it average.
- From the table 3, it's clear that 48.75 per cent participants found the "The topics covered in the study materials and exposure visits" excellent, 43.75 per cent rated it good, and 7.50 per cent found it average are relevant to the training program.
- 40 per cent participants regarded the "The training program includes adequate activities and exercises" as good, 38.75 per cent rated it excellent, 13.75 per cent participants found it average and 7.50 per cent participant rated it poor.
- It is showcased in the table3 that, 46.25 per cent participants felt excellent about the "Satisfactory usage of audio-visual aids during training programme", 43.75 per cent of them rated good, 10 per cent found it average.

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The study conforms to Deros *et al.* (2009), Baba Md Deros *et al.* (2012), Balasubramani (2017), Mironova *et al.* (2018), Wuepper *et al.* (2018).

Table 4. Attendees' insight of Facilitators and activities done in Training Programme

S.No.	Statements	Outlook factors				
		Excellent	Good	Average	Poor	Total
1.	Capacity of facilitator in coordinating/ conducting the programme	43(53.75%)	33(41.25%)	04(5%)	00	80(100%)
2.	The facilitator is well-prepared with the teaching material.	37(46.25%)	40(50%)	03(3.75%)	00	80(100%)
3.	Facilitator's presentation and lecture delivering skills	37(46.25%)	41(51.25%)	02(2.50%)	00	80(100%)
4.	Facilitator's involves attendees during discussion and exposure visit	34(42.50%)	45(56.25%)	06(7.50%)	01(1.25%)	80(100%)
5.	Usefulness of Problem-solution register & Field visit register	32(40%)	34(42.50%)	12(15%)	02(2.50%)	80(100%)
6.	Effectiveness of Assignment and presentation	34(42.50%)	36(45%)	09(11.25%)	01(1.25%)	80(100%)

Table 4 Accentuating the Attendees' insight of Facilitators and activities done in Training Programme is elaborated below.

- More than half of them (53.75%) rated "Capacity of facilitator in coordinating/ conducting the programme" as excellent, 41.25 per cent found it good and 5 per cent participants rated it average.
- Half of them (50%) opinionated "The facilitator is well-prepared with the teaching material" as good, 46.25 per cent have assessed it as excellent and 3.75 per cent judged it as average.
- "Facilitator's presentation and lecture delivering skills" has been declared good by 51.25 per cent followed by 46.25 per cent participants who rated it as excellent and 2.50 per cent found it poor.
- Table 4 drew attention to fact that greater part of them (56.25%) affirmed the "Facilitator's involves attendees during discussion and exposure visit" as good, 42.50 per cent rated it excellent, 7.50 per cent found it average and only 1.25 per cent stated it as poor.
- 42.50 per cent regarded the "Usefulness of Problem-solution register & Field visit register" as good, 40 per cent rated it excellent, 15 per cent participants found it average and 2.50 per cent participant assessed it poor.
- "Effectiveness of Assignment and presentation" was brought to the forefront by 45 per cent as good, while 42.50 per cent noted it excellent, 11.25 per cent discovered it to be average and mere 1.25 per cent asserted it poor.

The research parallels Aziz (2002), Tsai *et al.* (2003), Deros *et al.* (2009), Baba Md Deros *et al.* (2012), Balasubramani (2017), Kumari *et al.* (2019).

Table 5. Attendees' perception regarding the purpose to attend the DAESI Training Programme

S.No.	Statements	Outlook factors					Total
		Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree	
1.	To acquire knowledge in Agriculture and allied fields	30(37.50%)	44(55%)	04(5%)	01(1.25%)	01(1.25%)	80(100%)
2.	To obtain diploma certificate	36(45%)	38(47.50%)	03(3.75%)	02(2.50%)	01(1.25%)	80(100%)
3.	To become a para-extension worker support to the farming community	34(42.50%)	45(56.25%)	06(7.50%)	01(1.25%)	00	80(100%)
4.	To establish an efficient business	31(38.75%)	33(41.25%)	05(6.25%)	07(8.75%)	04(5%)	80(100%)
5.	To attain self-development	23(28.75%)	32(40%)	17(21.25%)	05(6.25)	03(3.75%)	80(100%)

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Attendees' perception regarding the purpose to attend the DAESI Training Programme showcased in Table 5 has been unfolded here.

- Major chunk of attendees (55%) agreed to the fact that they joined the programme "To acquire knowledge in Agriculture and allied fields", whereas 37.50 per cent strongly agreed, 5 per cent were

neutral in their opinion, 1.25 per cent disagreed to it and similarly 1.25 per cent strongly disagreed to the fact.

- 47.50 per cent participants agreed to the reason for joining the programme was “To obtain diploma certificate”, while 45 strongly agreed to it. Although 3.75 per cent remained neutral in their viewpoint, 2.50 per cent participants disagreed to the fact, while 1.25 strongly disagreed.
- Table 5 also showcased one of the reason to attend the training programme i.e. “To become a para-extension worker to support the farming community” which was strongly agreed by 56.25 per cent participants, while 42.50 per cent agreed to it, 7.50 per cent were neutral in their approach and 1.25 per cent disagreed.
- 28.75 per cent of participants strongly agreed with attending the training program “To attain self-development” as highlighted in table 5. Meanwhile, 40 per cent agreed, 21.25 per cent were neutral, 6.25 per cent disagreed, and 3.75 per cent strongly disagreed.

The investigation complies with Ganiger (2012), Santos *et al.* (2003), Arthur *et al.* (2003), Kumari *et al.* (2019).

4. Conclusion

Below are the challenges encountered during the implementation of the DAESI program, along with recommendations to enhance its effectiveness (Mahantesh Shirur, et al., 2021).

In any program implementation, stakeholders often encounter constraints. Given that the DAESI program involves multiple stakeholders such as the Ministry of Agriculture, MANAGE, SAMETIs, ATMA, Department of Agriculture, NTIs, agribusiness companies, etc., it is inevitable to face challenges at various stages. It is crucial to identify, analyze, and resolve these constraints to ensure the program achieves its intended outcomes.

SAMETIs were tasked with compiling and documenting the significant constraints encountered in program implementation, including those affecting the NTIs under their purview. Based on the frequency of constraints reported by SAMETIs, the following issues were highlighted:

There were frequent challenges related to adherence to cost norms, particularly concerning expenses for lunch and refreshments, honorariums for resource persons, expenditures on field study tours, and facilitators' remuneration. Additionally, there was a request for an editing option for facilitators, which was carefully considered to prevent any potential misuse related to altering candidate details, session records, or attendance records. Consequently, it was decided to maintain a centralized editing option at MANAGE, with additional fields provided for facilitators to input data.

Other constraints were thoroughly discussed during workshops, with immediate resolutions provided wherever feasible. Remaining issues were identified for further action, pending suitable approvals for implementation.

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Suggestions to Make the DAESI Program Effective

Policy / Ministry Level:

- **Guidelines for DAESI Certification:** The Ministry may instruct all DAESI implementing institutes to strictly follow the guidelines issued by the Ministry of Agriculture and Farmers Welfare and managed by MANAGE.
- **Use of Short Duration Government Schemes for License Renewal:** Many input dealers prefer short courses like INM and IPM for license renewal, thereby missing the comprehensive agricultural knowledge offered by DAESI.
- **Challenges in DAESI Program Implementation:** According to most NTIs, the current cost norms (established in 2013) make it financially challenging to sustain the year-long DAESI program, necessitating an immediate revision. These challenges include:
 - Facilitator compensation
 - Remuneration for resource persons
 - Cost of meals/refreshments (currently Rs. 75/-)
 - Support for infrastructure and support staff
- **Pilot Testing of Electronic Content:** Allocating budgetary resources is essential to improve the DAESI program by incorporating electronic content and educational videos to complement theoretical and practical sessions.

- **DAESI-II:** A proposed refresher training program aimed at supporting previously trained input dealers.

MANAGE

- Ensure timely disbursement of funds to NTIs, completion of pending exams, and issuance of certificates to finished batches after thorough data entry and document submission by SAMETI.
- Initiate refresher training programs for previously trained input dealers (DAESI-II).
- Develop a specialized curriculum and training module for refresher courses.
- Merge CSPS and self-financed batches to address candidate shortages in various districts.
- Encourage Public-Private Partnerships and the use of ICT applications in program execution.
- Conduct regular workshops and build the capacities of all DAESI stakeholders.

SAMETI

- Ensure prompt release of funds to NTIs, conduct pending exams, and issue certificates to completed batches after proper data entry and document submission by SAMETI.
- Launch refresher training programs for previously trained input dealers (DAESI-II).
- Create a tailored curriculum and training module for refresher courses.
- Combine CSPS and self-financed batches to mitigate candidate shortages in several districts.
- Foster Public-Private Partnerships and incorporate ICT applications in program implementation.
- Organize regular workshops and enhance the capacities of all DAESI stakeholders.

NTI

- **Facilitators:** Recruit experienced candidates committed to agricultural development who are proficient in computer skills for timely data entry and regular reporting to SAMETIs and MANAGE via email.
- **NTI Heads:** Ensure the active involvement of NTI heads in guiding facilitators and proper monitoring.
- **Documenting Success Stories:** Collect and share success stories of input dealers with MANAGE for compilation.
- **Timely Reporting:** Ensure the prompt submission of results and updating of the Management Information System (MIS).
- **Promoting Para Extension Workers:** Facilitate meetings between trained input dealers and officials from ATMA and State Departments of Agriculture.
- **Adherence to Guidelines:** Programs approved in 2021-22 must follow the new guidelines.

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