

Original Research Article

Understanding Attendees' Feedback and Outcomes from the Diploma in Agricultural Extension Services for Input Dealers (DAESI) Training Programme

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. *Ex-post facto cause to effect research design has been followed for the present study.* 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. To enhance the DAESI training program, updating cost norms, incorporating digital learning, introducing refresher courses, tailoring the curriculum to local needs, strengthening public-private partnerships, increasing practical exposure, and promoting gender inclusivity could be followed.

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 of agricultural information for farmers, in addition to providing 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.

Program implementation often faces constraints (Mahantesh Shirur, et al., 2021), particularly when involving multiple stakeholders like the Ministry of Agriculture, MANAGE, SAMETIs, ATMA, and agribusiness companies. Identifying and resolving these challenges is essential for achieving program goals. SAMETIs were responsible for documenting key issues, including those affecting NTIs. Common constraints included adhering to cost norms for expenses like lunch, honorariums, field tours, and facilitator remuneration (Patel *et al.*, 2023). An editing option for facilitators was requested but centralized at MANAGE to prevent misuse. Unresolved issues were discussed in workshops, with some awaiting further approvals.

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.

This paper discusses and explores about the participants' perception and experiences regarding the Diploma in Agricultural Extension Services for Input Dealers (DAESI) training program, which would offer significant benefits to both the participants and scientific community. For participants, the study highlights areas for enhancing the quality of training, such as course content and practical sessions, directly improving their learning experience and professional development. For the scientific community, it provides empirical data to assess program effectiveness, identify best practices, and suggest evidence-based improvements. This helps in benchmarking and refining agricultural training programs. By addressing feedback, the program can better support participants' needs and enhance their skills in agricultural extension services.

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. *Ex-post facto* cause to effect research design has been followed for the present study. The study utilized a total population sampling, which is a type of purposive sampling technique (that involves examining the entire population) method to study the 80 participants, encompassing the entire cohort of individuals who registered, attended and successfully completed the Diploma in Agricultural Extension Services for Input Dealers (DAESI) training program during the 2023-2024 period. 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. To analyse and properly structure the perceptions and experiences of the participants of the training programme, their opinions and stance have also been discussed with the experts for creating an efficient well-customised interview schedule. The finalized schedule was then used for data collection through an open-ended personal interview method. The data collected from respondents were scored, tabulated, and analyzed using statistical tools of frequency and percentage analysis through Likert's five-point scale.

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		
	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

- Data presented in Table 1 indicates that a predominant majority of input dealers attending the DAESI training program are male (92.50%), with a smaller yet significant representation of female participants (7.50%).
- The age distribution of participants shows that 51.25% are in the middle-aged bracket of 31 to 45 years, while 37.50% are younger, between 18 and 30 years old. Additionally, 11.25% are between 46 and 55 years of age. The DAESI program is designed to provide both middle-aged and younger individuals with foundational technical knowledge in agriculture, thereby enhancing their capability to offer long-term advisory services to farmers.
- Educational attainment among attendees reveals that 45% have completed higher secondary education or a diploma, 38.75% hold undergraduate degrees or higher, and 16.25% have education up to the 10th grade. This variation in educational levels underscores the diverse academic backgrounds of the participants.
- A substantial proportion (63.75%) of input dealers are primarily involved in business activities related to agri-input trading and agriculture, whereas 36.25% are predominantly engaged in agricultural activities.
- The income distribution among participants shows that 52.50% fall within the annual income range of Rs. 1,00,001 to 3,00,000. Additionally, 40% have an annual income below Rs. 1,00,000, while only 7.50% have an income exceeding Rs. 3,00,000. This distribution reflects a range of economic profiles among the attendees.

The above observation is in line with Kumari *et al.*(2019), Latha *et al.* (2021), Jhansi *et al.*(2022), Alam (2024).

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

- A substantial proportion of participants (51.25%) assessed the "suitability of the training package offered" as good, with 38.75% rating it as excellent and only 1% considering it average. This indicates that the majority of participants found the training package appropriately designed and relevant, suggesting its effectiveness in meeting educational needs. The high ratings reflect the alignment of the training content with the participants' expectations and objectives.
- The assessment of the "adequacy of the training course and exposure visit duration" revealed that 48.75% of participants deemed it good, 27.50% rated it excellent, and 23.75% found it average. This distribution highlights a general consensus on the course and visit durations being sufficient for achieving learning outcomes, though some participants felt improvements could be made to enhance the adequacy.
- A significant portion (66.25%) considered the "fulfillment of training course and exposure visits objectives" as good, with 18.75% rating it excellent and 13.75% finding it average, while only 1.25% rated it poor. This suggests that the training effectively met its objectives for most participants, though a small minority perceived the outcomes as insufficient.
- Regarding the "relevance of the training course and exposure visits," 56.25% of participants rated it as good and 35% as excellent, with 8.75% finding it average. This indicates that the content and practical experiences offered were generally pertinent and beneficial, aligning well with participants' expectations.
- The "utility of the equipment used during the training course" was rated as good by 45% of participants, with 28.75% considering it excellent, 23.75% average, and 2.50% poor. This suggests that while the equipment was largely effective and satisfactory for most, there is room for improvement in its utility to enhance overall training quality.
- The "beneficial outcomes from the training course and exposure visits" were rated as good by 66.25% of participants, with 25% assessing them as excellent and 8.75% as average. This high level of positive feedback demonstrates that the training yielded valuable results for the majority, though some participants felt that the benefits could be more pronounced.

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

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

- More than half of the participants (51.25%) rated the "study materials for the training program as clear and easy to understand" as excellent, likely due to the simplified structure and clarity, which are crucial for effective learning and comprehension. Around 45% rated it as good, while 3.75% found it average, indicating the need for continuous improvement in material design to cater to all learning styles.
- A majority (55%) believed that "the study materials provided sufficient information," rating it as excellent. The comprehensiveness of the materials ensures participants gain a broad understanding of the subject, a key factor in effective adult learning. While 42.50% rated it good, only 2.50% found it average, suggesting that improvements may be necessary to ensure uniform depth of content across different modules.
- As per Table 3, 48.75% of participants found "the topics covered in the study materials and exposure visits" to be excellent. This indicates the relevance and applicability of the topics to real-world agricultural practices. 43.75% rated it good, while 7.50% found it average, suggesting that more specialized or diverse topics could enhance engagement for a wider audience.
- 40 per cent of participants rated "the inclusion of adequate activities and exercises" as good, and 38.75% rated it excellent, emphasizing the importance of hands-on learning for better retention and application. However, 13.75% rated it average, and 7.50% rated it poor, indicating that the program may need to offer more interactive or practical components tailored to diverse learning needs.
- 40 per cent of participants rated the "sufficiency of practical sessions" in the training program as good, reflecting that the hands-on approach was beneficial for many in solidifying theoretical knowledge through real-world application. Additionally, 36.25% rated it as excellent, indicating that these sessions were highly valued by a substantial portion of attendees for enhancing their technical skills. However, 15% considered the practical sessions to be average, and 8.50% rated them as poor, suggesting that the frequency, depth, or variety of these sessions might not have met the expectations or learning needs of all participants.
- Table 3 also shows that 46.25% of participants found the "usage of audio-visual aids during the training program" to be excellent. Audio-visual aids are effective tools for enhancing understanding and maintaining engagement, especially in technical subjects like agriculture. While 43.75% rated it good, 10% found it average, highlighting the need for ensuring high-quality and well-integrated visual learning tools throughout the program.

The study conforms to Balasubramani (2017), Mironova *et al.* (2018), [Latha et al. \(2021\)](#).

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	34(42.50%)	45(56.25%)	06(7.50%)	01(1.25%)	80(100%)

	attendees during discussion and exposure visit					
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.

- Over half of the participants (53.75%) rated the "Facilitator's capacity in coordinating and conducting the program" as excellent, while 41.25% found it good, and 5% rated it as average.

- Half of the respondents (50%) considered "The facilitator's preparedness with teaching materials" as good, while 46.25% assessed it as excellent, and 3.75% rated it as average.

- "Facilitator's presentation and lecture delivery skills" were rated good by 51.25% of participants, with 46.25% rating them as excellent, and only 2.50% considering them poor.

- Table 4 highlighted that a majority (56.25%) found the "Facilitator's engagement with attendees during discussions and exposure visits" as good, while 42.50% rated it excellent, 7.50% found it average, and 1.25% rated it poor.

- The "Usefulness of the Problem-solution register & Field visit register" was rated as good by 42.50% of participants, excellent by 40%, average by 15%, and poor by 2.50%.

- The "Effectiveness of assignments and presentations" was rated as good by 45% of attendees, with 42.50% rating them excellent, 11.25% as average, and 1.25% as poor.

The research parallels Balasubramani (2017), Kumari *et al.*(2019), Latha *et al.* (2021)

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 to support 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.

- A significant portion of attendees (55%) agreed that their primary motivation for joining the program was "To acquire knowledge in Agriculture and allied fields," while 37.50% strongly agreed. Meanwhile, 5% were neutral, 1.25% disagreed, and another 1.25% strongly disagreed with this reason.
- Nearly 47.50% of participants agreed that their goal was "To obtain a diploma certificate," with 45% strongly agreeing. A smaller fraction, 3.75%, remained neutral, 2.50% disagreed, and 1.25% strongly disagreed with this rationale.
- According to Table 5, the reason "To become a para-extension worker to support the farming community" was strongly agreed upon by 56.25% of participants, with 42.50% agreeing, 7.50% neutral, and 1.25% expressing disagreement.
- The reason "To establish an efficient business" was agreed upon by 41.25% of participants, while 38.75% strongly agreed. However, 8.75% disagreed, 6.25% were neutral, and 5% strongly disagreed.
- Finally, 28.75% of participants strongly agreed that they joined the program "To attain self-development," with 40% agreeing, 21.25% neutral, 6.25% disagreeing, and 3.75% strongly disagreeing with this motivation.

The investigation complies with Ganiger (2012), Kumari *et al.* (2019), Esha (2019), Latha *et al.* (2021), Alam (2024).

4. Conclusion and Suggestions

The study indicates that a large proportion of input dealers participating in the DAESI program are male, although female involvement is also significant. Most participants are young to middle-aged, suggesting the program's focus on providing early technical knowledge to equip them for long-term advisory roles in agriculture. Participants come from diverse educational backgrounds, with many holding higher secondary diplomas or degrees, and are primarily engaged in agri-business or agriculture. Their income levels are moderate, reflecting varied economic profiles within the group. The majority of participants rated the training package highly, finding the content suitable, adequate, and relevant, though some noted areas for improvement, such as course duration and equipment utility. Most also rated the study materials positively for clarity and comprehensiveness, although there was some feedback suggesting that activities and the use of audio-visual aids could be enhanced. Facilitators received strong evaluations for their preparedness, presentation skills, and ability to engage participants, though a small number of respondents indicated that certain aspects, like lecture delivery, could be improved. The study also highlights the participants' motivations for joining, which include acquiring agricultural knowledge, obtaining a diploma, and becoming para-extension workers to support their communities. Additionally, many participants aimed to enhance their business skills, reflecting a clear intent to leverage the program for both professional and community-focused growth. Overall, the findings point to a generally high level of satisfaction with the program, while also identifying opportunities for further refinement to maximize its effectiveness.

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.

Disclaimer (Artificial intelligence)

Option 1:

Author(s) hereby declare that NO generative AI technologies such as Large Language Models (ChatGPT, COPILOT, etc) and text-to-image generators have been used during writing or editing of manuscripts.

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Details of the AI usage are given below:

1. ChatGPT

2.

3.

5. Reference

1. Alam FEM. Effect Of Training Programs On Trainees' Learning. *Bangladesh Journal of Multidisciplinary Scientific Research*, 2024;9(1):25-31. <https://doi.org/10.46281/bjmsr.v9i1.2198>
2. Asfaw AM, Argaw MD, Bayissa L. The impact of training and development on employee performance and effectiveness: A case study of District Five Administration Office, Bole Sub-City, Addis Ababa, Ethiopia. *Journal of Human Resource and Sustainability Studies*. 2015;3(04), p.188
3. Balasubramani N. Impact of DAESI program on trained input dealers: A perception study. *Journal of Agricultural Extension Management*.2017; XVIII (2).
4. Esha. A Study On Effectiveness Of Training And Development Programs. *International Journal of Business, Economics & Management*. 2019;2(1): 11-17. <https://doi.org/10.31295/ijbem.v2n1.62>
5. Ford, J.K. ed., 2014. Improving training effectiveness in work organizations. Psychology Press.
6. Ganiger S.Knowledge, perception and role performance of input dealers in agroadvisory services in northern dry zone of Karnataka.M. Sc. (Agri.) Thesis,Acharya NG. Ranga Agric. Univ.Hyderabad (India); 2012.
7. Jhansi B, Ragini M, Pawar JB, Sankanagoudar S. *Asian J. Agric. Ext. Econ. Soc.* 2022;40(12):344-351,. DOI:10.9734/AJAEES/2022/v40i121801
8. Kumari SS, Balanagalakshmi B. Perception of Employees on the Training Programs, *International Journal of Recent Technology and Engineering*, 2019
9. Latha MC, Kadian KS, Meena BS, Behera J. Impact of DAESI Program on Knowledge levels of Input Dealers in Andhra Pradesh, India. *Indian Journal of Extension Education*. 2021;57(2):82-86. DOI: 10.5958/2454-552X.2021.00062.1
10. Mande JV, Darade NW. Training needs of farm input dealers for transfer of agricultural technology. *J. Community Mobilization and SustainableDevelopment*.2011;6(2):141-144.
11. Mironova MD, Zaitseva NA, Larionova AA, Rozenberg NV, Utkina NV, Dashkova EV, Takhumova OV.Evaluation of the effectiveness of modular training in economic areas of study. *Modern Journal of Language Teaching Methods*. 2018;8(5):27-40
12. Patel N, Bhargav KS, Gupta N, Kumari S, Singh M, Kumar M, Badaya AK. Field problem analysis approaches after DAESI programme. *The Pharma Innovation Journal*. 2023;12(4):598-601
13. Shirur, M., Kumar, N. G., Mekala, S., Ohlan, M., Banoth, S., Patel, S., Anjani, T., Bhagwat, K., and Madhavi, K. Good Practices in DAESI Implementation. Hyderabad: National Institute of Agricultural Extension Management (MANAGE). 2021
14. Sitzmann T. Weinhardt JM. Training engagement theory: A multilevel perspective on the effectiveness of work-related training. *Journal of Management*. 2018;44(2):732-756
15. Srinivas, E. A critical analysis on effectiveness of diploma in agricultural extension services for input dealers (DAESI) programme in AndhraPradesh.Ph.D Thesis, Acharya N G. Ranga Agric. Univ., Hyderabad (India). 2013.