EVALUATION STUDY REPORT OF THE CENTRAL SECTOR SCHEME
ASSISTANCE TO TRAINING INSTITUTIONS (ATI)

Submitted to
EDI SECTION
MINISTRY OF MICRO, SMALL AND MEDIUM ENTERPRISES
GOVERNMENT OF INDIA

Conducted by
Indian Institute of Public Administration
New Delhi-110002.

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1. EXECUTIVE SUMMARY

1. The central sector scheme of "Assistance to Training Institutions (ATI)" aims to provide financial assistance to training institutions of the Ministry of MSME, state-level EDIs and training programme for entrepreneurship and skill development. The overarching objective of the scheme is to assist the training institutions and entrepreneurship development institutes to impart entrepreneurship and skill development training. National Institute of Micro, Small and Medium Enterprises (ni-MSME) receives financial assistance for meeting the revenue deficits. Financial assistance is provided to existing state-level EDIs for the creation, strengthening/expansion of training infrastructure. In respect of assistance to the State level EDIs, the maximum amount is restricted to Rs. 2.50 crore in each case.

2. The MoMSME has a vast network of institutions to undertake the task of training for skill development regularly such as the National Institute for Micro, Small and Medium Enterprises (ni-MSME), Hyderabad, Mahatma Gandhi Institute for Rural Industrialisation (MGIRI), Training cum Incubator Centres (TICs) of National Small Industries Corporation (NSIC), Central Tool Rooms (Technology Centres), training centres of MSME Development Institutes, Khadi and Village Industries Commission (KVIC) and Coir Board. As such, to create self-employment opportunities and upgrade the relevant skills for existing and potential entrepreneurs, the scheme of ATI of MoMSME gears up supports to the institutions working for the target group.

3. Considering that the Micro, Small and Medium Enterprise sectors are highly vibrant and dynamic in the Indian economy, the scheme of EDI was conceptualized and implemented by the Ministry of MSME. It was realized that the MSME sectors would not only provide large employment opportunities at comparatively lower capital costs but also help industrialization of rural and backward areas. The creation of large employment opportunities reduces regional imbalances and assures a more equitable distribution of national income and wealth across the social classes.

4. The scheme of ATI is implemented through training institutions of MSME, state-level EDIs and ni-MSME, NSIC, KVIC, Coir board, tool rooms/technology centres and MGIRI. Under the scheme, assistance to training institutions of MoMSME is provided to create/strengthen and expand training infrastructure facilities. The assistance to State level EDIs is provided to the existing state-level EDIs owned and controlled by the state government/UTs. The assistance to the component is restricted to 2.5 crores in each case. For this grant, the EDIs are recommended by the State Governments. Under assistance for

training programmes, the training institutions, namely (1) ni-MSME, (2) NSIC, (3) KVIC, (4) Coir Board, (5) Tool rooms/technology centres and (6) MGIRI are provided financial support to conduct training programmes in the areas of skill development. Under the component, the skill development programme is made to National Skill Qualification Framework (NSQF) compliant. There are three categories of courses based on that hourly payment is made viz. Category I courses: Rs. 38.50 per head per hour of training, Category II courses: 33.00 per head per hour of training, and Category III courses: Rs. 27.50 per head per hour of training. Assistance for the training of the trainers (ToT) programme is provided @ Rs. 60 per trainee per hour (or, the rate prescribed under the common norm/NSQF, whichever is less). State Level Entrepreneurship Development Institutions working on MSMEs issues. State and Central Government Departments have large staff for providing support to MSMEs. As such, the coverage of the scheme has been found in 27 states and 10 UTs across the country.

5. To evaluate the scheme of Assistance to Training Institutions (ATI), the objectives, as per the ToR are: (a) to conduct a cost-benefit analysis of the scheme in respect of assistance provided to the organization of the Ministry and State level EDIs, (b) to assess the efficacy of the scheme in meeting the requirement of the industries and the aspiration of unemployed youth/persons who have been trained under the scheme, (c) to suggest modification/change in the content/component of the scheme or the procedure being followed in implementing the scheme, (d) to assess the felt need/resource gap of the different parts of the country (especially backward districts) and their failure in meeting the requirement of unemployed youth/persons in getting the wage employment or self-employment, (e) to suggest the overall impact of the scheme in respect of support given for strengthening the infrastructure, training outcome, employment generation, post-training support etc. for effective implementation, and (f) to suggest ways and means to ensure that training programmes awarded to EDIs has been conducted religiously and there is no chance of data findings.

6. Keeping in view the objectives of the scheme, **the evaluation study used up a comprehensive methodology embroiled with pragmatic approach.** This consisted the quantitative and qualitative survey with the different layers of stakeholders. **The methodology under the study was designed in such a way that it took the sample size representative of the population (universe). Since the scheme has been implemented in 27 states and 10 UTs, so based on the maximum number of training institutions covered under the scheme and outreach thereof, 9 states were selected from five NSSO classified**

zones. As such, Assam and Arunachal Pradesh from north east, Odisha and West Bengal from east, Punjab and Delhi from north, Telangana and Tamil Nadu from south and Gujarat from west zone were selected. **A total of 127 respondents from Assam, 0 from Arunachal Pradesh, 109 from Odisha, 88 from West Bengal, 69 from Delhi, 192 from Punjab, 254 from Gujarat, 297 from Telangana, 2 from Tamil Nadu could be sampled in the study. The stakeholders contacted under the study were: trainees (758), trainers (111), institution heads (11), industry partners (13), and non-beneficiaries (245). The research tools used were: (i) Questionnaire, (ii) In-depth interview & (iii) Observation. A total of 1138 responses were registered across the sampled states.**

7. The budgetary allocation and expenditure pattern of the scheme reveals that □ **72.87 crore in FY 2015-16, □ 38.24 crore in 2016-17, □ 4.53 crore in 2017-18, □ 22.27 crore in 2018-19, □ 29.66 crore in 2019-20 and □ 21.24 crore in 2020-21 incurred as actual expenditures.** Moreover, the actual expenditure is following the descending trend over the years. The fluctuation in the actual expenditure is linked with the actual achievements made by the NIMSE, NSIC and CTRL and other national level institutions. The average expenditure between budgeted expenditure and revised expenditure has been calculated as □13.20 crore, as against revised and actual expenditure as □2.00 crore. The increase in the revised expenditure with a sharp contrast with budgeted expenditure shows that the actual expenditure has incurred based on the number of physical progress planned and anticipated target achieved under the scheme. Overall, the actual expenditure pattern exists below the forecasted expenditure which shows the expenditure under the scheme has been released considering all externalities. In 2019-20, due to the Covid pandemic, a little down surge has been found. However, the recovery with improved coverage is likely to be seen as per the information shared by the EDI section of MoMSME. Additionally, it was also shared that the financial demands were not received to the Ministry. Overall, the implementation of the scheme at the level of fund release results tapered and finally outcome-oriented.

8. The cost-benefit analysis for the scheme has been done taking into account the total costs incurred in one year including the expenditure made out of fund released, institutional investments, and social costs. As such, the total cost is inclusive of financial, social and induced costs. The total benefits have been calculated by multiplying the number of trainees who received the job with their respective emoluments. The data collected on the component was based on monthly income. To count it for a year, the total benefits (monthly emoluments have been multiplied by 12). The cost-benefit analysis is based on information received from 10 sampled institutions. **As a result of EDIs operations, net-benefit of Rs. 73350617**

against the total cost of Rs. 14148583 has been calculated. The net benefit made by NSICs has been calculated as Rs. 97132892.2 against the total cost of Rs. 26011107.8. A net benefit of Rs. Rs. 27593832 have been made by the Tool Rooms against the total cost of Rs. 41986968.

9. The per capita benefit has also been calculated by dividing the net benefit from the total number of candidates who actually got benefitted through getting self and wage employments. **The per capita benefit was accrued more in EDI (□ 114075.60), followed by NSIC (□ 62184.95), and Central Tool Rooms (□ 38060.46).** The ratio of cost-benefit can be calculated by considering the total benefit as the numerator and the total cost as the denominator. **The ratio of the total benefits and the total costs (280224000/82146659=3.41) stand out to be 3.41 by clubbing all the institutions. The ratio for EDIs has been calculated the highest (6.18), followed by NSIC (4.73) and Tool Rooms (1.66). Thus, the maximum ratio is reflected in EDIs operations, followed by NSICs and Tool Rooms.** The ratios calculated are greater than one which shows the scheme is viable in the future. Carrying this to a logical conclusion, the training programmes imparted at EDIs are the best 'Project' (option), just in case, there is a crunch of resources.

10. The EDIs trainees start their venture and optimally capitalise their learning skills in productivity, as compared to NSICs and Central Tool Rooms. The candidates completing the training from NSICs and Tool Rooms mostly get wage employment with overall lower emoluments. In the production process, the entrepreneurs get maximum profit. Also, the training at the EDI centres was found to be completely market-oriented. It was found during the study that the candidates after completing their courses from EDIs enjoyed the liberty to come to EDIs, in case of any doubt.

11. The study reveals that the **maximum amount of net benefit has been accrued in the Enterprise Development Institute, West Bengal (□ 56011017), followed by the Centre for Entrepreneurship Development, Gandhi Nagar (□ 13127600), and the Institute of Entrepreneurship Development, Odisha (□ 4212000).** However, the benefit-cost ratio has been found more in the Centre for Entrepreneurship Development, Gandhi Nagar (7.48), followed by Enterprise Development Institute, West Bengal (6.02) and the Institute of Entrepreneurship Development, Odisha (5.33)**. The per capita benefit was found more in Enterprise Development Institute, West Bengal (□ 128760.96), followed by the Centre for Entrepreneurship Development, Gandhi Nagar (□ 85244.16) and the Institute of Entrepreneurship Development, Odisha (□ 78000.00).** The Centre for Entrepreneurship Development, Gandhi Nagar was found running with its extension centre in Gandhi Nagar

and Ahmedabad. The institute appeared very particular to the number of candidates receiving training on entrepreneurship and placing them either through their venture or wage employment. Almost a similar trend was found with the Enterprise Development Institute, West Bengal.

12. The study also discloses that **the maximum amount of net benefit has been accrued in the NSIC Technical Service Centre, Rajkot, (₹ 7,20,85,204.80), followed by the NSIC Technical Service Centre, Tamil Nadu (₹ 2,36,87,602.60), and the National Small Industries Corporation Ltd, Guwahati (₹ 13,60,084.80).** Also, the benefit-cost ratio has been found more in the NSIC Technical Service Centre, Rajkot (22.62), followed by the NSIC Technical Service Centre, Tamil Nadu (5.09), and the National Small Industries Corporation Ltd, Guwahati (1.08). However, **the per capita benefit was found more in the NSIC Technical Service Centre, Tamil Nadu (₹ 89,387.18), followed by the NSIC Technical Service Centre, Rajkot (₹ 72,593.36).** The NSIC Technical Centre, Rajkot was found to be loaded with the required number of trainees. The Centre head informed that candidates after the training were also provided with handholding support to get a job. Such a conducive ecosystem was not found with NSIC Technical Centre, Tamil Nadu and National Small Industries Corporation Ltd., Guwahati.

13. The study also release the fact that **the maximum amount of net benefit has been accrued in the Tool Room & Training Centre, Guwahati (₹ 29665510), followed by the Indo German Tool Room, Ahmedabad (₹ 8169639), and the Central Room and Training Centre (₹ 1222004).** A negative benefit of ₹ 11463321.2 has been detected in Central Tool Room, Ludhiana. The benefit-cost ratio has been found more in the Indo German Tool Room, Ahmedabad (2.84), followed by Tool Room & Training Centre, Guwahati (2.65), the Central Room and Training Centre, Bhubaneswar (1.39), and the Central Room, Ludhiana (0.30). Also, **the per capita benefit was found more in the Tool Room & Training Centre, Guwahati (₹ 58977.16), followed by the Indo German Tool Room, Ahmedabad (₹ 54464.26), and the Central Room and Training Centre, Bhubaneswar (₹ 40733.47). A negative per capita benefit has been found out from the Central Tool Room, Ludhiana (₹ 272936.22).** The Central Tool Room, Ludhiana was not able to attract a sufficient number of trainees. Also, the Institute did not receive the schedule on time. The apprenticeship programmes were not found very effective in providing job opportunities to the trainees in sharp contrast with their social costs. The mismatch between market demand for the skills and skills imparted was identified.

14. To conduct the approximate measure of the investment's profitability in the three types of Institutions, the Return on Investment (RoI) has also been calculated. RoI is calculated through dividing net benefit by the total cost and, finally, multiplying it by 100 to get it in percentage. It is a standardized, universal measure of profitability. An RoI of 518.4% by EDIs, 373.4% by NSICs and 65.7% by Central Tool Rooms have been achieved. It was noticed that publicity about the programmes, promotional measures to reach the target group, identification and selection of trainees, and approach to selection procedure with required flexibility were embedded with EDIs operations, as compared to the Central Rooms sampled. The candidates trained from Central Tools Rooms and NSICs have to largely depend on industries to get a job. A better quality of the human resource is largely needed in apprenticeship related jobs. The training imparted by Tool Rooms were not found very effective so far as the quality was concerned. The required duration for the practical classes was also found to be inadequate.

15. The study has also come out with the rankings of the institutions sampled under the study based on per capita benefit accrued. The Entrepreneurship Development Institute has scored the highest per capita benefit (Rs. 128760.96), followed by the NSIC Technical Service Centre, Tamil Nadu (Rs. 89387.18), the Centre for Entrepreneurship Development, Gandhi Nagar (Rs. 85244.16), the Institute of Entrepreneurship Development, Odisha (Rs. 78000.00) and so on.

16. With regard to target set and achieved, it has been found that an achievement of 98.9% in 2015-16, 94.8% in 2016-17, 80.4% in 2017-18, 97.4% in 2018-19 and 97.6% in 2019-20 are made against the target set. As such, the scheme has an average achievement of 96.2% in the last five years. In other words, the scheme has shown considerably astounding performance on the indicator of target set and achieved. The regression analysis shows that the p-value for actual expenditure is 0.02. This indicates that actual expenditure is the significant predictors of achievement. **1% change in the actual expenditure is expected to bring about 563.39 % of the change in the achievement**. **Hence, the scheme needs to be expanded with improved coverage along with increased financial allocation.**

17. Most of the beneficiaries receiving training in aspirational skills have been found in Gujarat (93.9%), followed by Odisha (93.3%), Telangana (92.8%), Assam (87%), West Bengal (82.5%), Delhi (82.4%) and Punjab (77%). **Overall, most of the beneficiary trainees were found receiving skill training in their aspirational skill areas (88.9%).** Merely 11.1% of trainees have received training in the area other than their aspiration and

interest. Most of the trainees were associated with industry partners from Assam (78.3%) followed by Telangana (75.9%), Gujarat (74%), West Bengal (72.5%), Odisha (68.3%), Delhi (52.9%) and Punjab (50.4%). However, one-third of the beneficiaries surveyed were not associated with the industry partners.

18. **The study has brought out that the maximum market-oriented learnings have been accomplished in West Bengal (95%), followed by Odisha (93.3%), Assam (92.8%), Gujarat (91.8%), Telangana (89%), and Delhi (88.2%). The training not aligned with market demand has scored higher in Punjab (12.9%), followed by Delhi (11.8%), Telangana (11%), Assam (7.2%), Odisha (6.7%) and West Bengal (5%). Overall, 90.4% of the beneficiaries have found that the training conducted was aligned with market demands** whereas, merely 9.6% declined with this view.

19. **53.8% of respondents did not want any change in the contents of the training. 16% of the target group have required duration of practical classes to be increased from the existing levels. 10% beneficiary required post-training placement facilities. 7.8% of respondents required the implementation of new technology. 3.8% of the trainees required improved focus to be given on cleanliness and hygiene. 2.5% of respondents required improvement in the available tools and equipment used for the practical classes. It was observed during the visits to tool rooms and NSIC centres that the beneficiaries required new tools and equipment to be used in the practical labs.** Evening classes were suggested by 2.1% of trainees. The suggestions to receive quality trainers were responded by 2% of the beneficiary. 1.6% of respondents required increase in the number of virtual classes. However, 0.4% of the beneficiaries required virtual classes. Overall, more than half of the respondents did not require any change. An increase in the duration of practical classes, post-training placement, and implementation of new technology in labs were opined by more than one-third of the beneficiaries surveyed during the study. Moreover, the increased duration of practical classes may provide them improved expertise in the area of training. Post-training placement was a general concern that the other stakeholders also endorsed.

20. **The study also discloses that self-employment is greater than wage-employment. The maximum percentage of wage employment has been found in West Bengal (27.5%), followed by Gujarat (27%), Punjab (19.4%), Odisha (18.3%), Telangana (16.5%), and Assam (14.5%). The wage employment has scored 19.9% of the total sample covered across the states. On average 17.6% of wage employment has been recorded.** There are three states, namely Delhi, Assam, Telangana underperforming from the average percentage.

The information collected on self-employment posits that the maximum percentage has been found in West Bengal (42.5%), followed by Gujarat (35.7%), Assam (30.4%), Delhi (23.5%), Telangana (14.3%), Punjab (13.7%) and Odisha (5.0%). Self-employment has scored an average of 23.6% across the sampled states. Three states, namely Odisha, Punjab, Telangana and Delhi have been found to be underperforming on the indicator. Overall, 57.9% of beneficiaries have responded that they are unemployed. On average 58.8% of beneficiaries were found to be unemployed. If we compare wage employment with self-employment, the difference is 10.1%.

21. Most of the beneficiaries after employment have been found falling under the income slab of Rs. 10,000-Rs. 20000 monthly. Of the employed under the income slab of Rs. 10,000-Rs. 20,000, 49.53% beneficiaries were self-employed while 50.47% wage-employed. Under the income slab of Rs. 20001 -Rs. 30000, 57.41% beneficiaries were self-employed and 42.59%, wage employed. Under the income slab of Rs. 30001-Rs. 40000, 61.29% beneficiaries were self-employed and 38.71%, wage employed. In the final slab of over Rs.40001, 60% beneficiaries were found to be self-employed whereas, 40% wage-employed.

22. On the effectiveness and infrastructure of the trainings were assessed through using Likert scale designed ranging in 1-5. On this scale, sufficient seating space and delivery of contents by trainers have scored 4.4, followed by the status of hygiene (4.3), accessible location of training institute (4.2), 4.0 each for quality of training kit & practical labs and 3.9 for post-training placement support. The sufficient space in training centres has scored maximum in Assam, West Bengal and Odisha (4.6 for each), followed by Gujarat (4.3), 4.2 each for Delhi & Telangana, and Punjab (3.9). For the practical lab, the maximum score has been attained by institutions from Assam and Odisha (each for 4.5), followed by 4.2 each for Gujarat and Telangana (4.2), West Bengal (4.1), Punjab (3.6) and Delhi (3.0). On the same scale, the status of hygiene has been scored the highest in West Bengal (4.7), followed by Odisha (4.6), Assam (4.3), 4.2 each for Gujarat and Telangana, Delhi (4.1), and Punjab (3.6). For the accessible location of the institute, the maximum has been scored in West Bengal & Odisha (4.6), followed by Assam (4.4), Delhi (4.0), Gujarat (4.3), Telangana (4.2), and Punjab (3.5). **Overall, the highest score has been given to sufficient seating space and delivery of contents by trainers, followed by practical lab and quality of training kit practical lab and post-training placement support.**

23. Beneficiaries receiving training at EDIs of Telangana have rated the highest about the effectiveness of training with regard to connection with industry partners (83.3%), followed by West Bengal (72.5%) and Gujarat (68.6%). On the marketable skills, the beneficiaries of

West Bengal rated EDI training the highest (95%), followed by Gujarat (90.2%), and Telangana (83.3%). The learning at EDI has reportedly been emphasised in Telangana (100%), followed by West Bengal (90%) and Gujarat (86.3%). The fair assessment of the trainings has been expressed superlatively by the trainees of Telangana (100%), followed by West Bengal (82.5%), Gujarat (80.4%). The course of EDP helped greatly to the first generation entrepreneurs in West Bengal (97.5%), followed by Telangana (83.3%) and Gujarat (82.4%). Effective delivery of the training was highly rated in West Bengal (92.5%), followed by Gujarat (76.5%) and Telangana (66.7%). The relevant course contents were recognised in West Bengal (92.5%), followed by Gujarat (76.5%) and Telangana (66.7%). The learning rectification through sufficient quizzes was responded mostly from Gujarat (76.5%), followed by Telangana (50%) and West Bengal (45%). **Overall, the total sampled beneficiaries (N=97) have responded positively about the effectiveness of the trainings at EDIs.**

24. The maximum women representation in the pool of sampled beneficiaries has been found in Telangana (54%), followed by Gujarat (37.2%), Assam (34.8%), Delhi (29.4%), West Bengal (29.4%), and Odisha (5%). **Overall, on average 35 women have represented in the trainings across the states. Side by side, the rural penetration of the scheme has also been estimated based on the sample size covered.** It has been found that the maximum beneficiaries from rural areas have been found in Assam (66.7%), followed by Punjab (54.7%), Odisha (45%), Telangana (30.4%), Gujarat (27.6%), West Bengal (27.5%), and Delhi (23.5%). **Overall, 41.4 beneficiaries on average have belonged to rural areas. 38.3% beneficiaries have been found from rural areas whereas, 61.7% from urban areas.**

25. **The study has found that 7.8% of beneficiaries belonged to Divyangjan under the sample covered.** The maximum Divyangjans were found in Delhi (11.8%), followed by Punjab (10.8%), Assam (10.1%), Gujarat (8.7%), Odisha (6.7%), and Telangana (5.9%). However, no beneficiary was found in the category from West Bengal. **7.8% representation of Divyangjan shows the inclusiveness of the beneficiary trainees mobilised and selected under trainings of the ATI scheme.**

26. Based on the five social categories classified, namely general, other backward class (OBC), Scheduled Caste, Scheduled Tribes, and minority, the study findings reveal that under the OBC category, most of the beneficiaries were from Delhi (41.18%), followed by Telangana (40.93%), Assam (40.58%), Odisha (35.0%), Gujarat (25.51%), Punjab (13.67%), and West Bengal (7.50%). Under the Scheduled caste category, the maximum beneficiaries

were found from Telangana (32.91%), followed by Delhi (29.41%), Gujarat (20.92%), Punjab (18.71%), West Bengal (12.5%), Assam (10.14%) and Odisha (6.67%). Under the Scheduled Tribe category, the maximum trainees were found in Assam (7.25%), followed by Telangana (7.17%), Gujarat (4.08%), and Odisha (3.33%). However, no respondent was sampled under this category from Delhi, Punjab, and West Bengal. Under the minority category, the maximum trainees were found from Assam (13.04%), followed by Telangana (3.38%), West Bengal (2.50%), Gujarat (1.02%), and Punjab (0.72%). No sample under this category was found either from Delhi or from Odisha. **Overall, 29.68% OBC, 21.9% SC, 4.22% ST and 2.77% minority category respondents were found in the sample size of the study. The beneficiaries from the general category have been found approximately 41.5% of the total sample-size covered. Based on the information garnered, the coverage of the scheme seems to be socially inclusive.**

27. The evaluation of the ATI scheme has also been processed **through Randomized Controlled Trial (RCT)**. Randomized Controlled Trial (RCT) is a scientific experiment that aims to reduce certain sources of bias when testing the effectiveness of new treatments; this is accomplished by randomly allocating subjects to two or more groups, treating them differently, and then comparing them with respect to a measured response. One group—the experimental group (Treatment Group)—receives the intervention being assessed, while the other—usually called the control group—receive no intervention. As such, a total of 758 beneficiaries and 245 non-beneficiaries from the identical background were randomly selected while conducting the RCT. Based on the information, t-test has been conducted to assess their identical background which shows the average of beneficiary and non-beneficiary sampled under the study belonged to the similar background on 14 identified parameters. The same also gets reflected through the processed p-value i.e. 0.03<0.05. The t-test analysis shows that the average number of candidates from the treatment group and controlled group belonged to the same socio-economic conditions. Hence, our treatment and controlled groups were found to be statistically same. It was finally observed that the success rate of the beneficiary (who received the training) was higher as compared to the success rate of non-beneficiaries with regard to engagement in the employment. **On the employment component, the beneficiaries have scored 42.1% whereas, non-beneficiaries 21.6%.**

28. The beneficiaries receiving the maximum employment was found to be in West Bengal (70%), followed by Gujarat (62.8%), Assam (44.9%), Punjab (33.1%), Telangana (30.8%), Delhi (23.5%) and Odisha (23.3%). These figures are combined of wage and self-employment for the beneficiaries sampled. However, the non-beneficiaries receiving

employment has scored the maximum in Odisha and Delhi (100%), followed by Gujarat (80.4%), Punjab (50%), and Assam (3.8) in the randomly sampled total non-beneficiaries (N=245). In the same vein, the employment is nil in the case of non-beneficiaries selected from Telangana. **Conclusively, the beneficiaries (N=758) with interventions have scored better on employment, as compared to the non-beneficiaries (N=245) under the study. It has been found that the f-value for the test is 7.48 which is higher than the F critical one tail value of 4.28. The p-value of 0.014< 0.05 shows the significance of the test. Hence, the null hypothesis for both treatment and controlled group stands rejected, as both have unequal variances.**

29. The ATI scheme has delivered market based employability in limited duration. The skill training was mostly found connected with market demand during the study. The asset modernization of tools and equipment were found to be in demand. The infrastructure development works required early completion. The impact of credit linking with employment has provided multiplier effect on the stability of entrepreneurs' venture.

30. The scheme of Assistance to Training Institutions (ATI) is one of its kind because training programmes under the scheme have provided a finishing touch to the capacity-based placement to the beneficiary trainees. Its unique outreach across the country through training institutions has accommodated unemployed youth to receive skill training and entrepreneurship development. The positive impact of the training programmes on employability and the improved satisfaction level of trainees have been recognized through the result of Randomized Controlled Trial (RCT). The improvement in the infrastructure of state EDIs and making financial resources available to meet the revenue deficits to the National level of Institutions show a proper intervention of the scheme. Based on the findings of the study, **33.2% women representation, 21.9% SC participation, 8% Divyanjan inclusion show the social inclusiveness of the scheme. Better per capita benefit based on cost-benefit analysis, 90.4% responses on training in the aspirational skills, 19.9% wage employment and 22.2% self-employment show the success of the scheme.** Promoting skill upgradation, apprentice mechanism in view of acute shortage of specialized manpower in hi-tech sectors has well been addressed by technical institutions (NSICs, ni-MSME and Tool Rooms). Keeping in view the above performance scores, the scheme appears economically viable and socially inclusive. **As such, the study recommends for continuation of the Assistance to Training Institutions (ATI) scheme.** The recommendations to improve the effectiveness of the scheme are as under:

1. The publicity of the scheme needs to be integrated with suitable print media, audio-visual media, social network platforms, State and Central Government websites and PRIs. This is particularly applicable to Central Tool Rooms.

2. The Ministry may invite the proposals of infrastructure development from State EDIs directly. However, a copy of the proposal may be routed through the respective State Governments. The same may be followed up with the states at the level of the Ministry. This would help minimize the delay in fund release and depreciation attached with the amount. Also, the Ministry may set up a dedicated desk to keep an eye on infrastructure development works in EDIs.

3. Working with EAT module and use of PFMS need to be integrated with work orders for the institutions receiving grants from the Ministry. The compliance needs to be ascertained.

4. The Central Tool Rooms are recommended to follow up the function style of NSICs to come out of lower per capita benefit. The Central Tool Room, Ludhiana needs to improve upon its previous performance. Negative per capita benefit shows its underperformance. The Ministry is suggested to monitor the functions of the Institutions covered under the ATI scheme.

5. The three category courses and per head per hour learning cost prescribed in the scheme need to be revised considering cost escalation of various items. The revision is recommended to follow Market Price Index (MPI). Also, the grant of 2.5 crore needs revision so that infrastructure work is not compromised on qualitative grounds. The infrastructure cost in our country is higher, as compared to China, Vietnam, Indonesia, Sri Lanka etc.

6. Money released for infrastructure development works requires an early completion. Keeping in view the reluctance in taking up the renovation/upgradation work of training institution by CPWD/Government agencies, it is recommended that in order to do away with the hurdle, the work may be outsourced to a private construction agency having a good track record.

7. The institutions ready with infrastructure should start the courses immediately. An early inauguration of the EDI, Jote, Arunachal Pradesh needs to be ensured so that it starts producing results.

8. The Institutions should start giving adequate focusing on sunrise industries like Solar, EV, ITeS and AI services, etc.

9. Soft skills and marketing skills are required to be integrated with the module of Central Tool Rooms & NSICs and EDIs, respectively.

10. The contents to be taught in the training programmes should be imparted in vernacular languages as far as possible.

11. A mandatory online accessible database of beneficiaries enrolled, trained, certified and placed need to be developed by the training Institutions so that their outcome can remotely be examined and recognized.

2. OVERVIEW OF THE SCHEME

The central sector scheme of "Assistance to Training Institutions (ATI)" aims to provide financial assistance to training institutions of the Ministry of MSME, state-level EDIs and training programme for entrepreneurship and skill development. The overarching objective of the scheme is to assist the training institutions and entrepreneurship development institutes to impart entrepreneurship and skill development training. To ensure that young entrepreneurship is encouraged and suitably equipped to go into new ventures, the Ministry of Micro, Small and Medium Enterprises (MSME), Government of India has been providing assistance for the establishment of training Institutions/entrepreneurship Development Institutes (EDIs) for imparting Entrepreneurship and Skill Development training programmes. These institutions have been providing entrepreneurship and skill development training to first-generation entrepreneurs by helping and supporting them in the establishment of their enterprise. To make the exercise more effective, the Ministry of MSME is engaged with consistent and concerted efforts to accelerate and boost entrepreneurship by providing support for the strengthening of training infrastructure as well as programme support. In this backdrop, the scheme of ATI is implemented to strengthen capacity for training for Skills and Entrepreneurship development, providing training to staff of DIC, and related Government Institutions dealing with MSMEs and strengthen the overall capacity of National Institutions operating under the Ministry of MSME. The quantum of assistance provided to the training institutions is limited to the actual incurring amount required for the strengthening and expansion of the infrastructure. National Institute of Micro, Small and Medium Enterprises (ni-MSME) receives financial assistance for meeting the revenue deficits. Financial assistance is provided to existing state-level EDIs for the creation, strengthening/expansion of training infrastructure. In respect of assistance to the State level EDIs, the maximum amount is restricted to Rs. 2.50 crore in each case.

The MoMSME has a vast network of institutions to undertake the task of training for skill development regularly, such as the National Institute for Micro, Small and Medium Enterprises (ni-MSME), Hyderabad, Mahatma Gandhi Institute for Rural Industrialisation (MGIRI), Training cum Incubator Centres (TICs) of National Small Industries Corporation (NSIC), Central Tool Rooms (Technology Centres), training centres of MSME Development Institutes, Khadi and Village Industries Commission (KVIC) and Coir Board.

As such, to create self-employment opportunities and upgrade the relevant skills for existing and potential entrepreneurs, the scheme of ATI of MoMSME gears up supports to the institution working for the target group.

2.1 Background of the Scheme

Considering that the Micro, Small and Medium Enterprise sectors are highly vibrant and dynamic in the Indian economy, the scheme of EDI was conceptualized and implemented by the Ministry of MSME. It was realized that the MSME sectors would not only provide large employment opportunities at comparatively lower capital costs but also help industrialization of rural and backward areas. The creation of large employment opportunities reduces regional imbalances and assures a more equitable distribution of national income and wealth across the social classes. Keeping this in view, the scheme of ATI (earlier EDI) was designed and implemented. The scheme of 'Assistance to Training Institutions (ATI)' was earlier known as the EDI scheme. The scheme is ongoing since 1993. Later in the year 2010, an additional component of 'Assistance to the Training Programme' was embedded in the scheme with the approval of EFC on 11.01.2010 for the 11th five-year plan. It included a total outlay of Rs. 149.28 crores. This constituted the Government's share of 140 crores and other stakeholders' share of Rs. 9 crores. The total outlay for the 12th FYP was Rs. 561 crore. The scheme guidelines were revised on 01.09.2016 and 15.10.2018. Under the scheme, three types of assistance are provided viz. Assistance to training institutions of MoMSME, Assistance to State level EDIs and Assistance for training programmes.

a) Brief write up on the scheme including Objectives, Implementation Mechanism, Scheme Architecture and Design

The scheme of ATI is executed under the aegis of the MoMSME. The key element of the scheme is to promote the micro, medium and small enterprises sector through skill and entrepreneurship development. The institutions under the ambit of the scheme are expected to provide skill and entrepreneurship development to young entrepreneurs. To train the young entrepreneurs and people working under the MSME sector, the central sector scheme of ATI was launched in 1993.

The scheme of ATI is implemented through training institutions of MSME, state-level EDIs and ni-MSME, NSIC, KVIC, Coir board, tool rooms/technology centres and MGIRI. Under the scheme- Assistance to Training Institutions, the MoMSME gears up support to create/strengthen and expand training infrastructure facilities. The assistance to State level EDIs are provided to the existing state-level EDIs owned and controlled by the State

Governments/UTs. The assistance to the component is restricted to 2.5 crores in each case. For this grant, the EDIs are recommended by the State Governments. Under assistance for training programmes, the training institutions, namely (1) ni-MSME, (2) NSIC, (3) KVIC, (4) Coir Board, (5) Tool rooms/technology centres, and (6) MGIRI are provided financial support to conduct training programmes in the areas of skill development. Under the component, the skill development programme is made to National Skill Qualification Framework (NSQF) compliant. There are three categories of courses based on hourly payment. These are: Category I courses: Rs. 38.50 per head per hour of training, Category II courses: 33.00 per head per hour of training, and Category III courses: Rs. 27.50 per head per hour of training. Assistance for the training of the trainers (ToT) programme is provided @ Rs. 60 per trainee per hour or the rate prescribed under the common norms of NSQF, (whichever is less). Assistance for other types of training is provided based on the need identified. The first installment of the grant is released in advance. The subsequent installments are released based on the progress of utilization of funds already released. The total amount of assistance to be considered for release as per the aforementioned rates. It also includes the cost of overheads including motivation, camps for selection of eligible trainees, charges towards hiring of space and equipment, electricity/water, stationery, man-hour cost of deployment of project personnel, post-training follow-up activities etc.

The underlying objectives of the ATI scheme are to strengthen capacity for training for up-scaling of skills, up-scaling and entrepreneurship development, providing training to staff of DICs and related Government institutions dealing with MSMEs and strengthening the overall capacity of National Institutions under the Ministry of MSME. Under the Skill India programme, skill training is imparted in accordance with the modules approved by the National Skill Qualification Framework (NSQF). The objective of the scheme is to build capacity for both physical infrastructure and human resource (HR) in National Level Institutions under the Ministry of MSME to undertake skill Development. National Institute of MSME (ni-MSME) is a premier National Level Institution for MSMEs. There are several State Level Entrepreneurship Development Institutions working on MSMEs issues. State and Central Government Departments have large staff for providing support to MSMEs. The scheme also proposes to improve the capacity of staff working in District Industries Centre and Industry Departments of States.

The assistance under the scheme is provided to National level Training Institutions operating under the Ministry of MSME, namely ni-MSME, KVIC, Coir Board, Tool Rooms, NSIC & MGIRI in the form of a capital grant for the creation and strengthening of infrastructure and

support for entrepreneurship development and skill development training programmes. Assistance is provided for meeting revenue deficit, if any of National Institute for Micro, Small and Medium Enterprises (ni-MSME). The assistance is also provided to existing State-level EDIs for the creation or strengthening/expansion of infrastructure.

b)   Name of Sub-Schemes/Components

There are three components of the ATI scheme. These are:

(1) Assistance to Training Institutions of Ministry of MSME: The assistance is provided under the scheme for the creation or strengthening/expanding infrastructure including the opening of new branches/centres to training institutions of Ministry of MSME and for meeting revenue deficit, if any, of National Institute for Micro, Small and Medium Enterprises (ni-MSME). Amount of assistance should not exceed the actual amount required for the creation or strengthening/expansion of the infrastructure of the training institution and meeting the revenue deficit etc.

(2) Assistance to State level EDIs: Assistance may be provided under the scheme to the existing State Level EDIs (Entrepreneurship Development Institutes) i.e. owned and controlled by a State Government/UT for the creation or strengthening/expansion of their infrastructure. The financial assistance given is for specific needs of each case for the construction of the building, purchase of training aids/equipment, office equipment, computers and for providing other support services e.g. libraries/ databases etc. The costs of land, construction of staff quarters, etc. do not qualify for calculation of grant of Central Government. The maximum assistance under the scheme to a state-level EDI is restricted to 2.5 crores in each case. The grant is utilized for the development of physical infrastructure, equipment, faculty training and development of capability for imparting skill development trainings related to the MSME sector. To be eligible for the grant, the EDIs owned and controlled by the State Governments are selected based on the recommendation of the State.

(3) Assistance for Training Programmes: Assistance is given under the scheme to conduct training programmes in the areas of skill development to the training institutions viz. (i) ni-MSME, (ii) NSIC, (iii) KVIC, (iv) Coir Board, (v) Tool Rooms/technology Centres, and (v) MGIRI. Assistance for skill development programme under the scheme is provided based on the NSQF compliance.

c) Year of commencement of the Scheme

The scheme was commenced in 1993 as EDI scheme. The scheme of Assistance to Training Institutions was revised in 2017-18. The aforementioned three components of the scheme are operational.

d) Present Status and the Coverage of the Scheme

The scheme of ATI is implemented across the country. The three components of the scheme are: Assistance to Training Institutions, Assistance to State level EDIs, and Assistance for Training Programmes are operational. The scheme of ATI is operational in the states of: (1) Arunachal Pradesh, (2) Assam, (3) Bihar (4) Chhattisgarh, (5) Goa, (6) Gujarat, (7) Haryana, (8) Himachal Pradesh, (9) Jharkhand, (10) Karnataka, (11) Kerala, (12) Madhya Pradesh, (13) Maharashtra, (14) Manipur, (15) Meghalaya, (16)Mizoram, (17)Nagaland, (18) Odisha, (19) Punjab, (20) Rajasthan, (21) Sikkim, (22) Tamil Nadu, (23) Telangana, (24) Tripura, (25) Uttar Pradesh, (26) Uttarakhand, and (27) West Bengal. The scheme is also operational in UTs, like (1) Andaman and Nicobar, (2) Chandigarh, (3) Daman and Diu, (4) Dadar and Nagar Haveli, (7) Delhi, (8) Jammu and Kashmir (8) Ladakh, (9) Lakshadweep, and (10) Puducherry. As such, the coverage of the scheme has been found in 27 states and 10 UTs across the country.

e) Sustainable Development Goals (SDG) Served

The "Scheme for Assistance to Training (ATI)" is aligned with the objectives of the 2030 Agenda for Sustainable Development Goals. The SDG goal number 8.3 (promote development-oriented policies that support productive activities, descent jobs creation, entrepreneurship, creativity and innovation, and encourage the formalization and growth of micro, small and medium-sized enterprises, including through access to financial services) is closely aligned to the scheme's objectives. The ATI scheme ensures that young entrepreneurs are encouraged to equip to go into new ventures. Keeping this in view, the MoMSME has been assisting in the establishment of training institutions so that quality entrepreneurship and skill development are ensured. Through the skilling of first-generation entrepreneurs, descent job creation, innovations and formalization of economic growth are assured. It seeks to promote micro, small and medium-sized enterprises which in turn create employment opportunities and entrepreneurial activities to grow. The skill training as one of the overarching objectives of the scheme provides trained youth to earn their livelihood. Thus, the objectives of the ATI scheme are aligned with SDG number 8.3.

f) National Development Plan Served

To rapidly scale up skill development efforts in India, by creating an end-to-end, outcome-focused implementation framework, well-trained human resource can improve both skill and entrepreneurship development sustainability. The policy framework has been developed to accomplish the vision of Skill India by adhering to the objectives laid down in national development priorities embedded with National Policy for Skill Development and Entrepreneurship-2015. The framework outlines eleven major paradigm enablers to achieve the objectives of skilling India. These are: (1) Aspiration and Advocacy (2) Capacity (3) Quality (4) Synergy (5) Mobilization and Engagement (6) Promotion of Skilling among women (7) Global partnership, (8) Outreach (9) ICT enablement (10) Trainers and Assessors and (11) Inclusivity. It has been emphasized that focus on an outcome-based approach towards quality skilling results in increased employability and better livelihood for individuals. It also, in turn, boosts improved productivity across primary, secondary and tertiary sectors. The skill needs of the socially and geographically disadvantaged and marginalized groups like SCs, STs, OBCs, minorities, and differently-abled persons, etc. are required to be properly addressed. National Skill Development Mission consists of seven sub-missions under its purview. Each submission will act as a building block for achieving the overall objectives of the Mission. Key focus areas of the sub-mission include: (1) addressing the long-term and short-term skilling needs through revamping of existing institutional training framework and establishing new institutions; (2) undertaking sector-specific skill training initiatives; (3) ensuring convergence of existing skill development programmes; (4) leveraging existing public infrastructure for skilling; (5) focusing on the training of trainers, (6) facilitating overseas employment, and (7) promoting sustainable livelihoods. The scheme for ATI is aligned with the policy framework of skilling and entrepreneurship development. Overall, the National Development Plan regarding promoting development-oriented policies supporting productive activities, decent job creation, entrepreneurship, creativity and innovation and encourage the formalization and growth of micro, small and medium-sized enterprises are synchronized with the expected outcome of the ATI scheme. In this context, the functional core of the ATI scheme is aligned with National Development priorities.

2.2   Budgetary allocation and expenditure pattern of the scheme

The information shared by the EDI section of the MoMSME with regard to the budgetary allocation and expenditure pattern pertaining to the scheme for ATI are as under:

Table2.1: Budget allocation and expenditure pattern of the ATI Scheme

(Rs. in Crore)			
FY	**BE**	**RE**	**Actual**
2015-16	☐ 80.00	☐ 75.02	☐ 72.87
2016-17	☐ 79.99	☐ 43.34	☐ 38.24
2017-18	☐ 30.00	☐ 5.00	☐ 4.53
2018-19	☐ 30.00	☐ 23.44	☐ 22.27
2019-20	☐30.00	☐30.00	☐29.66
2020-21	☐ 30.00	☐ 24.00	☐ 21.24

The table above shows the budgetary allocation and expenditure pattern of the scheme in the last six years. It indicates that ☐ 72.87 crore in FY 2015-16, ☐ 38.24 crore in 2016-17, ☐ 4.53 crore in 2017-18, ☐ 22.27 crore in 2018-19, ☐ 29.66 crore in 2019-20 and ☐ 21.24 crore in 2020-21 have been incurred as actual expenditures. Moreover, the actual expenditure is following the descending trend over the years. The fluctuation in the actual expenditure is linked with the actual achievements made by the ni-MSME, NSIC, CTRL and other National Level Institutions. The average expenditure between budgeted expenditure and revised expenditure has been calculated as ☐13.20 crore against revised, and actual expenditure as ☐2.00 crore. The increase in the revised expenditure with a sharp contrast to budgeted expenditure shows that the actual expenditure has incurred based on the physical achievement made under the scheme. The same may also be shown through the bar diagram drawn below:
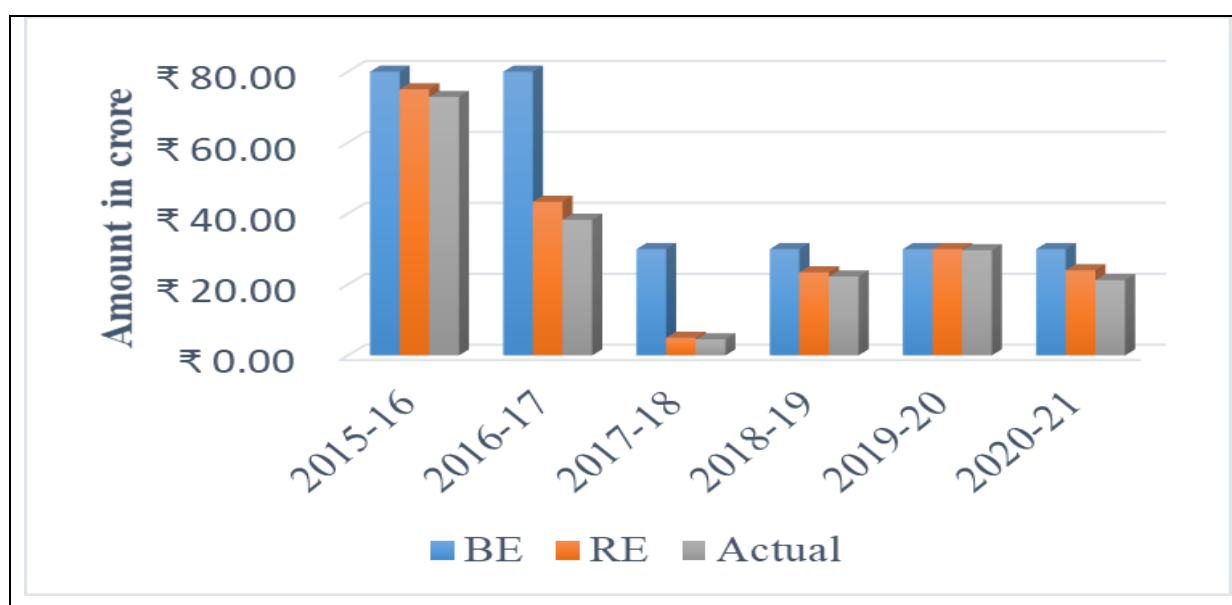
Figure2.1: Bar diagram showing budgetary allocation and expenditure pattern of the ATI scheme

The bar diagram drawn above shows the first bar stands for budgeted expenditure, second for revised expenditure and third for actual expenditure. The maximum expenditure is evident for the year 2015-16, followed by 2016-17, 2019-20, 2020-21, 2018-19 and 2017-18. It shows that the expenditure incurred has descended from 2015-16 to 2016-17. It has leapt forward from 2017-18 to 2018-19. The expenditure related information presents that the scheme has faced fluctuations with regard to its coverage and outreach. Based on the budgetary information, the exponential smoothing has also been drawn which is under:
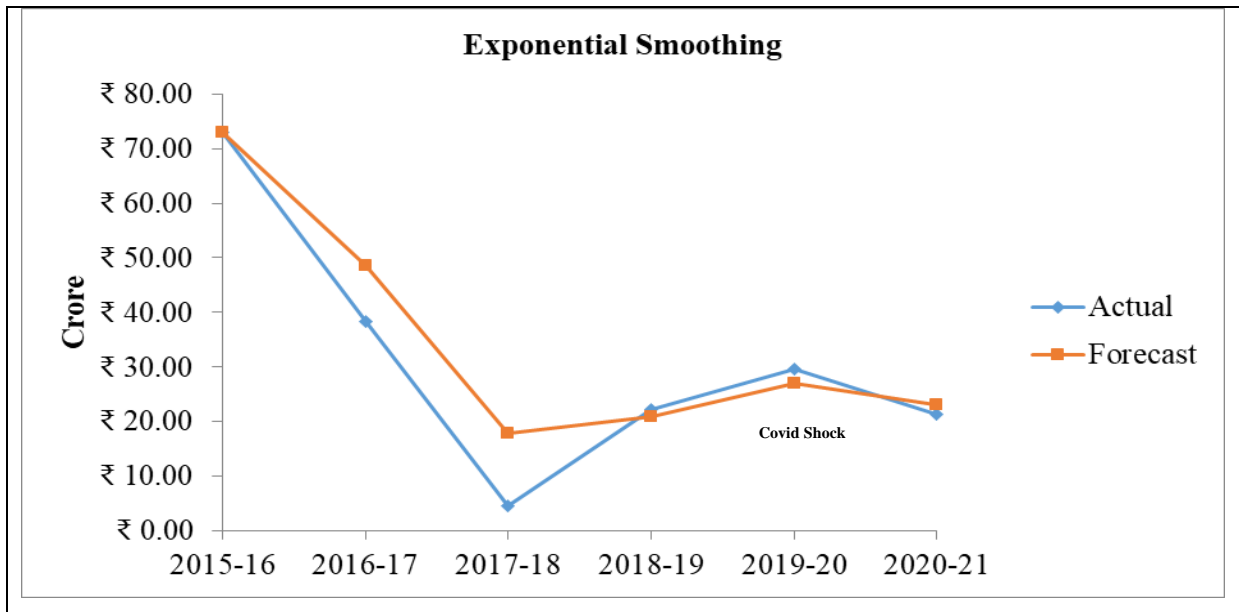
Figure2.2: Line graph showing exponential smoothing of the actual expenditure
The graph above shows the actual expenditure and forecasted expenditure for the FYs. The expenditure pattern shows that for the year 2016-19, the expenditure pattern has been conservative against the forecasted expenditure. However, little deficit has been observed during the year 2018-19 and 2019-20. The same seems to have improved in the year 2020-21. Overall, the actual expenditure pattern exists below the forecasted expenditure which shows the expenditure under the scheme has been made considering all externalities. In 2019-20, due to the Covid pandemic, little drop is vivid. However, the recovery with improved coverage is likely to be seen as per the information shared by the EDI section of MoMSME. Additionally, it was also shared that the financial demands were not received from the States to the Ministry. Overall, the implementation of the scheme at the level of fund release gets tapered.

Table2.2: Forecasting accuracy calculation through 'Mean Absolute Percentage Error' (MAPE)

Year	Actual (in Rs. Crore)	Predicted (in Rs. Crore)	Absolute Percentage Error
2015-16	☐ 72.87	☐ 72.87	0.00
2016-17	☐ 38.24	☐ 48.62	27.17
2017-18	☐ 4.53	☐ 17.75	292.05
2018-19	☐ 22.27	☐ 20.91	6.08
2019-20	☐ 29.66	☐ 27.03	8.84
2020-21	☐ 21.24	☐ 22.97	8.19
MAPE			**57.05**

One of the most common measures used to calculate the forecasting accuracy is mean absolute percentage error (MAPE) that has been used in exponential smoothing. The formula to calculate MAPE is as follows:

MAPE = (1/n) * Σ(|actual – forecast| / |actual|) * 100

The MAPE value calculated is 57.05 % which shows an acute average difference between the actual expenditure and forecasted expenditure. However, the lower the value for MAPE, the better a model can forecast values with the existing expenditure and forecasted expenditure. The difference is not considered acceptable when it gets recorded above 10%. As such, the forecasted line graph is unable to predict the expenditure pattern against the actual expenditure considering the expenditure pattern of the scheme across the years.

2.3 Summary of the Past Evaluation since Inception

1.   Year of evaluation: 2013

2.   The agency hired for Evaluation: J P S Associate

3.   Recommendations made and accepted:

The recommendations made by the third party evaluating agency are as under:

After careful analysis of the response from the EDIs and interpreting the results of the study, the following recommendations are being made for the consideration of the Government. These recommendations are based on the views expressed by the respondents including the entrepreneurs and opinions expressed by the CEOs of the EDIs and our observations.

- The Scheme is a success by any count and needs to be continued in tune with Governmental policy for employment creation and wealth generation.

- Need of the hour is to set up EDIs on existing model in balance 13 states and every UT. The entrepreneurship training must reach the vast segment of rural unemployed particularly the disadvantaged sections of the society and in order to achieve this objective as many smaller EDIS/EDCs as feasible may be established taking recourse to Public Private Partnership mode.

- The quantum of financial assistance under the Scheme may be increased upto Rs.2 crores as the cost of infrastructure, equipment and training aids has increased manifold during the last 5 years. With this sum, 5-10 smaller EDCs in rural and remote areas could be promoted by the Ministry.

- EDIs may be assisted in developing incubation facilities on the lines of TREC-STEP taking into consideration local needs of the area in which the EDIs are located.

- All EDIs may be assisted in development of required soft assets as most of the EDIs are found to be wanting in respect of trained faculty. There should also be a continuous flow of programme funding to the EDIs to enable them to achieve better results, Capacity building programmes for the existing faculty of EDIs may be taken up in partnership with the 3 national-level institutes and the Ministry may consider providing financial assistance for capacity building of faculty of EDIs.

- All the EDIs may be networked under the umbrella of national institutes to facilitate efficient and effective achievement of national objectives for improving job opportunities and self-employment opportunities.

- Several Public Sector Enterprises and Corporate Sector Enterprises are spending huge budgets for discharging the goals of Corporate Social Responsibility. EDIs may be encouraged to enter into MoUs to promote self-employment and wage-employment in the areas adopted by these enterprises with their financial assistance.

- Outsourcing of faculty shall be brought down to the lowest ebb by sanctioning required core faculty/course coordinators to every EDI in the country.

- EDIs may take necessary steps to develop a database for keeping track of the activities of persons trained. Documentation should take centre-stage at every EDI. Follow-Up is the pre-requisite for registering any quantum of success, thanks to vast mass of unemployed people available and labour costs being cheap in the country.

- EDIS also may take up training programmes for existing entrepreneurs for improving and expanding their business. Improvement and expansion of existing enterprises also

enhances wage-employment opportunities. The International Labour Organisation (ILO) has been conducting such programmes in India, China, Sri Lanka, Thailand and other countries. The EDIS may enter into MoUs/Partnerships with ILO in order to take-up such programmes as these programmes are under the copyright of ILO.

➢ Syllabi, Course content and annual Calendar of Courses need to be uniform and standardised. The Ministry may constitute a Committee of Experts to workout uniform and standardised curricula for EDPs, SDPs, ESDPs, MDPs etc.

➢ Stress in future training programmes should be on skill upgradation, value addition, product diversification, coverage of less developed areas and the disadvantaged sections of the society.

➢ Some EDIs like EDI, Ahmedabad, TREC-STEP, Tiruchirapalli, RUDSETI, Karnataka, NIRED, Rajam are achieving good results by conducting variety of need-based and demand-driven programmes. The EDIs lagging behind may replicate the efforts of the EDIs which are showing good results.

It was shared that the recommendations made were not accepted by the Ministry. The reason assigned to this was early restructuring of the scheme and periodic mismatch between report submitted and report required to be accessed for the purpose.

3. METHODOLOGY

In the positivist frame, multiple methods have been used in the evaluation study of the ATI scheme. The approach for the study took cognizance of the objectives, processes, and outcomes of the scheme. Parameters were designed to quantitatively and qualitatively assess the objectives of the scheme. The objective-based approach measured if the initially set goals of the scheme were duly met. Apart from the evaluation of the objectives of the scheme, its process, and its outcomes were also studied. Attempts were also made to assess whether the process of the scheme has been instrumental in achieving the desired objectives of skill and entrepreneurship development of the target group. Finally, the outcomes of the ATI scheme, in addition to the objectives, the impact of the scheme on the trainees receiving skill training and entrepreneurs receiving entrepreneurship development training were gauged. The evaluation strategy made use of both primary and secondary data for the assessment of the scheme's goals, processes, and outcomes. Secondary information in the form of Scheme Budget, particularly the actual budget from the EDI section, Ministry of MSME was obtained.

One of the instruments for obtaining primary data was questionnaire. They were made available to the beneficiaries of the scheme to understand the effectiveness and gauge the overall success of the training institutions covered under the scheme. The trainees were personally met and interacted on the various issues and challenges that they faced during receiving the trainings. Besides, the infrastructure available with the training institutions sampled was also verified through on-site visits. The CNC labs were found in both tool rooms and NSIC centres. The usefulness and efficacy of the tool rooms were discussed and gauged. The grant released from the Ministry for the infrastructure development in different Entrepreneurship Development Institutions (EDIs) was also examined. Overall, the impact assessment involved a holistic approach to evaluate the benefits of the scheme and collate suggestions and recommendations received in the form of responses obtained from the beneficiary candidates and other stakeholders involved in the scheme.

The selection of sample under any study is crucial in the evaluation strategy. The sampled institutions under the study were selected in consultation with the EDI section of the Ministry. The institutions receiving the maximum amount of grant under the Entrepreneurship Development Institutes (EDIs) assisted under the ATI scheme were prioritised in sampling by the NSSO region. The financial disbursements made from 2015-16 to 2020-21 helped decide the sampling plan for the EDIs. The NSIC centres and Tool Rooms were sampled considering the advice of NSIC, Okhla, Delhi and Central Tool Room Centre, Ludhiana, respectively. However, the selection of NSIC centres and Tool Room centres was executed in such a way that it could be representative of their various activities across the country.

Subsequent telephonic follow-ups were conducted with the beneficiaries at several stages of the evaluation study to mitigate concerns of attrition bias- a typical factor that tends to undermine scheme evaluation study. The several interaction rounds proved to be significantly effective in obtaining the feedback in terms of existential challenges faced by the stakeholders of the scheme under the study. In addition, telephonic conversation and video conferencing were commenced with many beneficiaries to arrive at unbiased objective findings. While interacting with the beneficiary trainees, an observation method was applied, simultaneously. As such, the study has used research tools, like observations, questionnaires, and in-depth interviews with first-generation entrepreneurs receiving trainings, trainees in apprenticeship at the Tool Rooms and Centres of NSIC, institution heads, trainer, non-beneficiaries and industry partners. The collected information was entered into excel sheet and sorted for the objective-based findings. The measure of central tendency has been used to

find the quantitative value of indicators with regard to the findings. We have also assessed the scheme to know the extent to which it has increased the employability and entrepreneurship development amongst the beneficiaries to be outcome centric in the scheme evaluation. Most significantly, to arrive at the unbiased and actual impact of the scheme on the beneficiaries, Randomised Controlled Trial (RCT) was conducted by taking up symmetrical and identical non-beneficiaries of that of the beneficiary trainees. The non-beneficiaries have been treated as a 'controlled group' whereas the beneficiaries as the 'target group'. The study was also backed with extensive meta-analysis to arrive at an objective scheme assessment.

3.1 Approach (Methodology Adopted), Division of Country into 6 Geographical Regions as classified by NSSO

With the comprehensive methodology, and pragmatic approach, the evaluation of the Assistance to Training Institutions (ATI) scheme was conducted. The methodology under the study was designed in such a way that it took the sample size representative of the population (universe). Since the scheme has been implemented across the country, based on the maximum financial disbursement and key positions occupied by the Institutions, sample selection was done. The sample selection has largely followed the NSSO classified zones. The accessible non-beneficiaries with identical socio-economic backgrounds were randomly selected for the 'controlled group'. The state selection by the institution under the study is as under:

Table 3.1: Distribution of sampled Institutions by State

NSSO Zone	State	Type of Institutions			
		EDI	NSIC	Tool Room	ni-MSME
North	Delhi		1		
	Punjab			1	
North East	Assam		1	1	
	Arunachal Pradesh	1			
East	Odisha	1		1	
	West Bengal	1			
South	Telangana	1	1	1	1
	Tamil Nadu	1	1		
West	Gujarat	2	1		
Total		**7**	**5**	**5**	**1**

The study has covered 7 EDIs, 4 NSICs, 5 tool rooms and ni-MSME. The EDI selected under the study were: (1) Entrepreneurship Development Institute, Jote, Arunachal Pradesh, (2)

Institute of Entrepreneurship Development, Mancheshwar Industrial Estate, Bhubaneswar, (3) Entrepreneurship Development Institute, Kolkata, West Bengal, (4)FAPSIA AP SSI Centre, Hyderabad, Telangana, (5) Entrepreneurship Development and Innovation Institute, Chennai, Tamil Nadu, (6) Entrepreneurship Development Institute of India, Ahmedabad, and (7) Center of Entrepreneurship Development CED Gandhi Nagar Gujarat. The NSIC centres covered under the study were: (1) NSIC Technical Service Centre, Delhi, (2) NSIC Limited (Branch Office), Bamunimaidam, Guwahati, (3) NSIC Technical Service Centre Kushaiguda Electronic Complex, Kamla Nagar, Hyderabad, Telangana (4) NSIC Technical Service Centre, Chennai, and (5) NSIC Technical Centre, Bhav Nagar Road, Rajkot. The Central Tool rooms (CTRL) covered under the study were: (1) CTR, Ludhiana, (2) TRTC, Guwahati, (3) CTTC, Bhubaneswar, and (4) CITD, Hyderabad. The institutions including ni-MSME were visited to garner the relevant information on the indicators designed for the study. Hence, the study has covered sampled institutions from EDIs, NSICs, Tool Rooms and ni-MSME.

The study has also covered five NSSO classified zones based on the disbursement made to the Institutions along with advice received from the EDI section, NSIC Okhla and Tool Room, Ludhiana. In-depth discussion with the Director-General of ni-MSME was commenced. The trainees interacted and trainers were requested to provide feedback on the effectiveness of the training programme imparted to collate with the outcomes.

The sample size covered under the study is as under:

Table 3.2: Stakeholder-wise distribution of sample-size under the study

NSSO Zone	State	Trainees /Beneficiaries	Trainer	Institution Head	Industry Partner	Non-Beneficiary	Total
East	West Bengal	40	12	1	0	35	88
	Odisha	60	12	2	0	35	109
North-East	Assam	69	18	2	3	35	127
	Arunachal Pradesh	0	0	0	0	0	0
North	Delhi	17	16	0	1	35	69
	Punjab	139	16	1	1	35	192
West	Gujarat	196	16	4	3	35	254
South	Telangana	237	21	0	4	35	297
	Tamil Nadu	0	0	1	1	0	2
Total		758	111	11	13	245	1138

The table above presents the sample size covered under the study. A total of 758 beneficiaries (trainees/entrepreneurs), 111 trainers, 11 institution heads, and 245 non-beneficiaries have

been covered under the study. As such, the study has covered a total of 1138 samples from different layers of stakeholders. However, there are institutions like EDI, Chennai and EDII, Ahmedabad who did not cooperate sharing information from a sufficient number of beneficiary trainees/entrepreneurs. The basic information pertaining to cost-benefit analysis was also not shared by EDII, Ahemdabad. Moreover, the maximum number of responses have been received from Telangana (297), followed by Gujarat (254), Punjab (192), Assam (127), Odisha (109), West Bengal (88), Delhi (69) and Tamil Nadu (2).

Table3.3: Distribution of beneficiary trainees' sampled by the institution

NSSO Zone	State	EDI	Ni-MSME	NSIC	Tool Room	Total
East	West Bengal	40	0	0	0	40
	Odisha	0	0	0	60	60
North-East	Assam	0	0	18	51	69
	Arunachal Pradesh	0	0	0	0	0
North	Delhi	0	0	17	0	17
	Punjab	0	0	0	139	139
West	Gujarat	51	0	60	85	196
South	Telangana	6	176	2	53	237
	Tamil Nadu	0	0	0	0	0
Total		99	176	97	388	758

The table above presents the number of respondents selected in the study. From the EDI, a total of 99 responses of beneficiary entrepreneurs were received. From ni-MSME, a total of 176 responses were received from the beneficiary trainees. 97 responses from NISICs and 388 responses from tool rooms were garnered. As such, 758 beneficiaries' responses have been documented under the study. Besides, 111 trainers, 11 institution heads, 13 industry partners (employers) and 245 non-beneficiaries have provided their feedback on different quantitative and qualitative indicators of the evaluation study.

3.2 Sample Size and sample selection process, tools used

The study has followed a random sample selection procedure. Based on the number of beneficiaries' available at the different institutions, the sample was randomly selected. 197 respondents from the east zone, 127 samples from the northeast zone, 261 responses from the north zone, 254 views from the western zone and 299 feedback from the southern zone were

received. The EDI institute at Jote was found to be closed, and as a result, the required number of responses from Arunachal Pradesh was not received. However, it was informed from a local informal source that the institute was yet to be started. Thus, a total of 1138 samples were studied from different layers.

Table3.4: Research tools used for data collection from various stakeholders

Beneficiaries, Non-Beneficiaries, Institution Heads, & Industry Partners	• Questionnaire • In-depth interview • Observation
MoMSME	• In-depth discussion

a. Questionnaire

The questionnaire was divided into 4 sections, namely basic details, thematic details, benefit level of pre and after coverage under the training programmes. The first section dealt with the personal details of the beneficiary. The thematic section incorporated questions focusing on skill learning and entrepreneurship development ecosystem.

The post scheme section has similar questions as that of the pre-scheme section, this part deals to assure as to whether the benefits received after being enrolled has bought any change in the socio-economic conditions of the beneficiary trainees. However, the questions related to the training eco-system were scrapped in the cases of receiving responses from non-beneficiaries. Moreover, the responses received from the non-beneficiaries have enabled the study findings to be unbiased and fundamentally penetrating.

b. In-depth Interview

The study team individually interacted with institutional heads, trainers, industry partners, and non-beneficiaries. The in-depth interviews helped elicit responses relating to the overall achievement of the scheme. The instrument provided qualitative information to the study team. The in-depth interview helped the study team to identify implicit bottlenecks that have been used in the recommendation part of the study.

c. Observation

Observation as a tool was used in understanding the issues and challenges of the scheme. It involved three processes, i.e. (i) sensation (ii) attention, and (iii)perception. The sensation was gained through the idea of pre-conceived through secondary information. The attention was paid to the way stakeholders responded. The perception comprises the interpretation of benefits vis-à-vis supply of the subsidized mobility. Thus, observation served the purpose of

(i) studying collective behaviour and complex situations; (ii) following up of individual units composing the situations; (iii) understanding the whole and the parts in their interrelation; and (iv) getting the out of the way details of the situation.

4. OBJECTIVES OF THE STUDY

To evaluate the scheme of Assistance to Training Institutions (ATI), the objectives set-up are as under:

1. To conduct a cost-benefit analysis of the scheme in respect of assistance provided to the organization of the Ministry and State level EDIs,

2. To study the efficacy of the scheme in meeting the requirement of the industries and the aspiration of unemployed youth/persons who have been trained under the scheme,

3. To suggest modification/change in the content/component of the scheme or the procedure being followed in implementing the scheme,

4. To assess the felt need/resource gap of the different parts of the country (especially backward districts) and their failure in meeting the requirement of unemployed youth/persons in getting the wage employment or self-employment,

5. To suggest the overall impact of the scheme in respect of support given for strengthening the infrastructure, training outcome, employment generation, post-training support etc. for effective implementation,

6. To suggest ways and means to ensure that training programmes awarded to EDI has been conducted religiously and there is no chance of data findings.

4.1 Performance of the scheme based on Output/Outcome indicators

1. Cost-benefit analysis of the scheme in respect of assistance provided to the organizations of the Ministry and State level EDIs,

2. Requirements of industries and the aspiration of trained unemployed youth/persons,

3. Requirement of modifications in the content/component and implementation of the scheme,

4. Resource gap in wage employment and self-employment,

5. Status of infrastructure, training outcome, employment generation, post-training support, and

6. Effectiveness of Training Programme conducted at EDIs.

Based on the above output/outcome indicators of the scheme, the findings are as under:

1. Cost-benefit analysis of the scheme in respect of assistance provided to the organizations of the Ministry and State level EDIs

Cost-benefit analysis is a procedure for evaluating the desirability of a scheme by weighing benefits against costs. Results may be expressed in different ways, including net benefit, benefit-cost ratio and per capita benefit-cost value. Cost-benefit analysis is the examination of a decision in terms of its consequences or costs and benefits. Hence, cost-benefit analysis is the process of quantifying the costs and benefits of an intervention. Cost-benefit analysis is a tool for taking social and economic decisions righteously. It involves a process of quantifying costs and benefits so that appropriate funds could be allocated. It has a strong bearing on the management of the intervention as well. It leads to have a scale of comparison for unbiased evaluation.

The cost-benefit analysis for the scheme has been done taking into account the total costs incurred in one year including the expenditure made out of fund released, institutional investments, and social costs. As such, the total cost is inclusive of financial, social and induced costs. The total benefits have been calculated by multiplying the number of trainees who received the job with their respective emoluments. The data collected on the component was based on monthly income. To count it for a year, the total benefits (monthly emoluments have been multiplied by 12). Hence, the total benefits and the total costs by institute type have been placed in the table below:

Table 4.1: Cost-benefit analysis of institutions sampled for one year

Items	EDI	NSIC	Tool Room
Total Benefit from Self-employment for one year	□30619200	□31464000	□2452800
Total Benefit from Wage employment for one year	□56880000	□91680000	□67128000
Total benefit	□87499200	□123144000	□69580800
Total Cost	□14148583	□26011107.8	□41986968
Net benefit	□73350617	□97132892.2	□27593832
Total number of self and wage employed candidates	643	1562	725
Per Capita Benefit	□114075.60	□62184.95	□38060.46

The table above presents the cost-benefit analysis based on information received from 10 sampled institutions. As a result of EDIs operations, net-benefit of Rs. 73350617 against the total cost of Rs. 14148583 has been calculated. The net benefit made by NSICs has been calculated as Rs. 97132892.2 against the total cost of Rs. 26011107.8. A net benefit of Rs.

Rs. 27593832 have been made by the Tool Rooms against the total cost of Rs. 41986968. As such, the benefits brought out by the institutions are greater than zero which stand as a positive sign for the further investment in the intervention.

The per capita benefit has also been calculated by dividing the net benefit from the total number of candidates who actually got benefitted through getting self and wage employments. The per capita benefit was accrued more in EDI (□114075.60), followed by NSIC (□62184.95), and Tool Rooms (□ 38060.46).

The ratio of cost-benefit can be calculated by considering the total benefit as the numerator and the total cost as the denominator. The ratio of the total benefits and the total costs (280224000/82146659=3.41) stand out to be 3.41 by clubbing all the institutions. The ratio for EDIs has been calculated the highest (6.18), followed by NSIC (4.73) and Tool Rooms (1.66). Thus, the maximum ratio is reflected in EDIs operations, followed by NSICs and Tool Rooms. The ratios calculated are greater than one which shows the scheme is viable in the future. Carrying this to a logical conclusion, the training programmes imparted at EDIs are the best 'Project' (option), just in case, there is a crunch of resources.

The reasons assigned to this conclusion is EDIs trainees start their venture and optimally capitalise their learning skills in productivity, as compared to NSICs and Tool Rooms. The candidates completing the training from NSICs and Tool Rooms mostly get wage employment with overall lower emoluments. In the production process, the entrepreneurs get maximum profit. Also, the training at the EDI centres was found to be completely market-oriented. It was found during the study that the candidates after completing their courses from EDIs enjoyed the liberty to come to EDIs, in case of any doubt.

Most significantly, the owners of micro-units understood the requirement of the market demand and accordingly they brought changes into their business. The surplus that the business owner generally takes, became an added economic surplus to them. As such, self-employment has generated more profit, as compared to wage employment.

Interestingly, the entrepreneurs enjoy more flexibility, make more money, spend more time with their family, and create long-term security. Also, they create wealth from their entrepreneurial ventures. They create jobs and the conditions for a flourishing society. Path-breaking offerings by entrepreneurs, in the form of new goods and services, resulting in new employment, which can produce a cascading effect or virtuous circle in the local economy. The stimulation of related businesses or sectors that support the new venture add to further economic development. The cascading effect of increased employment and higher earnings contribute to better income for themselves. Through their unique offerings of new goods and

services, entrepreneurs break away from tradition and indirectly support freedom by reducing dependence on obsolete systems and technologies. Overall, this results in an improved quality of life, greater morale and economic freedom. The entrepreneurs trained many of the EDIs were found doing work related to social welfare.

Table 4.2: Cost-benefit analysis of sampled EDIs

Particulars	Name of the EDIs		
	Enterprise Development Institute, West Bengal	Institute of Entrepreneurship Development, Odisha	The Centre for Entrepreneurship Development, Gandhi Nagar
Total Benefit for one year	67161600	5184000	15153600
Total Cost	11150583	972000	2026000
Net benefit	56011017	4212000	13127600
Benefit cost ratio	6.02	5.33	7.48
No. of self and wage employed	435	54	154
Per Capita benefit	128760.96	78000.00	85244.16

The table above presents the cost-benefit analysis of the sampled EDIs. It has found that the maximum amount of net benefit has been accrued in the Enterprise Development Institute, West Bengal (56011017), followed by the Centre for Entrepreneurship Development, Gandhi Nagar (13127600), and the Institute of Entrepreneurship Development, Odisha (4212000). However, the benefit-cost ratio has been found more in the Centre for Entrepreneurship Development, Gandhi Nagar (7.48), followed by Enterprise Development Institute, West Bengal (6.02) and the Institute of Entrepreneurship Development, Odisha (5.33). The per capita benefit was found more in Enterprise Development Institute, West Bengal (128760.96), followed by the Centre for Entrepreneurship Development, Gandhi Nagar (85244.16) and the Institute of Entrepreneurship Development, Odisha (78000.00). The Centre for Entrepreneurship Development, Gandhi Nagar was found running with its extension centre in Gandhi Nagar and Ahmedabad. The institute appeared very particular to the number of candidates receiving training on entrepreneurship and placing them either through their venture or wage employment. Almost a similar trend was found with the Enterprise Development Institute, West Bengal. The institutions expressed the scarce resources available to them. However, they were found taking all possible steps to engage their candidates with employable ventures. The Institute of Entrepreneurship Development,

Odisha was found coping with unfinished infrastructure. They routed their files many times through the state to get grants for the infrastructure which is still pending. Overall, the performance ratio of the EDIs is between 5.33 and 7.48.

Table 4.3: Cost-benefit analysis of sampled NSICs

Particulars	NSICs		
	National Small Industries Corporation Ltd., Guwahati	**NSIC Technical Services Centre, Rajkot, Gujarat**	**NSIC Technical Service Centre, Tamil Nadu**
Total benefit for one year	☐ 1,82,40,000.00	☐ 7,54,20,000.00	☐ 2,94,84,000.00
Total Cost	☐ 1,68,79,915.20	☐ 33,34,795.20	☐ 57,96,397.40
Net benefit	☐ 13,60,084.80	☐ 7,20,85,204.80	☐ 2,36,87,602.60
Benefit Cost Ratio	1.08	22.62	5.09
No. of self and wage employed	304	993	265
Per Capita Benefit	☐ 4,473.96	☐ 72,593.36	☐ 89,387.18

The table above presents the cost-benefit analysis of the sampled NSICs. It has found that the maximum amount of net benefit has been accrued in the NSIC Technical Service Centre, Rajkot, (☐7,20,85,204.80), followed by the NSIC Technical Service Centre, Tamil Nadu (☐2,36,87,602.60), and the National Small Industries Corporation Ltd, Guwahati (☐13,60,084.80). Also, the benefit-cost ratio has been found more in the NSIC Technical Service Centre, Rajkot (22.62), followed by the NSIC Technical Service Centre, Tamil Nadu (5.09), and the National Small Industries Corporation Ltd, Guwahati (1.08). However, the per capita benefit was found more in the NSIC Technical Service Centre, Tamil Nadu (☐89,387.18), followed by the NSIC Technical Service Centre, Rajkot (☐72,593.36). The NSIC Technical Centre, Rajkot was found to be loaded with the required number of trainees. The Centre head informed that candidates after the training were also provided with handholding support to get a job. Such a conducive ecosystem was not found with NSIC Technical Centre, Tamil Nadu and National Small Industries Corporation Ltd., Guwahati, through the NSICs at Rajkot and Tamil Nadu were handled by the same person as in-charge. It was found that there existed a skill gap between what employees were taught and what they need to do their job. Apprenticeships are flexible to fit in with the needs of the career. In an apprenticeship, if one wants to leave, it is easier because there is no risk involved in it. The nature of jobs and business in Guwahati was found to be in flux. Though the course module is NSQF compliant, the requirements of job roles are changing at a faster pace. Also, the same was not found very effective in the case of NSIC, Tamil Nadu. Moreover, the Covid Pandemic was also found one of the issues for candidates with no jobs.

Table 4.4: Cost-benefit analysis of sampled Tool Rooms

Particulars	Tool Rooms			
	Central Tool Room and Training Centre, Bhubaneswar	Central Tool Room, Ludhiana	Indo German Tool Room, Ahmedabad	Tool Room & Training Centre, Guwahati
Total benefit for one year	☐ 4320000	☐ 4984800	☐ 12600000	☐ 47676000
Total Cost	☐ 3097996	☐ 16448121.2	☐ 4430361	☐ 18010490
Net benefit	☐ 1222004	☐ -11463321.2	☐ 8169639	☐ 29665510
Benefit Cost Ratio	1.39	0.30	2.84	2.65
No. of self and wage employed	30	42	150	503
Per Capita Benefit	☐ 40733.47	☐ -272936.22	☐ 54464.26	☐ 58977.16

The table above presents the cost-benefit analysis of the sampled Tool Room. It has found that the maximum amount of net benefit has been accrued in the Tool Room & Training Centre, Guwahati (☐ 29665510), followed by the Indo German Tool Room, Ahmedabad (☐8169639), and the Central Room and Training Centre (☐1222004). A negative benefit of ☐11463321.2 has been detected in Central Tool Room, Ludhiana. The benefit-cost ratio has been found more in the Indo German Tool Room, Ahmedabad (2.84), followed by Tool Room & Training Centre, Guwahati (2.65), the Central Room and Training Centre, Bhubaneswar (1.39), and the Central Room, Ludhiana (0.30). Also, the per capita benefit was found more in the Tool Room & Training Centre, Guwahati (☐58977.16), followed by the Indo German Tool Room, Ahmedabad (☐54464.26), and the Central Room and Training Centre, Bhubaneswar (☐40733.47). A negative per capita benefit has been found out from the Central Tool Room, Ludhiana (☐ 272936.22).

During the study, it was found that the Central Tool Room, Ludhiana was not able to attract a sufficient number of trainees. Also, the Institute did not receive the schedule on time. The apprenticeship programmes were not found very effective in providing job opportunities to the trainees in sharp contrast with their social costs. The mismatch between market demand for the skills and skills imparted was identified. The Indo-German, Ahmedabad was found relatively better in providing handholding support to trainees to get a job. Moreover, lack of interest amongst the trainees, limited budget and training resources, inadequate planning and

neglecting the post-training consequences are some of the reasons for the underperformance of tool rooms.

To conduct the approximate measure of the investment's profitability in the three types of Institutions, the Return on Investment (RoI) has also been calculated. ROI is calculated through dividing net benefit by the total cost and, finally, multiplying it by 100 to get it in percentage. It is a standardized, universal measure of profitability. After calculation of the RoI for each institute for a year, the ranking has also been worked out which is as under:

Table4.5: Return on Investment (RoI) based ranking of the institutions for one year

Institution Type	Total cost	Net benefit	RoI	Ranking
EDIs	☐ 1,41,48,583	☐ 7,33,50,617	518.4%	I
NSICs	☐ 2,60,11,107.80	☐ 9,71,32,892.20	373.4%	II
Central Tool Rooms	☐ 4,19,86,968	☐ 2,75,93,832	65.7%	III

The table above indicates the EDIs have achieved an RoI of 518.4%. The NSICs have scored an RoI of 373.4%. However, the Central Tool Rooms have brought an RoI of 65.7%. Based on the RoI calculations, the EDIs have been ranked as first, the NSICs as second and Central Tool Rooms as III. As such, the investment in EDIs is a better option, as compared to the Central Tool Rooms. However, the NSICs may also be considered. Hence, we find variations in RoI based scores in the sampled institutions under the study.

During the study, it was noticed that publicity about the programmes, promotional measures to reach the target group, identification and selection of trainees, and approach to selection procedure with required flexibility were embedded with EDIs operations, as compared to the Central Rooms sampled. It is interesting to note that entrepreneurship besides providing self-employment to the entrepreneur is also linked with the creation and expansion of opportunities for employment and profession. In the operational production pyramid, entrepreneurship stands at the apex amongst the capital, land and labour. Though there is pressure to continually develop new products, explore new markets, and update technology, the intensity of innovation and risk-taking behaviour bring better results and profits to the entrepreneurs.

The candidates trained from Central Tools Rooms and NSICs have to largely depend on industries to get a job. A better quality of the human resource is largely needed in apprenticeship related jobs. The training imparted by Tool Rooms were not found very effective so far as the quality was concerned. The required duration for the practical classes was also found to be inadequate. The trainers were not found updated with the latest information about the trades. The learners selected for the apprenticeship were not having the

required interest levels. As such, the quantum of qualitative inputs required for the training programmes was somewhat compromised.
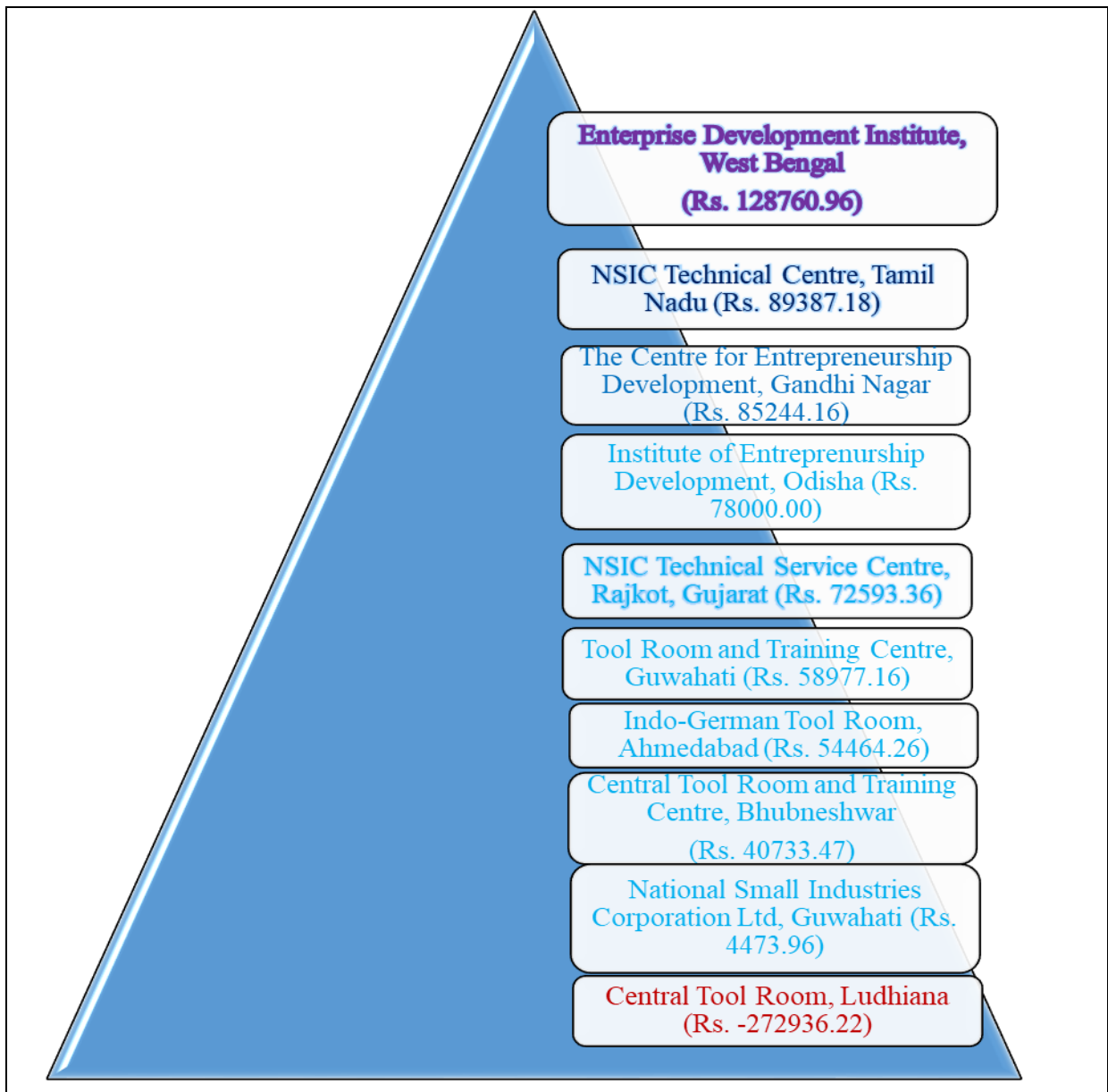
Figure 4.1: Performance of Institutions based on per capita benefit
The figure above presents the performance of sampled institution based on per capita benefit. The per capita benefit indicator has been used to develop the hierarchy of the institutions sampled. The figure reveals that the Entrepreneurship Development Institute has scored the highest per capita benefit (Rs. 128760.96), followed by the NSIC Technical Service Centre, Tamil Nadu (Rs. 89387.18), the Centre for Entrepreneurship Development, Gandhi Nagar

(Rs. 85244.16), the Institute of Entrepreneurship Development, Odisha (Rs. 78000.00) and so on. The Central Tool Room, Ludhiana is performing negatively on the indicator.

The diagram below shows the target Vs achievement of the ATI scheme during 2015-16 to 2019-20.
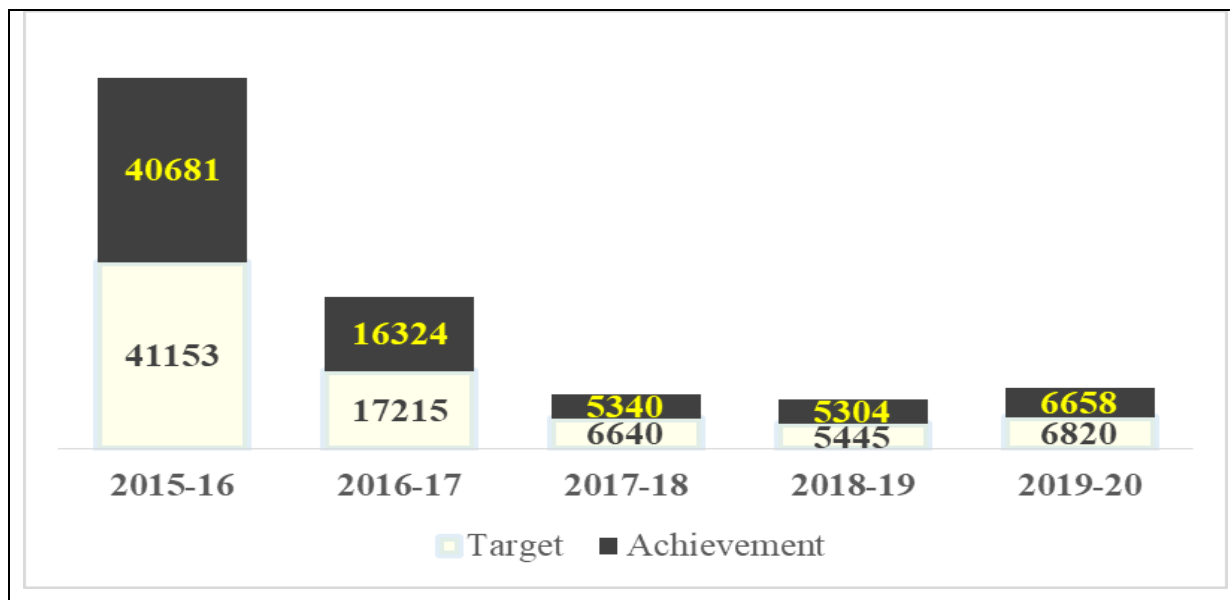
Figure 4.2: Bar diagram showing target and achievement under the ATI Scheme

The diagram drawn above shows the 98.9% achievement in 2015-16, 94.8% in 2016-17, 80.4% in 2017-18, 97.4% in 2018-19 and 97.6% in 2019-20 as against the target set. As such, the scheme has an average achievement of 96.2% in the last five years. In other words, the scheme has shown considerably astounding performance on the indicator of target set and achieved.

Table 4.6: Regression Model to assess the impact of actual expenditure on Achievement

Summary of Regression Output						
Regression Statistics						
Multiple R	0.93					
R Square	0.88					
Adjusted R Square	0.84					
Standard Error	5996.06					
Observations	5					
ANOVA						
	df	*SS*	*MS*	*F*	*Significance F*	
Regression	1	810229352.49	810229352.4	22.53	0.017	
Residual	3	107858314.71	35952771.57			
Total	4	918087667.20				
Achievement (dependent)	*Coefficients*	*Standard Error*	*t Stat*	*P-value*	*Lower 95%*	*Upper 95%*
Intercept	-4020.26	4796.92	-0.84	0.46	-19286.23	11245.69

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Actual Expenditure	563.39	118.67	4.75	0.02	185.70	941.09

In the table above, the regression model has Multiple R/correlation coefficient value as 0.93 that measures the strength of the linear relationship between all the variables. The score of Multiple R under regression shows an almost perfect linear relationship between dependent and independent variables. The R square is also known as the coefficient of determination which is the proportion of the variance in the response variables. The R-squared is 0.88 which indicates that 88 % of the variance in the actual expenditure can be explained. The standard error of the regression is the average distance that the observed values fall from the regression line. In this case, the observed values fall an average of 5996.06 units from the regression line. The number of observations in the dataset is 5. The ANOVA table explains the regression model's degrees of freedom which is equal to the number of regression coefficients − 1. In this case, we have an intercept term and one predictor variables, so we have two regression coefficients total, which means the regression degrees of freedom is 2 − 1 = 1. The **total degree of freedom is** equal to the number of observations − 1. In this case, we have 5 observations, so **the total degree of freedom is 5 − 1 = 4**. The Residual degrees of freedom is equal to the total df − regression df. In this case, the residual degree of freedom is 4 − 1 = 3.

The regression Mean Squares is calculated regression SS / regression df. In this case, the regression MS = 810229352.49/ 1 = 810229352.49. The residual mean squares is calculated residual SS / residual df. In this case, residual MS = 107858314.71/ 3 = 35952771.57.

The f statistic is calculated as regression MS / residual MS. This statistic indicates whether the regression model provides a better fit to the data than a model that contains no independent variables. In essence, it tests if the regression model as a whole is useful. Generally, if none of the predictor variables in the model are statistically significant, the overall F statistic is also not statistically significant.

In this case, the F statistic is 810229352.4/35952771.57 = 22.53. The last value in the table is the p-value associated with the F statistic. To see if the overall regression model is significant, we have calculated the p-value to a significance level of 0.05.

If the p-value is less than the significance level, there is sufficient evidence to conclude that the regression model fits the data better than the model with no predictor variables. This finding is good because it means that the predictor variable in the model is actual number of beneficiaries that indicate a fit regression model.

In this case, the significance F is 0.017, which is less than the common significance level of 0.05. This indicates that the regression model as a whole is statistically significant, i.e. the model fits the data better than the model with no predictor variables.

Now, we have interpreted the coefficient estimates, the standard error of the estimates, the t-stat, p-values, and confidence intervals for each term in the regression model.

The coefficients give us the numbers necessary to write the estimated regression equation:

Yhat = b0 + b1x1 .

In this case, the estimated regression equation is:

Yhat= -4020.26+ {563.39* (Actual Expenditure)}

Each coefficient is interpreted as the average increase in the response variable for each one-unit increase in a given predictor variable, assuming that all other predictor variables are held constant. **In this case, 1% change in the actual expenditure is expected to bring about 563.39 % of the change in the achievement**. The intercept is interpreted as the expected average achievement of the beneficiaries with zero increase in actual expenditure. In this case, the achievement is expected to be -4020.26 irrespective of any change in the actual expenditure. **Hence, the scheme needs to be expanded with improved coverage along with increased financial allocation.**

The standard error is a measure of the uncertainty around the estimate of the coefficient for each variable. The t-stat is simply the coefficient divided by the standard error. For example, the t-stat for actual expenditure is 563.39/ 118.67 = 4.75.

The next column shows the p-value associated with the t-stat. This number tells us if a given response variable is significant in the model. In this case, we see that the p-value for actual expenditure are 0.02 respectively. This indicates that actual expenditure are significant predictors of achievement.

The last two columns in the table provide the lower and upper bounds for a 95% confidence interval on the coefficient estimates.

For example, the coefficient estimates for actual expenditure is 563.39 but there is some uncertainty around this estimate. We can never know for sure if this is the exact coefficient. Thus, a 95% confidence interval gives us a range of likely values for the true coefficient.

In this case, the 95% confidence interval for actual expenditure is (185.70, 941.09). Notice that this confidence interval does not contain the number "0", which means we're quite confident that the true value for the coefficient of regular supervision is non-zero, i.e. a positive number.

2. Requirements of industries and the aspiration of trained unemployed youth/persons

Skills and knowledge are the driving forces of economic growth and social development for any country. Entrepreneurship acts as a catalytic agent in the process of industrialization and economic growth. That entrepreneurship should go along with innovation to create an image in the business world and incentivising improved profits. The development of entrepreneurial talent in the population ignite employment opportunities and economic growth simultaneously. The make-in India programme vouches for skill development through penetrating the remotely located pockets in our country. Employability through both skill training and entrepreneurship development requires motivation, planned training and follow-up mechanism. The aspirational areas clubbed with skill training can lead to a breakthrough in the learning outcomes. The aspirational skills/entrepreneurship interest was considered as a crucial component that the study has covered. In the learning ecosystem, the interest, activity and assessment components are considered to be quintessential. The responses received on the component has been summarised as under:

Table 4.7: Distribution of responses for training received in aspirational and non-aspirational skills

NSSO Zone	States	Aspirational Skill	Non-aspirational Skill	Total
East	West Bengal	33 (82.5)	7 (17.5)	40 (100)
	Odisha	56 (93.3)	4 (6.7)	60 (100)
North-East	Assam	60 (87)	9 (13)	69 (100)
North	Delhi	14 (82.4)	3 (17.6)	17 (100)
	Punjab	107 (77)	32 (23)	139 (100)
West	Gujarat	184 (93.9)	12 (6.1)	196 (100)
South	Telangana	220 (92.8)	17 (7.2)	237 (100)
Grand Total		**674 (88.9)**	**84 (11.1)**	**758 (100)**

The table above presents the training received in aspirational and non-aspirational skills shared by beneficiaries surveyed. Most of the beneficiaries receiving training in aspirational skills have been found in Gujarat (93.9%), followed by Odisha (93.3%), Telangana (92.8%), Assam (87%), West Bengal (82.5%), Delhi (82.4%) and Punjab (77%). Overall, most of the beneficiary trainees were found receiving skill training in their aspirational skill areas (88.9%). Merely 11.1% of trainees have received training in the area other than their aspiration and interest.
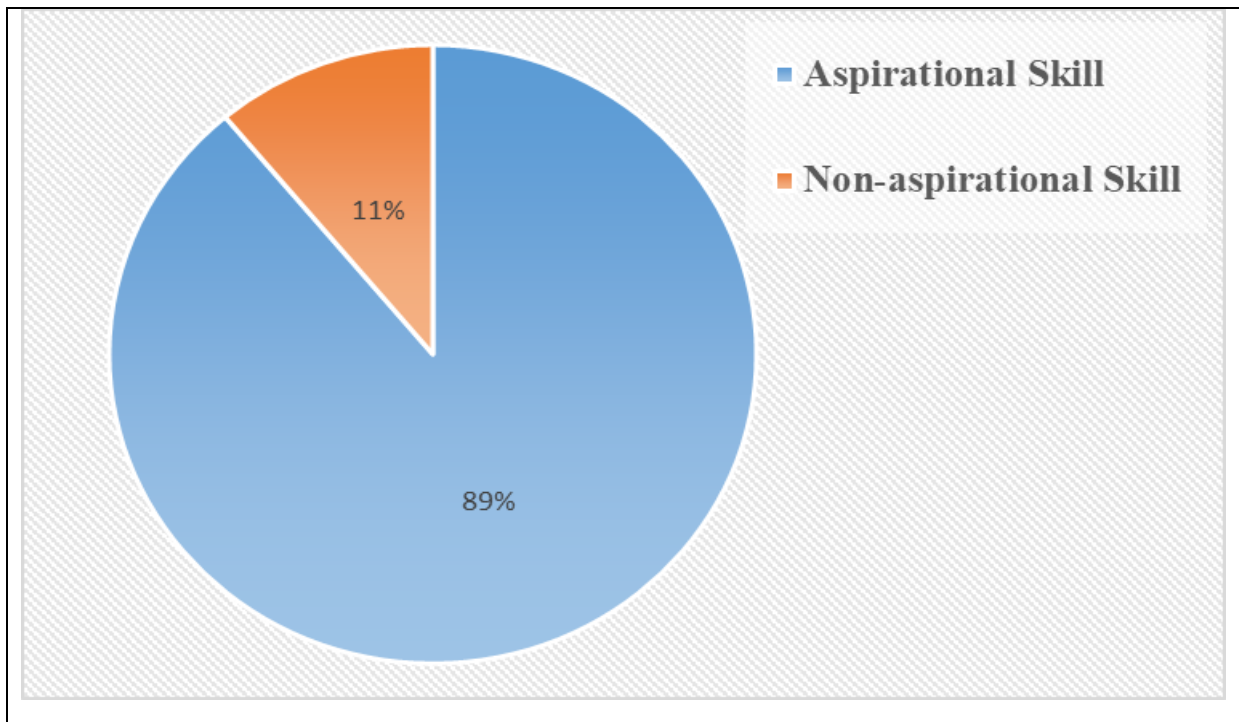
Figure4.3: Pie chart showing training received in aspirational and non-aspirational skills

The pie chart drawn above represents the beneficiary receiving training in their aspirational and non-aspirational skills. It indicates that the maximum area has been circumscribed by the aspirational skills. A whopping 89% of the beneficiary trainees have received training in their aspirational skills. It is derived that training under the ATI scheme considers the interest area of potential trainees.

The employability of trainees is conditioned and contingent upon their proximity with the employer/industry partners/resource persons. The feedback on the indicator was received from the beneficiaries surveyed. The findings are summarised as under:

Table4.8: Distribution of responses of trainees with regard to industry partners

NSSO Zone	States	Association with Industry Partners	No association with Industry Partner	Total
East	West Bengal	29 (72.5)	11 (27.5)	40 (100)
	Odisha	41 (68.3)	19 (31.7)	60 (100)
North-East	Assam	54 (78.3)	15 (21.7)	69 (100)
North	Delhi	9 (52.9)	8 (47.1)	17 (100)
	Punjab	70 (50.4)	69 (49.6)	139 (100)
West	Gujarat	145 (74)	51 (26)	196 (100)
South	Telangana	180 (75.9)	57 (24.1)	237 (100)
Grand Total		**528 (69.7)**	**230 (30.3)**	**758 (100)**

The table above presents that most of the trainees were associated with industry partners from Assam (78.3%) followed by Telangana (75.9%), Gujarat (74%), West Bengal (72.5%), Odisha (68.3%), Delhi (52.9%) and Punjab (50.4%). However, one-third of the beneficiaries surveyed were not associated with the industry partners. The maximum percentage of trainees not associated with industry partners were found in Punjab (49.6%), followed by Delhi (47.1%), Odisha 931.7%), West Bengal (27.5%), Gujarat (26%), Telangana (24.1%) and Assam (21.7%). Overall, the connectedness with the industry partners for getting a job or setting up of ventures for self-employment is more than two-third based on the sample collected.
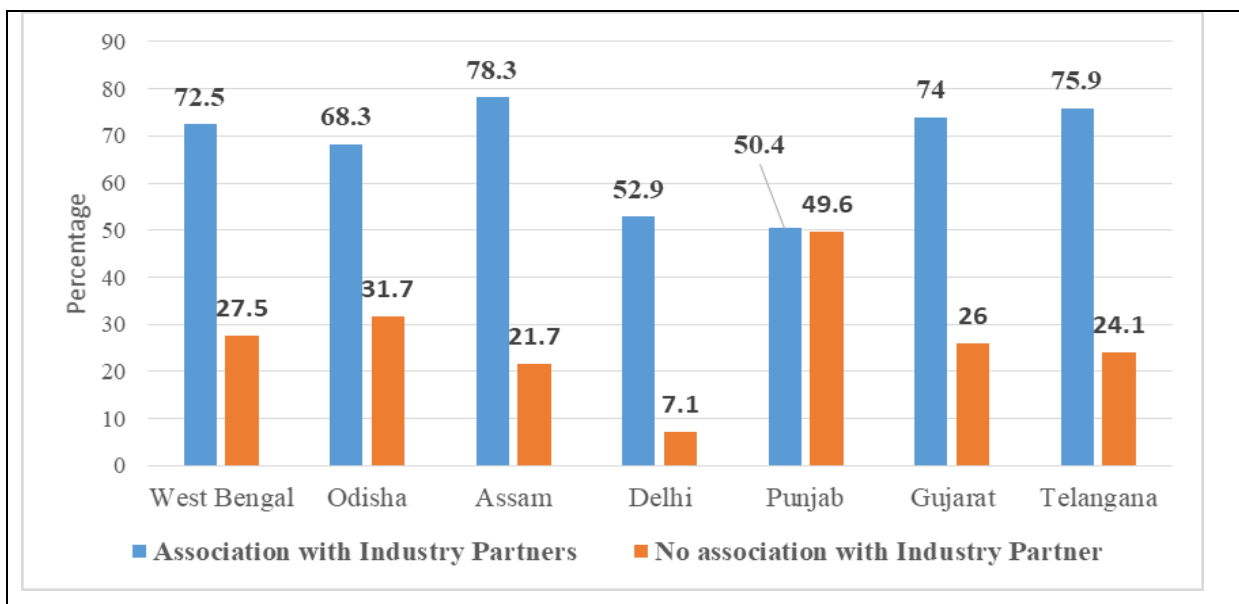
Figure 4.4: Bar diagram showing association of trainees with the industry partners
The figure above shows the association of trainees with industry partners across the target area. The first bar stands for association with the industry partners/employers/resource persons while the second bar for non-association. The bar diagram shows that the training programmes conducted in Assam have an improved association with the industry partners, as compared to other institutions in sampled states.

It is important that skill training and entrepreneurship development should match the market demand. If the skills or venture setting is aligned with the market demand, it grows without providing exorbitant acceleration. The engagement through the skills becomes easier and brings optimum returns on the input invested. The feedback collected from the respondents are summarized as under:

Table4.9: Distribution of responses on the marketability of training received

NSSO Zone	States	Market Demand Oriented Learning	Learning not integrated with Market Demand	Grand Total
East	West Bengal	38 (95)	2 (5)	40 (100)
	Odisha	56 (93.3)	4 (6.7)	60 (100)
North-East	Assam	64 (92.8)	5 (7.2)	69 (100)
North	Delhi	15 (88.2)	2 (11.8)	17 (100)
	Punjab	121 (87.1)	18 (12.9)	139 (100)
West	Gujarat	180 (91.8)	16 (8.2)	196 (100)
South	Telangana	211 (89)	26 (11)	237 (100)
	Grand Total	685 (90.4)	73 (9.6)	758 (100)

The marketability of skills and entrepreneurship development training act as catalytic agents in employability. It has been found that the maximum market-oriented learnings have been accomplished in West Bengal (95%), followed by Odisha (93.3%), Assam (92.8%), Gujarat (91.8%), Telangana (89%), and Delhi (88.2%). The training not aligned with market demand has scored higher in Punjab (12.9%), followed by Delhi (11.8%), Telangana (11%), Assam (7.2%), Odisha (6.7%) and West Bengal (5%). Overall, 90.4% of the beneficiaries have found that the training conducted was aligned with market demand whereas merely 9.6% declined with this view.

The majority of the beneficiaries have shared that the training was conducted as per the market demand. The same has been portrayed in the diagram below:
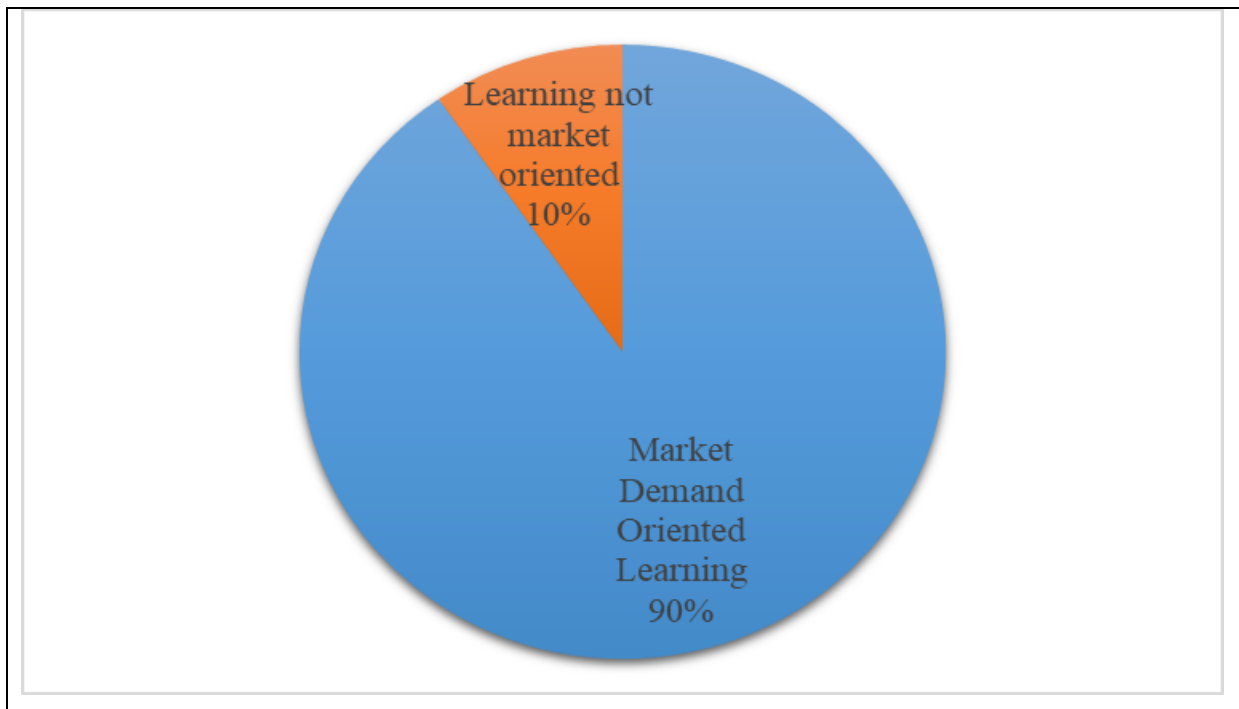
Figure4.5: Pie chart showing market-oriented learnings of trainees sampled

The diagram above indicates that the majority of the respondents across the states have expressed that the learning outcome/training was as per the market demand. Only around 10% of the responses have not endorsed this view. This shows the effectiveness of institutions under ATI that their programmes are largely aligned with the market demand. As a result, the entrepreneurs and wagers are earning a better livelihood. However, placement and self-employment remain low.

3. Requirement of modifications in the content/component and implementation of the scheme

The success of training depends on the trainers' ability to comprehend, plan, organise, implement, evaluate and monitor the programme. Besides, the entry behaviour of trainees is equally important. The training eco-system plays an instrumental role in the level of retentions and understanding of the contents imparted and delivered. Moreover, the usefulness of the training contents and corresponding materials play an exemplary role in the entire ecosystem of the trainings. The scheme is implemented to accelerate the training ecosystem by providing a capital grant to meet revenue deficits and infrastructure development. The suggestions received from the beneficiary learners are as under:

Table4.10: Distribution of beneficiaries' responses on contents of trainings

Contents	Responses	Percentage
Improvement not required	408	53.8
Duration of practical classes to be increased	121	16.0
Placement requirement	76	10.0
Implementation of new technology	59	7.8
Focus on hygiene	29	3.8
Improvement in tools and equipment	19	2.5
Requirement of evening classes	16	2.1
Requirement of qualified trainers	15	2.0
Requirement of virtual classes	12	1.6
Creation of entrepreneurship environment	3	0.4
Total	**758**	**100.0**

The table above presents the views documented (N=758) on the contents of the trainings. 53.8% of respondents did not want any change in the contents of the training. 16% of the target group have required duration of practical classes to be increased from the existing levels. 10% beneficiary required post-training placement facilities. 7.8% of respondents required the implementation of new technology. The component requires investment in research development (R&D). 3.8% of the trainees required improved focus to be given on cleanliness and hygiene. 2.5% of respondents required improvement in the available tools and equipment used for the practical classes. It was observed during the visits to tool rooms and NSIC centres that they required new tools and equipment used in the practical labs. Evening classes were suggested by 2.1% of trainees. The suggestions to receive quality trainers were responded by 2% of the beneficiary. 1.6% of respondents required an increased number of virtual classes. However, 0.4% of the beneficiaries required virtual classes. Overall, more than half of the respondents did not require any change. An increase in the duration of practical classes, post-training placement, and implementation of new technology in labs was opined by more than one-third of the beneficiaries surveyed during the study. Moreover, the increased duration of practical classes may provide them with improved expertise in the area of training. Post-training placement is a general concern that the other stakeholders also endorsed. The same is also portrayed by the diagram below:
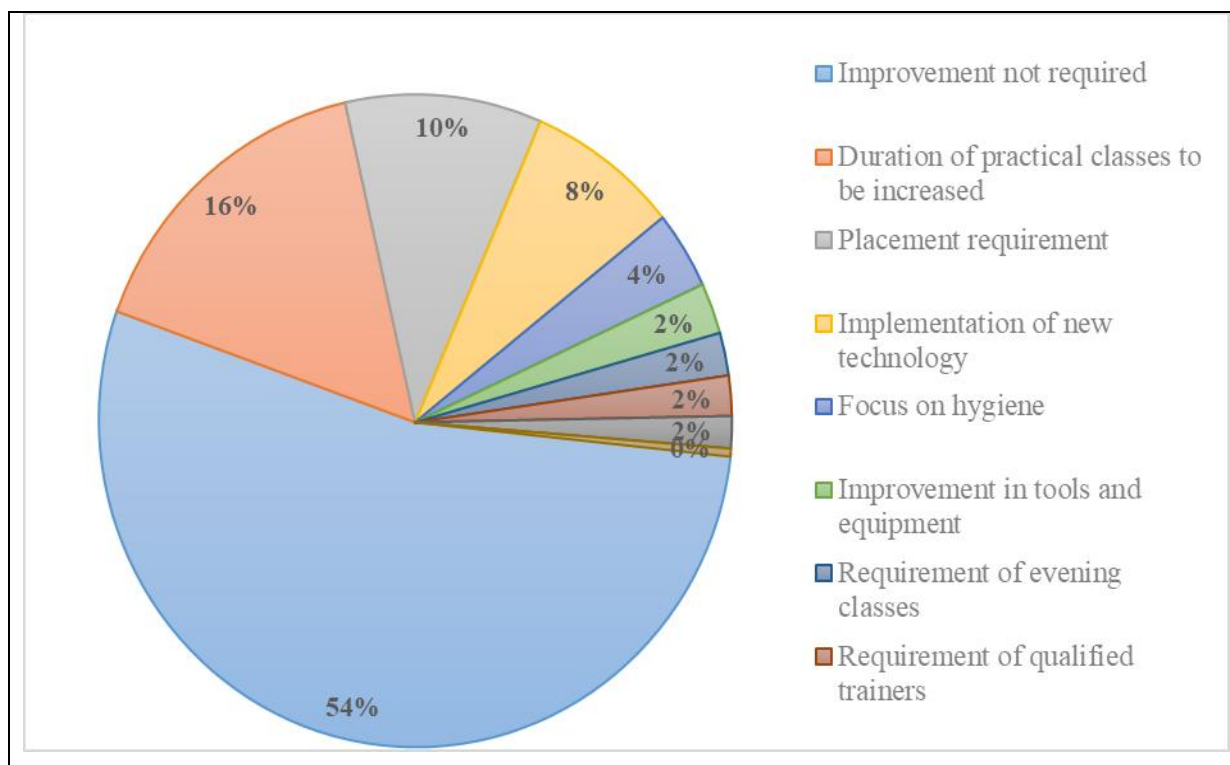
Figure 4.6: Pie chart showing suggestions received on change in contents etc.

The pie chart drawn above shows the area covered by the suggestions received on the contents. It has been found that most of the beneficiary trainees do not require any change. However, an increase in the duration of practical, placement requirements etc. have been identified as major suggestions after the segregation of feedback collected.

4. Resource gap in wage employment and self-employment

The objectives of the ATI scheme is to strengthen the capacity for skill development, entrepreneurship development in the MSME sector so that the youth can get wage and self-employment. The study has covered the employment status of beneficiaries trained from the training institutions. The summarised findings on the components are as under:

Table4.11: Distribution of resource gap in wage and self-employment

State	Wage-employed	Self-employed	Unemployed	Total Respondents
Assam	10 (14.5)	21 (30.4)	38 (55.1)	69 (100.0)
Delhi	0 (0.0)	4 (23.5)	13 (76.5)	17 (100.0)
Gujarat	53 (27.0)	70 (35.7)	73 (37.2)	196 (100.0)
Odisha	11 (18.3)	3 (5.0)	46 (76.7)	60 (100.0)
Punjab	27 (19.4)	19 (13.7)	93 (66.9)	139 (100.0)
Telangana	39 (16.5)	34 (14.3)	164 (69.2)	237 (100.0)
West Bengal	11 (27.5)	17 (42.5)	12 (30.0)	40 (100.0)
Total	**151 (19.9)**	**168 (22.2)**	**439 (57.9)**	**758 (100.0)**

The information in the tabular form reveals that self-employment is greater than wage employment. In the wage employment column, it is evident that the maximum percentage of wage employment has been found in West Bengal (27.5%), followed by Gujarat (27%),

Punjab (19.4%), Odisha (18.3%), Telangana (16.5%), and Assam (14.5%). The wage employment has scored 19.9% of the total sample covered across the states. On average 17.6% of wage employment has been recorded. There are three states, namely Delhi, Assam, Telangana underperforming from the average percentage.

The information collected on self-employment discloses that the maximum percentage has been found in West Bengal (42.5%), followed by Gujarat (35.7%), Assam (30.4%), Delhi (23.5%), Telangana (14.3%), Punjab (13.7%) and Odisha (5.0%). Self-employment has scored an average of 23.6% across the sampled states. Three states, namely Odisha, Punjab, Telangana and Delhi are underperforming on the indicator. Overall, 57.9% of beneficiaries have responded that they are unemployed. On average 58.8% of beneficiaries were found to be unemployed. If we compare wage employment with self-employment, the difference is 10.1%. The tabular information also reveals that 57.9% of beneficiaries sampled were found to be unemployed. The same trend can be shown through the pie chart drawn below:
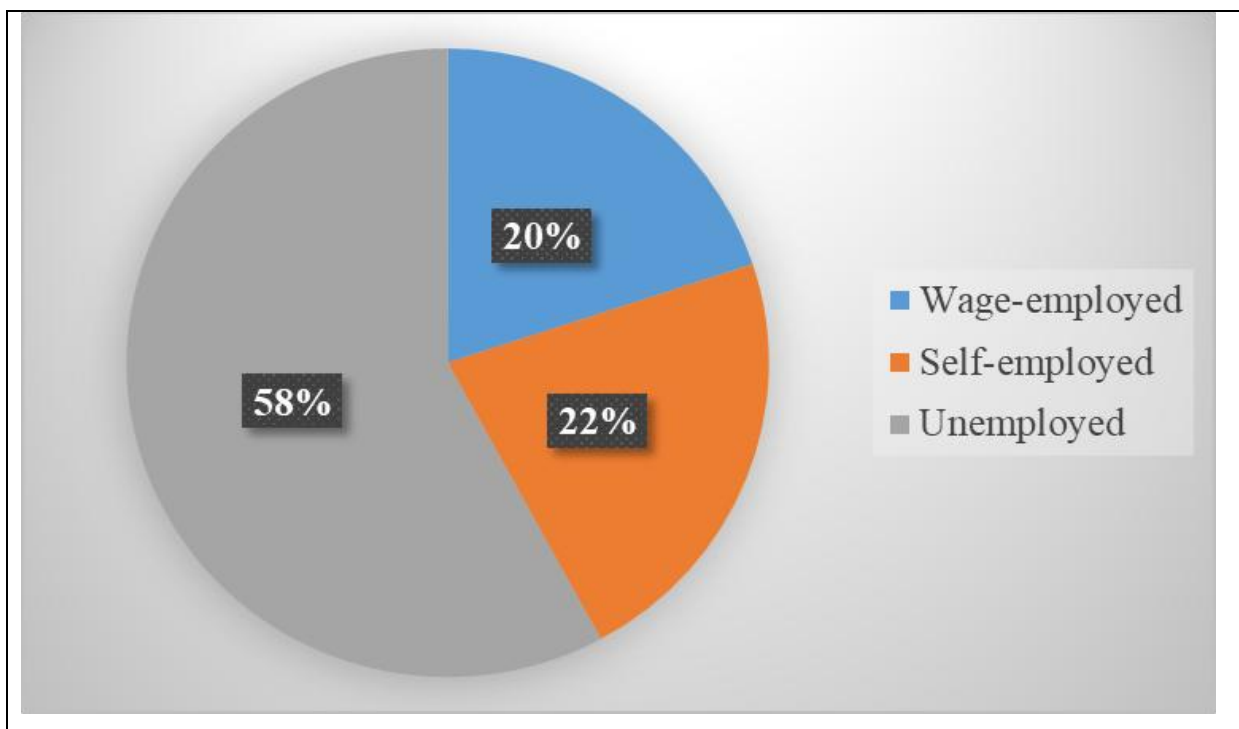
Figure 4.7: Pie chart showing status of employment in the target group

The pie chart drawn above shows that the maximum percentage of beneficiaries sampled were found to be unemployed. However, self-employment and wage-employment were recorded as approximately 22% and 20%, respectively.

The income level of the beneficiaries after employment has also been worked out based on responses collected, collated and analysed. The information on the component is as under:

Table 4.12: Distribution of responses with regard to change in the income level of self and wage employment

Income Level (monthly)	Self-employed	Wage -employed	Total employed
Between Rs. 10,000 and Rs. 20,000	106 (49.53)	108 (50.47)	214 (100.0)
Between Rs. 20001 and Rs. 30000	31 (57.41)	23 (42.59)	54 (100.0)
Between Rs. 30001 and Rs. 40000	19 (61.29)	12 (38.71)	31 (100.0)
Over Rs. 40001	12 (60.0)	8 (40.0)	20 (100.0)
Total	**168 (52.66)**	**151 (47.34)**	**319 (100.0)**

Most of the beneficiaries after employment have been found falling under the income level of Rs. 10,000-Rs. 20000 monthly. Of the employed under the income slab of Rs. 10,000-Rs. 20,000, 49.53% beneficiaries were self-employed while 50.47% wage-employed. Under the income slab of Rs. 20001 -Rs. 30000, 57.41% beneficiaries were self-employed and 42.59%, wage employed. Under the income slab of Rs. 30001-Rs. 40000, 61.29% beneficiaries were self-employed and 38.71%, wage employed. In the final slab of over Rs.40001, 60% beneficiaries were found to be self-employed whereas, 40% wage-employed. Overall, of the total employed, 52.66% of self-employed beneficiaries and 47.34% of wage-employed are falling in four income slabs categorised.

Table 4.13: Regression model assessing the impact of credit received on employment

SUMMARY OUTPUT								
Regression Statistics								
Multiple R								0.79
R Square								0.62
Adjusted R Square								0.54
Standard Error								27.38
Observations								7
ANOVA								
	df	*SS*	*MS*	*F*	*Significance F*			
Regression	1	6243.03	6243.03	8.32	0.03			
Residual	5	3750.6	750.13					
Total	6	9993.7						
	Coefficients	*Standard Error*	*t Stat*	*P-value*	*Lower 95%*	*Upper 95%*	*Lower 95.0%*	*Upper 95.0%*
Intercept	8.34	16.54	0.50	0.63	-34.18	50.86	-34.18	50.86
Credit received	1.98	0.68	2.88	0.03	0.21	3.76	0.21	3.76

In the table above, the regression model has Multiple R/correlation coefficient value as 0.79 that measures the strength of the linear relationship between credit received and engaged in employment. The score of Multiple R under regression shows a linear relationship between dependent and independent variables. The R square is also known as the coefficient

of determination which is the proportion of the variance in the response variables. The R-squared is 0.62 which indicates that 62 % of the variance in the employment received through credit availed. The standard error of the regression is the average distance that the observed values fall from the regression line. In this case, the observed values fall an average of 27.38 units from the regression line. The number of observations in the dataset is 7. The ANOVA table explains the regression model's degrees of freedom which is equal to the number of regression coefficients – 1. In this case, we have an intercept term and one predictor variables, so we have two regression coefficients total, which means the regression degrees of freedom is 2 – 1 = 1. The **total degree of freedom is** equal to the number of observations – 1. In this case, we have 7 observations, so **the total degree of freedom is 7 – 1 = 6**. The Residual degrees of freedom is equal to the total df – regression df. In this case, the residual degree of freedom is 6 – 1 = 5.

The regression Mean Squares is calculated regression SS/regression df. In this case, the regression MS = 6243.03/ 1 = 6243.03. The residual mean squares is calculated as residual SS / residual df. In this case, residual MS = 750.13/5 = 150.026.

The f statistic is calculated as regression MS / residual MS. This statistic indicates whether the regression model provides a better fit to the data than a model that contains no independent variables. In essence, it tests if the regression model as a whole is useful. Generally, if none of the predictor variables in the model are statistically significant, the overall F statistic is also not statistically significant.

In this case, the F statistic is 8.32. The last value in the table is the p-value associated with the F statistic. To see if the overall regression model is significant, we have calculated the p-value to a significance level of 0.05.

If the p-value is less than the significance level, there is sufficient evidence to conclude that the regression model fits the data better than the model with no predictor variables. This finding is good because it means that the predictor variable in the model is actual number of beneficiaries that indicate a fit regression model.

In this case, the significance F is 0.03, which is less than the common significance level of 0.05. This indicates that the regression model as a whole is statistically significant, i.e. the model fits the data better than the model with no predictor variables.

Now, we have interpreted the coefficient estimates, the standard error of the estimates, the t-stat, p-values, and confidence intervals for each term in the regression model.

Each coefficient is interpreted as the average increase in the response variable for each one-unit increase in a given predictor variable, assuming that all other predictor variables are held

constant. **In this case, 1% change in the crediting is expected to bring about 1.98 % of the change in employment**. The intercept is interpreted as the expected average achievement of the beneficiaries with zero increase in actual expenditure. In this case, the achievement is expected to be 8.34 irrespective of any change in the actual expenditure. **Hence, the scheme needs to provide microcredits to the entrepreneurs and trainees trained to ensure improved employability.**

5. Status of infrastructure, training outcome, employment generation, post-training support

Many physical aspects make up a successful training environment. They include sufficient seating space, quality of the lab, the status of hygiene, accessible location of Institute, delivery of contents by the trainer, quality of training kit and post-training placement support. The feedback of respondents have been recorded using the Likert scale (1-5, where one being the worst and 5, the best)

Table 4.14: Distribution of beneficiaries' response on the quality of training infrastructure

States	Sufficient seating space	Practical Lab	Status of Hygiene	Accessible Location of Institute	Delivery of contents by trainer	Quality of Training kit	Post-training placement support
Assam	4.6	4.5	4.3	4.4	4.5	4.5	4.5
Delhi	4.2	3.0	4.1	4.0	4.5	3.4	3.3
Gujarat	4.3	4.2	4.2	4.3	4.3	3.9	4.3
Odisha	4.6	4.5	4.6	4.6	4.7	4.2	4.1
Punjab	3.9	3.6	3.6	3.5	3.9	3.7	3.5
Telangana	4.2	4.2	4.2	4.2	4.2	3.9	3.9
West Bengal	4.6	4.1	4.7	4.6	4.5	4.3	4.0
Average	**4.4**	**4.0**	**4.3**	**4.2**	**4.4**	**4.0**	**3.9**

The table above reveals that sufficient seating space and delivery of contents by trainers have scored 4.4 for each, followed by the status of hygiene (4.3), accessible location of training institute (4.2), 4.0 each for quality of training kit & practical lab and 3.9 for post-training placement support. The sufficient space in training centres has scored maximum in Assam, West Bengal and Odisha (4.6 for each), followed by Gujarat (4.3), 4.2 each for Delhi & Telangana, and Punjab (3.9). For the practical lab, the maximum score has been attained by institutions from Assam and Odisha (each for 4.5), followed by 4.2 each for Gujarat and

Telangana (4.2), West Bengal (4.1), Punjab (3.6) and Delhi (3.0). On the same scale, the status of hygiene has been scored the highest in West Bengal (4.7), followed by Odisha (4.6), Assam (4.3), 4.2 each for Gujarat and Telangana, Delhi (4.1), and Punjab (3.6). For the accessible location of the institute, the maximum has been scored in West Bengal & Odisha (4.6), followed by Assam (4.4), Delhi (4.0), Gujarat (4.3), Telangana (4.2), and Punjab (3.5). The component of the delivery of contents by trainers has scored the highest in Odisha (4.7), followed by 4.5 each for Assam, Delhi and West Bengal, Gujarat (4.2) and Punjab (3.5). Quality of training kit has scored the highest in Assam (4.5), followed by West Bengal (4.3), Odisha (4.2), 3.9 each for Gujarat and Telangana and Punjab (3.7). For the post-training placement support, the respondents from Assam have given the highest rank, followed by Gujarat (4.3), Odisha (4.1), West Bengal (4.0), Telangana (3.9), and Delhi (3.3). Overall, the highest score has been given to sufficient seating space and delivery of contents by trainers, practical lab and quality of training kit practical lab and post-training placement support.

Table 4.15: Score of Cronbach's alpha reliability test for responses on infrastructure

Number of Items/questions/components	15
Sum of the items Variances	20.38
Variance of Total Score	204.01
Cronbach's alpha	0.964

Components:
1. Trainee - Sufficient seating space
2. Trainee -   Toilets
3. Trainee -   Practical lab
4. Trainee -   Cleanliness
5. Trainee -   Hygiene
6. Trainee -   Electricity
7. Trainee -   Drinking water
8. Trainee -   Accessible Location of Institute
9. Trainee -   Delivery of contents by trainer
10. Trainee -   Training kit provided
11. Trainee -   Marketability of skill acquired
12. Trainee -   Feedback based improvements
13. Trainee -   Invitation of industry experts to take session
14. Trainee -   Sufficient number of class room
15. Trainee -   Post-training support for the employment

Cronbach's alpha is a measure used to assess the reliability or internal consistency of a set of scale. Suppose that we measure a quantity which is the sum of k components:

$$X = Y_1 + Y_2 + \text{----------} + Y_K$$

Cronbach's alpha is defined as:

$$\alpha = \frac{K}{K-1}\left(1 - \frac{\sum Var(Yi)}{Var(X)}\right) \qquad ; 0 < \alpha < 1$$

Where,

K = Number of components,
Var(X): Variance of the observed total,
Var(Yi): Variance of ith component.
Rule of thumb for results of Cronbach's alpha: it ranges from 0 to 1. If alpha is zero then components are not correlated with each other, if alpha is one then all the items have high correlations and if alpha is negative then it indicates that something wrong in the data set.

Table 4.16: Internal consistency range in the responses received on infrastructure

Cronbach's alpha	Internal Consistency
α>0.9	Excellent
0.8<α<0.9	Good
0.7<α<0.8	Acceptable
0.6<α<0.7	Questionable
0.5<α<0.6	Poor
0.5>α	Unacceptable

Thus, the result derived from the Likert scale after processing through Cronbach's alpha reliability test of the above components has been found significantly consistent (0.964).

6. Effectiveness of Training Programme conducted at EDIs

Training and human development activity has increased greatly over the past few decades. Evaluation of training effectiveness is the measurement of improvement in the trainees' knowledge, skill and behavioural pattern. Training can be referred to as a structured learning experience. Training activities need to cater to the necessary skill required by the market. The trainings tend towards enhancing trainees knowledge and skills for effective performance. This effectiveness of training help to match the cost incurred in the design and implementation of training with the associated benefits. Thus, it indicates whether the program has been able to deliver its intended goals and objectives. Effectiveness of the trainings at EDIs has been assessed considering the connection with industry partners, marketable skills imparted, emphasised learning, fair assessment, help derived from the course, effective delivery of courses and quizzes.

Table 4.17: Distribution of affirmative responses on effectiveness of training Programme conducted at EDIs

Components	Gujarat	Telangana	West Bengal
Connection with Industry Partners	35(68.6)	5(83.3)	29(72.5)
Marketable skills	46 (90.2)	5 (83.3)	38(95)
Emphasised Learnings	44 (86.3)	6 (100)	36(90)
Fair Assessment	41 (80.4)	6(100)	33(82.5)
Needful course	42(82.4)	5(83.3)	39(97.5)
Effective delivery	41 (80.4)	5 (83.3)	36 (90)
Relevant course	39(76.5)	4 (66.7)	37 (92.5)
Sufficient Quizzes	39 (76.5)	3(50)	18 (45)
Total responses	**51 (100)**	**6 (100)**	**40 (100)**

53

The table above indicates that beneficiaries receiving training at EDIs of Telangana have rated the highest about the effectiveness of training with regard to connection with industry partners (83.3%), followed by West Bengal (72.5%) and Gujarat (68.6%). On the marketable skills, the beneficiaries of West Bengal rated EDI training the highest (95%), followed by Gujarat (90.2%), and Telangana (83.3%). The learning at EDI has reportedly been emphasised in Telangana (100%), followed by West Bengal (90%) and Gujarat (86.3%). The fair assessment of the trainings has been expressed superlatively by the trainees of Telangana (100%), followed by West Bengal (82.5%), Gujarat (80.4%). The course of EDP helped greatly to the first generation entrepreneurs in West Bengal (97.5%), followed by Telangana (83.3%) and Gujarat (82.4%). Effective delivery of the training was highly rated in West Bengal (92.5%), followed by Gujarat (76.5%) and Telangana (66.7%). The relevant course contents were recognised in West Bengal (92.5%), followed by Gujarat (76.5%) and Telangana (66.7%). The learning rectification through sufficient quizzes was responded mostly from Gujarat (76.5%), followed by Telangana (50%) and West Bengal (45%). Overall, the total sampled beneficiaries (N=97) have responded positively about the effectiveness of the trainings at EDIs. Also, structured experienced training through coaching, counselling and mentoring can boost self-development and enhanced entrepreneurship development amongst the trainees. Through the sample feedback received from EDIs are small, it does provide the mode and conduction of EDP trainings. It has also been stressed that the entrepreneurship development sessions should begin by asking the learners to share their experience from their respective places. The entrepreneurship development strategy requires brainstorming with the participants to know the spatial difficulties so that customised measures could be used in training.

Table4.18: Score of Cronbach's alpha reliability test for EDIs

Number of Items/questions/components	15
Sum of the items Variances	23.07
Variance of Total Score	282.74
Cronbach's alpha	0.984

Components related to EDI:

1. Trainee -   Sufficient seating space
2. Trainee -   Toilets
3. Trainee -   Practical lab
4. Trainee -   Cleanliness
5. Trainee -   Hygiene
6. Trainee -   Electricity
7. Trainee -   Drinking water
8. Trainee -   Accessible Location of Institute

9. Trainee -   Delivery of contents by trainer
10. Trainee -   Training kit provided
11. Trainee -   Marketability of skill acquired
12. Trainee -   Feedback based improvements
13. Trainee -   Invitation of industry experts to take session
14. Trainee -   Sufficient number of class room
15. Trainee -   Post-training support for the employment

Cronbach's alpha is a measure used to assess the reliability or internal consistency of a set of scale. Suppose that we measure a quantity which is the sum of k components:

$$X = Y_1 + Y_2 + \text{----------} + Y_K$$

Cronbach's alpha is defined as:

$$\alpha = \frac{K}{K-1}\left(1 - \frac{\sum Var(Yi)}{Var(X)}\right) \qquad ; 0 < \alpha < 1$$

Where,
K = Number of components,
Var(X): Variance of the observed total,
Var(Yi): Variance of ith component.

Rule of thumb for results of Cronbach's alpha: it ranges from 0 to 1. If alpha is zero then components are not correlated with each other, if alpha is one then all the items have high correlations and if alpha is negative then it indicates that something is wrong in the data-set.

Table 4.19: Internal consistency range in the responses received on EDIs

Cronbach's alpha	Internal Consistency
α>0.9	Excellent
0.8<α<0.9	Good
0.7<α<0.8	Acceptable
0.6<α<0.7	Questionable
0.5<α<0.6	Poor
0.5>α	Unacceptable

Thus, the result derived from the Likert scale after processing through Cronbach's alpha reliability test of the above components has been found significantly consistent (0.984).

4.2 Additional Parameters

a) Coverage of Beneficiaries

In additional parameters, the study has covered the target group based on gender and location. The sample collected on the component reveals that women representation in the target group has been accounted for 32.3%. The beneficiaries belonging to the rural area has been calculated as 38.3%. The table given summarised gender-wise and location wise details of beneficiaries sampled under the study.

Table 4.20: Distribution of beneficiaries by gender & location

State	Female	Male	Rural	Urban	Total
Assam	24 (34.8)	45 (65.2)	46 (66.7)	23 (33.3)	69 (100)
Delhi	5 (29.4)	12 (70.6)	4 (23.5)	13 (76.5)	17 (100)
Gujarat	73 (37.2)	123 (62.8)	54 (27.6)	142 (72.4)	196 (100)
Odisha	3 (5)	57 (95)	27 (45)	33 (55)	60 (100)
Punjab	3 (2.2)	136 (97.8)	76 (54.7)	63 (45.3)	139 (100)
Telangana	128 (54)	109 (46)	72 (30.4)	165 (69.6)	237 (100)
West Bengal	9 (22.5)	31 (77.5)	11 (27.5)	29 (72.5)	40 (100)
Total	**245 (32.3)**	**513 (67.7)**	**290 (38.3)**	**468 (61.7)**	**758 (100)**

The table reveals that the maximum women representation in the pool of sampled beneficiaries has been found in Telangana (54%), followed by Gujarat (37.2%), Assam (34.8%), Delhi (29.4%), West Bengal (29.4%), and Odisha (5%). Overall, on average 35 women representation has been calculated across the states.

Side by side, the rural penetration of the scheme has also been estimated based on the sample size covered. The maximum beneficiaries belonging to rural areas were found in Assam (66.7%), followed by Punjab (54.7%), Odisha (45%), Telangana (30.4%), Gujarat (27.6%), West Bengal (27.5%), and Delhi (23.5%). Overall, 41.4 beneficiaries on average have belonged to rural areas. 38.3% beneficiaries have been found from rural areas whereas, 61.7% from urban areas. The same can be shown through the diagram below:
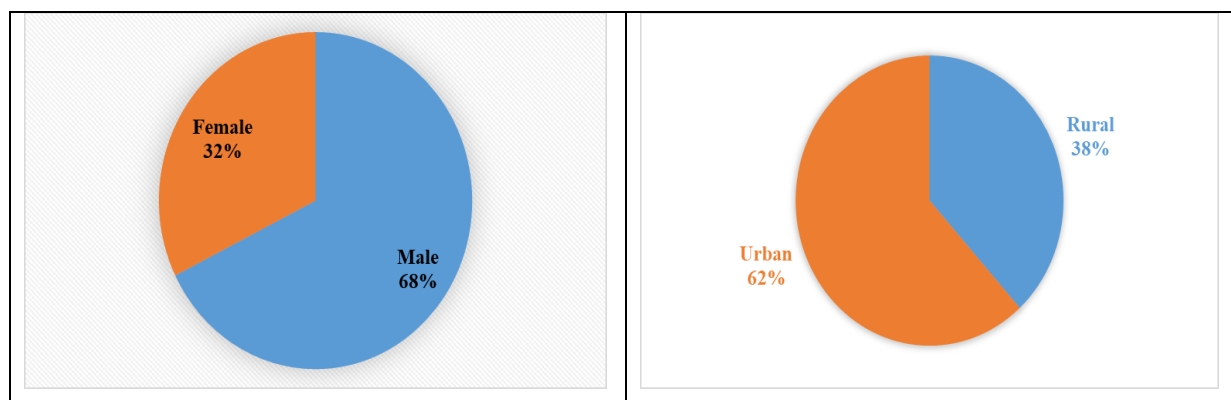
Figure 4.8: Pie charts showing distribution of respondents by gender and location

The figure above presents the distribution of beneficiaries by gender and location. Two pie charts have been drawn to depict the number of sampled beneficiaries on the identified parameters. The first chart on the left side shows that the maximum area has been covered by beneficiary males. However, the women representation is approximately 32% in the target group. The second pie chart drawn on the right side shows the location of beneficiaries in both rural and urban areas. 62% of the beneficiaries sampled belonged to urban area whereas, 38% to rural areas.

The coverage of Divyangjan (disables) in the training programmes under the scheme is one of the components that the study has captured. The details are given in the table below:

Table 4.21: Distribution of beneficiaries sampled by physical status

State	Abled	Disabled	Total
Assam	62 (89.9)	7 (10.1)	69 (100)
Delhi	15 (88.2)	2 (11.8)	17 (100)
Gujarat	179 (91.3)	17 (8.7)	196 (100)
Odisha	56 (93.3)	4 (6.7)	60 (100)
Punjab	124 (89.2)	15 (10.8)	139 (100)
Telangana	223 (94.1)	14 (5.9)	237 (100)
West Bengal	40 (100)	0 (0)	40 (100)
Total	**699 (92.2)**	**59 (7.8)**	**758 (100)**

It has been found that 7.8% of beneficiaries belonged to Divyangjan. The maximum Divyangjans were found in Delhi (11.8%), followed by Punjab (10.8%), Assam (10.1%), Gujarat (8.7%), Odisha (6.7%), and Telangana (5.9%). However, no beneficiary was found in the category from West Bengal. 7.8% representation of Divyangjan shows the inclusiveness of the beneficiary trainees mobilised and selected under training programmes conducted by institutions sampled.
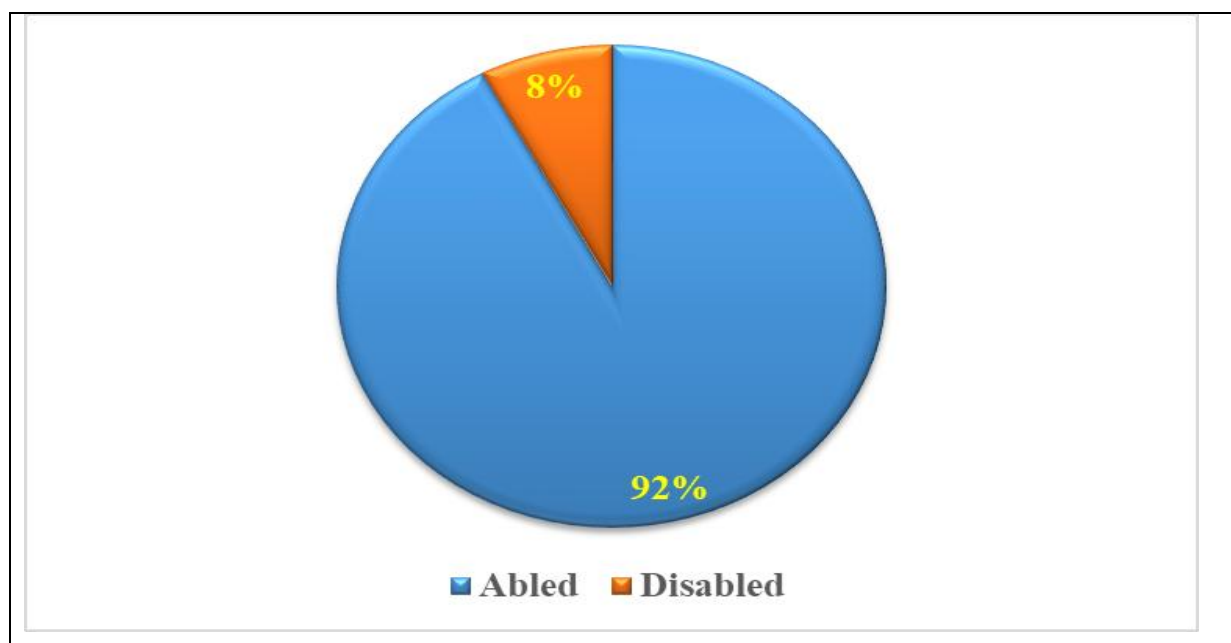
Figure 4.9: Pie chart showing physical status of beneficiaries sampled

The diagram drawn above shows that the maximum area has been circumscribed by abled beneficiaries. The representation of Divyangjan has been found approximately 8% in the beneficiaries sampled.

The study has also covered the social category of beneficiaries sampled across the institutions in the states. Five social categories have been classified based on data collected. The details are as under:

Table 4.22: Distribution of beneficiaries by social category

State	General	OBC	SC	ST	Minority	Total
Assam	20 (28.99)	28 (40.58)	7 (10.14)	5 (7.25)	9 (13.04)	69 (100.0)
Delhi	5 (29.41)	7 (41.18)	5 (29.41)	0 (0.00)	0 (0.00)	17 (100.0)
Gujarat	95 (48.47)	50 (25.51)	41 (20.92)	8 (4.08)	2 (1.02)	196 (100.0)
Odisha	33 (55.00)	21 (35.00)	4 (6.67)	2 (3.33)	0 (0.00)	60 (100.0)
Punjab	93 (66.91)	19 (13.67)	26 (18.71)	0 (0.00)	1 (0.72)	139 (100.0)
Telangana	37 (15.61)	97 (40.93)	78 (32.91)	17 (7.17)	8 (3.38)	237 (100.0)
West Bengal	31 (77.50)	3 (7.50)	5 (12.5)	0 (0.00)	1 (2.50)	40 (100.0)
Total	**314 (41.42)**	**225 (29.68)**	**166 (21.9)**	**32 (4.22)**	**21 (2.77)**	**758 (100.0)**

The table above shows the five social categories classified, namely general, other backward class (OBC), Scheduled Caste, Scheduled Tribes, and minority. Though six religious communities viz. Muslims, Christians, Sikhs, Buddhists, Zoroastrians (Parsis) and Jains are declared as minorities by National Commission for Minorities Act, 1992, majority of the Muslim and Christian have been found under the minority category during the study. The table reveals that in the OBC category, the majority of the beneficiaries are from Delhi (41.18%), followed by Telangana (40.93%), Assam (40.58%), Odisha (35.0%), Gujarat (25.51%), Punjab (13.67%), and West Bengal (7.50%). Under the Scheduled caste category, the maximum beneficiaries were found from Telangana (32.91%), followed by Delhi (29.41%), Gujarat (20.92%), Punjab (18.71%), West Bengal (12.5%), Assam (10.14%) and Odisha (6.67%). Under the Scheduled Tribe category, the maximum trainees were found in Assam (7.25%), followed by Telangana (7.17%), Gujarat (4.08%), and Odisha (3.33%). However, no respondent was sampled under this category from Delhi, Punjab, and West Bengal. Under the minority category, the maximum trainees were found from Assam (13.04%), followed by Telangana (3.38%), West Bengal (2.50%), Gujarat (1.02%), and Punjab (0.72%). No sample under this category was found either from Delhi or from Odisha. Overall, 29.68% OBC, 21.9% SC, 4.22% ST and 2.77% minority category respondents were found in the sample size of the study. The beneficiaries from the general category have been found approximately 41.5% of the total sample size covered. Based on the information garnered, the coverage of the training programmes under the scheme was found to be socially inclusive.

b) Implementation Mechanism

The scheme of ATI assists National level training Institutions operating under the Ministry of MSME. The National Institutions are: NIMSME, KVIC, Coir Board, Tool Rooms, NSIC and MGIRI. The national-level institutions receive capital grants from the Ministry of MSME for the creation and strengthening of infrastructure. The creation and strengthening of

infrastructure are intended to conduct entrepreneurship and skill development programmes. The assistance is also provided to meet revenue deficits, if any, to NIMSE. Assistance is also given to existing State-level EDIs for the creation or strengthening/expansion of their training infrastructure. The assistance to State EDI for infrastructure development is limited to Rs. 2.50 crore in each case. The assistance for skill development programmes under the scheme is provided based on the duration of NSQF compliance. The first intsallment of the grant is released in advance. The subsequent instalment is released based on the progress of utilization of funds released. Assistance to ToT programmes is provided @ Rs. 60 per trainee per hour. Assistance for other types of training is decided based on the actual requirement in each case. The total amount of assistance to be considered for release as per the rate of three categories per head per hour of training basis.

The national-level training institutions of MoMSME submit their proposals directly to the MoMSME. The screening Committee considers the proposals keeping in view the merit of proposals, particularly competency, capacity and experiences/past performance of the institutes. The proposals after scrutiny with recommendations are forwarded to the Secretary, MoMSME for approval. After approval, the Ministry places the required funds with the national level training institutions. On successful completion of the trainings, the concerned institutions furnish the Utilization Certificate (UC) to the Ministry. The concerned institution is also expected to ensure the quality of inputs along with certifying the actual participation of trainees. The screening committee also lays down the criteria for examining the competency, capacity and experience of the applicant training institutions. The Central Government or the concerned national level intuitions may conduct further checks or verifications through its own offices or independent agencies, as deemed necessary. The scheme also envisages considering the proposals from national and state-level EDIs, training institutions of MoMSME. The proposals for grant of financial assistance under the scheme is submitted to the Deputy Secretary/Director (EDI section). The proposals are examined and shortlisted by the Screening Committee. The committee with recommendations forwards the proposals to the Secretary, MoMSME. After approval of the Secretary (MoMSME), administrative approval is conveyed to the applicant organizations and admissible financial assistance is released in accordance with the approval letter. The Screening Committee is constituted of six members. The joint secretary of the MoMSME acts as the chairman. The other five members are (1) Economic Advisor (Finance), MoMSME, (2) Representative of Development Commissioner (MSME), (3) Deputy Secretary/ Director (EDI Section), MOMSME, (4) Deputy Secretary/ Director of the Division concerned with the proposal in

MoMSME/Office of Development Commissioner, MSME, and (5) Under Secretary (EDI Section), MoMSME. The Under Secretary happens to be the Member Secretary of the screening Committee. The progress of the scheme is regularly monitored by the Screening Committee/Secretary MoMSME from time to time. The overall impact of the scheme is evaluated by engaging a third party under the survey, studies and policy research scheme after the sunset period of the scheme.

c) Training/ Capacity building of Administrators

The administrators monitoring the scheme require capacity building in terms of assessing the quality of training imparted at various institutions under the MoMSME, and state EDIs. Working with the PFMS/EAT module is a prerequisite to smooth, accountable and transparent fund release and disbursement. The Expenditure, Advance and Transfer (EAT) module of the Public Financial Management System (PFMS) helps training institutions in the filing of expenditure, transferring funds, advances and its settlement. The process of feeding the day to day transactions as recorded in the cash book on the PFMS portal by the training Institutions registered on PFMS is called expenditure filing and expenditure filing which is done through EAT Module of PFMS. The institutions registered on PFMS for filing expenditure are not abreast of its new updates access. The staff in the office need to undergo capacity building programmes so that they can use the platform and deliver the tasks with increased efficiency. The quality and durability of infrastructure development require to be verified by quality monitors. The delayed work completion and the reluctance of CPWD and state agencies are required to be put to some capacity building programmes.

The ineffective market exposure to the trainees was found to be a major bottleneck. The trainers and institution heads working in MSME institutions require training to understand the usefulness of market-oriented training programmes. The State Governments are not necessarily aware of the urgency of moving the proposals to the MoMSME. They need to undergo a capacity building programme to understand the importance of MSME sectors. The delay in UC submission may be resultant of the poor hold on accounting handling. The staff dealing with accounts should be trained on accrual accounting to understand the significance of supply chain and file entry on the daily basis.

d) IEC Activities

Information, education, and communication-related components may help disseminate the information about the training programmes. It was found during the study visits that many non-beneficiaries were not aware of MSME training interventions. The mobilization to trainings was mostly limited to information shared by peer groups. The Institutions should

come up with a systematic strategy to handle the issue related to information, education and communication. The learning ecosystem should also be bestowed with soft skills. It was vehemently shared by the industry partners that soft skills need to be integrated with the training programmes. The soft skills enable the trainees to handle fellow workers with more care and improved support. Overall, the information dissemination about the ATI scheme enabled trainings require to be promoted on priority. The scheme of "ATI" seems to be a unique intervention in the form of 'public good' which may help harvest optimum benefits through proper information, education and communication about the training programmes.

e) Benefits (Individual, Community)

The scheme caters to individuals who are willing to receive skill & entrepreneurship training. As a result of skill-based employment, the socio-economic conditions of the beneficiary households have improved. The youth receiving skill and entrepreneurship development trainings would become more AtmaNirbhar and self-dependent contributing to the nation-building project of our country. The entrepreneurs with their ability to scan, analyse and identify opportunities in the environment transform them into business propositions through setting up MSME ventures. The rate of economic progress of our country depends upon its rate of innovation which in turn depends on the rate of increase in entrepreneurial talent among the population. The development of a nation does not occur spontaneously as a normal output. A catalyst is needed to obtain the desired results of entrepreneurial activities. Financial inclusion through skill training and entrepreneurship development would boost the path of economic growth and social development. The findings of the study based on sample size (N=758) shows that 29.68% OBC, 21.9% SC, 4.22% ST, 7.8% minority, 7.8% Diviyanjans, and 32% women have received benefits under the training programmes. Also, the training programmes have included 38% of rural beneficiaries. As such, the scheme of ATI is a 'greenfield intervention' and needs improved outreach and coverage through providing more grants for infrastructure development to EDIs.

f) Convergence with Scheme of Own Ministry/Department or Other Ministry/Department

There is no such scheme that directly converges with the ATI scheme. Hence, the scheme is unique and one of its kind. However, for general skill training under Skill India Mission, schemes like PMKVY, JSS, etc. are in place. The training programme conducted by tool rooms and NSICs are utterly connected with CNC labs where-in technology processing and manufacturing process are at the core. The manufacturing process adopted was found to be modern and at the same time appropriate to the level of economic development. The tool

rooms and NSIC centres have adopted a sophisticated process in aid and advice of international experts. The product is being manufactured by using alternative raw materials through dynamic processing. Such programmes are not conducted under any other schemes. NSICs added a new leaf to its debt programme by raising resources through the issue of Commercial Paper, which has been rated by CRISIL as "A One Plus", considered to have "Very Strong Degree of Safety". The NSIC through its distribution network has been supplementing the availability of raw material to a large number of MSMEs all over the country. Arrangements have been made with bulk manufacturers to provide raw materials to MSMEs as per their requirements. The vocational training provided through technical centres includes training in 'Hi-Tech' as well as 'Conventional Trades'. The NSIC centres are providing training in Hi-Tech area of CAD / CAM / CNC, VLSI Application & PLC, Embedded Design, Advance networking, Reverse Engineering, Wireless Communication, Solid State Cooling, CAD / CAM / Pro-e, PLC & SCADA, PCB Design, CNC Programming, 3D Animation, Tuner / Fitter / Machinist, Multimedia, Environment Audit & Training, Web Designing, Computer-aided designing using CREO, ARM 7 based Embedded design, Master-cam, Robotics, Advance Robotics, CATIA V6, NX CAD, Solid Works, Share Point, Computer Maintenance etc. The course curriculum was found to be designed as per the requirement of industries. The NSIC centres and Tool Rooms are also proving electrical testing facilities for High Voltage Lightning Impulse, a) Temperature Rise Test, Electromechanical Failing Load Test, Mechanical Endurance Test etc. b) Mechanical Testing Lab for Hardware Fitting, Hydraulic Pressure & Dead Load Test, Insulator Test, Galvanizing Test, Type Test of Coupling etc. c) Chemical Testing through Atomic Emission Spectroscopy. d) Testing facilities were provided for physical & chemical testing of ferrous & non-ferrous materials. e) Testing of Centrifugal Pump, Regenerative Self-Priming Pump, Diesel Engine Monoset, Foot Valve, Diesel Engine Testing in Constant Speed Engine, Spark Ignition Engine. and f) Calibration of instruments. Tool rooms are majorly assisting MSME in technical upgradation, provide good quality tooling by designing and producing tools, moulds jigs and fixtures, components etc. The EDIs have increased the entrepreneurial ability to create new products, new services and innovate. To create an ecosystem of empowerment by skilling on a large scale at speed with high standards and promoting a culture of innovation based entrepreneurship were found to have generated wealth and employment. After all, the trainings under the ATI scheme is meant for people to teach the art of catching fish. As such, the convergence with the scheme of own Ministry/Department or other Ministry of this kind has not been found.

g) Asset/ Service Creation and its Maintenance Plan

Under the ATI scheme, infrastructure development is an asset creation work. The assets created under the scheme would be harnessed provided the institutions with created infrastructure deliver their roles religiously. The infrastructure work completion was found to be delayed which needs to be reengineered and timely rolled out. So long as the buildings are in the construction process or yet to be constructed, involves huge opportunity costs because it is not producing output/outcome. The approval of EDIs demands from the states has been identified as one of the reasons that have led to slow down the process of infrastructure development works. The reluctance of CPWD and other Government agencies are equally responsible for the delay. The services to be provided through the scheme is unique to the extent that skill training and entrepreneurship run in full swing. The maintenance plan for the infrastructure created need to be ensured at the same time. The status of infrastructure development in the EDIs samples are as under:

Table 4.23: Status of Infrastructure Development in EDIs sampled

Year	Name of the Institution	Rs. Allotted (In lakh)	Status
2020-21	EDII, Ahmedabad (Strengthening of Infrastructure)	125	Yet to start
2019-20	EDII, Ahmedabad (Strengthening of Infrastructure)	125	Under construction
2019-20	Entrepreneurship Development Institute and Innovation, Chennai (Additional Construction	125	Not Started
2018-19	EDI MSME Research Block	149.50	Under construction
2015-16	Entrepreneurship Development Institute, Jote, Arunachal Pradesh	270	Completed but not functional
2015-16	CED, Gandhi Nagar	129.925	Completed
2015-16	Institute of Entrepreneurship Development, Bhubaneswar	149.81	Completed
2015-16	Entrepreneurship Development Institute, Kolkata	100	Completed

The table presents the status of infrastructure development work in EDIs sampled. Based on the visits to EDIs, four infrastructure development works were found to be completed, one not started, and two others under construction. The EDI institute at Jote, Arunachal Pradesh was completed but found to be closed. Nobody was found there to share any information about the institute and details thereof.

4.3 Randomised Controlled Trial (RCT)

The evaluation of the ATI scheme has been processed through Randomized Controlled Trial. Randomized Controlled Trial (RCT) is a scientific experiment that aims to reduce certain sources of bias when testing the effectiveness of new treatments; this is accomplished by randomly allocating subjects to two or more groups, treating them differently, and then comparing them with respect to a measured response. One group—the experimental group (Treatment Group)—receives the intervention being assessed, while the other—usually called the control group—receive no intervention. The groups are monitored under conditions of the trial design to determine the effectiveness of the experimental intervention, and efficacy is assessed in comparison to the control. There may be more than one treatment group or more than one control group. In the evaluation study, the RCT has been applied for beneficiaries (treatment group) and non-beneficiaries (control group). In this study, the sampled trainees have been considered as treatment group/intervention group whereas, the randomly selected non-beneficiaries, as a controlled group. The randomization of both groups has been done by picking up from identical socio-economic backgrounds. The beneficiaries and non-beneficiaries were selected from the surrounding area of institutions. Their location was almost similar. The abled and Divyangjan, APL, and BPL, a social category like general, SC, ST, Minority, etc. were approximately maintained during the randomization. However, the uncovered beneficiaries expressed their interest in the courses run under the ATI scheme. Due to some reason or the other, they expressed their inability to get inducted to the courses conducted as NSIC centres, Tool Room Centres and EDI institutions. As such, a total of 758 beneficiaries and 245 non-beneficiaries from identical background were randomly selected while conducting the RCT. Though there is a little fluctuation between beneficiaries and non-beneficiaries (due to non-availability to select non-beneficiaries based on randomization), the details regarding their identical background are placed in the tabular form below:

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Table 4.24: Distribution of beneficiaries' and non-beneficiaries' socio-economic background

Indicators		Beneficiary	Non-Beneficiary
Residential Location	Rural	758	153
	Urban	245	93
Category of Income Group	APL	245	73
	BPL	235	108
	Nirashrit	2	0
	Annapurna	18	3
	Not Applicable	257	61
Physical Status	Abled	699	552
	Divyangjan	59	14
Social Category	General	314	39
	Minority	21	3
	OBC	225	63
	SC	166	29
	ST	32	111

The table above shows the number of beneficiaries and non-beneficiaries randomly selected for the RCT. Based on the above information, t-test has been conducted to assess their identical background which is as under:

Table 4.25: t-Test: Two-Sample Assuming Unequal Variances of beneficiaries and non-beneficiaries

t-Test	Beneficiaries	Non-Beneficiaries
Mean	234	93
Known Variance	55381.23	19635.07
Observations	14	14
Hypothesized Mean Difference	0	
t Stat	1.92	
P(T<=t) one-tail	0.03	
t Critical one-tail	1.72	
P(T<=t) two-tail	0.06	
t Critical two-tail	2.07	

The table above presents the result of the t-test conducted to assess the identical socio-economic background of beneficiaries and non-beneficiaries as a prerequisite to RCT. The statistically computed absolute t value (2.07) is greater than t critical value (1.92) at a 5% level of significance, which implies that we can accept our assumed alternate hypothesis i.e.

the average of beneficiary and non-beneficiary sampled under the study belonged to the similar background on 14 identified parameters. The same also gets reflected through the processed p-value i.e. 0.03<0.05. The t-test analysis shows that the average number of candidates from the treatment group and controlled group belonged to the same socio-economic conditions. Hence, our treatment and controlled groups are identical on aforesaid parameters.

Table 4.26: Employment status of the treatment group and controlled group

State	Beneficiaries			Non-Beneficiaries		
	Employed	**Unemployed**	**Total**	**Employed**	**Unemployed**	**Total**
Assam	31 (44.9)	38 (55.1)	69 (100)	7 (3.8)	179 (96.2)	186 (100)
Delhi	4 (23.5)	13 (76.5)	17 (100)	1 (100)	0 (0)	1 (100)
Gujarat	123 (62.8)	73 (37.2)	196 (100)	41 (80.4)	10 (19.6)	51 (100)
Odisha	14 (23.3)	46 (76.7)	60 (100)	1 (100)	0 (0)	1 (100)
Punjab	46 (33.1)	93 (66.9)	139 (100)	1 (50)	1 (50)	2 (100)
Telangana	73 (30.8)	164 (69.2)	237 (100)	0 (0)	1 (100)	1 (100)
West Bengal	28 (70)	12 (30)	40 (100)	2 (66.7)	1 (33.3)	3 (100)
Total	**319 (42.1)**	439 (57.9)	758 (100)	**53 (21.6)**	192 (78.4)	245 (100)

Parenthesis contain percentage values

From the above table, it is observed that the success rate of the beneficiary (who received the training) is higher than that of the non-beneficiaries with regard to engagement in the employment. On the employment component, the beneficiaries have scored 42.1% whereas, non-beneficiaries 21.6%. The beneficiaries receiving the maximum employment is evident in West Bengal (70%), followed by Gujarat (62.8%), Assam (44.9%), Punjab (33.1%), Telangana (30.8%), Delhi (23.5%) and Odisha (23.3%). These figures are combined of wage and self-employment for the beneficiaries sampled. However, the non-beneficiaries receiving employment has scored the maximum in Odisha and Delhi (100%), followed by Gujarat (80.4%), Punjab (50%), and Assam (3.8%) in the randomly sampled non-beneficiaries. In the same vein, the employment is nil in the case of non-beneficiaries selected from Telangana. Conclusively, the beneficiaries (N=758) with interventions have scored better on employment, as compared to the non-beneficiaries (N=245) under the study.

Table 4.27: F-Test of two-sample for Variances in treatment and controlled group with regard to employment

F-Test details	Beneficiaries	Non-Beneficiaries
Mean	45.57	7.57
Variance	1665.62	222.62
Observations	7	7
df	6	6
F	7.48	
P(F<=f) one-tail	0.014	
F Critical one-tail	4.28	

An F-test is used to test if the variances of two populations are equal. This test can be a two-tailed test or a one-tailed test. The two-tailed version tests against the alternative that the variances are not equal. The one-tailed version only tests in one direction that is the variance from the first population is either greater than or lesser than (but not both) the second population variance. The choice is determined by the engagement with employment. The table above represents the F-test of two-sample variances with regard to employment accessed by the treatment and controlled group. It has been found that the f-value for the test is 7.48 which is higher than the F critical one tail value of 4.28. The p-value of 0.014< 0.05 shows the significance of the test. Hence, the null hypothesis for both treatment and controlled group fails to be accepted, as both have unequal variances.

Table 4.28: Comparative status of employment in treatment and controlled groups (in %)

State	Employment of Treatment Group	Employment of Controlled Group
Assam	44.9	3.8
Delhi	23.5	100
Gujarat	62.8	80.4
Odisha	23.3	100
Punjab	33.1	50
Telangana	30.8	0
West Bengal	70	66.7
Total	**42.1**	**21.6**

The above table shows the percentage of non-beneficiaries and beneficiaries receiving employment. The employment of the treatment group (N=758) is better than the controlled group (N=245). This may also be shown through the line graph drawn below:
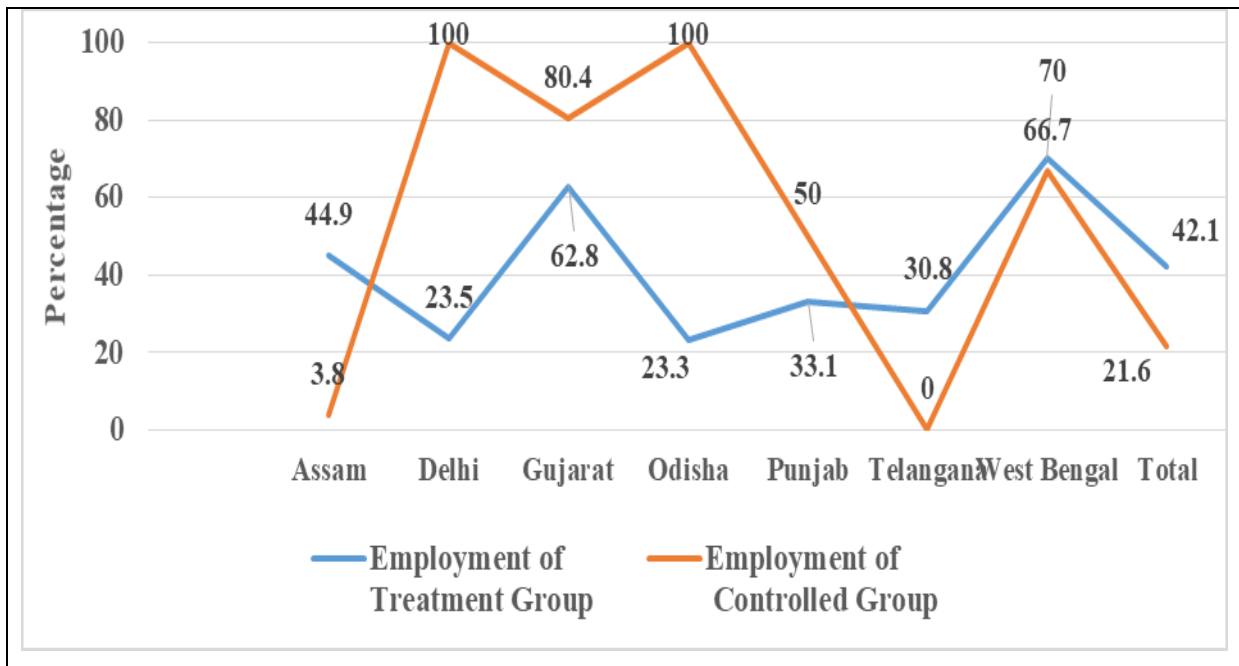
Figure4.10: Line graph showing employment percentage of target and controlled group

The line graph drawn above shows that the total performance of the treatment group on the indicator of employment is astounding in sharp contrast with the controlled group. The controlled group has shown positive in Delhi, Gujarat, Odisha and Punjab to a limited extent. The performance score in the above states of the controlled group is skewed (N=245). However, the total performance of the treatment group is almost double of the controlled group. As such, the intervention led by the ATI scheme has improved the employability of the treatment group.

4.4 Gaps in the achievement of outcomes

The evaluation study conducted on ATI has identified the following gaps in the achievement of outcomes:

1. The budget flow of the scheme has not been found uniform across the last five years. The fluctuation shows that the demand from states have not been forwarded to the Ministry promptly.

2. The infrastructure development works are still in an embryonic stage in many of the EDIs. Side by side, many of the EDIs have not started functioning despite the completion of their infrastructure development work, particularly EDI, Jote, Arunanchal Pradesh. The quantum of support extended for infrastructure development is low. The infrastructure cost in our country is higher, as compared to China, Vietnam, Indonesia, Sri Lanka etc.

3. The footfall in the skill training and entrepreneurship development batches vary in numbers. It shows an inadequate number of trainees have been attracted by the institutions

sampled, resulting in wastage of resources. The systematic mobilization strategy should have been in place.

4. The performance of the Central Tool Rooms have been found abysmal on cost-benefit analysis (CBA). The skill training programmes were not found completely aligned with the market demand.

5. The institutions registered on PFMS for filing expenditure were found inadequately abreast of its new updates access.

6. Some of the EDIs have been sanctioned fund without requirement, particularly in the case of EDI, Chennai. Though the Covid pandemic is one of the reasons, the classes could have been conducted virtually. However, virtual classes are not desirable over and above because the ongoing skill trainings are bestowed with 70% of the practical sessions. Yet, the theory classes could have been conducted to minimise the utilization of the resource gap.

7. Proper monitoring of skill training was found to be bleak. The need of the hour is to decentralise the system of monitoring at the district level so that a proper monitoring system be in place and quality training, imparted.

4.5 Key Bottlenecks & Challenges

(i) Proposals from the State Government for its EDIs are not being received by the Ministry. As a result, the need-based grants-in-aid is not being provided aptly. This a major bottleneck that is affecting the strength of the scheme.

(ii) The financial allocation made and fund released for infrastructure development to EDI institutions are pending since long incurring huge opportunity costs.

(iii) Most trainers deployed on a contractual basis were found least enthusiastic in imparting the training programmes. They were found to have not undergone any ToT at reputed institutes. That creates a major roadblock in learning outcomes.

(iv) The trainees after receiving entrepreneurship development training faced financial stringencies in setting up MSME ventures. The financial institutions were not found supporting them without considerable transactional track records.

(v) The maintenance of NSIC and Tool Room buildings required upgradation and proper upkeep. The walls of many NSIC and Tool Rooms were found to be dilapidated. Some of the NSIC centres have a huge unutilized land area as well. The social return on investment (SROI) due to unutilized land adversely affect the 'public good' have an abysmal score on the general level of productivity.

(vi) The course curriculum and training hours aligned with NSQF norms were found to be open-ended. The integration of teaching cum training hours was not found available on some

IT-enabled platforms. However, the training programmes in compliance with the NSQF may not necessarily be treated at par with specialized training programmes under Central Tool Rooms and NSICs.

4.6 Input Use Efficiency

The calculation of input use efficiency is considered to be an important parameter in the scheme evaluation. The input use efficiency focuses on avoiding or reducing the wastage of resources. Input efficiency measures the performance of the system and minimizes losses to resources. Input use efficiency is not only used by itself as an indicator but also used to measure the output. In this context, we have considered the total fund flow to the scheme w.e.f. FY 2015-20 and the achievement made under the ATI scheme. The details are summarised as under:

Table 4.29: Distribution of Input-output ratio based on actual expenditure and achievement

Year	Actual Budget (In Cr.)	Achievement	Input-Output ratio
2015-16	72.87	40681	0.001791
2016-17	38.24	16324	0.002343
2017-18	4.53	5340	0.000848
2018-19	22.27	5304	0.004199
2019-20	29.66	6658	0.004455

The input-output ratio has scored the highest for 2019-20, followed by 2018-19, 2016-17, 2015-16 and 2017-18. The fund is efficiently used in 2017-18 across the five years under the ATI scheme. The same conclusive finding has been depicted by the line graph given below:
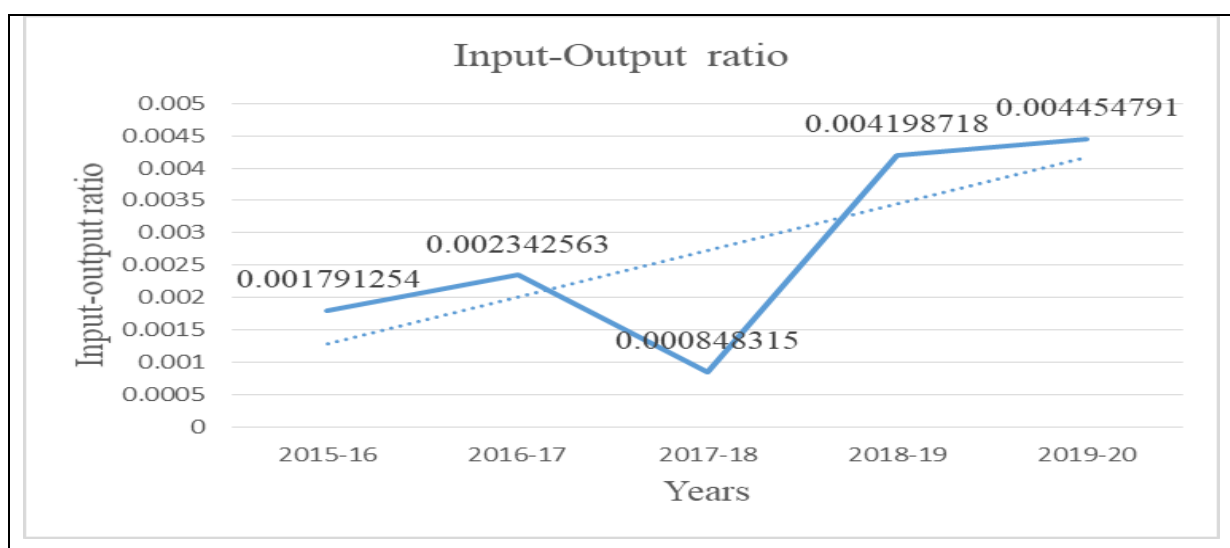

Figure 4.11: Line cum trend graph of input-output ratio

The line graph drawn above indicates the input-out use ratio. The input use efficiency shows a positive sign with regard to the actual expenditure and achievement made under the scheme. The efficiency of the scheme has been worked out to be 92.0% with respect to actual expenditure and target achieved.

5. OBSERVATION AND RECOMMENDATIONS

5.1 Thematic Assessment

The process of liberalization and market reforms has created wide-ranging opportunities for the development of small scale industries. Also, the changing world scenario has thrown up new challenges to the existence of the MSME sector. The need of the hour is to suitably strengthen the MSME sector so that it could adapt itself to the changing environment and face the challenges boldly and effectively. The accountability in the governance structure of the scheme is required to be in place. By introduction to IT enablement, the expenditure on various items and potential beneficiaries mobilized would become transparent. The employment generation has been promoted through the setting up of the MSME enterprise. Direct employment has led to the multiplier effect on indirect employment. Employment in the knowledge sector has led to a reduction in the emission of carbon footprints. Also, enterprise-driven economic empowerment has led to a reduction in the usage of fossil fuels. That has inbuilt ecological sensitivity. The creation of the beneficiary pool through IT will not only enable physical inclusion to the training but also ensure remote outreach of the scheme. The MSME institutions can be set up in aspirational or backward districts across the country based on need identification. The integrated window platform through IT would provide a profuse boost to the scheme for its improved existence. The skill development in youth would also bring about desirable change in the behaviour. Life enriching education may also be integrated with the scheme to find amicable changes in the beneficiaries' attitude, though they are averagely literate.

The need of the hour is also to initiate research and development in the MSME sectors. The State Government should also extend support to the MSME enterprises so that they can be set up. There should be a moratorium crediting system for the MSME enterprises. At least in the end they are supporting the state, in turn, to provide employment opportunities to its unemployed youth.

5.2 Externalities

Externalities occur in a scheme when the intended outcomes are not achieved or partly achieved due to unintended or latent reasons. There are unutilised land and infrastructure at

various institutions yet the fund has been released for the vertical extension of the building, which needs to be discouraged so as do away with wastage of resources. The identified externalities under the scheme of Assistance to Training Institutions are as under:

1. The training programmes conducted at different institutions should follow similar syllabi, course content and annual calendar and other contents ensuring uniformity and standardisation. It would enable learners to learn similar contents irrespective of the place with full accountability.

2. The institution operating with negative or lower per capita benefit created hiatus, incurring opportunity costs.

3. The EDIs operating in different states should have a common data pool for improving job opportunities and self-employment opportunities. The EDIs operating with the least marketability can be revamped in effective directions.

4. The best practice of training imparted at ni-MSME may be replicated to other training institutions, particularly in the organization, implementations, evaluations, mentoring and hand-holding.

5. The EDII, Ahmedabad's upkeep, the inclusion of trainees' feedback for the next programme may be replicated. The hygienic upkeep of the EDII campus, maintenance, SOP, tracking the trainees about their status should be replicated in other training institutions.

6. CONCLUSION

6.1 Issues and Challenges

During the evaluation of the ATI scheme, the following issues and challenges were noticed:

1. Suitable and systematic publicity of the training programmes, particularly conducted by Central Tool Rooms and NSICs were found inadequate.

2. Many of the State Governments have not timely routed the proposals to the Ministry, creating undue delay in fund release or no release at the end of the Ministry.

3. An inadequate use of PFMS was found with the sampled institutions.

4. Per capita benefit from Central Rooms was found abysmal.

5. The infrastructure development works are still in an embryonic stage in many of the EDIs. Side by side, many of the EDIs have not started functioning despite the completion of their infrastructure development work, particularly EDI, Jote, Arunanchal Pradesh. The quantum

of support extended for infrastructure development was found to be impracticable. The infrastructure cost in our country is higher, as compared to China, Vietnam, Indonesia, Sri Lanka etc.

6. Reluctance in taking up the renovation/upgradation work of training institution by CPWD/Government agencies was found to be one of the major challenges.

7. Special sunrise industries like Solar, EV, ITeS and AI services were found inadequately prioritised by EDIs.

8. Soft skills were found to be insufficiently integrated with the course module, particularly in Central Tool Rooms and NSICs. Also, marketing skills were found to be impracticably intermingled.

9. The content to be taught in the training centres were not found in the vernacular languages.

10. Online database of beneficiaries enrolled, trained, certified and placed was inaccessible.

6.2 Vision for the future

The evaluation study of the ATI scheme suggests a threefold vision for future operations. These are: short, medium & long terms.

The short term vision includes a greater urgency to complete infrastructure development works. If the CPWD/Government agencies are reluctant, the same can be outsourced to private players to complete the construction works immediately. The EDIs having ample space like EDI, Chennai should be allotted trainings so that available resources can effectively be harnessed. The State Government may be asked to take necessary steps so that the skill ecosystem be expanded without incurring additional costs.

Medium-term vision places importance on the making of 'New India' and 'Skill India'. The 'New India' focuses on initiatives taken by the government for the young population and their aspirations by building a strong and inclusive India. The scheme may gear up facilities so that NISCs and Tool Rooms can be utterly functional and optimally utilized. The renowned entrepreneurs should be invited to encourage and motivate the aspirants receiving entrepreneurship development trainings. Also, the industry partners should be integrated with the trainings conducted at Tool Rooms and NSIC centres. That would open a window for improved employability of beneficiaries being trained.

The long-term vision of the scheme should be to improve the outreach of trainings to the remotely located areas so that unreached youth acquire or upgrade their skills and take up income-generating activities. The quality of life improvement equips learners and the community with essential knowledge, attitude, values, and skills to raise their standard of living; and individual interest promotion. In long term, the Ministry may like to set up an

institution with state-of-the-art infrastructure in new skill sectors where MSME intervention become phenomenal. As such, the broad vision of the scheme would be to enhance trained manpower in the MSME sector leading to enterprise creation and employment generation across the country.

6.3 Recommendation for Scheme with reasons

The scheme of Assistance to Training Institutions (ATI) is one of its kind because training programmes under the scheme have provided a finishing touch to the capacity-based placement to the beneficiary trainees. Its unique outreach across the country through training institutions has accommodated unemployed youth to receive skill training and entrepreneurship development. The positive impact of the training programmes on employability and the improved satisfaction level of trainees have been recognized through the result of Randomized Controlled Trial (RCT). The improvement in the infrastructure of state EDIs and making financial resources available to meet the revenue deficits to the National level of Institutions show a proper intervention of the scheme. Based on the findings of the study, 33.2% women representation, 21.9% SC participation, 8% Divyanjan inclusion show the social inclusiveness of the scheme. Better per capita benefit based on cost-benefit analysis, 90.4% responses on training in the aspirational skills, 19.9% wage employment and 22.2% self-employment show the success of the scheme. Promoting skill upgradation, apprentice mechanism in view of acute shortage of specialised manpower in hi-tech sectors has well been addressed by technical institutions (NSICs, ni-MSME and Tool Rooms). Keeping in view the above performance scores, the scheme appears economically viable and socially inclusive. **As such, the study recommends for continuation of the Assistance to Training Institutions (ATI) scheme.** The recommendations to improve the effectiveness of the scheme are as under:

1. The publicity of the scheme needs to be integrated with suitable print media, audio-visual media, social network platforms, State and Central Government websites and PRIs. This is particularly applicable to Central Tool Rooms.

2. The Ministry may invite the proposals of infrastructure development from State EDIs directly. However, a copy of the proposal may be routed through the respective State Governments. The same may be followed up with the states at the level of the Ministry. This would help minimize the delay in fund release and depreciation attached with the amount. Also, the Ministry may set up a dedicated desk to keep an eye on infrastructure development works in EDIs.

3. Working with EAT module and use of PFMS need to be integrated with work orders for the institutions receiving grants from the Ministry. The compliance needs to be ascertained.

4. The Central Tool Rooms are recommended to follow up the function style of NSICs to come out of lower per capita benefit. The Central Tool Room, Ludhiana needs to improve upon its previous performance. Negative per capita benefit shows its underperformance. The Ministry is suggested to monitor the functions of the Institutions covered under the ATI scheme.

5. The three category courses and per head per hour learning cost prescribed in the scheme need to be revised considering cost escalation of various items. The revision is recommended to follow Market Price Index (MPI). Also, the grant of 2.5 crore needs revision so that infrastructure work is not compromised on qualitative grounds. The infrastructure cost in our country is higher, as compared to China, Vietnam, Indonesia, Sri Lanka etc.

6. Money released for infrastructure development works requires an early completion. Keeping in view the reluctance in taking up the renovation/upgradation work of training institution by CPWD/Government agencies, it is recommended that in order to do away with the hurdle, the work may be outsourced to a private construction agency having a good track record.

7. The institutions ready with infrastructure should start the courses immediately. An early inauguration of the EDI, Jote, Arunachal Pradesh needs to be ensured so that it starts producing results.

8. The Institutions should start giving adequate focusing on sunrise industries like Solar, EV, ITeS and AI services, etc.

9. Soft skills and marketing skills are required to be integrated with the module of Central Tool Rooms & NSICs and EDIs, respectively.

10. The contents to be taught in the training programmes should be imparted in vernacular languages as far as possible.

11. A mandatory online accessible database of beneficiaries enrolled, trained, certified and placed need to be developed by the training Institutions so that their outcome can remotely be examined and recognised.

7. Annexure-1: Guidelines of Scheme for "Assistance to Training Institutions (ATI)"

1. BACKGROUND

The Micro, Small and Medium Enterprises (MSMEs) sector is highly vibrant and dynamic sector of the Indian economy. MSMEs not only play crucial role in providing large employment opportunities at comparatively lower capital cost than large industries but also help in industrialization of rural & backward areas, thereby, reducing regional imbalances, assuring more equitable distribution of national income and wealth. MSMEs are complementary to large industries as ancillary units and contribute enormously to the socio-economic development of the country.

The Ministry of Micro, Small and Medium Enterprises (MoMSME) promotes the development of micro and small enterprises in the country with the objective of creating self-employment opportunities and upgrading the relevant skills of existing and potential entrepreneurs. In order to promote establishment of new enterprises and creation of new entrepreneurs MoMSME has been implementing various schemes and programmes.

Entrepreneurship development is one of the key elements for promotion of micro and small enterprises, particularly, the first generation entrepreneurs. Entrepreneurship, and resultant creation of employment and wealth, is a major means for inclusive development. Hence, entrepreneurship development has been one of the priorities in countries the world over.

In order to ensure that young entrepreneurs are encouraged and suitably equipped to go into new ventures, the Government has been providing assistance for establishment of Training Institutions/ Entrepreneurship Development Institutes (EDIs) for imparting entrepreneurship and skill development training. These institutions have been providing entrepreneurship and skill development training to the first generation entrepreneurs and helping and supporting them in the establishment of their enterprises. Government makes consistent and concerted efforts to accelerate and promote entrepreneurship by providing support for strengthening of training infrastructure as well as programme support.

MoMSME has a vast network of institutions to undertake the task of training for skill development on a regular basis such as, National Institute for Micro, Small and Medium Enterprises (ni-msme), Hyderabad, Mahatma Gandhi Institute for Rural Industrialization (MGIRI), Training cum Incubator Centres (TICs) of National Small Industries Corporation

(NSIC), Central Tool Rooms (Technology Centres), training centres of MSME Development Institutes, Khadi and Village Industries Commission (KVIC) and Coir Board.

2. **OBJECTIVE**

The objective of the ATI Scheme is to strengthen capacity for training for Skill Development, entrepreneurship, providing training to staff of DICs and related Government institutions dealing with MSMEs and strengthening overall capacity of National Institutions under Ministry of MSME to undertake these trainings. Under Skill India Programme, skill training is being given in accordance with the modules approved by the National Skill Qualification Framework (NSQF). The objective of the scheme is to build capacity both physical infrastructure and Human Resource (HR) in National Level Institutions under Ministry of MSME to undertake skill development.

National Institute for MSME (ni-msme) is a premier National Level Institution for MSMEs. There are number of State Level Entrepreneurship Development Institutions working on MSMEs issues. State and Central Government departments have large staff for providing support to MSMEs. The scheme also proposes to improve capacity of staff working in District Industries Centres and Industries Departments in States.

3. **ASSISTANCE UNDER THE SCHEME**
Assistance to Training Institutions of Ministry of MSME (MoMSME)

Eligibility

Assistance may be provided under the scheme for creation or strengthening/ expansion of infrastructure, including opening of new branches/centres to training institutions of Ministry of MSME and for meeting revenue deficit, if any, of National Institute for Micro, Small and Medium Enterprises (ni-msme).

Scale of assistance

Amount of assistance will not exceed the actual amount required for creation or strengthening/expansion of the infrastructure of the training institution and meeting the revenue deficit, etc. of ni-msme.

3.2 Assistance to State Level EDIs
Eligibility
(i) Assistance may be provided under the scheme to existing State Level EDIs (Entrepreneurship Development Institutes) i.e. owned and controlled by a State Government/UT for creation or strengthening/expansion of their infrastructure.

(ii) The financial assistance will be for specific needs of each case for construction of building, purchase of training aids/equipments, office equipments, computers and for

providing other support services e.g. libraries/data bases, etc. The costs of land, construction of staff quarters, etc. would not qualify for calculation of grant from the Central Government.

(iii) Financial assistance under the scheme will not be available, henceforth, for setting up of a new EDI. However, the proposals approved or committed earlier would be processed for financial assistance in accordance with the pre-revised guidelines.

Scale of assistance

(i) The maximum assistance under the scheme to a State level EDI will be restricted to Rs.250 lakh in each case. This grant would be utilised for development of physical infrastructure, equipment, faculty training and development of capability for imparting skill development trainings related to MSME sector. This grant would be over and above the grant, if any, received by that institution earlier under the ATI scheme.

(ii) For the purpose of grant under this category, an EDI owned and controlled by a State Government/UT would be selected as recommended by the State Government.

Other Conditions

(i) All the proposals would be routed through the State/UT Government and would require recommendation of the State/UT Government.

(ii) The assisted EDI shall be required to complete the construction within the given time-frame and shall have to furnish the utilization certificate of the assistance sanctioned within the period prescribed in the sanction letter. In the event of delay in completion of the project, extension of time limit will have to be obtained from Ministry of MSME with justifications.

(iii) The assisted EDI shall not dispose of or lease out or create any change over the assets created by utilizing the assistance provided under this scheme, without written permission from the MoMSME.

(iv)The assisted EDI shall not change the form or the basic character of the EDI, without prior approval of MoMSME. The charter of the assisted EDI indicating its objects shall not be amended without written permission of the Ministry of MSME.

(v) The assisted EDI shall get its account audited every year and shall be required to submit annual report along with financial statement to the MoMSME, at least for a period of five years after receipt of the financial assistance. The annual reports on implementation of the scheme would include the details of construction activity, procurement of machinery/ equipment etc. during the period under report. The annual reports must contain details of the activities undertaken by the Institute during the period under the report, along with audited accounts. The report would also include the details of successful entrepreneurs who have set up their enterprises.

(vi)The assisted EDI shall be required to maintain a fixed assets register of assets/equipments procured by utilizing grant funds for verification by Ministry of MSME at any time.

(vii) In case of failure to utilize the sanctioned funds within time or its misuse, misappropriation or diversion or violation of any one or more of the conditions mentioned above, the Government will be entitled to recover the entire assistance amount with interest, in addition to taking such other legal and/or penal action, as deemed necessary.

(vii) Central Government may also prescribe such other conditions, as deemed necessary, before sanction/release of assistance.

3.3 Assistance for Training Programmes

Eligibility

(i) Assistance may be provided under the scheme to conduct training programmes in the areas of Skill Development to the following Training Institutions:-

> (a) ni-msme, (b) NSIC, (c) KVIC, (d) Coir Board, (e) Tool Rooms/ Technology Centres and (f) MGIRI.

(ii) The financial assistance under this scheme would be of revenue nature

(iii) Central Government may prescribe such other conditions, as necessary, before sanction/release of assistance.

Scale of assistance

(i) Assistance for skill development programmes under the scheme would be provided based on the duration of the NSQF compliant training programmes (number of hours of training inputs). The cost of a training programme would be determined as per the following base rates notified by Ministry of Skill Development and Entrepreneurship vide Notification No. H-22011/2/2014-SDE-I dated 15.07.2015 as amended from time to time:-

Category I Courses: Rs. 38.50 per head per hour of training.

Category II Courses: Rs.33.00 per head per hour of training.

Category Ill Courses: Rs.27.50 per head per hour of training.

(ii) The first installment of the grant would be released in advance. The subsequent installments would be released based on the progress of utilization of funds already released.

(iii) Assistance for Training of Trainers (ToTs) programmes would be provided @ Rs.60 per trainee per hour (or, the rate prescribed under the common norm/NSQF, whichever is less).

(iv) Assistance for other types of training programmes would be decided based on actual requirement in each case.

(v) The total amount of assistance to be considered for release as per the above rate will include the cost of overheads such as, motivation camps for selection of eligible trainees, charges towards hiring of space and equipment (if any), electricity/water, stationary, man hour cost of deployment of project personnel, post training follow-up activities, etc.

(vi) The trainees would be expected to make their own arrangement for travel and stay during the training period. In case the residential facility is provided by the Training Institution, it may charge the same from the trainee (subject to common norms/NSQF). It would be permissible to dovetail the assistance under this scheme with facilities/benefits available under schemes of other Ministries/ Departments/ State/UT Governments etc. for reimbursement of travel, boarding and lodging expenses and stipend etc. However, it would be the responsibility of the Training Institution to ensure that there is no duplication and assistance for the same purpose is not claimed under more than one scheme.

Other conditions

(i) The national level training institutions of MoMSME will submit their proposals directly to MoMSME. The Screening Committee shall consider the proposal(s), keeping in mind suitability of the proposal, competency, capacity and experience/past performance of the Training Institution, availability of funds etc. and forward the proposals, along with its recommendations to Secretary (MSME) for approval.

(ii) After approval, the Ministry shall place the required funds with the national level training institutions. On successful completion of the training programme(s), the concerned institution shall furnish the Utilization Certificate to the Ministry. The concerned institution shall also be responsible for ensuring the quality of inputs as well as certifying the actual participation of trainees in the training programme.

iii) The Screening Committee shall also lay down the criteria for examining the competency, capacity and experience of the applicant Training Institution.

(iv) Central Government and/or the concerned national level institutions may also conduct such further checks or verifications through its own offices or through an independent agency, as deemed necessary.

(v) In case it is found subsequently that assistance has been claimed falsely or fraudulently or assistance for the same item/activity has been claimed under some other scheme also, the Government will be entitled to recover the entire assistance amount with interest, in addition to taking such other legal and/or penal action, as deemed necessary.

4. **APPLICATION PROCEDURE**

The scheme envisages consideration of proposals under Paras 3.1 to 3.3 above from national and state level EDls, training institutions of MoMSME etc. The proposals for grant of financial assistance under the scheme shall be submitted to the Deputy Secretary/Director (EDI Section), MoMSME, Udyog Bhawan, New Delhi 110011. The proposals for assistance under paras 3.1 to 3.3 above shall be processed for submission to the Screening Committee, set up under para 5 below, for consideration. The Screening Committee shall examine all the proposals received under the scheme and submit its recommendations to Secretary (MSME). After approval of Secretary (MSME), administrative approval shall be conveyed to the applicant organization and admissible financial assistance shall be released in accordance with the approval letter. It is clarified that private training institutions/NGOs are not covered under the scheme for assistance for infrastructure support and training programmes.

5. SCREENING COMMITTEE

The composition of the Screening Committee referred in Para (4) above will be as under:

(i) Joint Secretary (SME), Ministry of MSME- Chairman.

(ii) Economic Adviser (Finance) or his representative, MoMSME.

(iii) Representative of Development Commissioner (MSME)

(iv) Deputy Secretary/Director (EDI Section, MoMSME

(v) Deputy Secretary/Director of the Division concerned with the proposal in Ministry of MSME/Office of Development Commissioner (MSME).

(vi) Under Secretary (EDI Section), MoMSME - Member Secretary.

The Screening Committee may also invite representatives of Organizations concerned with proposals as *Special Invitee*.

6.   MONITORING   AND   EVALUATION

The progress of the scheme shall be regularly monitored by the Screening Committee/ Secretary (MSME) from time to time. The overall impact of the scheme shall be got evaluated by an independent agency at the end of the Fourteenth Finance Commission Cycle i.e. 20 19-20.

8. Annexure-2: Research Tools

<u>BENEFICIARY TRAINEE/ NON-BENEFICIARY</u>

Name:
District:
State:
Training Institute:
Mobile No.

<u>Basic Details</u>

1. Sex: (i) Male (iii) Female (iii) Transgender
2. Location: (i) Urban (ii) Rural
3. Physical Status (i) Abled (ii) Disabled
4. Social Category: (i) General (ii) OBC (iii) SC (iv) ST (v) Minority
5. Highest level of **candidate's** educational qualification: (i) Upto Primary (I-VII) (ii) Upto Secondary (VII-X) (iii) Upto Higher secondary (XI-XII) (iv) Upto Graduation (v) Above Graduation (vi) Vocational
6. Highest level of candidate's **mother's** educational qualification: (i) Upto Primary (I-VII) (ii) Upto Secondary (VII-X) (iii) Upto Higher secondary (XI-XII) (iv) Upto Graduation (v) Above Graduation (vi) Vocational
7. Highest level of candidate's **father's** educational qualification: (i) Upto Primary (I-VII) (ii) Upto Secondary (VII-X) (iii) Upto Higher secondary (XI-XII) (iv) Upto Graduation (v) Above Graduation (vi) Vocational
8. Ration card Status: (i) APL (ii) BPL (iii) Annapurna (iv) Nirashrit (iv) Not applicable
9. Monthly Income of the Household: (i) Less than Rs. 10000 (ii) More than Rs. 10000 & less than Rs. 20000 (iii) More than Rs. 20000 and less than Rs. 40000 (iv) Over Rs. 40000.
10. Monthly Expenditure: (i) Less than Rs. 10000 (ii) More than Rs. 10000 & less than Rs. 15000 (iii) More than Rs. 15000 and less than Rs. 200000 (iv) Over Rs. 20000.
11. Current Employment Status: (i) Employed (ii) Unemployed
12. Status of your home: (i) Rented (ii) Own

<u>Outcome-based</u>

1. Do you own a business/enterprise? (i) Yes (ii) No
2. What is your earning level? (i) Between Rs. 10,000 and Rs. 20,000 (ii) Between Rs. 20001 and Rs. 30000 (iii) Between Rs. 30001 and Rs. 40000 (iv) Over Rs. 40001.
3. What is the distance of workplace from your home? (i) Less than a Km (ii) between one Km to 2 Kms (iii) between 2.5 Kms to 3.5 Kms (iv) between 4 Kms and 5 Kms (v) Over 5 Kms
4. From whom did you receive the voluntary up-skilling? (i) Peer group (ii) EDI (iii) Parents (iv) Private Institute (v) Others
5. Have you received any credit for your start-up under the Government scheme/s? (i) Yes (ii) No
6. How do you rate your difficulty in finding a job? (Rate on the scale of 1-5 where one being not difficult and 5 being very difficult)
7. How do you rate your satisfaction level, if you would have/ have found a job? (Rate on the scale of 1-5 where one being dissatisfied and 5 being extremely satisfied)
8. Kindly rate your skills for the employability. (Rate on the scale of 1-5 where one being poor and 5 being excellent).
9. What kind of network do you have with the industry partners (employers): (i) Social based (ii) Personal relation based (iii) Skill-based (v) Educational qualification based

10. How much do you value for one hour in Rs.? (i) Less than Rs. 100 (ii) More than Rs. 100 but less than Rs. 200 (iii) More than Rs. 200 but less than Rs. 300 (iv) Over Rs. 300

Thematic Issues

1. In which skill sector have you received the training?
2. Did the training programme provided up-scaling in you skill? (i) Yes (ii) No
3. Did you receive the training in your aspirational skill? (i) Yes (ii) No
4. Whether the training provided you opportunity to be associated with Industry partners (employers)? (i) Yes (ii) No
5. Whether the skill training matched with the market demand? (i) Yes (ii) No
6. Whether the quality of learning was emphasized during the training? (i) Yes (ii) No
7. Whether the assessment of training was faire and transparent? (i) Yes (ii) No
8. Whether the course helped you to attain the set learning objectives? (i) Yes (ii) No
9. Did you find the delivery of the training programme effective? (i) Yes (ii) No
10. Did you feel attracted to find the course materials? (i) Yes (ii) No
11. Did you find sufficient games, and interactive quizzes during the training? (i) Yes (ii) No
12. Please rate the following on the scale of 1-5 (One being least effective and 5, most effective)
a. Sufficient seating space
b. Toilets
c. Practical lab
d. Cleanliness
e. Hygiene
f. Electricity
g. Drinking water
h. Location of EDI in relation to transport facility for commutation
i. Delivery of contents by trainer
j. Training kit provided
k. Marketability of skill acquired
l. Feedback based improvements
m. Invitation of industry experts to take sessions
n. Sufficient number of class rooms
o. Post-training support for the employment
13. How many people are dependent on your income?
14. What kind of benefits do you provide to your community?
15. Kindly provide suggestions to improve with the training ecosystem.

QUESTIONNAIRES FOR INDUSTRY PARTNER

Name of Representative:

Name of the Industry:

Mobile No.:

State:

1. What are the sunrise sectors as per your experience?
2. How do you rate the candidates passing out from the EDIs? (One being least effective and 5, most effective)
3. Does the Training Institutions (MoMSME) are meeting recruitment demand of your industry? (i) Yes (ii) No
4. Do you experience a positive change in your organization after taking up candidates passing out from Training Institutions? (i) Yes (ii) No
5. Do the Training Institutions (TIs) are in your connection for getting the job for their pass-outs? (i) Yes (ii) No
6. Do you find the infrastructure facilities available with the TIs satisfied? (i) Yes (ii) No
7. Whether the TIs consider the skill-gap survey to be incorporated while imparting training? (i) Yes (ii) No
8. Do you feel interested in retaining the pass outs from the TIs? (i) Yes (ii) No
9. How the scheme of assistance to training Institution can be improved?

QUESTIONNAIRE FOR THE TRAINER

1. Name of the Resource Person/Trainer:
2. Name of Training Institute:
3. Mobile Number:
4. Gender: i. M   ii. F
5. Status of employment; i. Regular ii.Contractual iii. Ad-hoc
6. Years of experience:
7. Name of the course: ………………………………
8. Duration of the course in days: ……………………………
9. Have you undergone the training of the trainer (ToT)?
    (i) Yes   (ii) No

10. Does the course address the market needs?
                 i. Yes   ii. No
11. To what extent the course material and equipment provided by EDI is sufficient?
     (Rating Scale 1-5)

                             1-----2-----3----4----5
12. Do you use different digital devices/media platforms while conducting learning
     sessions?
                     i Yes   ii No
13. What are the major challenges you face while imparting training?

        i.   Balancing diverse learning needs
        ii. Language related
        iii. Entry behavior of trainees
        iv. Different education level
        v.   Gender related
        vi. Others
14. Whether the course is attracting sufficient number of students?
     (i) Yes (ii) No
15. What is the percentage of student attendance in your classes?

     (i) Up to 40 (ii) 41 -50 (iii) 51-60 (iv) 61-70 (v) 71-80 (vi) 81-90 (vii) 91-100
16. Do the trainees approach you after completing the course:
      i.   Courtesy call
      ii.   Further refinement/enhancement of skill
      iii.   Guidance for placement/employment
      iv.   Guidance for self-employment
      v.   Others, specify …………………………

17. Do you find the course beneficial for creating employability?
     (i) Yes   (ii) No
18. Does the course content is aligned with the NSQF?
     …………………………………………………………………………..

19. Do you share your problems/suggestions with EDI
    i.   Yes   ii. No

20. If yes, what is the response of EDI?
    i.   No action
    ii.   Rebuff/Not welcomed
    iii.   Action is taken
    iv.   Others, specify…………………………….

21. What are your suggestions to improve the training at the EDI?

QUESTIONNAIRES FOR REPRESENTATIVE OF THE TRAINING INSTITUTE

1. Name of the representative:
2. Mobile No.:
3. Name of the training Institute:
4. State:
5. District:
6. Location: (i) Rural (ii) Urban
7. Level of Institute: (i) National (ii) State (iii) Others
8. Skill Sector:
9. Did you receive the capital grant under the scheme? (i) Yes (ii) No
9.1 If yes, under the capital grant of MoMSME, how much amount have you used to meet the financial deficits?
10. Training Capacity at any given time:
11. Capital Grant Status: (i) Availed (ii) Not Availed
12. Programme support in FY 2019-20:
13. Total Training programme conducted:
14. Total Number of trainees trained:
15. Self-employed total trainees:
16. Wage employed total trainees:
17. Wage rate of the trainees receiving employment:
18. Total Cost incurred in the last one year:
19. Total productivity received in the last one year:
20. To what extent the trainings provided under the scheme meets the demand of Industry partners? (Rating 1-5, one being the worst and 5, the best)
21. What kind of changes do you want to be carried out under the scheme to be turned most effective?
22. What is the reason for unemployment despite the youth undergone training?

23. Status of following infrastructure facilities available with the Centre *(based on researcher's observation)*

S. No.	Infrastructure	Status
1.	Area of Training Centre	1. Adequate 2. Not Adequate
2.	Dedicated Lab/Workshop	1. Yes 2. No
3.	Required tools and equipment	1. Available 2. Not available
4.	Computers available	No. =
5.	ToT certified Trainers	No. =
6.	Enrolled Trainees	No. =
7.	Student – Trainee Ratio	Ratio:
8.	Counselling and Placement Cell	1. Available 2. Not available
9.	Clean Drinking Water	1. Available 2. Not available
10.	Separate Toilet for girls	1. Available 2. Not available
11.	First Aid Kit	1. Available 2. Not available
12.	Cleanliness & Hygiene	1. Adequate 2. Inadequate
13.	Library	1. Available 2. Not available
14.	All time Electricity	1. Available 2. Not available
15.	Bio-metric attendance system	1. Available 2. Not available
16.	Barrier free environment for Divyang	1. Available 2. Not available

24. Have you conducted any skill development programme awarded by MoMSME? (i) Yes (ii) No
25. What are other sectors in demand which are not available under MSME sectors?
26. Do you have infrastructure to run simultaneous training programmes? (i) Yes (ii) No
27. Whether the financial assistance provided under the scheme is sufficient? (i) Yes (ii) No
28. If additional financial resources are required, how do you meet?
29. Which skill sector got maximum response from the training candidates?
30. Which skill sector got least response from the training candidates?
31. In which aspect of training your trainers use IT for instructions?
i.   Theory
ii.   Practical Demonstration
iii.   Notes
iv.   Syllabus sharing
v.   Reference Material (print, visual, video)
vi.   Assessment & Certification
vii.   Any other, specify
32. What other challenges do you face in conducting the courses?
   i.   Students Interest
   ii.   Language Barrier
   iii. Background qualification of student
   iv.   Course duration is too short
   v.   Course duration is too long
   vi.   Difficult to get qualified/certified trainer
   vii. Student absenteeism
   viii. Trainer absenteeism
   ix.   Lack of quality course material
   x.   Insufficient IT software for course
   xi.   Other (specify)
   31 What is the average dropout rate of trainees in your Centre?
         …………………%
   32 What is the average pass out rate of trainees in your Centre?
         …………………%

   33 Do you have counselling and placement cell?
         i.   Yes   ii. No
   34 What role does counselling and placement cell perform?
         i.   Maintain data bank of industry partners
         ii.   Maintain data bank of trainees
         iii. Facilitate one to one interface between trainee and industry
         iv.   Exchange information between centre and industry partners
         v.   Counsel trainees for job selection
         vi.   Negotiate pay package with employers
         vii. Follow up after job placement
         viii. Handholding and guidance for self-employment
         ix.   Others, specify ……………………………….
   35 What counselling techniques your Cell adopt for placement of trainees?
         i. Inform candidates through print and non -print material about job opportunities available
         ii. Inform candidates through mobile/internet/social media about job opportunities available

      iii. Provide psychometric testing

      iv. Face to face counselling

      v. Facilitate employer – trainee interface

      vi. Others, specify ……………………………..

36 Does your Institute provide post placement support to trainees?

      i.   Follow up with employer about trainee performance

      ii.   Follow up with trainee about job satisfaction

      iii. Follow up with trainee about job performance

      iv. Trouble shooting and problem solving

      v.   Any other, specify

37 Do you have any mechanism to verify the employment status of trained trainees?

      i.   None

      ii.   Back check phone call

      iii. Periodic meetings

      iv. Through letter

      v.   Centre web portal

      vi. Social media messaging

      vii. Others, specify: …………………………….

38 Do you have suggestions to make industry linkages more effective?

      ………………………………………………………………………………

39 List out a maximum of 5 suggestions you consider most important to improve the performance of EDI?

      i.   ………………………………………………………………………………….

      ii.   …………………………………………………………………………………

      iii. …………………………………………………………………………………

      iv. ………………………………………………………………………………

      v.   ………………………………………………………………………………