EVALUATION STUDY REPORT OF THE SCHEME PRADHAN MANTRI KAUSHAL VIKAS YOJANA (PMKVY)

2016 – 2020

सत्यमेव जयते

Goverment Of India

Submitted to

ECONOMIC &POLICY WING

MINISTRY OF SKILL DEVELOPMENT AND ENTREPRENEURSHIP

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Conducted by

Indian Institute of Public Administration

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I hope that the study report would meet all the requirements envisaged in the Terms of Reference (ToR) of the third party evaluation of the Central Sector Scheme- Pradhan Mantri Kaushal Vikas Yojana (PMKVY).

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1. EXECUTIVE SUMMARY

1. Pradhan Mantri Kaushal Vikas Yojana (PMKVY) is the flagship outcome-based skill training scheme of the Ministry of Skill Development & Entrepreneurship (MSDE) under Skill India. It is India's largest skill certification scheme and the objective is to enable and mobilize a large number of Indian youth to take up outcome based skill training and become employable and earn their livelihood. PMKVY 1.0 was launched on 15th July 2015. Based on outcome centric effectiveness of the PMKVY 1.0, the PMKVY 2.0 was approved on 15th July, 2026 with more focus on stringent quality parameters. The instrumental objective of the scheme is to enable a large number of Indian youth to take up industry-relevant skill training that would help them secure a better livelihood. The scheme aims to train them on skills based on the National Skill Qualification Framework. The institutional arrangement for the scheme comprises the ministry of Skill Development and Entrepreneurship (MSDE), National Skill Development Cooperation (NSDC), Sector Skill Councils (SSCs), Training Providers (TP) and Assessment Agencies. However, the NCDC plays a substantial role in the implementation of the scheme. The PMKVY 2.0 has two components, namely, Centrally Sponsored & Centrally Managed (CSCM) and Centrally Sponsored State Managed (CSSM). The CSCM is implemented by NSDC and CSSM, by State Skill Development Missions (SSDMs). Moreover, the scheme has three formats, namely Short term Training, Special Projects and Recognising Period Learning (RPL).

2. The broad vision of the scheme is to encourage and promote skill development for the youth of the country by aligning itself with the Common Cost Norms guidelines. The assessment of trainees under the scheme is linked with 50% technical/non-technical QP for NSQF level below 3 and 70% for NSQF level above 4. The scheme is aligned with other Missions of the Government of India, such as Make in India, Digital India, Swachh Bharat, and Smart Cities etc. The major objectives of the scheme can be classified into four parts (as mentioned in the Scheme Guidelines): (1) to enable and mobilize a large number of youth to take up industry designed quality skill training so that they become employable and earn their livelihood, (2) to increase productivity of the existing workforce, and align skill training with the actual needs of the country, (3) to encourage the standardization of the Certification process and put in place the

foundation for creating a registry of skills, and (4) to benefit 10 million youth over the period of four years (2016-20).

3. The PMKVY 2.0 (2016-20) has consideration for social inclusivity by gearing up vulnerable, marginal groups and north east region. Out of the total expenditure incurred, 15.4% of actual expenditure has been spent on SCs, 7.9% on STs and 6.7% on North east region. Out the total sample size studied, the coverage of women under the scheme has been found to be 48.7% women, 12.43% SC, 4.8% ST, 0.9% Divyangjans, and 46.1% BPL beneficiaries. The special interventions under the scheme have been found for beneficiary women. To incentivise women, persons with disability and transgender, post placement support, conveyance allowance, assistive Aid (in case of PwD), boarding and lodging (whatever applicable) are provided amongst others. In addition, all candidates successfully completing certification are given reward money of Rs. 500. To encourage and support women candidates, to take employment opportunities, Rs. 1500 is provided in the form of post placement support (PPS) to eligible candidates within and outside district of domicile for a period of 2 months and 3 months, respectively.

4. The budget allocation for CSSM and CSSM are 25% and 75% respectively. The placement target set for both the components is 70%. In 2016, the target allocation to Training centre was based on first come first serve basis. In 2017, the target allocation to TCs was based on first come first serve along with geographical and sectoral coverage. In 2018, the target allocation to TCs changed to (1) placement performance, (2) PMKKs, (3) request for proposal (in line with sectoral investments), (4) Academic institutions. In 2019, the same was changed to: (1) employer models introduced, and (2) most training in PMKKs. The new initiative undertaken for training partner selection is also based on geographical and sectoral coverage, aggregation of sectoral demand, stress on previous experience and financial strength of the organization to bring in more credibility. The employer led model has been initiated to empanel industry as partners for providing training with a focus on employment and industry participation. Academic institutes have been brought-in on part payment model as best in class institutes, effort to onboard and leverage existing infrastructure/expertise of existing recognised institutes. The focus have been laid on job role level 5 and above. The scheme has aimed at covering 108 aspirational districts, 79 NE districts across 8 NE states, and 53 unserved districts.

5. For the evaluation of PMKVY 2016-20, the objectives were to assess the performance of scheme and analyse various gaps for corrective action with regard to improvement in market efficiency and productivity of labour while ensuring, inclusion of women, SC, ST, Divyang and other vulnerable groups The another major objective of the study was to assess relevance, effectiveness, equity and sustainability, input use efficiency related to institutional mechanism, fund flow, effectiveness of PMKVY in skilling, up-skilling, RPL activities, certification and placement. The other objectives of the scheme to assess the formalization of workers with social security, issues and challenges in the implementation mechanism along with the scheme having convergence with other schemes of government/private sector/ CSR effort. As such, the central objective of the study was to gauge the impact of different components under scheme on beneficiaries/candidates/trainees. The evaluation has also considered the insights drawn from various stakeholders regarding the current implementation of the scheme and provide feedback for further improvement.

6. The evaluation study used up a comprehensive methodology fuelled by 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 28 states and 7 UTs, so based on the maximum number of training partners covered under the scheme, two states were selected from each of the six NSSO classified zones. In the case of the north eastern zone and south zone, the state of Tripura was replaced by Manipur and Telangana was replaced by Karnataka (the nearest TP number) due to inaccessibility owing to the Covid pandemic. As such, from the north east zone, Assam and Manipur, from east Bihar and Odisha, from central Madhya Pradesh and Uttar Pradesh, from North Haryana and Rajasthan, and south, Karnataka and Tamil Nadu were selected. As such, a total of 94 respondents from Assam, 84 from Manipur, 105 from Bihar, 72 from Odisha, 82 from Gujarat, 84 from Maharashtra, 113 from Madhya Pradesh, 82 from Uttar Pradesh, 102 from Haryana, 56 from Rajasthan, 69 from Karnataka and 75 from Tamil Nadu were selected in the study sample. In addition to this, a total of 16 Sector Skill Councils (SSCs) came forward to register their views on the scheme, particularly the roles that they play in the implementation of the scheme. Though the sample size for the evaluation of the scheme is small, looking at the number of beneficiaries covered, the

spread of beneficiaries' coverage has been done in such a way that the findings of the scheme turned out to be focused and inclusive. This is how, a total of 178 stakeholders from northeast zone, 177 from east zone, 166 from west zone, 195 from central zone, 158 from north zone and 144 from south zone constituted the sample size, besides feedback received from 16 Sector Skill Councils (SSCs).

7. The stakeholders contacted under the study were: trainees, trainers, training partners, industry partners, and Sector Skill Councils, and MSDE officials. The research tools used were: Questionnaire, In-depth interview, Observation & Focus Group Discussions. A total of 1034 responses were registered across the sampled states. The study has taken into account the selection of two states from each of the NSSO classified zones.

8. The PMKVY Guidelines (2016-20) document on page number 4, (sub-point-1.4.5) stipulates mobilization. It mentions that the training centres shall conduct various outreach campaigns across the districts in which they are located. The outreach campaign may comprise a combination of door-to-door visits, mobile vans, and interaction with community-based groups and local leadership. All outreach efforts are to target school dropouts and undergraduate college dropouts. Mass enrollment of students shall not be allowed under the scheme. Kaushal Melas should be conducted in coordination with state/local representatives at least once every six months in accordance with the Kaushal and Rozgar Mela guidelines. The training centres are required to ensure that their mobilization efforts are visible on print, outdoor and digital media platforms, in accordance with the Branding and Communication Guidelines. Out of the total responses received from six NSSO classified zones, the optimum mobilization has been realized through door to door campaign (25.3%), followed by Kaushal and Rozgar Melas (22.4%), community leaders (19.2%), staff of training centre (14.9%), advertisement through prints and audio-visual media (7.9%), social platforms (5.9%), and peer group (4.3%). The peer group here implies the folks and friends of beneficiaries who made trainees aware of the scheme before the mobilization. The computed mean value for the door to door campaign has scored 25.5, followed by Kaushal and Rojagar Melas (22.4), the community leaders (18.9), staff of training centre (13.5), advertisement through print and audio-visual media (8.6), social platform (6.0), and peer group (4.3).

9. Out of the 487 enrolled sample collected from the sampled states, the maximum percentage of placement has occurred in the state of Gujarat (100%), Maharashtra (100%), and Manipur (100%), followed by Madhya Pradesh (91.4%), Rajasthan (87.9%), Haryana (82.4%), Odisha (81.6%), Uttar Pradesh (78.6%), Karnataka (73%), Bihar (62.8%), and Tamil Nadu (47.1%). It has been found that the optimum performance of the CSCM –STT component is in the western zone, followed by central zone, eastern zone, southern zone, and north eastern zone. Overall, the performance of the component under the PMKVY 2.0 has been found astoundingly high in the state of Gujarat, Maharashtra, and Manipur in the sampled states.

10. Under the component of CSCM, apart from the regular Short Term Training (STT), and additional sub-component of Special Projects are also embedded for vulnerable groups like inmates of jail and juvenile homes, tribal population belonging to Bru, Katkari, Karbi Anglong tribes etc. A number of beneficiaries are trained under the YUVA initiative of Delhi Police for skilling misguided youth, in-conflict with the law, and underprivileged candidates. Captive placements are provided to candidates certified through collaboration with industry partners. The projects under the scheme are undertaken in collaboration with Government Departments like the Department of Women and Child Welfare, Department of Social Welfare, etc. Additionally, demand-driven and innovative job roles like self-employed Tailor, waste pickers waste segregation, loan processing officer, Solar panel installation technician are developed to impart training. Under the vertical, the fresh short term trainings are provided to candidates in NSQC approved job roles. Special projects bring in the flexibility required to cater to vulnerable populations residing in difficult to reach places. It also serves new requirements and innovative models etc. In other words, the Special Project component is different from the Short Term Training (STT) of PMKVY by the virtue of it being a project and need-based and comparatively a little more flexible. In the sample covered under the study, a total of 8 beneficiaries were found across the sampled states. It was found that samples collected through the survey were 100% placed. It has been found in all three states, namely Maharashtra, Manipur, and Uttar Pradesh.

11. The number of candidates enrolled, trained, assessed, certified and placed across the sampled states for the CSSM component, it has been found that the maximum percentage of placement has been in the state of Maharashtra (93.3%) and Gujarat (89.5%), followed by

Karnataka (61.5%), Manipur (57.9%), and Assam (18%) in the sampled beneficiaries across the states.

12. RPL under PMKVY 2016-20 was launched with an objective to align the competencies of the pre-existing workforce to the standardized National Skills Qualification Framework (NSQF) and to enhance the employability and/or entrepreneurial opportunities of an individual. It has been found that more than 25 lakh beneficiaries have been certified under RPL across 37 diversified skill sectors. These certification have been extended to many diverse groups including more than 8 lakh women beneficiaries and around 11 lakh beneficiaries belonging to disadvantaged categories of the society. RPL has been able to formally certify workforce participants working in the informal sectors of the economy. Over 2.70 lakh masons, plumbers, carpenters, carpet weavers and gemstone processing workers have been certified. Formal recognition of competencies and skills also helps to enhance self-confidence and motivation of the certification holder. The component has also undertaken up-skilling of farmers through various projects wherein more than 2 lakh farmers and cultivators have been RPL certified. Under RPL, providing bridge course training to rural masons for construction of twin pit toilets in rural areas is one of its kind. The performance of the CSCM-RPL in the sampled states were found effective. However, the analysis is based on sample studied in two states namely, Rajasthan and Uttar Pradesh. Best-in-class employers has attracted over 600 employer including industry partners, such as UrbanClap, Paytm, IPPB, Ola, Uber, Shahi Exports, L&T etc.

13. Regarding the skill sector and employability thereof has also been considered in the study. It has been found that the agriculture sector has scored the maximum in the state of Madhya Pradesh (25%). The jobs in beauty and wellness has been recognized in the state of Maharashtra (61.5%) and Gujarat (38.5%). The capital good sector was found providing employment opportunities in the state of Gujarat (100%). The construction sector was found providing jobs in Bihar (100%). Retail sector was found leveraging employment opportunities in the state of Odisha (41.4%), followed by Rajasthan (20.7%), Haryana (17.2%), Tamil Nadu (13.8%), and Uttar Pradesh (6.9%). Apparel, made-ups & home furnishing skill sector has scored its maximum visibility in the state of Gujarat (21.9%), followed by Odisha (19.2%), Karnataka (12.3%), 11% each in Maharashtra, Manipur, Rajasthan, Haryana (6.8%), Tamil Nadu (5.5%), and Uttar Pradesh (1.4%). The electronic and IT sector has scored the maximum job holders in the state of

Madhya Pradesh (29.6%), followed by Karnataka (15.7%), Rajasthan (10.2%), Haryana (9.3%), Manipur (9.3%), Bihar (8.3%), Uttar Pradesh (8.3%), Bihar (8.3%), Odisha (7.4%), 0.9% each in Assam and Gujarat. The auto and auto components has scored effective in the state of Haryana (21.2%), as compared to Gujarat (15.2%), followed by Bihar (15.2%), Karnataka (13.6%), Madhya Pradesh (10.6%), Maharashtra (10.6%), Rajasthan (7.6%), and Uttar Pradesh (8.3%). The textile sector has scored the highest in the state of Uttar Pradesh (36.4%), followed by Maharashtra (22.7%), Haryana (22.7%) and Assam (18.2%). Media and entertainment has the maximum score in the state of Gujarat (33.3%), followed by Bihar (26.7%), Haryana (20%), and Uttar Pradesh (20%). The tourism, hospitality and travel sector has scored maximum in the state of Bihar (35.3%), followed by Maharashtra (27.5%), Uttar Pradesh (21.6%) and Haryana (15.7%). The telecommunication sector has enabled employability more in the state of Odisha (60%), followed by Manipur (20%), and 10% each in Gujarat and Haryana. As such, the maximum jobs received by the beneficiary trainees were found in Electronic and IT hardware, followed by apparel, made-ups and home furnishing, tourism, hospitality & travel, IT & ITES, auto and auto-related components, retail, agriculture, media and entertainment, beauty and wellness, telecommunication, construction, and capital goods.

14. The break-up of incremental requirement across skill sectors has been prescribed by the National Policy for Skill Development and Entrepreneurship-2015 based on marketability. Based on the available marketability of skills expressed by beneficiary trainees, it has been found that maximum placement has been recognised in Electronic and Hardware skill sector (23.1%), as compared to policy figures. The highest percentage derived for the skill sector was found with agriculture sector (26.9%), which is 7^{th} in the hierarchy graded skills under policy document. T-test analysis based on skills graded and actual marketability based skills have largely been found in the agreement. The t-test has been conducted after converting the available scores into percentage for both the variables to know the intensity to which they share commonality. It has been found that against the computed t-Stat of 0.00, the t critical two-tail has scored 2.06 which is more. In this case, the hypothesis gets accepted with considered mean difference of 0 referring to similarity in both the variables. As such, the statistical analyses posits that there is higher degree of similarity between skills-driven employability of the target group and incremental human resource requirement expressed by policy document for 2013-22.

15. A total of 207 responses have been received on job roles preferred by the industry partners in the sampled states. Frequency count in descending order discloses that the Retail (indoor and outdoor) was the most preferred job role receiving 11.1% responses, followed by Hospitality & Mobile Phone Hardware Repair Technician (5.8% each), Self Employed Tailor and Domestic Data Entry Operator (4.8% each), CNC Operator & CRM Domestic Voice (3.9% each), Distributor Sales Representative (2.9%), IT - Domestic Biometric Data Operator, Assistant Beauty Therapist, Service Supervisor, Helper & Ring Frame Tenter (2.4% each). Other 24 items received 1 – 1.9 % responses and these included: Airline Cargo Assistant, Assistant Electrician, Team Leader, General Duty Assistant, Electrician, Technician, Hair Dress-up Artist, Security Guard, Makeup Artists, Management Checker, Quality Inspector, Accounts, Documentation Assistant, Food Product Packing Technician, Machine Operator, Field Engineer-RACW, Sales Executive, Ward Boy Assistant, Office Assistant, Solar Power, Junior Software Developer, Manager, Retail Sales Associate & Room Attendant. The remaining 30 job roles received preference of 0.5% industry partners. Based on job-roles preferred by sampled industry partners across NSSO classified regions explain the major job-role requirement are in (1) Retail (indoor & Outdoor), (2) Hospitality, (3) Mobile phone, hardware repair technician, self-employed tailor and (5) Domestic data entry operators.

16. Regarding training hall space being adequate was admitted by cent percent beneficiaries in most states except Manipur (98.7), Haryana (98%), Madhya Pradesh (83%), and Uttar Pradesh (97.1%). The seating arrangements were found satisfactory by 100% trainees except in Haryana where 98% respondents said so. All trainees from 9 states said training equipment and tools were available; in remaining 3 states the percentage respondents saying so was less in Haryana (84%), Gujarat (98.1%) and Uttar Pradesh (97.1%). The percentages of views about training consumables being adequate was highest in Assam, Bihar, Karnataka & Tamil Nadu (100% each), followed by Manipur (98.7%), Odisha (98.5%), Gujarat (98.1%), Maharashtra (98%), Uttar Pradesh (97.1%), Haryana (96%), Rajasthan (94.4%), and Madhya Pradesh (83.7%). In states of Assam, Manipur, Bihar, Madhya Pradesh, Uttar Pradesh, Karnataka and Tamil Nadu cent percent trainees said that audio-visual equipment were available; in this regard lesser percentage was obtained from Odisha (97.1%), Haryana (90%), Rajasthan (98.6%), Gujarat (90.4%) and Maharashtra (80.4%). Cent percent respondents from Assam, Bihar, Madhya

Pradesh, Uttar Pradesh, Karnataka and Tamil Nadu reported availability of library in their training centres, whereas in lesser percentage of trainees from Manipur (97.4%), Odisha (97.1%), Haryana (96%), Rajasthan (87.3%), Gujarat (96.2%) and Maharashtra (98%) said so.

17. Trainings aligned to employable skills are foundation to make youth independent. The STT conducted under the PMKVY (2016-20) has largely ensured livelihood. Paving the path to growth and prosperity hinges upon developing skills that are relevant to the industry demand and the job market. IT enables transparency and accountability in scheme implementation and hence plays a vital role in ensuring timely compliances and effective monitoring at all levels. During the study visit, it was observed that the pay-outs to the staff of training partners were done in cash which tapers the transparency envisaged. However, the number of beneficiary trainees enrolled, trained, certified, and placed are e-enabled. 100% of training partners are e-enabled. The same responses have also been shared by the beneficiary trainees. Out of the 100% response received from the trainees, it has been found that 96.7% of responses are in favor of e-enablement, followed by 3.3% as improper e-enablement. 100% of the training partners have shared that their centres are fully e-enabled. It consisted of the responses on the use of digital technology tools for the beneficiary trainees and bio-matric attendance, availability of computers, sufficient IT practices, and maintenance of data bank of the trainees. As such, most of the training centres were found equipped with IT facilities across the sampled states. Leveraging technology for seamless implementation of the scheme have also been acted upon through involving citizens, national skill corporation, sector skill councils, training partners, trainers, organizations, assessment agency and ministries and state councils. PMKVY embedded Mobile App based assessment management with Geo-tracking have also been carried out. The provision of Digi Locker as online repository for skill certificates is also under the e-enablement component of the scheme. The eLearning Aggregator Platform has been introduced which is first of its kind in eSkilling platform that leverages the skilling opportunities by combining e-content from various players across the ecosystem, thus bridging the gap between the supply and demand. It brings online courses curated from leading knowledge partners, speeding-up the process of making India a Skilled Nation. The English, Employability and Entrepreneurship (EEE) module has been introduced in the form of blended learning module on English,

Employability and Entrepreneurship (EEE). An additional 155 learning hours have been included under PMKVY on a pilot basis across 9 job-roles to gauge the impact on employability.

18. With regard to sector-wise major skill-supply across the states, it has been found that most of the responses are concentrated on the Electronic and IT hardware sector (19.7%), followed by Tourism, Hospitality and Travel (17%), IT and ITES (13.5%), and so on. However, the maximum demand in the skill sector in the policy has been documented in the agriculture sector (26.9%), followed by Retail (18.8%) and Beauty & Wellness (10.9%). The skill sectors have been rated based on identified skills in the light of incremental resource requirements (2013-22). The policy document covers its articulation based on 36 States, UTs requirement. The skill identified are in congruence with only 12 sampled states visited.

19. Under the PMKVY-2.0, more than 40% of women have been trained/oriented across various job-roles and sectors. Out of the reportedly placed candidates, approximately 53% are women. With the help of the STT, SPs, and RPL, the employability amongst women has been ensured, and their work participation ratio has also increased. Apart from the normal course of three pads of the training, six additional specific projects are proposed to be 100% women-oriented. The six initiatives are: (1) Hamara Bachpan Trust, (2) Youthnet Home Stay Project in North East, (3) Projects in Pradhan Mantri Mahila Kaushal Kendra, (4) women-oriented cluster artisan, (5) special training on beauty and wellness in collaboration with NIESBUD, and (6) Training for women in Shelter Homes and Juvenile Homes' inmates.

20. Women share has been found 50% in STTs, 54% in SPs, and 32% in RPL for training/orientation. Percentage of women verified varies across the pads, viz. 52% under STTs, 61% in SPs, and 33% for RPL. The percentage of women respondents placed under the pads is being highlighted through the third column where-in 52% of women placed from STTs and 68% through RPL. The mandate for the placement is not applicable in the case of the RPL pad. Overall, the percentage of women placed is higher in SPs (68%), followed by STT (52%) but not tantamount to the 70% benchmark. The women-centric interventions are also evident under Special Projects. Under the Special Projects, a total of 76084 female received training of which 55203 got certified and 25338, placed. In other words, 72.6% of women candidates were certified of trained/oriented. 45.9% of women got placed of the certified, and 33.3% of women

got placed of the total trained. Though the percentage of women has been descending as we move from training to placement, their final score in terms of number is impressive and outstanding. Thus, the special project component of the PMKVY-2.0 has profusely influenced the beneficiary women.

21. The scheme has been inclusive in nature, as it covers beneficiaries from different socio-economic categories. The female participation across the sampled states has been calculated as 48.7% which shows gender inclusivity. In the sampled respondents, SCs have been accounted for 12.43%. The representation of ST has been depicted as 4.8%. The representation of Divyangjan has been computed as 0.9% and BPL category beneficiaries are figured as 46.1%. The 73.5% of female participation in Gujarat, 23.53% of SC participation in Haryana, 19% of ST participation in Assam, 2.9% Divyangjan share in Haryana, and 91.8% of BPL share in Odisha are the information related to higher ranges. However, 32.4% female share in Rajasthan, 3.92% SC share in Manipur, no share of ST in Tamil Nadu and Karnataka, no share of Divyangjan in Manipur, Bihar, Odisha, Uttar Pradesh, Gujarat and Maharashtra, Rajasthan and Tamil Nadu, 8.5% BPL share in Madhya Pradesh are towards the lower ranges.

22. PMKVY 2.0 is in line with Common Cost Norms approved by the Cabinet for Centre Sector Schemes. The total cost of the scheme is worked out based on training targets. There is no redundant component of the scheme to be removed/reduced. Barring schemes like DDU-GKY, NULM, UDAAN, which caters to specific target groups and require special cultural or functional identification like persons with disability and minorities, the PMKVY 2.0 is designed keeping in mind its convergence with other schemes. The schemes like Integrated Skill Development Scheme (ISDS) of the Ministry of Textiles, Entrepreneurship Development Programme (EDP) of the Ministry of MSME, Hunar Se Rozgar Tak Initiative of Ministry of Tourism, scheme for financial assistance to states for skill development in Electronics System Design and Manufacturing Sector of Ministry of IT and Communication, support of training and employment programme for women of the Ministry of Women and Child Development, capacity building & technical assistance for skill development of Ministry of Development of North Eastern Region, and skill up-gradation training programme, skill development training programme under NCVT scheme, and skill development training for National Service Scheme

Volunteers, etc. would also be integrated under PMKVY. The scheme is in convergence with various schemes and programmes of the Central and State Government.

23. Accessibility of training partners to the trainings and quality thereof have been assessed considering the resources available at the training centres, and the information shared on the component by the beneficiary trainees. Aadhaar Enabled Biomatric Attendance Systems (AEBAS) has been mandated for trainees, trainers, and assessors. This has led to reduction in the duplicate cases of candidates during enrollment and enabled real-time monitoring and tracking of candidates enrolled under the scheme. Further, transparency and accountability has been maintained by linking the first tranche of payment to batch attendance records. IT-enablement has to ensure the training quality. For example, Knack is a mobile-based counselling tool that uses AI to gauge candidates' aptitude. However, under PMKVY-2.0 the empanelment of placement partners to link the aptitude, aspiration, and knowledge of the skilled workforce demands in the market. On-boarding of placement verification agencies for verification is also conducted using AI and other technological tools. Improvement has also been ensured through implementation of informational posters at every training centre to tackle information asymmetry so that candidates may make informed career decisions. The online learning is also enabled through e-Skill India portal, e-Book Reader application, and KITS Portal for handbook and induction kit delivery and tracking. Re-designing of certain modules to keep pace with industry and market requirements and enhance the employability potential of the PMKVY candidates.

24. On the Likert scale, the good score happens to be 2.5 as an average received on the rating scale. It has been confirmed that the overall satisfaction across the states stands for 4.5 which is close to the extremely satisfied. The maximum satisfaction score has been attained in the state of Madhya Pradesh (4.7), followed by Odisha (4.6), Haryana (4.6), and Uttar Pradesh.

25. A number of female candidates have reportedly left the course with reasons owing to pregnancy, marriage, short duration of the courses. In Bihar, one candidate reported leaving the course due to fever. 21 Candidates in Gujarat left the course due to family issues, personal issues and ineffective skill upgradation. Two candidates left the course due to illness and personal reasons in Haryana. Due to inaccessibility of bus passes and distance, one candidate left the training in Karnataka. In Madhya Pradesh, due to outdated course material the trainees left the

course. In Maharashtra, due to marriage and subsequent pregnancy, the candidate left the course. In Manipur, due to traveling problems and inadequate transport facilities, trainees left the training centres. In Odisha, the trainees found an ineffective window for grievance redressal with the Government and left the training. In Rajasthan, the trainees found private jobs, rent, and retail work, and left the training. No such problem has been identified in the State of Tamil Nadu. The maximum number registered for leaving the training programmes have been found due to the transport issue, followed by ill health, marriage, getting a private job, and social and personal reasons.

26. 26% of the beneficiary trainees felt difficulty in online assessment across the sampled states. The maximum percentage of difficulty was recognized in the state of Manipur (60%), followed by Madhya Pradesh (50%), Odisha (40%) and 33.3% each in Bihar, Haryana and Gujarat, and Tamil Nadu (25%). Receiving certificates has been accounted for 28.8 days. Delay of more than 28.8 days has been found in the state of Haryana (42.6 days), followed by Madhya Pradesh (38.6 days), Uttar Pradesh (32.2 days), Bihar (31.2 days), Assam (27.1 days), Karnataka (26.8 days), Rajasthan (26.2 days), Maharashtra (24.8 days), Manipur (23.5 days), Odisha (21.5 days) and Gujarat (18.4 days).

27. Out of 664 responses shared on the component of placement, 70.5% of beneficiaries have received jobs in the same sector in which they have been trained. However, 29.6% of the beneficiaries have not received any job in their training sector. The maximum percentage of beneficiaries receiving a job in the same sector has been recorded in the state of Maharashtra (96.2%), followed by Rajasthan (93.8%), Gujarat (91.8%), Madhya Pradesh (90.1%), Haryana (82.4%) and so on. 0-50% placement has been monitored across the states by 10 training partners. 51-75% of the placement monitoring has been done by the 24 training partners. Only 15 training partners have monitored the placement of beneficiaries up to 76% to 100%. Out of the 10 training partners who shared information under the slab of 0-50%, the maximum score of 2 Training Partners have been noticed in each Assam and Maharashtra. Out of the 24 training partners who shared information under the slab of 51-75%, the maximum score has been noticed in Gujarat (4), followed by Rajasthan (3), and Odisha (3). Out of the 15 training partners who shared information under the slab of 76-100%, the maximum score of two Training Partners

were recognized each in Assam, Odisha, Rajasthan, Tamil Nadu, and Maharashtra. One training partner each has informed in the state of Manipur, Bihar, Uttar Pradesh, Karnataka and Gujarat.

28. There are schemes like DDU-GKY, Skills Acquisition and Knowledge Awareness for Livelihood Promotion (SANKALP), Ude Desh ka Aam Naagrik (UDAAN), Standard Training Assessment and Reward Scheme (STAR), Polytechnic Schemes, Vocationalization of Education that are implemented to meet the challenges of skilling at scale with speed, standard and sustainability. The aforementioned schemes intend to improve employability and productivity in paving the way forward for inclusive growth in the country. These skill strategies are complemented by specific efforts to promote entrepreneurship in order to create ample opportunities for the skilled workforce. The skill ecosystem of our country has target to train 402.87 million people by 2022. This includes 104.62 million crore new entrants to join the existing workforce in the country who need to be skilled to meet industry requirements. In addition 298.25 million of the existing workforce need to be reskilled, up skilled, and skilled. It is concluded that skilling is a multi-pronged approach that should be aligned with critical- gaps in skilling in terms of sectors, job-roles, geography, etc. If the intended goals of the skilling is reached, our country would harness the demographic dividend.

29. The social categories of the surveyed respondents has revealed that 44.2% in general, 38% in OBC, 12.5% in SC, 4.9% in ST and 0.5% in minorities have been found in the social category classified. In the general category, the states having more percentage are in Gujarat (73.5%), followed by 60% each in Karnataka and Tamil Nadu, Manipur (57.8), Haryana (55.9%) and Assam (53.4%). Of the total percentage of OBC, high percentage has been found in the state of Maharashtra (78.4%), followed by Rajasthan (72.7%), Odisha (44.9%), Bihar (53.8%), Uttar Pradesh (46.4%), and Maharashtra (43.1%). Of the total SC category percentage, the highest percentage has been reported from the state of Haryana (23.5%), followed by Odisha (18.4%), Tamil Nadu (18%), Uttar Pradesh (17.9%) and Maharashtra (15.7%). In the similar vein, the ST respondents were drawn the maximum from the state of Assam (19%), followed by Rajasthan (12.1%), and Bihar (3.8%). Likewise, the maximum minority representation was found in the state of Bihar (2.6%), followed by Maharashtra (1%).

Recommendation for Scheme with reasons

Considering the greater correlation between skills acquired and skill prescribed by Policy, IT-based governance through SDMS, effectively produced outcome through STT, RPL and Special Projects, 12.43% SC share, 4.8% inclusion of Divyangjan, 46.1% of BPL population, and 48% of women share under the scheme ambit, **the study team recommends Pradhan Mantri Kaushal Vikas Yojna (PMKVY) scheme for continuation with the following suggestions to be incorporated before kick-starting PMKVY 3.0:**

1. The deployment of various agencies for TC accreditation to assessment and certification, an independent agency may be entrusted to oversee the quality of implementation by NSDC. Also, the deployment of various agencies for TC accreditation to assessment and certification, an independent agency may be entrusted by the Ministry to oversee the quality of implementation by NSDC. It has been found that the NSDC and SSCs have outsourced quality monitoring to a third party. Significantly, the NSDC representatives have always taken an escape route to share their views on the scheme implementation. Similar is the case with State Skill Development Missions. The NSDC has also deputed its representatives at State Skill Development Missions. It was also learnt during the field visits that the officials of State Skill Development Missions have outsourced the quality monitoring to other agencies who have been deployed as District Skill Managers. These District Skill Development Managers are the employees of the third party who are not well-aware of the PMKVY 2.0 guidelines. Less than the desired frequency of monitoring visits and nearly absent technical guidance on the part of SSDMs was reported. Delays in responding to e-mails of TPs on the part of NSDC have also been noticed. It is therefore recommended that monitoring systems, grievance handling, and technical guidance systems should be strengthened. As such, the study team suggests that while launching the PMKVY 3.0, the quality monitoring should be either handled by a dedicated team of the Ministry or to a centrally appointed & professionally competent Institution. The functions of the NSDC with regard to the scheme implementation may periodically be examined by appointing a professionally competent third party. Under the pool of assessment and certification, reputed academic institutions, industry bodies, government ITIs, Government polytechnic, etc. may be brought-in.

2. The priority to be given for the allotment of seats to PMKKs under PMKVY 2.0 is a good idea. However, the outreach of PMKKs was found in insufficient number during the study. Side

by side, the centres given no allotment or marginal allotment need to be prioritized based on their performance. Excluding them from PMKVY ecosystem may cause fathomless opportunity costs. Some of the training partners were found disoriented. Strides to be taken to address gaps so that the coverage of the scheme is scaled-up to the extent that it becomes demand driven. The training centres belonging to aspirational and LWE affected districts should be given priority so that the unutilized youth may be streamlined for meaningful economic growth and inclusive social development. Most TPs have complaints about short target allocation in comparison to their sanctioned capacity. Complaints about the delay in allocation of the next targets were also noticed. This situation is resulting in underutilization of capacities, wastage of resources, and de-motivation of TPs. It is recommended that target allocation should be as per sanctioned capacities of TPs provided all other conditions are duly met with.

3. It was found that some of the SSDMs have not made their system online. Necessary follow-ups with the States may be expedited to enable the complete system e-driven so that improved accountability and transparency in the CSSM can be ensured. The officials of SSDMs may also be put to a customized training of the next version of PMKVY at an early date. A grievance redressal mechanism for applicant, TPs, assessor and other stakeholders may be designed to address the concern in stipulated timeframe.

4. There was a mixed response of industry partners about the job-readiness of candidates employed by them. Therefore, some mechanism of feedback should be developed to review course contents or duration or considering job training for those job roles where candidates are not job-ready. This should be done online to be monitored by the PMU of the Ministry. In case of deficits identified, necessary steps may immediately be taken-up. Side by side, considering the worthiness of the scheme, the candidates dropping out the trainings should also be addressed by providing sufficient top-ups, and negotiating with the states to gear-up transport like facilities to the trainees. Also, women dropping the course due to pregnancy or otherwise should be provided special consideration to complete the training.

5. During FGDs, trainers, as well as trainees, reported having received training kits either in Hindi or English language. In non-Hindi speaking states, trainees were largely dependent on trainers to explain the resource material in the local language. It is therefore recommended that the course material should be provided in regional languages also. Trainers were found using digital material available on the internet particularly the video available on YouTube which may

sometimes not be authentic and accurate. Therefore, an online digital library for reference purposes may be set-up. Also, MSDE may involve NSDC to produce home and professional video on different job roles for demonstration during the training. This will create an academic learning resource base for skill development in India.

6. It was surprising that nearly all TPs have not consulted the Skill Gap Survey of their area and reported that job roles were assigned to them by the competent authority of implementing bodies. This appears to be against the spirit of the scheme. It is recommended that TPs and other stakeholders should be oriented in skill gap surveys, and job roles should be assigned in consultation with SSC and TPs. The emerging demand in the sunrise sectors may be identified through a robust skill gap survey study. Course curriculum should have a small module on how to handle online assessment. It was observed that trainees not so conversant with the system were at disadvantage. Need to enhance contents and time duration of soft skill components that have been expressed by TCs, trainees, and trainers.

7. The differences have been observed in priorities of marketed skills expressed by beneficiary trainees and those mentioned in National Skill Development and Entrepreneurship Policy -2015. The Electronic and Hardware skill sector has received the maximum score of (23.1%) in marketed skills expressed by trainees, as against the policy figures of agriculture sector (26.9%) which is 7th in the hierarchy. Similar mismatch has been observed in other skill sectors too and these need to be addressed in PMKVY 3.0.

8. Linkages with MUDRA loan need to be strengthened for those seeking self-employment which at present is found to be weak.

2. OVERVIEW OF THE SCHEME

Pradhan Mantri Kaushal Vikas Yojana (PMKVY-1.0) - the skill certification scheme was launched on 15 July 2015, on the occasion of World Youth Skills Day to address the skill gap. The scheme is being implemented under the aegis of the Ministry of Skill Development and Entrepreneurship (MSDE). The PMKVY 1.0 was initially approved for the FY 2015-16. The scheme was implemented by MSDE through National Skill Development Corporation (NSDC), Sector Skill Councils, and Training Providers. Later in 2016, the PMKVY 2.0 was implemented with two components, namely Prime Minister Kaushal Vikas Yojna Centrally Sponsored and Centrally Managed (PMKVY-CSCM) and Prime Minister Kaushal Vikas Yojna Centrally Sponsored & State Managed (PMKVY CSSM) with a mandate of skilling of 1 cr. Youth of our country. The first component is implemented by NSDC whereas the second component, by State Skill Development Mission (SSDM). With the broad vision to encourage and promote skill development for the youth throughout the country by aligning itself with the Common Cost Norms guidelines. The scheme is aligned with other Missions of the Government of India, such as Make in India, Digital India, Swachh Bharat, and Smart Cities. The major objectives of the scheme can be classified into four parts (as mentioned in the Scheme Guidelines): (1) to enable and mobilize a large number of youth to take up industry designed quality skill training so that they become employable and earn their livelihood, (2) to increase productivity of the existing workforce, and align skill training with the actual needs of the country, (3) to encourage the standardisation of the certification process and put in place the foundation for creating a registry of skills, and (4) to benefit 10 million youth over the period of four years (2016-20). The PMKVY 2.0 (2016-20) encourages women participation in the scheme. Apart from the major component under the scheme i.e. Short Term Trainings, there are six Special Projects related interventions that intend to ensure 100% of women coverage. These are: (1) Humara Bachpan Trust, (2) Youthnet Home Stay Project in North East, (3) Projects in Pradhan Mantri Mahila Kaushal Kendra (PMMKK), (4) 6720 cluster artisans to be trained into Village Level Entrepreneurs in 5 States and 2 UTs (Jammu and Kashmir & Ladakh), (5) 10,000 women candidates in Beauty & Wellness and Apparel sector in collaboration with NIESBUD, (6) Training of women in Shelter Homes and Juvenile Homes' inmates in association with Department of Women and Child.

Under the scheme, the training target allocation is targeted at the Training Centre level, instead of the Training Partner level. The centres are categorized based on criteria like capacity and infrastructure availability, the geographical location of Training Centres especially in underserved areas, past performance of the centres and other relevant criteria. Guidelines have been drawn for the training targets allotted to the centres on annual basis. The number of allocation is done centrally based on the capacity of the centres and guidelines issued by PMKVY PMU. The SSCs allots the targets to the respective centres. Presently, 25% of the total funding is allocated to Prime Minister Kaushal Vikas Yojna Centrally Sponsored & State Managed (PMKVY CSSM), and 75% of the total budget to the Prime Minister Kaushal Vikas Yojna Centrally Sponsored and Centrally Managed (PMKVY-CSCM) component. The allocation of target in 2016 was based on a first come first serve basis. In 2017, the target allocation was changed to Training Centres based on a first come first serve basis on geographical & sectoral coverage. In 2018, the same was changed based on: (1) placement performance, (2) PMKKs, (3) request for proposal (in line with sectoral investments), (4) academic institutions. In 2019, the same was changed to: (1) employer models introduced, and (2) Most training in PMKKs. Pradhan Mantri Kaushal Kendra (PMKK) is also aligned with state-of-the-art aspirational skill training centres across the country. The salient features are: minimum 300 sq ft, 5000 sq. ft. or 8000 sq. ft. built-up area (depending on the population of the district). Most PMKKs exceed the minimum requirement. Quality is ensured via standard external and internal branding and infrastructure guideline. Courses are determined based on district population to cater to local youth aspirations. Mandatory training in manufacturing trades are given. Mandatory industry seminars and guest lectures are organized. The scheme also stipulates about the special project that even though there may not be an existing centre at the desired location, the target for the special projects need to be considered. The allocation would be linked availability of the placement opportunity of the trained candidates. The cycle of target has to be considered annually or longer duration. The minimum hours prescribed with respect to each job role by the SSC is defined by NSQC. The need for merging the Qualification Packs (QPs), suiting to the employment opportunities to be looked into by the SSCs. The industry-relevant content, appropriate to the learning groups, and conforming to the requirements of NSQC is used. The content is validated by the concerned SSCs. The ToT is done leading to the certification of trainers progressively. The process of trainee linkages with Aadhaar ID

continues. Training Partners are required to ensure the validation of Aadhaar ID done before enrolments. The attendance of a candidate is mandatorily prescribed at the training centres. For mobilization, the concept of Kaushal Melas has been institutionalised, and continues in coordination with the local state representatives. A communication and outreach agency would be engaged to assist. For the assessment and certification under the scheme, the assessment agencies are empanelled in the beginning of the year. The empanelment is done by the SSCs or the relevant successor in the ecosystem. The agency is in consultation with NSDC, implements communication and mobilization workshops for the key stakeholders involved in mobilization effort. The assessment agencies are empanelled in the beginning of the year. The empanelment is done by the SSCs in a relevant successor in the ecosystem. The criteria for the assessor profile, technology-enabled assessment, past performance of the assessment agency are fixed and video recording of the assessment is also ensured. For the certification, the requirement of Aadhaar ID for trainees continues to be the essential criteria. To ensure that the training partners are receiving working capital in time, the scheme has moved to a grant-based scheme.

The monitoring framework is implemented in a way that ensures greater outreach of the scheme across the country and through employer-led models. The centre validation is conditioned upon state of the art infrastructure, availability of prescribed sq. ft area, availability of number of the classroom with the training partners, performance on placement, and best in class institutions. Moreover, for the monitoring and validation, a third party agency looks into this matter to ensure objectivity.

2.1 Background of the scheme

a) Brief write up on the scheme including Objectives, Implementation Mechanism, Scheme architecture/Design

Pradhan Mantri Kaushal Vikas Yojna (PMKVY) scheme has been implemented, namely 1.0 and 2.0. The draft of PMKVY 3.0 is ready for approval and subsequently, will be implemented. PMKVY is a flagship scheme of government and is aligned with Skill India on a large scale with speed and high standards. It was considered under the National Policy for Skill Development-2015 that the working-age group (15-59) population of our country is 62% which needs to be equipped with employable skills and knowledge so that they can contribute substantively to the economic growth. It was also realized that the skills are germane to securing adequate economic dividends. Skills need to be an integral part of employment and economic growth strategies to

spur employability and productivity. Co-ordination with national macroeconomic paradigms and growth strategies need to be considered crucial. In this context, to meet the challenges of skilling at scale with speed, standard (quality), and sustainability, PMKVY was institutionalized. The scheme was launched on July 15, 2015 on the occasion of World Youth Skills Day by the Hon'ble Prime Minister of our country with a vision to ensure 'Skilled India'. The scheme operates under the aegis of the Ministry of Skill Development and Entrepreneurship, Government of India. The PMKVY 1.0 was initially approved for the FY 2015-16. The scheme was implemented by MSDE through National Skill Development Corporation (NSDC), Sector Skill Councils, and Training Providers. Owing to its successful first year of implementation, the Union Cabinet approved the Scheme for another four years (2016-2020) to impart skilling to 10 million youth of the country which is known as PMKVY 2.0.

Objectives of the Scheme

The central objective of the scheme is to encourage and promote skill development throughout the country, focusing specifically on the followings:

(1) to enable and mobilise a large number of youth to take up industry designed quality skill training so that they become employable and earn their livelihood,

(2) to increase the productivity of the existing workforce, and align skill training with the actual needs of the country,

(3) to encourage the standardisation of the certification process and put in place the foundation for creating a registry of skills, and

(4) to benefit 10 million youth over a period of four years (2016-20).

The PMKVY 2.0 (2016-20) encourages women participation in the scheme through Special Projects with six recognized interventions. The components of the scheme under STT & Special Projects mandate placement of the trainees. The Recognition of Prior Learning (RPL) does not mandate the placement. However, it does orient the candidates included under the scheme. The Short Term Training (STT) prescribes for 200 to 500 hour long skill-oriented training, both core and soft, at PMKVY afflicted and accredited training centres to school/college dropouts or unemployed. The RPL provides an orientation of 12 hours. Beneficiaries under the RPL are also provided bridge course training for a maximum of 68 hours wherever required. Individuals benefit by having their prior learning acknowledged through a structured, NSQF based system and gain certification by saving on time, regardless of how or where the learning occurred.

Under the special projects, short term trainings are provided to candidates in NSQC approved job roles. Special Projects brings the flexibility required to cater to vulnerable populations residing in difficult to reach places. It also serves new requirements and innovative models etc. The Special project component is different from the short term training component of PMKVY based on the component being need-based and comparatively a little more flexible.

Implementation Mechanism

PMKVY is centrally governed by the Ministry of Skill Development, Government of India through a dedicated CPMU. There are two major components under the scheme for which the customized implementation mechanism is in place. The Centrally Sponsored and Centrally Managed (CSCM) is centrally implemented through National Skill Development Corporation with the UIDAI, the Sector Skill Councils, and the employers as the stakeholders within the umbrella of NSDC. The RPL pad comes under CSCM which is also implemented by NSDC. Within the STT, there are two components namely regular Short Term Training (STT) and Special Projects that are also implemented by the NSDC. The Centrally Sponsored and State Managed component is implemented by the State Skill Development Missions. The budget allocated under the scheme is 75% for central and 25% for the state components. The target for the placement is 70% for state and central component of STT. The whole PMKVY workflow ranging from enrollment of candidates to disbursement of tranche-based payments to training providers and certificates to candidates is managed by Skill Development Management System. The platform establishes and enforces cross-sectoral, nationally, and internationally accepted standards for skill training in the country by creating a sound quality assurance framework. Various stakeholders starting from MSDE, NSDC, SSC, and trainer ecosystem to individual citizens get benefitted from NEXTGEN SDMS platforms. The platform is an integrated skilling management platform supporting various types of schemes run by NSDC, States, and Ministries. The NextGen SDMS has been designed to scale up horizontally as well as vertically using microservices architecture on the public cloud to serve as a unified skill management platform for skill ecosystem.

To ensure 70% placement under the scheme the common initiatives have been set-up. These are: empanelment of placement partners with the objective of striving towards ensuring placement opportunities given to candidates trained under the scheme, NSDC has to empanel placement partners with the aim of providing employment to PMKVY certified candidates who are not

placed by training providers till 90 days from the date certification, in addition to the launch of a job portal, the NSDC has to ensure the placement of candidates especially the Blue Collared jobs. In implementation, the NSDC focuses on the employer-led model prioritizing proposals submitted either by employers or other organizations in consortium with employers, stressing on captive employment.

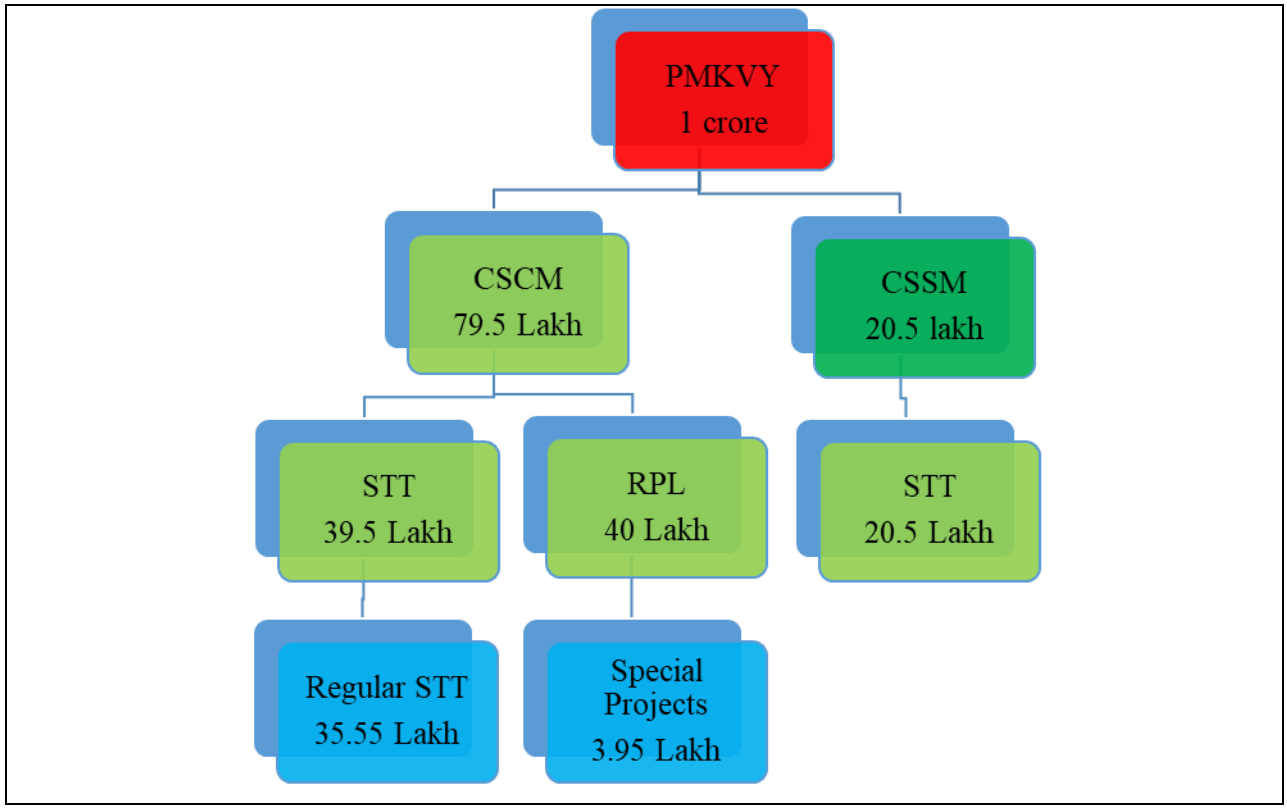

Figure 2.1: Distribution of targets among various components of PMKVY

b) Name of the Sub-Schemes/Components

The PMKVY 2.0 has two major components, namely Centrally Sponsored & Centrally Managed (CSCM), and Centrally Sponsored & State Managed (CSSM). There are three pads of PMKVY implemented by the National Skill Development Corporation viz. Short Term Training (STT), Special Projects (SP) and Recognition of Prior Learning (RPL). However the state governments implement the Short Term Trainings (STT) through State Skill Development Mission. The STT has Common Cost Norms based training, boarding and lodging, conveyance support and skill certification. The key benefits that the candidates avail are Rs. 500 reward to certified candidates, insurance benefits, placement assistance in case of STT and post-placement support.

c) Year of Commencement of Scheme

The Scheme of Pradhan mantra Kaushal Vikas Yojana was launched on 15 July 2015 on the occasion of World Youth Skills Day with the vision to create a "Skilled India". The PMKVY 1.0 was initially approved for the FY 2015-16. The scheme was implemented by MSDE through National Skill Development Corporation (NSDC), Sector Skill Councils, and Training Providers. The PMKVY 2.0 was modified and was an improved version of PMKVY 1.0. PMKVY 2.0 was launched on October 2, 2016. The scheme aimed at creating Skill India on a large scale with speed and high standards.

d) Present status with Coverage of scheme (Operational/Non-Operational)

The scheme of Pradhan Mantri Kaushal Vikas Yojna (PMKVY) is implemented across 28 states and 7 UTs. The CSCM-SP is non-existent in the UTs of Andaman Nicobar Island, Dadra, Nagar Haveli, and Lakshadweep. The CSCM-RPL is non-functional/not available in the UT of Lakshadweep. However, the component of CSSM-STT is functional across the states and UTs.

e) Sustainable Development Goals (SDG) Served

PMKVY is aligned with the objectives of the 2030 Agenda for Sustainable Development Goal number 4.3 (By 2030, ensure equal access for all women and men to affordable and quality technical, vocational and tertiary education, including university) and goal number 8.2 (achieve higher levels of economic productivity through diversification, technological upgradation and innovation, including through a focus on high-value added and labour-intensive sectors). PMKVY is aligned with goal number 4.3 to the extent that it intends to provide benefits to candidates who are either school/college dropouts or unemployed with no gender-based discrimination. The scheme also intends to align competencies of the unregulated workforce of the country to the National Skill Qualification Framework (NSQF) and industry-led standards. SDG number 8.2 is addressed to the extent that branding is an important aspect of communicating the scheme accurately. All the training centers under the scheme are branded and promotional activities in accordance with PMKVY guidelines are conducted to ensure that high-value is added and labour-intensive sectors are catered to. As such, PMKVY is aligned with SDG goal number 4.3 and 8.2.

f) National Development Plan Served

To rapidly scale up skill development efforts in India, by creating an end-to-end, outcome-focused implementation framework, which aligns demands of the employers for a well-trained

skilled workforce with aspirations of Indian citizens for sustainable livelihoods is one of the central objectives of the Government of India. The policy framework has been developed to accomplish the vision of Skill India by adhering to the objectives laid down in national development priorities through National Policy for Skill Development and Entrepreneurship 2015. The policy 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. The PMKVY scheme has prescribed the inclusion of Sector Skill Councils (SSCs), as industry-led bodies as a quality assurance arm for UIDAI and employers. The SSCs ensure training providers /centres and trainers as implementing agency to ensure quality in the skill training programmes. It also ensures assessment agencies and assessors to ensure the quality components. There are three pads of PMKVY implemented by National Skill Development Corporation viz. Short Term Training (STT), Special Projects (SP) and Recognition of Prior Learning (RPL). However the state government also implements the Short Term Trainings (STT) through State Skill Development Mission. The STT, RPL and SP have Common Cost Norms based training, boarding and lodging, conveyance support and skill certification. The key benefits that the candidates avail are Rs. 500 reward to certified candidates, insurance benefits, placement assistance in case of STT and post-placement support.

However, the National Skill Development Mission consists of seven sub-missions under its purview. Each mission 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) undertake sector-specific skill training initiatives; (3) ensure convergence of existing skill development programmes; (4) leverage existing public infrastructure for skilling; (5) focus on training of trainers, (6) facilitate overseas employment, and (7) promote sustainable livelihoods. Keeping in view the above sub-missions, one of the underlying postulates of the scheme is to revise and revamp the skill in the light of the Goals of Skill India. Hence, the scheme with its integrated approach comprehensively enables and mobilizes a large number of Indian Youth to take up skill training to become employable and earn a livelihood.

2.2 Budgetary allocation and Expenditure Pattern of the Scheme (Rs. crore)

Table 2.1: Budgetary allocation and expenditure pattern of the PMKVY

Financial Years	Budget Estimate	Revised Estimate	Actual Expenditure
2016-17	1100	1249.99	699.99
2017-18	1300	1723.19	1721.18
2018-19	1984.34	1946.45	1909.19
2019-20	2116	1749.22	1648.25
2020-21	1350.5	0	279.88

The table above presents the budget estimate, revised estimate, and actual expenditure in the above mentioned financial years. The table shows the fluctuation in the actual expenditure across the years. However, the minimum expenditure in the year 2010-21 may be driven by reasons related to the Covid pandemic. It shows that in 2016-17, the revised estimate has escalated to 13.64% of budget estimate. The actual expenditure has gone down to 44% of the revised expenditure which shows a fathomless underutilization of funds for the FY 2016-17. In the year 2017-18, the revised estimate is 32.6% more than the budget estimate. However, the utilized expenses have been recorded as 99.9%. In the year 2018-19, the revised expenditure is 1.9% less than the budget estimate. The actually utilized expenses has been recorded as 98.1%. In the year 2019-20, the revised estimate is less than 17.3% and the actually utilized expenses are 94.23%. Overall, in the last four years, the revised estimate is 2.6% more than the budget estimate. However, 89.7% of the revised estimate has been utilized.

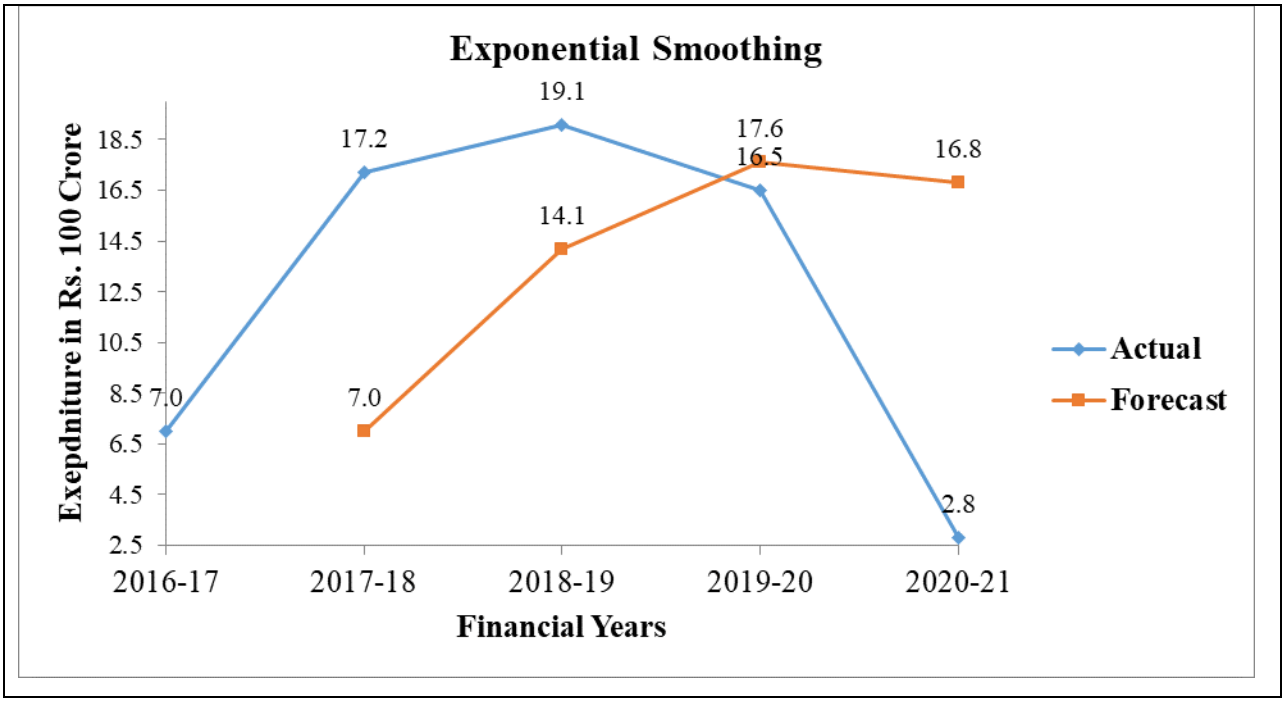

Figure 2.2: Exponential smoothing of expenditure pattern

The 'exponential smoothing' presented in the diagram above shows the actual expenditure and forecasted expenditure for the PMKVY scheme. In 2016-17, against actual incurred expenditure, the forecasted expenditure shows less. For 2017-18, the forecasted actual expenditure is less than the actual expenditure incurred. In 2018-19, the actual expenditure is more than the forecasted expenditure. However, in 2019-20 and 2020-21, the actual expenditure should have been more. It has also been shared that over the years the cost incurring in trainings has gone down therefore the actual expenditure curve descends in the exponential smoothing diagram. Overall, the scheme seems to have taken the major initiative from the year 2017-18 to expand its outreach and coverage based on the available financial details.

2.3 Summary of past evaluation since the inception of scheme

The past evaluation of PMKVY-2.0 was conducted by the National Skill Development Corporation (NSDC) in the year 2018-19. The recommendations were given into two parts, namely (1) Policy, and (2) Operational recommendations. The recommendations are said to have selectively been accepted by the Skill Development Wing, Ministry of Skill Development and Entrepreneurship, Government of India. The policy recommendations given by the NSDC is as under:

Policy Recommendations

- Sector Skill Councils have suggested that they should be involved hands-on in allocating sector and job role wise training targets in each geography. This would be helpful in matching the supply and demand of a skilled workforce while ensuring minimum migration.
- It is important to ensure coordination between different skill development programmes, to ensure effective utilization of resources and business viability for training partners. Currently, multiple training providers from different skill development programmes are operating in the same geographies, leading to inefficiency and resource duplication. Target allocation should be looked at from a macro level across different programmes, as it will help to match the demand and supply of skilled labor more effectively.
- To improve the value of RPL certification, policy support should be provided to make NSQF level certification mandatory for its contractors and tenders. In case making skill certification completely mandatory is not feasible, having a certain percentage of certified workers should be made mandatory for government projects and tenders. Also, as being provided earlier, the certified candidates should be given skill cards, which would help in attaching more value to the RPL certification.
- For RPL, more focus should be given on bridge training courses by identifying the job role wise gap areas as compared to the current job requirements. This will provide an upskilling opportunity to the existing workforce. Also, as it is difficult to enroll candidates in long-duration bridge-training courses, specific and medium duration bridge training courses need to be formulated.
- Partial contribution to the training cost should be taken from the trainees. This will help in ensuring the financial sustainability of the PMKVY programme. It will also help in ensuring that state of art and quality training is provided to the candidates and they take the training program more seriously.
- Training payouts for on-demand job roles that have an intensive practical component should be reviewed. This will help to make these job roles more attractive for the training partners.
- Considering that the scale of the programme has substantially increased, a stronger role of State Skill Development Missions is required in ensuring effective implementation and sustainability of the scheme.

Operational Recommendations

- Pre-screening of candidates should be done rigorously, and appropriate processes or formats should be developed for the same. Also, it needs to be ensured that the trainees can understand the job requirements and expectations before enrolling in a training program. Rigorous pre-screening is also critical to ensure that only eligible candidates participate in the program. The evaluating findings suggest that currently, almost 33 percent of the STT trained candidates were not looking for employment as a substantial percentage of trainees were currently studying.
- One of the key reasons for non-participation by eligible respondents was a lack of awareness about PMKVY and other skill development programs (28 percent of Arm 3 respondents were not aware of any skill training program). It is suggested to focus more on information platforms such as advertisements on TV/radio, door to door campaigning and board/hoardings to reach out to eligible non- participant population.
- Although the key reason for participating in PMKVY training program (as stated by Arm 1 and Arm 2 respondents in STT) was that the program would help them in getting employment. However, the satisfaction with the placement assistance was found to be low and only 17 and 8 percent of Arm 1 and Arm 2 respondents have reported that their employment post their training was facilitated through PMKVY. Though the trained candidates were satisfied with the benefits gained from the program in terms of improvement in self-confidence, technical knowledge, entrepreneurial attitude etc but the ultimate purpose of participating in the program, i.e. getting employment is not getting served. It is thereby, suggested that the placement assistance being provided under the program should be strengthened.
- Stronger facilitation and implementation support are required to ensure that PMKVY certified candidates are able to avail MUDRA loan as currently, not many certified candidates are able to avail the same.
- Innovative mechanisms need to be explored to leverage technology for the monitoring of programme implementation as it is very difficult to monitor a large-scale program like PMKVY physically. Real-time visual monitoring systems need to be developed, though it is realized that such monitoring system are difficult to implement and have a very high cost of implementation. If feasible to be developed, they can enable the policy makers and project management teams to centrally monitor the project implementation on a real-time basis.

- SDMS portal needs to be made more robust to reduce its downtime occurrences. On this the NSDC team had responded that the next version of SDMS that will be launched soon will be more robust. Also, for ensuring that the candidates can be tracked post-training, there should be an option to update the contact details of the candidates on SDMS.
- Considering that the scale of implementation of PMKVY has exponentially increased in the last few years, the resources and manpower requirement for project management should be reassessed and provisioned accordingly.
- It has been shared by training providers that with the current documentation requirement, it is difficult for them to prove the self-employment of many trained candidates. Innovative solutions need to be adopted to address this challenge.
- Trainer development and certification should be focused under the program with an objective of creating a pool of good quality trainers or instructors for imparting training under PMKVY.
- TPs have suggested that the job role wise infrastructure requirement for training centers should be allowed to be changed only after a fixed time period. This is because it becomes financially unviable for the training centers to change the required infrastructure frequently.
- Support should be provided to ensure that training handbooks are available for candidates in regional languages, as it has been shared that many trainees are not comfortable with English.
- To ensure good results in assessment tests, processes need to be formalized to ensure that trainees are assessed regularly during the course of their training. Though many training providers are following this, mechanisms need to be implemented to ensure it is followed by all training partners.
- Some of the good performing training partners have suggested that parents of the candidates should be counseled too as it is helpful in ensuring that the candidates take the training seriously. This approach can be replicated by other training partners to ensure that candidates take the training more seriously.

The quick assessment of PMKVY was also conducted by NITI Aayog in the year 2019. The quick assessment was based on the survey of 5 states and nearly 350 interactions. The study report recommended to have a detailed full-scale evaluation to develop clear actionable recommendations for course correction by the Ministry. However a set of intersection across one or two aspects were made which are as under:

1. Ensure TCs are not withholding certificates of students in place of post placement information. The practice must be strictly controlled by the Sector Skill Councils and NSDC. Training centres undertaking this practice should be debarred from the scheme for a suitable period.

2. Mandate NSQF certification in government contracts and jobs, wherever possible: this measure would increase the value of NSQF certification and therefore of PMKVY course, also addressing the issue of trainees' seriousness about the courses.

3. Include compulsory on-the-job training of other industry exposure as a part of the courses similar to Apprenticeship scheme: strengthening of industry linkages ensure that trainees receive more relevant training, improve their employability and are more likely to find employment.

4. Strengthen the inspection and monitoring systems with in-person verification and data validation: data inconsistencies can be corrected and avoided in the future if more frequent in-person verification visits are made a part of the regular internal monitoring process. Data validation can be used to highlight major inconsistencies, and therefore analysis of the SDMS data should be undertaken regularly.

5. Allow online access to course material at a specified price by state, for printing at the state level: it was found that TCs were often unable to provide course material on times as printing was being undertaken in a different location and transport times would cause further delays. If state machinery is allowed to purchase online access to the course material, decentralized printing can take place and smoothen the flow of resources.

6. Strengthen utilization of alumni networks: existing word of mouth networks are a strong source of outreach for TC, but alumni can also be used to conduct expectation setting discussions with potential recruits. They can provide placement and post-placement support, such as referring other trainees to their current workplace, assisting with migration pressures etc. Finally, they can provide feedback to TCs, SSCs, and NSDC on the industry relevance of their course curriculum and training methods, and help to ensure these are up to date.

These specific intersections in the form of recommendations given by the quick assessing agency are supposedly accepted by the Ministry for the further improvement of the scheme. Side by side, convergence enablement, regular update of curriculum and learning tools, the inclusion of courses above NSQF level 4, particularly for up-skilling, establishment of a system for assessing

demand and supply, and introduction of region-specific courses based on demand-supply data have been accepted.

3. METHODOLOGY

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. Finally, the outcomes of the scheme, in addition to the objectives, were evaluated to understand the impact of the scheme on the trainees receiving skill training in their states from the respective TPs. 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 MSDE (SDW) was obtained.

One of the instruments for obtaining primary data was a questionnaire. They were made available to the direct beneficiaries of the scheme to understand the effectiveness and gauge the overall success of the scheme. The evaluation of the study was conducted across six NSSO classified zones. From each of the zones, two states were selected based on the maximum number of trainees covered across two components and three pads of CSCM-STT. Overall, the evaluation of the scheme 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 candidates who received the trainings.

The sample selection under any study is a crucial part of the evaluation strategy. The sample under study was selected based on the total number of trainees covered across six NSSO zones. In the last four years i.e. 2016-19 under CSCM-STT, 37.2 lakh individuals were enrolled, 34.3 lakh received training, 31.5 lakh assessed, 28.1 lakh certified, and 15.6 lakh reported to have been placed. Likewise, under CSSM-STT, 7.8 lakh youths were enrolled, 5.9 lakh trained, 4.9 lakh assessed, 4.3 lakh certified and 1.4 lakh reportedly placed. For the above years under CSCM-RPL, 50.4 lakh candidates were enrolled, 49.1 lakh oriented, 39.3 lakh assessed, and 28.8

lakh certified. For the same duration under CSCM-SPs, 1.9 lakh candidates were enrolled, 1.8 lakh trained, 1.4 lakh assessed, 1.2 lakh certified and 0.6 lakh reportedly placed.

Based on demographic profile and the districts where training under PMKVY was reported to have been conducted, beneficiary trainees along with other stakeholders were randomly selected. A total of 996 sample-size was to be covered as per the inception report. However, the study has covered a total of 1034 respondents instead. In accordance with the provision and guidelines set out by the Ministry for conducting the evaluation study, and taking into account the set of key objectives of the scheme, structured questionnaires were prepared by the study team. The questionnaires were duly sent to the Ministry for approval before administering it to the respondents.

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 the focussed results of the 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 study. Telephonic conversation and video conferencing were commenced with many beneficiaries to arrive at objective findings. While interacting with the beneficiary trainees, the observations were made. As such, the study has used research tools like observation, questionnaires, focus group discussions, and in-depth interviews. The focus group discussion with a mixed group of stakeholders was also recorded by the study team. In primary sources, the study consisted of a questionnaire, key-informant interviews, and focus group discussions. The key-informant interviews include questionnaire-based interaction with trainers, training partners, industry partners, and Sector Skill Councils. The questionnaire was sent to NSDC and subsequently many telephonic and email requests to receive the feedback. We found resounding silence on the part of NSDC. However, the unfriendly and unbecoming attitude of NSDC speaks volume about their disinterestedness in the scheme implementation. In this connection, the Ministry officials were duly informed. The study team made a number of efforts to get the views of SSDM on the CSSM-STT components, most of them declined and the Ministry support system was also found to be reluctant. The field staff deployed to collect the primary information took also possible challenges owing to the Covid pandemic. The IIPA administration took all possible efforts to provide handholding support in accessing the training

centres across the sampled states. The field staff was also made quarantined for a day in Assam which caused opportunity costs. Somehow, the situation was managed by IIPA, and our field staff was freed after one day of quarantine.

However, the collected information in the excel sheet was sorted and objective-based findings were brought out. The measure of central tendency, regression analysis, t-test, Anova has been used in data analysis to arrive at conclusive findings. The focus group discussion has served as a great help in looking into issues and challenges of the scheme placed appropriately in the report. The study is also backed with extensive meta-analysis to ensure the objective and evidence-based scheme assessment.

3.1 Approach, Division of the country into 6 Geographical Regions/zones as classified by NSSO

With the comprehensive methodology, and pragmatic approach, the evaluation of the PMKVY 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 in 28 states and 7 UTs, so based on the number of the maximum number of training partners covered under the scheme, two states were selected from each of the six NSSO classified zones. In the case of the north eastern zone and south zone, the state of Tripura was replaced by Manipur and Telangana was replaced by Karnataka (the nearest TP number) due to inaccessibility owing to the Covid pandemic. As such, from the north east zone, Assam and Manipur, from east Bihar and Odisha, from central Madhya Pradesh and Uttar Pradesh, from North Haryana and Rajasthan, and south, Karnataka and Tamil Nadu have been selected. As such, a total of 94 respondents from Assam, 84 from Manipur, 105 from Bihar, 72 from Odisha, 82 from Gujarat, 84 from Maharashtra, 113 from Madhya Pradesh, 82 from Uttar Pradesh, 102 from Haryana, 56 from Rajasthan, 69 from Karnataka and 75 from Tamil Nadu have been selected. In addition to this, a total of 16 sector skill councils have come forward to register their views on the scheme, particularly on the roles that they play in the implementation of the scheme. Though the sample size for the evaluation of the scheme is small, looking at the number of beneficiaries covered, the spread of coverage of beneficiaries has been done in such a way that the findings of the scheme are more focused and inclusive. However, based on the number of TPs in the State, the proportional number of beneficiary trainees have been selected considering the sample size proposed and approved in the inception report. The sample selection for the evaluation of the scheme by the state are as under:

Table 3.1: Sample-size covered under the study

NSSO Zone	States	Labour Survey (Trainees)	Trainer (Informant)	Training Partners (Informant)	Enterprise Survey (Industry Partners)	FGD	Total
North East	Assam	58	17	6	5	8	94
	Manipur	51	13	6	6	8	84
East	Bihar	78	14	3	2	8	105
	Odisha	49	5	5	5	8	72
West	Gujarat	49	9	6	10	8	82
	Maharashtra	52	6	6	12	8	84
Central	Madhya Pradesh	71	20	4	10	8	113
	Uttar Pradesh	58	7	3	6	8	82
North	Haryana	68	14	3	9	8	102
	Rajasthan	34	4	4	6	8	56
South	Karnataka	50	4	3	4	8	69
	Tamil Nadu	50	6	5	6	8	75
Total		668	119	54	81	96	1018
Sector Skill Councils-16				**Total Sample Size=1034 (1018+16)**			

The table above shows the respondents that have been covered under the study. A total of 1034 responses have been registered across the sampled states. It also shows the number of beneficiaries being covered in each of the NSSO classified zones. The study has taken into account the selection of two states from each of the NSS classified zones.

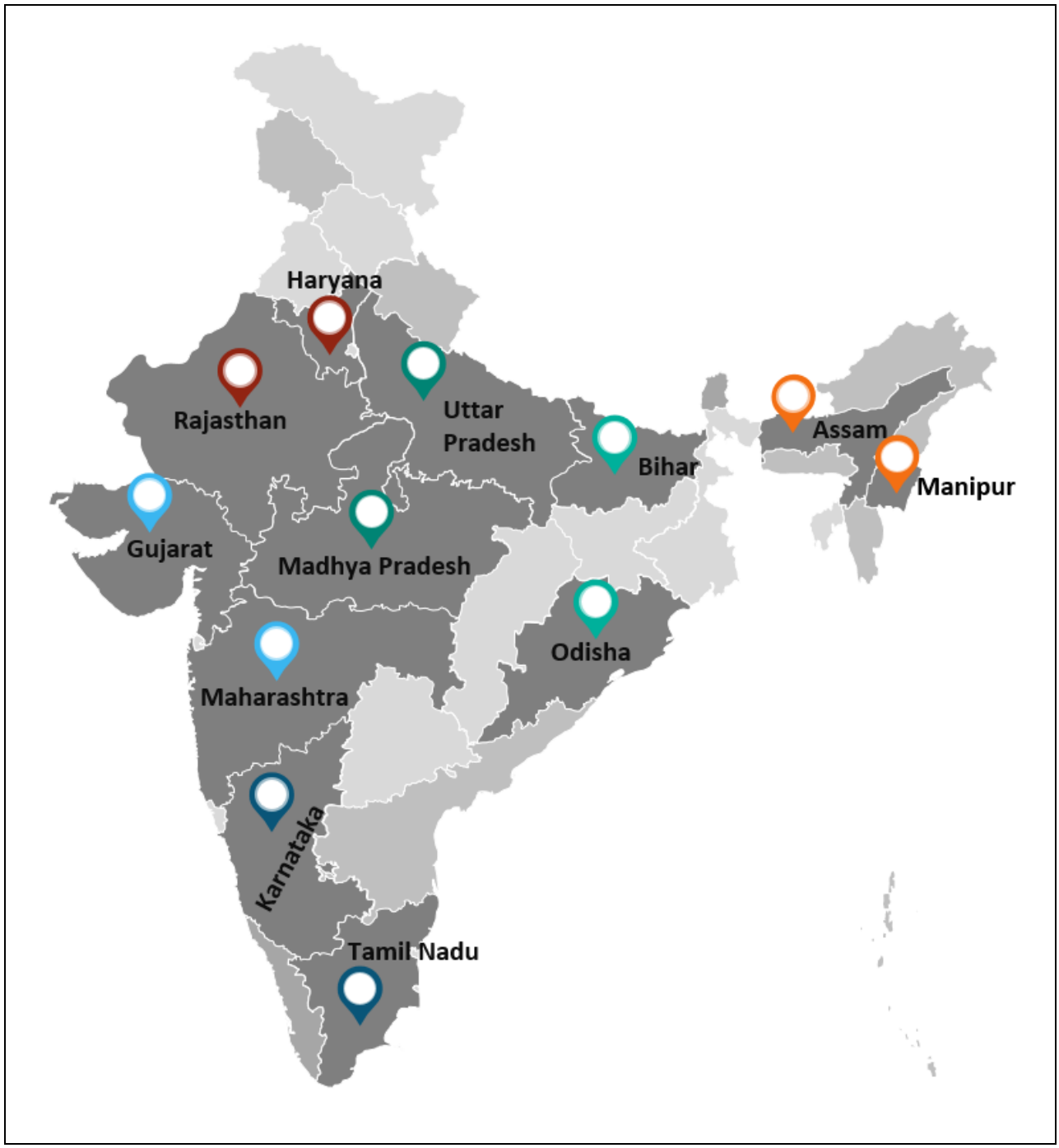

Figure 3.1: States covered under the study

3.2 Sample Size and Sample Selection process, Tools Used

In the first stage, the total number of TPs to be covered across states in the year 2020-21 were considered. Based on the demographic profile of the states, three districts from each of the states were selected. Furthermore, the total number of TPs covered under the study is 54. In the third

stage, based on the sample size finalized for the PMKVY, the proportional spread of beneficiary trainees were calculated so that the sample size remains realistic. Though the target respondents to be covered under the study was 996, the study team has covered a total of 1034 sample size. A total of 668 beneficiary trainees, 116 trainers, 54 training partners, 81 industry partners, and 96 stakeholders under focus group discussion were covered across the states under the study. Thus, a total of 1034 respondents formed the entire sample-size for the evaluation study. The details are presented in the table above.

Table 3.2: Evaluation study research tools

Trainee, trainer, training partners, industry partners, and Sector Skill Councils	• Questionnaire • In-depth interview • Observation • Focus Group Discussion
MSDE	• In-depth Discussion

a. Questionnaire

The study team prepared questionnaires for six stakeholders, namely (1) NSDC, (2) Skill Development Missions, (3) Sector Skill Councils, (4) Training Partners, (5) Trainees, and (6) Trainer. To get the information, very few but significant questions were asked. However, no reply has been received from the agency as of now. A total of 19 questions were designed for Skill Development Missions, particularly to comprehend the implementation of the CSSM-STT. The Missions were found almost silent to respond to the study team by taking the excuse of Covid-19. A total of 47 questions were posed to Sector Skill Councils. Out of the total targeted, a total of 16 responses from 16 Sector Skill Councils have been received, information pertaining to identification and retirement of job-roles, the process of course design, accreditation of training partner, assessment and accreditation, industry linkage, and placement, and other important dimensions. A total of 66 questions were asked to Training Partners on issues, such as setup of the training centre, training infrastructure, selection of skill sector and job roles, target setting and training, trainee assessment and certification, counselling and placement, industry partner linkages and trainer. A total of 67 questions related to household information, trainer effectiveness, quality of training, assessment, counselling and placement, were asked to the

prime stakeholder of the scheme viz. beneficiary trainee. A total of 42 questions were posed before the trainer relating to training details, training method, training facilities, trainees and industry partners.

b. In-depth Interview

The study team individually interacted with PMKVY training partners, Ministry officials, Sector Skill Councils, and trainers to elicit responses relating to the overall achievement of the scheme. The instrument provided qualitative information to the evaluation study. The in-depth interview helped the study team to identify implicit bottlenecks that have been used in the recommendation part of the evaluation study report.

c. Observation

Observation as a research tool was used in understanding the issues and challenges of the scheme. It involved three processes, i.e. (i) sensation (ii) attention (iii) perception. The sensation was gained through the idea pre-conceived through secondary information. The attention was paid to the way stakeholders were found responding. The perception comprises the interpretation of benefits vis-à-vis the way JSSs were functioning for the vulnerable groups. Thus, the 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; (iv) getting out of the way details of the situation.

d. Focus Group Discussion

The focus group discussion involved different stakeholders. The focus group discussions involved gathering important information-gap amongst the stakeholders. The different nuances of the schemes were discussed to arrive at the precision. The perceptions of both demand and supply-side stakeholders were received and responses were documented in the research dairy. The participants were given full freedom to explain the issues and concerns in detail. The discussion under FGD was moderated by the study team. One of the objectives of the FGDs was to cross-check the claims of the institutes and actual amenities that were available for the beneficiary trainees. The focus group discussion has immensely helped in developing the qualitative evaluation report. Thus, the study has used research tools like questionnaires, in-depth discussion, interviews, focus group discussions (FGDs), and observations to document the overall performance of the scheme.

4. OBJECTIVE OF THE STUDY

The objectives of the evaluation study as per the ToR are as under:

A. Performance analysis

1. To assess the performance of scheme and analyse various gaps for corrective action:

(a) Improving market efficiency and productivity of labour while ensuring, inclusion of women, SC, ST, Divyang and other vulnerable groups,

(b) Formalization & social security of labour force,

(c) Building a skilled quality manpower pool by enabling fresh skilling, multi-skilling, up-skilling and re-skilling for enhanced employability, including entrepreneurship, and self-employment, and

(d) Labour force aspirations

B. Assess Relevance, Effectiveness, Equity and Sustainability of the Scheme

1. To analyse the input use efficiency of the PMRPY and PMKVY schemes including the National Career Service (NCS) projection terms of aspects like institutional mechanism, fund flow (adequacy and timeliness) & utilization through public expenditure etc.,

2. To look at the effectiveness of PMKVY in skilling, up-skilling, RPL activities, certification and placements,

3. To assess the coverage of the scheme in terms of levels of formalization of workers by getting them into social security and to look at the overall outcomes linked to the schemes,

4. To identify the key bottlenecks/issues and challenges in the implementation mechanisms (governance mechanism, stakeholder engagement & their roles & responsibilities, process & resource flow, capacities to report on the efficacy of these schemes towards job creation and sustainable employment for all, and

5. To assess the intended and actual convergence of the scheme to other developmental programmes of the Central and the State Governments as well as with private sector/CSR effort.

4.1 Performance of the scheme based on the output/outcome indicators

Based on the feedback received from Skill Development Wing, MoSD & E , and subsequently, the inception report accepted, the output/outcome indicators spelled out in the light of objectives of the study are as under:

1. Awareness about the PMKVY in the target group

2. Number of candidates enrolled, trained, assessed, certified, and placed under CSCM-STT

3. Number of candidates enrolled, trained, assessed, certified and placed under CSSM-STT

4. Number of candidates enrolled, oriented, assessed and certified under the CSCM-RPL

5. Number of candidates enrolled, trained, assessed certified and placed under the CSCM-SPs

6. Impact of skills received on employability

7. Aspirations of target group and job-roles demanded by the market,

8. Infrastructure, accessibility and the use of IT by the of Training Centres

9. Sectoral demand prescribed and fulfilled by Training Partners

10. Inclusiveness of the scheme with regard to women, SCs, STs, 'Divyangjan' and other vulnerable groups

11. Convergence with other central/state government schemes

12. Accessibility of training partners to the trainings and quality thereof

13. Identification of reasons for beneficiaries' dropping out

14. Identification of problems faced by beneficiary trainee from enrolment to certification

15. Placement of beneficiaries in the same sector where the training received

16. Effectiveness of monitoring the placement

17. Best practices in skilling

1 Awareness about the PMKVY in the target group

Social and community mobilization is extremely critical for the success of any skill development initiative. It fosters a bottom-up approach not only in effective planning and implementation of interventions in the space but also in effective monitoring, evaluation and ownership of the scheme. The active participation of the community ensures transparency and accountability and helps in leveraging the cumulative knowledge of the community for better functioning. It has been mandated under the scheme that proper awareness needs to be spread, identify suitable beneficiaries, enrollment of beneficiaries under the courses best matched, and dovetail PMKVY with other national missions. The mobilization process under the scheme proceeds with the preparation of a specific resource mobilization strategy, identification of the broad stakeholder

group, developing the key messaging and selecting the right information disseminating vehicles, and preparing for enrollment. Apart from other leveraging information channels, Mass-Media, Small-Media and Kaushal Mela.

The PMKVY Guidelines (2016-20) document on page number 4, (sub-point-1.4.5) stipulates mobilization. It mentions that the training centres shall conduct various outreach campaigns across the districts in which they are located. The outreach campaign may comprise a combination of door-to-door visits, mobile vans, and interaction with community-based groups and local leadership. All outreach efforts are to target school dropouts and undergraduate college dropouts. Mass enrollment of students shall not be allowed under the scheme. Kaushal Melas should be conducted in coordination with state/local representatives at least once every six months in accordance with the Kaushal and Rozgar Mela guidelines. The Training Centres are required to ensure that their mobilization efforts are visible on print, outdoor and digital media platforms, in accordance with the Branding and Communication Guidelines. The mobilization strategy involves the allocation of targets, followed by communication to dignitary, update to SDMS with relevant details, and finally mobilization camps. The responses received on the component from the beneficiary trainees are as under:

Table 4.1: Channels of mobilization across the sampled states

States	Door to Door Campaign	Community Leaders	Kaushal and Rozagar Melas	Peer group	Staff of Training Centre	Advertisement through print and Audio, visual media	Social Platforms	Total
Assam	8 (7.2)	41 (36.9)	27 (24.3)	5 (4.5)	15 (13.5)	5 (4.5)	10 (9)	111 (100)
Manipur	17 (20.2)	22 (26.2)	19 (22.6)	0 (0)	10 (11.9)	14 (16.7)	2 (2.4)	84 (100)
Bihar	32 (29.9)	5 (4.7)	42 (39.3)	0 (0)	19 (17.8)	9 (8.4)	0(0.0)	107 (100)
Odisha	21 (31.3)	14 (20.9)	4 (6)	0 (0)	0(0.0)	13 (19.4)	15 (22.4)	67 (100)
Haryana	31 (26.5)	37 (31.6)	14 (12)	16 (13.7)	18 (15.4)	0(0.0)	1 (0.9)	117 (100)
Rajasthan	21 (23.1)	22 (24.2)	11 (12.1)	11 (12.1)	11 (12.1)	10 (11)	5 (5.5)	91 (100)
Madhya Pradesh	41 (25.2)	9 (5.5%)	35 (21.5)	0 (0)	44 (27)	14 (8.6)	20 (12.3)	163 (100)
Uttar Pradesh	29 (36.7)	18 (22.8)	19 (24.1)	4 (5.1)	5 (6.3)	4 (5.1)	0(0.0)	79 (100)
Tamil Nadu	12 (16)	14 (18.7)	26 (34.7)	3 (4)	9 (12)	11 (14.7)	0(0.0)	75 (100)
Karnataka	20 (24.7)	10 (12.3)	20 (24.7)	4 (4.9)	10 (12.3)	8 (9.9)	9 (11.1)	81 (100)
Gujarat	29 (31.9)	8 (8.8)	25 (27.5)	4 (4.4)	13 (14.3)	4 (4.4)	8 (8.8)	91 (100)
Maharashtra	39 (32.8)	27 (22.7)	24 (20.2)	4 (3.4)	23 (19.3)	2 (1.7)	0(0.0)	119 (100)
Total	300 (25.3)	227 (19.2)	266 (22.4)	51 (4.3)	177 (14.9)	94 (7.9)	70 (5.9)	1185 (100)
Average	25.5	19.6	22.4	4.3	13.5	8.6	6.0	100.0

The mobilization channels like door to door campaign, community leaders, Kaushal & Rojagar Melas, Peer group, staff of the training centres, advertisement through audio-visual media, and social platforms have been reflected by the beneficiary trainees. The multiple options have been selected by 668 beneficiary trainees across the sampled States. Thus a total of 1185 responses on the various options were received from the beneficiary trainees.

From the table above, out of the total responses received, the optimum mobilization has been realized through door to door campaign (25.3%), followed by Kaushal and Rozgar Melas (22.4%), community leaders (19.2%), staff of training centre (14.9%), advertisement through prints and audio-visual media (7.9%), social platforms (5.9%), and peer group (4.3%). The computed mean value for the door to door campaign has scored 25.5, followed by Kaushal and Rojagar melas (22.4), the community leaders (18.9), staff of training centre (13.5), advertisement through print and audio-visual media (8.6), social platform (6.0), and peer group (4.3).

The states having above the mean score on the component of the door to door campaign has been found in the state of Madhya Pradesh (41), followed by, Maharashtra (39), Bihar (32), Haryana (31), Uttar Pradesh (29), and Gujarat (29), below the mean score, are Odisha (21), Rajasthan (21), Karnataka (20), Manipur (17), Tamil Nadu (12), and Assam (8). The states having above than the mean score on the component of Community Leaders have been found in the state of Assam (41), followed by Haryana (37), Maharashtra (27), Rajasthan (22), and Manipur (22), below the mean score, are Uttar Pradesh (18), Tamil Nadu (14), Odisha (14), Karnataka (10), Madhya Pradesh (9), Gujarat (8), Bihar (5).

The community leaders as the channels for mobilization has worked above the average in the state of Assam (41), Haryana (37), Maharashtra (27), Rajasthan (22) and Manipur (22). The Kaushal and Rojgar Melas have worked effectively (above the average) in the state of Bihar (42), Madhya Pradesh (35), Assam (27), Tamil Nadu (26), Gujarat (25), and Maharashtra (24). The role of the peer group in mobilizing the beneficiaries is evident in the state of Haryana (16), followed by Rajasthan (11) and Assam (5). The significance of the staff of training centres has been found above the average responses in the state of Madhya Pradesh (44), followed by Maharashtra (23), Bihar (19), Haryana (18), and Assam (15). The advertisement through print and audio-visual media has been recognized above the average in the state of Manipur (14), Madhya Pradesh 914), Odisha (13), Tamil Nadu (11), Karnataka (8), Bihar (9), and Karnataka (8). The importance of social platforms has been recognized as one of the important channels in beneficiary mobilization. Its score has been found above average in the state of Madhya Pradesh (20), followed by Odisha (15), Assam (10), Karnataka (9), and Gujarat (8).

2 Number of candidates enrolled, trained, assessed, certified and placed under CSCM-STT

The Centrally Sponsored and Centrally Monitored (CSCM) component of the scheme is implemented through the NSDC that envisages insurance of 70% placement of the total certified candidates by the training centres. NSDC had laid focus on ensuring target re-allocation only to centres with high placement performance. In addition, the employer-led model are also being focused on the current model of partner selection prioritizing proposals submitted either by employers or other organizations in consortium with employers, stressing captive employment. Thus, the benchmark fixed by the scheme guidelines is 70% for employment against the trainees certified. To facilitate it, the NSDC has also empanelled placement partners, with the aim of providing employment to PMKVY certified candidates unplaced by training provider till 90 days from the date of certification. The training centres exceeding 70% of set-benchmark, 2 bonus marks receive for every 5% increment in placement performance (over and above 70%). There exists four key parameters to be monitored under PMKVY which are: (1) considerable percentage of trainees enrolled are not aware of their enrollment, (2) Considerable percentage of trainees are found to be pursuing education from school, college, or other educational institutions, (3) If the enrolled trainees never got trained, and (4) During the surprise visit, the accredited training centre was not found at its address. In other words, the enrolled trainees need to be trained. After the training, the trainee needs to be assessed. After the assessment, the qualified trainees get the certification. Of the total number of trainees certified, 70% of them should be placed, and the same to be uploaded on the website. Based on the information shared by the Ministry, a simple linear regression is run to find out the significance of enrolled, trained, assessed, and certified is affecting the reported placed.

$$\mathbf{Y} = \boldsymbol{\alpha} + \boldsymbol{\beta}_1 X_1 + \boldsymbol{\beta}_2 X_2 + \boldsymbol{\beta}_3 X_3 + \boldsymbol{\beta}_4 X_4 + \mathbf{e}$$

Where Y = Reported placed and X1= enrolled, X2= trained, X3= assessed, X4= certified

The results are given in the below table

Table 4.2: Regression model for scheme's achievement

R Square = 0.99						
Reported Placed (Y)	**Coefficients**	**Standard Error**	**t Stat**	**P-value**	**Lower 95%**	**Upper 95%**

Intercept	-0.806	829.278	-0.001	0.999	-1689.991	1688.378
Enrolled	-0.284	0.281	-1.013	0.319	-0.856	0.287
Trained	0.683	0.580	1.177	0.248	-0.498	1.863
Assessed	-1.282	0.672	-1.909	0.065	-2.651	0.086
Certified	1.533	0.479	3.204	0.003**	0.558	2.508

R- Square (0.99) which means that the independent variable explaining the dependent variable by 99%. It is found that the change in certified trainee has got a positive influence on reported placed trainee. Certified trainee increases by 1 percent lead to reported placed trainee rise by 1.53% with vary a significant coefficient. The significance of the impact is visible on certified with a P-value of 0.003. Based on primary information, the enrolled, trained, assessed, certified and placed trainees are under:

Table 4.3: Performance of CSCM-STT across sampled states

States	Enrolled	Trained	Certified	Placed	Percentage of Placement
Assam	8	8	8	0	0.0
Bihar	78	78	78	49	62.8
Gujarat	11	11	11	11	100.0
Haryana	68	68	68	56	82.4
Karnataka	37	37	37	27	73.0
Madhya Pradesh	70	70	70	64	91.4
Maharashtra	36	36	36	36	100.0
Manipur	7	7	7	7	100.0
Odisha	49	49	49	40	81.6
Rajasthan	33	33	33	29	87.9
Tamil Nadu	34	34	34	16	47.1
Uttar Pradesh	56	56	56	44	78.6
Total	**487**	**487**	**487**	**379**	**77.8**

The table above shows that the maximum percentage of placement has occurred in the state of Gujarat (100%), Maharashtra (100%), and Manipur (100%), followed by Madhya Pradesh (91.4%), Rajasthan (87.9%), Haryana (82.4%), Odisha (81.6%), Uttar Pradesh (78.6%), Karnataka (73%), Bihar (62.8%), and Tamil Nadu (47.1%). The table reveals the optimum performance of the CSCM –STT component in the western zone, followed by central zone, eastern zone, southern zone, and north eastern zone. Overall, the performance of the component

under the PMKVY 2.0 has been found astoundingly high in the state of Gujarat, Maharashtra, and Manipur in the sampled states.

Under the component of CSCM, apart from the regular short term training, and additional sub-component of Special Projects is also embedded for vulnerable groups like inmates of jail and juvenile homes, tribal population belonging to Bru, Katkari, Karbi Anglong tribes etc. A number of beneficiaries are trained under the YUVA initiative of Delhi Police for skilling misguided youth, in-conflict with the law, and underprivileged candidates. Captive placements are provided to candidates certified through collaboration with industry partners. The projects under the scheme are undertaken in collaboration with Government Departments like the Department of Women and Child Welfare, Department of Social Welfare, etc. Additionally, demand-driven and innovative job roles like staff employed e-tailer, waste pickers waste segregation, loan processing officer, futuristic solar charkha are developed to impart training. . Under the vertical, the fresh short term trainings are provided to candidates in NSQC approved job roles. Special projects bring in the flexibility required to cater to vulnerable populations residing in difficult to reach places. It also serves new requirements and innovative models etc. In other words, the Special Project component is different from the short term training of PMKVY by the virtue of it being a project and need-based and comparatively a little more flexible. In the sample covered under the study, a total of 8 beneficiaries were found across the sampled states. It was found that samples collected through the survey were 100% placed. It has been found in all three states, namely Maharashtra, Manipur, and Uttar Pradesh.

Table 4.4: Performance of CSCM-SPs across sampled states

States	Enrolled	Trained	Certified	Placed
Maharashtra	1	1	1	1
Manipur	6	6	6	6
Uttar Pradesh	1	1	1	1
Total	8	8	8	8

As per the table above, the 100% enrolled, trained, and subsequently certified beneficiaries received in the state of Maharashtra, Manipur and Uttar Pradesh. Overall, the component of CSCM-SP has been found doing optimum across the states mentioned above.

3 Number of candidates enrolled, trained, assessed, certified and placed under CSSM-STT

The component is Centrally Sponsored and State Managed. Out of the total financial outlays, 25% is spent on the component. The component under PMKVY-2.0 is implemented by State

Skill Development Missions. 70% of the pass percentage of certified beneficiary trainees are to be ensured. The performance of the scheme on the component clearly indicates that 30.3% of certified trainees have been placed through the CSSM-STT. The state of Maharashtra and Gujarat have performed as per the target set under the scheme. In the case of other sampled states, the performance of the component is as per the set benchmark. The objective of PMKVY also gets enabled by enabling a large number of Indian youth to take up industry-relevant skill training that helps secure better livelihood and a sustainable future. The information shared by beneficiary trainees from the sampled states are as under:

Table 4.5: Performance of CSSM-STT across sampled states

States	Enrolled	Trained	Certified	Placed	Percentage of Placement
Assam	50	50	50	9	18.0
Gujarat	38	38	38	34	89.5
Karnataka	13	13	13	8	61.5
Madhya Pradesh	1	1	1	0	0.0
Maharashtra	15	15	15	14	93.3
Manipur	38	38	38	22	57.9
Tamil Nadu	16	16	16	0	0.0
Total	**171**	**171**	**171**	**87**	**50.9**

The table above presents the number of candidates enrolled, trained, assessed, certified and placed across the sampled states for the CSSM component. It has been found that the maximum percentage of placement has been found in the state of Maharashtra (93.3%) and Gujarat (89.5%), followed by Karnataka (61.5%), Manipur (57.9%), and Assam (18%) in the sampled beneficiaries across the states.

4 Number of candidates enrolled, oriented, assessed and certified under the CSCM-RPL

Under Recognition for Prior Learning (RPL) individuals with prior learning experience or skills are assessed and certified. It focuses on the individuals engaged in unregulated sectors. The objectives of RPL are primarily three-fold (i) to align the competencies of the unregulated workforce of the country to the standardized National Skills Qualification Framework (NSQF); (ii) to enhance the career/employability opportunities of an individual as well as provide alternative routes to higher education; and (iii) to provide opportunities for reducing inequalities based on privileging certain forms of knowledge over others. The project title, name of the project implementing agency, name of the Sector Skill Council (SSC), name of the mobilization agency, name of the RPL facilitators, name of assessing agencies, project location, proposed start

date, proposed end date, project duration (max 1 year), total target required and job roles are essentials for the RPL centres. The RPL process comprises of five steps, namely mobilization, counselling and pre-counselling, orientation, final assessment and certification & pay-outs. The RPL projects are evaluated through field visits by the NSDC or a designated agency on the parameters like branding and appropriateness of the RPL venue, publicity of the project, mobilization process, counselling and pre-screening process, orientation process, assessment process, achievement on target utilization and adherence to prescribed timelines and other parameters in the sanctioned project proposal.

The RPL enables a large number of Indian youth to take up industry-relevant skill training that helps them improve their socio-economic conditions. Recognition of existing skills and prior experience of the beneficiaries by providing orientation of 12 hours. Beneficiaries are also provided bridge course training for a maximum of 68 hours wherever required. Individuals benefit by having their prior learning acknowledged through a structured, NSQF based system and gain certification by saving on time, regardless of how or where the learning occurred. The RPL has been able to formally certify workforce participants working in the informal sectors of the economy. The RPL is supporting various government schemes by taking up projects with Government Organizations, involving up-skilling and certifications. Initiatives have been undertaken to provide bridge course training to rural masons for the construction of twin pit toilets in rural areas. The project is implemented along with the Ministry of Drinking Water and Sanitation to support "Swachh Bharat Mission". Projects have also been undertaken to upskill the construction workers at the worksite itself through bridge training and has focused mainly on assistant masons, bar-benders etc. Armed forces personnel who are to retire in the upcoming 2-3 months are also being provided with bridge training to align the skills learned during the service with industry standards under MoU signed with the Ministry of defense. Another initiative has been undertaken in PMKVY along with the Ministry of Environment, Forest, and Climate Change (MoEF &CC) for up-skilling of AC field technicians. Additionally, service staff, cooks, and supervisors associated with IRCTC are also being provided bridge course training in the RPL projects so that services can be improved. The RPL is also covering women beneficiaries to learn the food processing sector for pickle-making technicians, banking operative, etc. job roles. Number of candidates enrolled, trained, assessed certified and placed under the CSCM-SPs are as under:

Table 4.6: Performance of CSCM-RPL across sampled states

States	Enrolled	Oriented	Certified	Placed
Rajasthan	1	1	1	1
Uttar Pradesh	1	1	1	1
Total	2	2	2	2

The above table indicates the number of candidates enrolled, oriented, certified, and placed. The achievement of the CSCM-RPL in the sampled states were found very effective across the two states where the sample of the RPL was found. In Rajasthan and Uttar Pradesh, the RPL component of CSCM seems to have performed well.

5 Impact of skills received on employability

PMKVY has been designed as a skill certification and reward scheme with an aim to enable and mobilize a large number of Indian youth to take up skill training and become employable for sustainable livelihood. To keep the trainings imparted in the scheme-market relevant, a total of 252 job-roles were taken up for implementation in the first two years of PMKVY 2.0. The trainings have been found mostly imparted in 198 job roles out of 252 job roles applicable in the scheme. The job-roles are defined and refined in the light of market demand. A total of 13 skill sectors with which beneficiaries are bestowed were found in the study sample that also informs the overall impact on employability. The information collected from the beneficiary trainees informed that a total of 70.1% employment has been calculated across 13 skill sectors. The table given below presents the skill sectors that have helped the beneficiary getting a job.

Table 4.7: Skill sector and employability across sampled states

Sector/ States	Assam	Bihar	Gujarat	Haryana	Karnataka	Madhya Pradesh	Maharashtra	Manipur	Odisha	Rajasthan	Tami Nadu	Uttar Pradesh	Grand Total
Agriculture	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	25 (100)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	25 (100)
Beauty and Wellness	0 (0)	0 (0)	5 (38.5)	0 (0)	0 (0)	0 (0)	8 (61.5)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	13 (100)
Capital Goods	0 (0)	0 (0)	7 (100)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	7 (100)
Construction	0 (0)	8 (100)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	8 (100)
Retail	0 (0)	0 (0)	0 (0)	5 (17.2)	0 (0)	0 (0)	0 (0)	0 (0)	12 (41.4)	6 (20.7)	4 (13.8)	2 (6.9)	29 (100)
Apparel, Made-Ups & Home Furnishing	0 (0)	0 (0)	16 (21.9)	5 (6.8)	9 (12.3)	0 (0)	8 (11)	8 (11)	14 (19.2)	8 (11)	4 (5.5)	1 (1.4)	73 (100)
Electronic and IT Hardware	1 (0.9)	9 (8.3)	1 (0.9)	10 (9.3)	17 (15.7)	32 (29.6)	(0)	10 (9.3)	8 (7.4)	11 (10.2)	0 (0)	9 (8.3)	108 (100)
IT and ITES	(0)	10 (15.2)	10 (15.2)	14 (21.2)	9 (13.6)	7 (10.6)	7 (10.6)	1 (1.5)	0 (0)	5 (7.6)	0 (0)	3 (4.5)	66 (100)
Auto and Auto Components	8 (18.2)	0 (0)	0 (0)	10 (22.7)	0 (0)	0 (0)	10 (22.7)	(0)	0 (0)	0 (0)	0 (0)	16 (36.4)	44 (100)
Textiles	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	3 (15.8)	8 (42.1)	0 (0)	0 (0)	8 (42.1)	(0)	19 (100)
Media and Entertainment	0 (0)	4 (26.7)	5 (33.3)	3 (20)	0 (0)	0 (0)	(0)	(0)	0 (0)	0 (0)	0 (0)	3 (20)	15 (100)
Tourism, Hospitality & Travel	0 (0)	18 (35.3)	0 (0)	8 (15.7)	0 (0)	0 (0)	14 (27.5)	0 (0)	0 (0)	0 (0)	0 (0)	11 (21.6)	51 (100)
Telecommunication	0 (0)	0 (0)	1 (10)	1 (10)	0 (0)	0 (0)	0 (0)	2 (20)	6 (60)	0 (0)	0 (0)	0 (0)	10 (100)
Grand Total	9 (1.9)	49 (10.5)	45 (9.6)	56 (12)	35 (7.5)	64 (13.7)	50 (10.7)	29 (6.2)	40 (8.5)	30 (6.4)	16 (3.4)	45 (9.6)	468 (100)

The table above presents that the jobs in the agriculture sector was noticed maximum in the state of Madhya Pradesh (25%). The jobs in beauty and wellness has been recognized in the state of Maharashtra (61.5%) and Gujarat (38.5%). The capital good sector was found providing employment opportunities in the state of Gujarat (100%). The construction sector was found providing jobs in Bihar (100%). Retail sector was found leveraging employment opportunities in the state of Rajasthan (41.4%), followed by Rajasthan (20.7%), Haryana (17.2%), Tamil Nadu (13.8%), and Uttar Pradesh (6.9%). Apparel, made-ups & home furnishing skill sector has scored its maximum visibility in the state of Gujarat (21.9%), followed by Odisha (19.2%), Karnataka (12.3%), 11% each in Maharashtra, Manipur, Rajasthan, Haryana (6.8%), Tamil Nadu (5.5%), and Uttar Pradesh (1.4%). The electronic and IT sector has scored the maximum job holders in the state of Madhya Pradesh (29.6%), followed by Karnataka (15.7%), Rajasthan (10.2%), Haryana (9.3%), Manipur (9.3%), Bihar (8.3%), Uttar Pradesh (8.3%), Bihar (8.3%), Odisha (7.4%), 0.9% each in Assam and Gujarat. The auto and auto components has scored effective in the state of Haryana (21.2%), as compared to Gujarat (15.2%), followed by Bihar (15.2%), Karnataka (13.6%), Madhya Pradesh (10.6%), Maharashtra (10.6%), Rajasthan (7.6%), and Uttar Pradesh (8.3%). The textile sector skill has scored the highest in the state of Uttar Pradesh (36.4%), followed by Maharashtra (22.7%), Haryana (22.7%) and Assam (18.2%). Media and Entertainment has the maximum score in the state of Gujarat (33.3%), followed by Bihar (26.7%), Haryana (20%), and Uttar Pradesh (20%). The tourism, hospitality and travel sector has scored maximum in the state of Bihar (35.3%), followed by Maharashtra (27.5%), Uttar Pradesh (21.6%) and Haryana (15.7%). The telecommunication sector has enabled employability more in the state of Odisha (60%), followed by Manipur (20%), and 10% each in Gujarat and Haryana. As such, the maximum jobs received by the beneficiary trainees are in Electronic and IT hardware, followed by Apparel, made-ups and home furnishing, Tourism, hospitality & travel, It & ITES, Auto and auto-related components, Retail, Agriculture, Media and Entertainment, Beauty and wellness, telecommunication, construction, and capital goods.

A regression analysis to assess the impact of total trained on total placed has been done. The regression analysis primarily shows effective correlation between both the variables. It has been revealed that the total trained has an indelible impact on the total placed. This also explains the effectiveness of the PKKVY-STT on employability of the beneficiaries receiving skill training. The summery of the regression analysis is presented below:

Table 4.8: Regression analysis based impact of total trained on total placed beneficiaries

Summary of Regression Output						
Multiple R	0.99271					
R Square	0.98549					
Adjusted R Square	0.98506					
Standard Error	6083.836					
Observations	36					
ANOVA						
	df	SS	MS	F	Sign. F	
Regression	1	85475585268	85475585268	2309	0.00	
Residual	34	1258444448	37013071.9			
Total	35	86734029717				
Total Placed	Coeff	Standard Error	t Stat	P-value	Lower 95%	Upper 95%
Intercept	-298.463	1200.14280	-0.248	0.80	-2737.44	2140.52
Total Trained	0.48473	0.01008699	48.055	0.00	0.46423	0.5052

In the table above, the regression model has Multiple R/correlation coefficient value as 0.99 that measures the strength of the linear relationship between the Total Placed and Total Trained. The score of Multiple R under regression shows almost perfect linear relationship between Total Placed and Total Trained. The R square is also known as the coefficient of determination which is the proportion of the variance in the response variables that can be explained Total Placed and Total Trained. The R-squared is 0.99 which indicates that 99.3% of the variance in the Total Placed can be explained by the Total Trained. 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 6083.8 units from the regression line. The number of observations in the dataset is 36. 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 degrees of freedom is equal to the number of observations – 1. In this case, we have 36 observations, so the total degrees of freedom is 36 – 1 = 35. The Residual degrees of freedom

is equal to the total df – regression df. In this case, the residual degrees of freedom is 35-1 = 34.

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 Total Placed if none of the predictor variables in the model are statistically significant, the overall F statistic is also not statistically significant.

In this example, the F statistic is 2309. 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 total placed that indicates a fit regression model.

In this case, the significance F is 0.00, 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= -298.46+ {0.48473* (total trained)}

Each individual 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 total trained is expected to bring about 48.47% of change in the total placed.

The intercept is interpreted as the expected total placed with zero increase in the total trained. In this case, the total placed is expected to be -298.463 irrespective of any change in the total trained.

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 total trained is 48.05.

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 total trained is 0.00. This indicates that total trained is a significant predictor of the total placed.

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 estimate for total trained is 0.4847, 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 total trained is (0.46423, 0.5052). 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 total trained is non-zero, i.e. a positive number.

Table 4.9: Sector-wise placement of beneficiary trained

Sector	Total Trained	Total Placed	Placed Percentage
Rubber	700	526	75.14
Domestic worker	5585	3428	61.38
Furniture and fittings	6700	4071	60.76
Leather	4939	2877	58.25
Aerospace and aviation	1131	648	57.29
Apparel	354697	197027	55.55
Power	45131	25017	55.43
Handicrafts and carpet	4604	2528	54.91
Food processing	7611	4026	52.90
Media and entertainment	25293	13279	52.50
Agriculture	52010	27187	52.27
Construction	92198	47994	52.06
Tourism & hospitality	52926	27457	51.88
Beauty and wellness	131313	67812	51.64
Textiles and handlooms	2089	1075	51.46
Telecom	162000	80554	49.72
Retail	218876	106726	48.76
Iron and steel	17594	8474	48.16
Automotive	32998	15807	47.90
Logistics	171575	81735	47.64
Green jobs	25260	12009	47.54
Healthcare	51561	24172	46.88
Management	4256	1964	46.15
Plumbing	16421	7393	45.02
Electronics and hardware	460797	205248	44.54
Sports	2084	898	43.09

Sector	Total Trained	Total Placed	Placed Percentage
Security	12584	5380	42.75
IT-ITES	137270	55583	40.49
BFSI	85676	32380	37.79
Capital goods	30370	10954	36.07
Mining	13812	4934	35.72
Gems and jewellery	19249	6856	35.62
Persons with disability	27818	9595	34.49
Life sciences	13674	4332	31.68
Infrastructure equipment	571	20	3.50
Paints and coatings	0	0	0.00
Total	**2291373**	**1099966**	**48.00**

The sector wise interpretation of beneficiaries trained and received placement has been accounted of 48%. As per the tabular information, three slabs may be classified to assess the percentage of placement trainees received after the training sector wise. These classifications are: placement above 60%, placement above 50%, placement above 40%, and below 40%. In the above 60%, the major sectors scored are: rubber (75.14%), domestic worker (61.38%), and furniture and fittings (60.76%). In the placement slab of 50% and above, the sector are: leather (58.25%), aerospace and aviation (57.29%), apparel (55.55%), power (55.43%), handicrafts and carpets (54.91%), food processing (52.90%), media and entertainment (52.50%), agriculture (52.27%), construction (52.06%), tourism and hospitality (51.88%), beauty and wellness (51.64%), and textile and handlooms (51.46%). In the placement slab of 40% and above, the sectors are: telecom (49.72%), retail (48.76%), iron and steel (48.16%), automotive (47.90%), logistics (47.64%), green jobs (47.54%), health care (46.88%), management (46.15%), plumbing (45.02%), electronics and hardware (44.54%), sports (43.09%), security (42.75%), IT-ITES (40.49%). In the final placement slab of below 40%, the sectors are: BFSI (37.79%), capital goods (36.07%), mining (35.72%), gems and jewellery (35.62%), persons with disabilities (34.49%), life sciences (31.68%), and infrastructure equipment (3.50%). Overall, rubber in the first slab, leather in the second slab, telecom in the third slab, and BFSI in the fourth slab for the placement have pioneered the sector chain. It further indicates that rubber has profuse potential to provide placement which has been accounted for 75.14% aligned with the target placement of the PMKVY. The employability is largely driven by the sectoral demand as per the information documented in the table above. However, the other sectors may be in demand, as times and need change.

Table 4.10: Changes in the monthly wages of the trainees (before and after the coverage under the scheme)

Sector/Job-role	Avg. Monthly Wage Rate - Before the training	Avg. Monthly Wage Rate - After the training	Change amount	Percentage Change
Handicraft	2500	11500	9000	360.00
Beauty And Wellness	5444.44	19000	13555.56	248.98
Aero Space	10000	30000	20000	200.00
Telecom	11700	33050	21350	182.48
Construction	10562.5	28687.5	18125	171.60
Agriculture	9800	25800	16000	163.27
Accountancy	6500	15000	8500	130.77
Iron & Steel	6250	14250	8000	128.00
Healthcare	9666.67	21666.67	12000	124.14
Retail	7857.14	17057.14	9200	117.09
Apparel	6538.55	14144.58	7606.03	116.33
Logistics	8205.68	17736.84	9531.16	116.15
Rubber	9833.33	20833.33	11000	111.86
IT-ITeS	7991.59	16289.72	8298.13	103.84
Automobile	8700	16975	8275	95.11
Capital Goods	8333.33	16000	7666.67	92.00
Electronics & Hardware	8737.11	16340.21	7603.1	87.02
Media & Entertainment	8637.5	15975	7337.5	84.95
Power	9206.67	16955.56	7748.89	84.17
Tourism & Hospitality	9740.74	17888.89	8148.15	83.65
Management & Entrepreneurship	10000	18000	8000	80.00
Textiles and Handlooms	7250	11937.5	4687.5	64.66
Mining	7500	12000	4500	60.00
Total	**8422.64**	**17871.26**	**9448.62**	**112.18**

In the table above, the total percentage change in the wages has been accounted for 112.18%, as a result of coverage under the scheme. The maximum change in the monthly wage rate is astounding in handicraft (360%), followed by beauty and wellness (248.98%), aerospace

(200%), telecom (182.48%), construction (171.60%), agriculture (163.27%), accountancy (130.77%), iron and steel (128%), healthcare (124.14%), retail (117.09%), apparel (116.33%), logistics (116.15%), rubber (111.86%) and so on. Based on the monthly changes in the wage rate, most of the changes are aligned to an additional income of Rs. 8000 (mode value=Rs. 8000).The mean change in the monthly wage rate has been accounted for Rs. 10266.64. The maximum change amount in the wage rate has been found as Rs. 21350. However, the minimum change amount in the wage rate change has been found as Rs. 4500.

Table 4.11: t-Test: Two-Sample assuming unequal variances regarding average monthly wage rate

Particulars	***Avg. Monthly Wage Rate - Before the training***	***Avg. Monthly Wage Rate - After the training***
Mean	8302.402985	18569.04059
Variance	3939706.833	33200598.26
Observations	23	23
Hypothesized Mean Difference	0	
df	27	
t Stat	-8.08	
P(T<=t) one-tail	0.00	
t Critical one-tail	1.70	
P(T<=t) two-tail	0.00	
t Critical two-tail	2.05	

To assess the accurate change in the monthly wage rate, the before and after wages have been processed through t-test for two-sample assuming unequal variances. The P value of 0.00 shows highly significant change in the monthly wage rate before and after the coverage under the scheme. In addition to this, the observed absolute value of t Stat is 8.08 which is higher than t Critical two-tail 2.05. This implies that it fails to accept the null hypotheses. This is to say that there is significant difference in wage rate before and after the coverage under the scheme.

6 Aspirations of target group and job-roles demanded by the market

Consideration of aspirations of beneficiary trainees in skill training conspicuously determines the speed and scope of learning. Under the CSSM-STT component, the states are better placed to articulate the skilling needs for state-specific activities. Their involvement would enable taking up specific skill development that caters to the local demand and aspirations. In an endeavor to improve the information flow and bridge the demand-supply gap in the skilled workforce market, PMKVY has the vision to give due consideration to it. Apart from recruiting a skilled workforce that spurs business competitiveness and economic growth, the Artificial Intelligence-based platform may strengthen the career pathways to attain industry-relevant skills and explore emerging job opportunities, especially in the post COVID era. The skill sector hierarchy based has been compared with the skills prioritized by the National Skill Development and Entrepreneurship Policy -2015. The findings are as under:

Table 4.12: Aspirations of target group and incremental human resource requirement by sector in percentage

Skills	Skills Driven Employability	Incremental Human Resource Requirement (2013-22)
Electronic and IT Hardware	23.1	5.0
Apparel, Made-Ups & Home Furnishing	15.6	7.8
IT and ITES	14.1	2.3
Tourism, Hospitality & Travel	10.9	7.0
Auto and Auto Components	9.4	4.2
Retail	6.2	18.8
Agriculture	5.3	26.9
Textiles Sector Skill Council	4.1	6.8
Media and Entertainment	3.2	1.0
Beauty and Wellness	2.8	10.9
Telecommunication	2.1	2.3
Construction	1.7	2.9
Capital Goods	1.5	3.9

The table above represents the skills driven employability in the target group and incremental human resource requirement as expressed by the National Policy for Skill Development and Entrepreneurship-2015 (appendix-1, page no. 52). The table above indicates differences in the hierarchy of skill preference with the marketability and the skills graded by the policy document.

Based on the available marketed skills expressed by beneficiary trainees, it has been found the maximum score of Electronic and Hardware skill sector (23.1%), as against the policy figures given in the policy document. The highest percentage derived for the skill sector is with agriculture (26.9%) which is 7th in the hierarchy. The other skill sector may easily be analyzed based on the table above.

Table 4.13: t-Test of employable skills and skills mentioned in the policy document

t-Test: Two-Sample Assuming Unequal Variances	Skills Driven Employability	Incremental Human Resource Requirement (2013-22)
Mean	7.692	7.692
Variance	43.648	55.413
Observations	13	13
Hypothesized Mean Difference	0	
df	24	
t Stat	0.00	
P(T<=t) one-tail	0.5	
t Critical one-tail	1.711	
P(T<=t) two-tail	1	
t Critical two-tail	2.06	

The t-test has been conducted after converting the available scores in percentage for both the variables to know the intensity to which they share a commonality. It has been found that against the computed t-Stat of 0.00, the t critical two-tail has scored 2.06 which is more. In this case, the hypothesis gets accepted with considered mean difference of 0 referring to similarity in both the variables. As such, the statistical analyses posits that there is higher degree of similarity between skills-driven employability of the target group and incremental human resource requirement expressed for 2013-22.

Table 4.14: Job-roles preferred by industry partners in sampled states

Job Roles	Frequency	Percentage
Retail (In-door and Out-door)	23	11.1
Hospitality	12	5.8
Self-Employed Tailor	10	4.8
Mobile Phone Hardware Repair	9	4.3
CNC Operator Turning	8	3.9
CRM Domestic Voice	8	3.9
Data Entry operator	7	3.4

Distributor Sales Representative	6	2.9
IT-Domestic Biometric Data Operator	5	2.4
Assistant Beauty therapist	5	2.4
Service Supervisor	5	2.4
Helper	5	2.4
Ring Frame Tentor	5	2.4
Airline Cargo Assistant	4	1.9
Assistant Electrician	4	1.9
Team Leader	4	1.9
General Duty Assistant	3	1.4
Mobile Phone Hardware Repair Technician	3	1.4
Domestic Data Entry Operator	3	1.4
Electrician	3	1.4
Technician	3	1.4
Hair Dress-up Artist	3	1.4
Security Guard	3	1.4
Makeup Artists	3	1.4
Management Checker	3	1.4
Quality Inspector	3	1.4
Accounts	2	1.0
Documentation Assistant	2	1.0
Food Product Packing Technician	2	1.0
Machine Operator	2	1.0
Field Engineer-RACW	2	1.0
Sales Executive	2	1.0
Ward Boy assistant	2	1.0
Office Assistant	2	1.0
Solar Power	2	1.0
Junior Software Developer	2	1.0
Manager	2	1.0
Retail Sales Associate	2	1.0
Room Attendant	2	1.0
Dairy Products Processor	1	0.5
Food	1	0.5
Garment Checker	1	0.5
Handloom Weaver	1	0.5
Handset Repair Engineer	1	0.5
Makeup Artist	1	0.5
Manager	1	0.5
Mason Concrete	1	0.5
Plumbing	1	0.5

Team member	1	0.5
Auto Centre Tentor	1	0.5
Delivery Partner	1	0.5
Domestic IT Helper	1	0.5
Electric Automation	1	0.5
Media and Entertainment	1	0.5
SCP	1	0.5
Technician -Distribution Transformer Repair	1	0.5
Telecommunication	1	0.5
Warper	1	0.5
Wielding Technician	1	0.5
Wireman- Control Panel	1	0.5
PCA	1	0.5
Personal Shopper	1	0.5
Taxi Driver	1	0.5
Time Incharge	1	0.5
Iron &Steel Plasma Cutter	1	0.5
Motor	1	0.5
Ring Frame Dotter	1	0.5
Textile Designer	1	0.5
Warehouse Assistant	1	0.5
Product Checker	1	0.5
Total	**207**	**100.0**

In order to gauge the demand from industry partners' perspective, they were asked to name five job roles from their sector which they think are most relevant for the market. A total of 207 responses have been received on job roles preferred by the industry partners in the sampled states. Frequency count in descending order has been given in table 12 above. It has been found that the Retail (indoor and outdoor) was the most preferred job role receiving 11.1% responses followed by Hospitality & Mobile Phone Hardware Repair Technician (5.8% each), Self Employed Tailor and Domestic Data Entry Operator (4.8% each), CNC Operator & CRM Domestic Voice (3.9% each), Distributor Sales Representative (2.9%), IT - Domestic Biometric Data Operator, Assistant Beauty Therapist, Service Supervisor, Helper & Ring Frame Tentor (2.4% each). Other 24 items received 1 – 1.9 % responses and these included: Airline Cargo Assistant, Assistant Electrician, Team Leader, General Duty Assistant, Electrician, Technician, Hair Dress-up Artist, Security Guard, Makeup Artists, Management Checker, Quality Inspector, Accounts, Documentation Assistant, Food Product Packing Technician, Machine Operator, Field

Engineer-RACW, Sales Executive, Ward Boy Assistant, Office Assistant, Solar Power, Junior Software Developer, Manager, Retail Sales Associate & Room Attendant. The remaining 30 job roles received preference of 0.5% industry partners. It may be gathered that five job roles having opportunities in organised & unorganised sectors and also scope for self-employment were on top of the preference of industry partners.

7 Infrastructure, accessibility and the use of IT by Training Centres

It is expected from the training centres that they must meet the infrastructure standard s set by the guidelines of the scheme. The infrastructure of the training centres were assessed in terms of responses received from the beneficiary trainees on adequate space of training hall, satisfactory seating arrangement, proper training equipment & tools, adequate training consumables, audio-video equipment, availability of library, light arrangement, electricity back-up, drinking water, toilet facilities proper ventilation and proper hygiene and sanitation.

The table given below shows 'yes' views indicating satisfactory availability of the facilities. Regarding, training hall space being adequate was admitted by cent percent beneficiaries in most states except Manipur (98.7), Haryana (98%), Madhya Pradesh (83.7%), and Uttar Pradesh (97.1%). The seating arrangements were found satisfactory by 100% trainees except in Haryana where 98% respondents said so. All trainees from all most 9 states said training equipment and tools were available; in remaining 3 states the percentage respondents saying so was less with Haryana (84%), Gujarat (98.1%) and Uttar Pradesh (97.1%). The percentages of views about training consumables being adequate were highest in Assam, Bihar, Karnataka & Tamil Nadu (100% each), followed by Manipur (98.7%), Odisha (98.5%). Gujarat (98.1%), Maharashtra (98%), Uttar Pradesh, (97.1%), Haryana (96%), Rajasthan (94.4%), and Madhya Pradesh (83.7%).In states of Assam, Manipur, Bihar, Madhya Pradesh, Uttar Pradesh, Karnataka and Tamil Nadu cent percent trainees said that audio-visual equipment were available; in this regard lesser percentages were obtained from Odisha (97.1%), Haryana (90%), Rajasthan (98.6%), Gujarat (90.4%) and Maharashtra (80.4%). Cent percent respondents from Assam, Bihar, Madhya Pradesh, Uttar Pradesh, Karnataka and Tamil Nadu reported availability of library in their training centres, whereas in lesser percentage of trainees from Manipur (97.4%), Odisha (97.1%), Haryana (96%), Rajasthan (87.3%), Gujarat (96.2%) and Maharashtra (98%) said so.

Table 4.15: Feedback on infrastructure by beneficiary trainees-STT

State	Training Hall	Seating	Equipment and Tools	Training Consumable	Audio-Visual	Library	Light	Elect. Backup	Drinking water	Toilet Facility	Adequate Lighting	Ventilation Sufficient	Hygiene and sanitation
Assam	58 (100)	58 (100)	58 (100)	58 (100)	58 (100)	58 (100)	58 (100)	57 (98.3)	58 (100)	58 (100)	58 (100)	58 (100)	58 (100)
Manipur	77 (98.7)	78 (100)	78 (100)	77 (98.7)	78 (100)	76 (97.4)	78 (100)	78 (100)	78 (100)	78 (100)	78 (100)	77 (98.7)	77 (98.7)
Bihar	49 (100)	49 (100)	49 (100)	49 (100)	49 (100)	49 (100)	49 (100)	49 (100)	49 (100)	49 (100)	49 (100)	49 (100)	49 (100)
Odisha	68 (100)	68 (100)	68 (100)	67 (98.5)	66 (97.1)	66 (97.1)	68 (100)	68 (100)	68 (100)	68 (100)	68 (100)	68 (100)	67 (98.5)
Haryana	49 (98)	49 (98)	42 (84)	48 (96)	45 (90)	48 (96)	48 (96)	49 (98)	50 (100)	49 (98)	48 (96)	50 (100)	47 (94)
Rajasthan	71 (100)	71 (100)	71 (100)	67 (94.4)	70 (98.6)	62 (87.3)	71 (100)	71 (100)	71 (100)	71 (100)	71 (100)	71 (100)	66 (93)
Gujarat	52 (100)	52 (100)	51 (98.1)	51 (98.1)	47 (90.4)	50 (96.2)	51 (98.1)	50 (96.2)	52 (100)	52 (100)	52 (100)	52 (100)	52 (100)
Maharashtra	51 (100)	51 (100)	51 (100)	50 (98)	41 (80.4)	50 (98)	51 (100)	51 (100)	51 (100)	51 (100)	51 (100)	51 (100)	51 (100)
Madhya Pradesh	41 (83.7)	49 (100)	49 (100)	41 (83.7)	49 (100)	49 (100)	49 (100)	49 (100)	49 (100)	48 (98)	49 (100)	49 (100)	49 (100)
Uttar Pradesh	33 (97.1)	34 (100)	33 (97.1)	33 (97.1)	34 (100)	34 (100)	34 (100)	34 (100)	34 (100)	34 (100)	34 (100)	34 (100)	34 (100)
Karnataka	50 (100)	50 (100)	50 (100)	50 (100)	50 (100)	50 (100)	50 (100)	50 (100)	50 (100)	50 (100)	50 (100)	50 (100)	50 (100)
Tamil Nadu	58 (100)	58 (100)	58 (100)	58 (100)	58 (100)	58 (100)	58 (100)	58 (100)	58 (100)	58 (100)	58 (100)	58 (100)	57 (98.3)
Total	657 (98.4)	667 (99.9)	658 (98.5)	649 (97.2)	645 (96.6)	650 (97.3)	665 (99.6)	664 (99.4)	668 (100)	666 (99.7)	666 (99.7)	667 (99.9)	657 (98.4)

All trainees from most states said that lighting arrangements were available in their centres except Haryana and Gujarat where percentages such students were 96% and 98.1% respectively. All time electrical back up available was reported by 100% trainees from Manipur, Bihar, Odisha, Rajasthan, Maharashtra, Madhya Pradesh, Uttar Pradesh, Karnataka & Tamil Nadu followed by Assam (98.3%), Haryana (98%), and Gujarat (96.2%). One hundred percent trainees from all sample states reported drinking water being available. In 10 sample states, cent percent trainees were of view that toilet facility was available in their centres and 98% trainees each from Haryana & Madhya Pradesh held such views. Except for Haryana where percentage was 96%, in remaining 11 states 100% trainees said that lighting arrangements were adequate. Except for Manipur where 98.7% trainees said that ventilation was proper in their centre, remaining states this percentage was cent percent. Last item under facilities was proper hygiene and sanitation in the centres. All students from 7 states said that hygiene & sanitation was proper but lesser percentage of students said so from Manipur (98.7%), Odisha (98.5%), Tamil Nadu (98.3%), Haryana (94%) and Rajasthan (93%). Among 13 items of infrastructure facilities, Drinking Water Availability received highest response percentage (100%), followed by Seating Arrangements & Ventilation (99.9% each), Toilet Facility & Adequate Lighting (99.7% each), Audio Visual Equipment & Lighting Available (99.6%), Electricity Backup (99.4%), Training Equipment & Tools (98.5%), Training Hall (98.4%) , Availability of Library (97.2%) & Adequate Training Consumables (97.2%). Overall, it may be inferred that situation of infrastructure facilities was satisfactory in training centres across the sample states.

The building of future growth and prosperity are largely based on possession of market oriented skills that STTs have been found to be addressing. Paving the path to growth and prosperity hinges upon developing skills that are relevant to the industry demand and the job market. The IT enablement is one of the key items through which a maximum degree of transparency and accountability are maintained in the scheme implementation. IT enablement ensures the effective monitoring of the scheme. During the study visit, it was observed that the payout to the staff of training partners are paid in cash which indicates the black economy to grow. However, the number of beneficiary trainees enrolled, trained, certified, and placed are e-enabled.

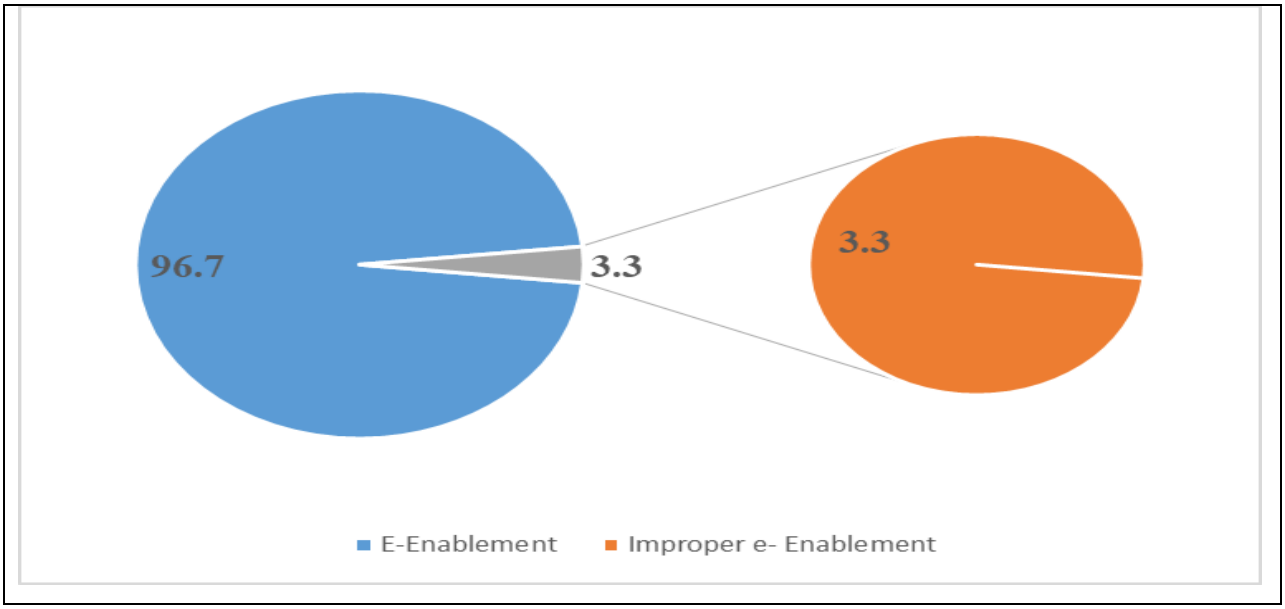

Figure 4.1: Responses on 'e—Enablement by stakeholders

The diagram above informs that 100% of training partners are e-enabled. The same responses have also been shared by the beneficiary trainees. Out of the 100% response received from the trainees, it has been found that a total of 96.7% responses are in favor of e-enablement, followed by 3.3% as improper e-enablement. 100% of the training partners have shared that their centres are fully e-enabled. It consisted of the responses on the use of digital technology tools for the beneficiary trainees and bio-matric attendance, availability of computers, sufficient IT practices, and maintenance of data bank of the trainees. As such, most of the training centres were found equipped with IT enablement across the sampled states. Leveraging technology for seamless implementation of the scheme have also been acted upon through involving citizens, national skill corporation, sector skill councils, training partners, trainers, organizations, assessment agency and Ministries and State councils. The use of Mobile App for PMKVY embedded Mobile App based assessment management with geo-tracking have also been carried out. The provision of Digi Locker as online repository for skill certificates are also under the e-enablement component of the scheme. The eLearning Aggregator Platform has been introduced which is first of its kind in eSkilling platform that leverages the skilling opportunities by combining e-content from various players across the ecosystem, thus bridging the gap between the supply and demand. It brings online courses curated from leading knowledge partners, speeding-up making India a Skilled Nation. The English, Employability and Entrepreneurship (EEE) module has been introduced in the form of blended learning Module on English, Employability and

Entrepreneurship (EEE). An additional 155 learning hours have been included under PMKVY on a pilot basis across 9 job-roles to gauge the impact on employability.

8 Sectoral demand prescribed and fulfilled by Training Partners

The sectoral demand as per highlighted by the National Policy for Skill Development and Entrepreneurship-2015 has been considered to assess the sectoral demand of Skills and supply. Based on information shared by beneficiary trainees (their feedback on the skill requirement) have been converted into percentage points. The faint responses on the different skills have been clubbed in the column others. It has been found that the requirement of skill differs from actual skills required from the market.

Table 4.16: Sectoral demand and supply of the skills

Skills	Incremental Human Resource Requirement (2013-22) (%)	Actual Supply (%)
Agriculture	26.9	3.9
Retail	18.8	5.0
Beauty and Wellness	10.9	3.1
Apparel, Made-Ups & Home Furnishing	7.8	10.8
Tourism, Hospitality & Travel	7	17.0
Textiles Sector Skill Council	6.8	3.1
Electronic and IT Hardware	5	19.7
Auto and Auto Components	4.2	6.3
Capital Goods	3.9	2.2
Construction	2.9	0.9
IT and ITES	2.3	13.5
Telecommunication	2.3	3.6
Media and Entertainment	1	6.3
Others	N/A	4.4

The table above indicates the sector-wise major skill-supply across the states, as per the information shared by the beneficiary trainees. It has been found that most of the responses are concentrated on the Electronic and IT hardware sector (19.7%), followed by Tourism, Hospitality and Travel (17%), IT and ITES (13.5%), and so on. However, the maximum demand in the skill sector in the policy has been documented in the agriculture sector (26.9%), followed by Retail (18.8%) Beauty, and wellness (10.9%). The skill sectors have been rated based on identified skills in the light of incremental resource requirements (2013-22). The policy

document covers its articulation based on 36 States, UTs requirement. The skill identified are in congruence with only 12 sampled states visited.

The diagram below shows the requirement and fulfillment of the skills across the identified sectors.

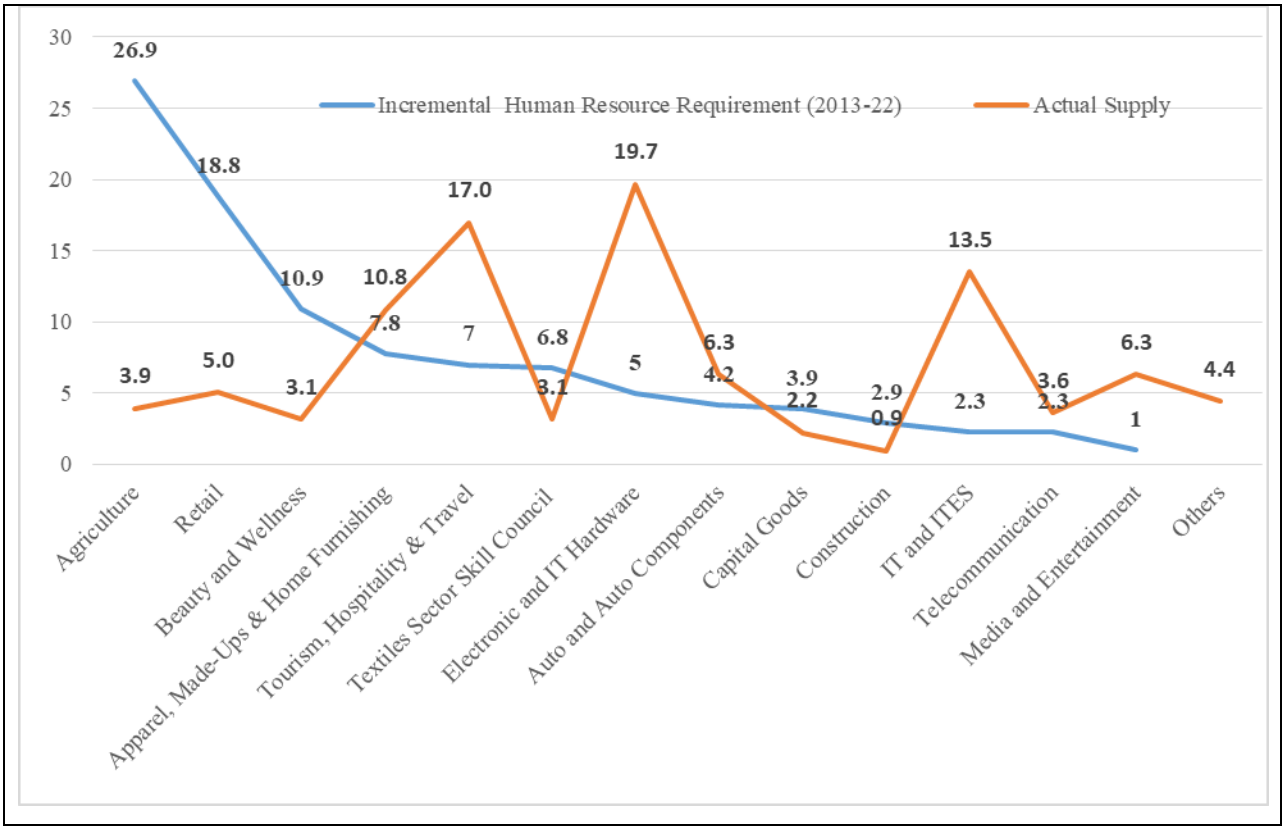

Figure 4.2: Required and fulfilled skill sectors

The figure above shows the requirement and fulfillment of the skill sectors across 12 sampled states drawn from six NSSO classified zones. The line graph informs the prescribed skill sector and the actual supply of the skill sectors. Moreover, 15-17 skill sectors deserve priority to be given on the skill sectors.

9 Inclusiveness of the scheme with regard to women, SC, ST, 'Divyangjan' and other vulnerable groups

Under the PMKVY-2.0, more than 40% of women have been trained/oriented across various job-roles and sectors. Out of the reportedly placed candidates, approximately 53% are women. With the help of the STT, SPs, and RPL, the employability amongst women have been ensured, and their work participation ratio, increased. Apart from the normal course of three pads of the

training, six additional specific projects are proposed to be 100% women-oriented. The six initiatives are: (1) Hamara Bachpan Trust, (2) Youthnet Home Stay Project in north east, (3) Projects in Pradhan Mantri Mahila Kaushal Kendra, (4) women-oriented cluster artisan, (5) special training on Beauty and Wellness in collaboration with NIESBUD, and (6) Training for women in Shelter Homes and Juvenile Homes' inmates. The percentage of women trained through STT, SP, and RPL are as under:

Table 4.17: Share of beneficiary women in PMKVY during 2016-20

Pads	**Percentage of women trained/Oriented**	**Percentage of women certified**	**Percentage of women Placed**
STT	50	52	52
SP	54	61	68
RPL	32	33	N/A

The table presents the percentage of women trained oriented, certified, and placed across the pads. It is evident that women share has been found 50% in STTs, 54% in SPs, and 32% in RPL for training/orientation. Percentage of women verified varies across the pads, viz. 52% under STTs, 61% in SPs, and 33% for RPL. The percentage of women respondents placed under the pads is being highlighted through the third column where-in 52% of women placed from STTs and 68% through RPL. The mandate for the placement is not applicable in the case of the RPL pad. Overall, the percentage of women placed is higher in SPs (68%), followed by STT (52%) but not tantamount to the 70% benchmark. The women-centric interventions are also evident under Special Projects. Under the Special Projects, a total of 76084 female received training of which 55203 got certified and 25338, placed. In other words, 72.6% of women candidates were certified of trained/oriented. 45.9% of women got placed of the certified, and 33.3% of women got placed of the total trained. Though the percentage of women has been descending as we move from training to placement, their final score in terms of number is more impressive and outstanding. Thus, the special project component of the PMKVY-2.0 has profusely influenced the beneficiary women.

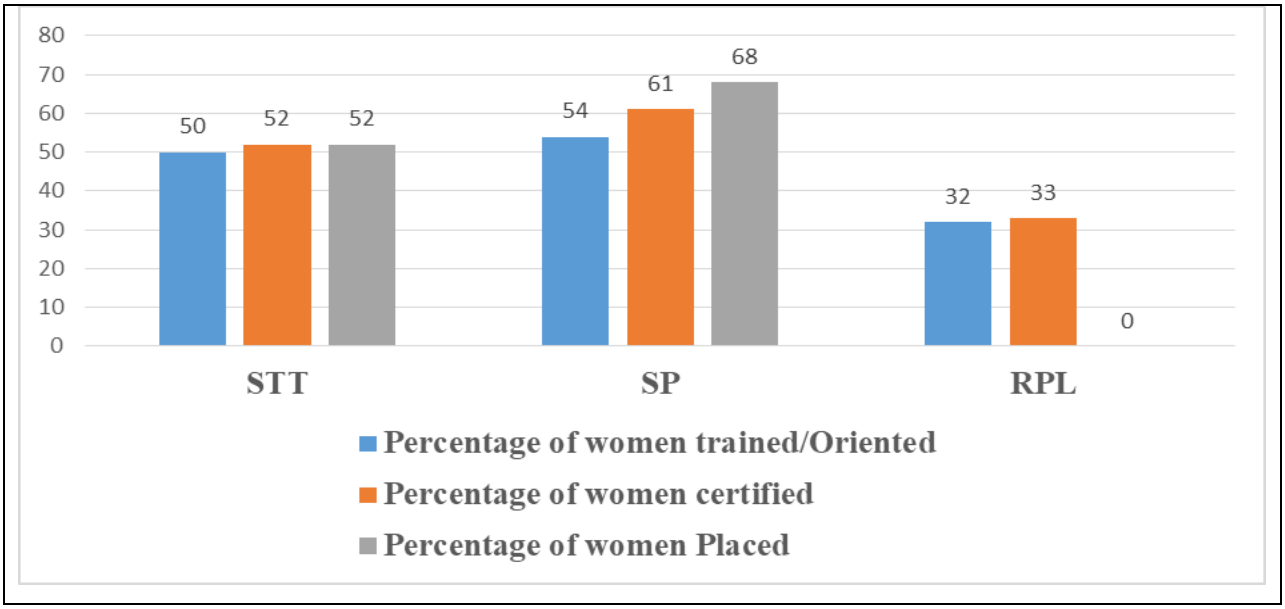

Figure 4.3: Percentage of women trained/oriented, certified and placed under pads

The diagram above indicates that the percentage of women candidates trained/oriented, the percentage of women who got certified, and the percentage of women who got placed under three pads of the PMKVY-2.0. It is evident that the maximum percentage of women have received placement through Special Projects, followed by STTs. The information on the component is not mandated under RPL.

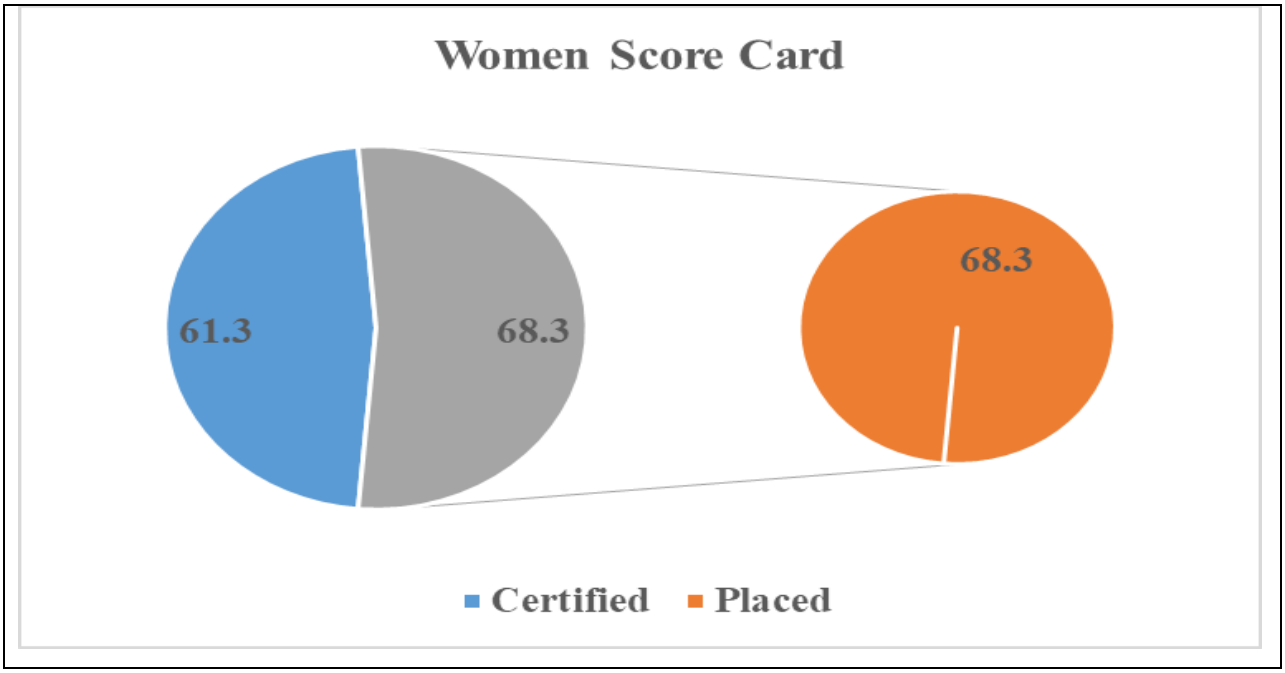

Figure 4.4: Women placement through special projects

The diagram above shows that 61.3% of women got certified, of which 68.3% got placed. The placement of 68.3% of women between the male and female genders shows significant value of it. The same is evident in the diagram above. The special projects also serve the vulnerable populations of our country. It has been found that 1000 ex-Gorkhaland personnel for social inclusion have been considered. 6034 jail inmates have been trained so far in 51 Jails. 400 candidates from Bru tribes have been trained. The captive employment has been largely covered by Arvind Mills, Muthoot Fincorp Ltd, GMR Varalakshmi Foundation, Indian Texprenuers federation, Maruti Suzuki India Ltd. An astoundingly high number of trained people (14643) are placed out of 1636 certified. Job-roles like Safai Karamchari, waste Picker, Loan Processing officer, Futuristic Solar Charkha have been identified. In collaboration with Government Departments, initiatives have been taken with YUVA with Delhi Police to train 13700 poor and needy youth. The training of women in shelter homes and Juvenile Homes' inmates have been done with the Department of Women and Child Development. The Skilling initiatives under the scheme has also covered Bru tribes in 12 districts of 6 States. Out of 1164 trained, 120 have been placed with KPR mills in Tamil Nadu.

In Maharashtra, Khatkari, Chakma, Kurku, and Gonds were trained for the job roles of the assistant electrician, craft baker, domestic data entry operator, medicinal plants grower, and self-employed tailor.178 beneficiaries have been trained. For the training and employment of PwD candidates, an exclusive Sector Skill Council for people with disabilities have been set-up. In the ambit of the council, over 150 exclusive PwD centres have been established across India under Short term Training. Special Projects for PwD candidates-like project on intellectual disability in coorgs have been considered. A total of over 37 thousand plus PwD candidates have been trained and over 10 thousand, placed. The initiative for the PwD targets intellectually disabled, visually impaired, orthopedically challenged, hearing impaired, and other disabilities. The job-roles like Sakhta Saaz, handloom weaver carpet, F & B services, and Retails sales associates have been prioritized. However, under the scheme, job-role-wise informational posters for mass awareness have also been in place.

Table 4.18: Inclusiveness of the scheme with regard to the weaker section

States	Female	SC	ST	Divyangjan	BPL
Assam	44.8	12.07	19.0	1.7	55.2
Manipur	52.9	3.92	2.0	0.0	80.4
Bihar	41	6.41	3.8	0.0	69.2

Odisha	51	18.37	10.2	0.0	91.8
Madhya Pradesh	45.1	9.86	1.4	2.8	8.5
Uttar Pradesh	43.1	17.24	3.4	0.0	53.4
Gujarat	73.5	10.20	2.0	0.0	18.4
Maharashtra	53.8	15.38	1.9	0.0	30.8
Haryana	33.8	23.53	4.4	2.9	10.3
Rajasthan	32.4	5.88	11.8	0.0	8.8
Tamilnadu	62	18.00	0.0	0.0	72.0
Karnataka	58	6.00	0.0	2.0	56.0
Total	**48.7**	**12.43**	**4.8**	**0.9**	**46.1**

The table above presents the inclusiveness of the scheme in terms of the coverage beneficiaries from different socio-economic categories. The female participation across the sampled states have been calculated as 48.7% which is remarkably shows its gender inclusivity. In the sampled respondents, SCs have been accounted for 12.43%. The representation of ST has been depicted as 4.8%. The representation of Divyangajan has been computed as 0.9% and BPL category beneficiaries are figured as 46.1%. The 73.5% of female participation in Gujarat, 23.53% of SC participation in Haryana, 19% of ST participation in Assam, 2.9% Divyangjan share in Haryana, and 91.8% of BPL share in Odisha are the information related to higher ranges. However, 32.4% female share in Rajasthan, 3.92% SC share in Manipur, no share of ST in Tamil Nadu and Karnataka, no share of Divyangjan in Manipur, Bihar, Odisha, Uttar Pradesh, Gujarat and Maharashtra, Rajasthan and Tamil Nadu, 8.5% BPL share in Madhya Pradesh are towards the lower ranges.

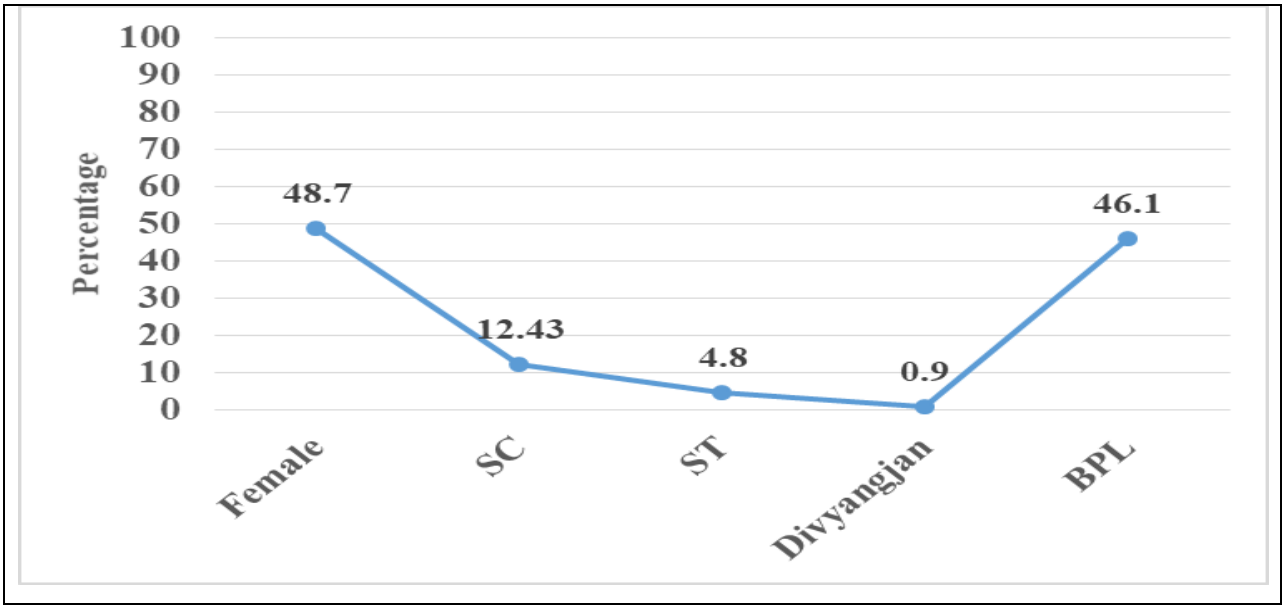

Figure 4.5: Inclusiveness of the PMKVY scheme across the sampled states

The diagram above indicates the participation of different socio-economic categories across the states. It has been found that out of the categories plotted, the maximum share of women (48.7%), followed by BPL (46.1%), SC (12.43%), ST (4.8%) and Divyangjan (0.9%) have been found in the sample studied. It shows an overall trend of the inclusiveness of the PMKVY 2.0 scheme.

10 Convergence with other central/ state government schemes

PMKVY 2.0 is in line with Common Cost Norms approved by the Cabinet for Central sector schemes. The total cost of the scheme is worked out based on training targets. There is no redundant component to the scheme to be removed/reduced. Barring schemes like DDU-GKY, NULM, UDAAN, schemes catering to specific target groups requiring special cultural or functional identification like persons with disability and minorities, the PMKVY2.0 is in convergence with other schemes. The schemes like Integrated Skill Development Scheme (ISDS) of the Ministry of Textiles, Entrepreneurship Development Programme (EDP) of the Ministry of MSME, Hunar Se Rozgar Tak Initiative of Ministry of Tourism, Scheme for financial assistance to States for skill Development in Electronics System Design and Manufacturing Sector of Ministry of IT and Communication, Support of Training and employment programme for women of the Ministry of Women and Child Development, capacity Building & technical Assistance for Skill development of Ministry of development of North Eastern Region, and Skill up gradation Training programme, Skill Development training

programme under NCVT scheme, and Skill development training for National Service Scheme Volunteers, etc. would also be integrated under PMKVY. The scheme is in convergence with various schemes and programmes of the Central and State Government.

The Ministries to meet specialized requirements linked to new investments or initiatives in their sector viz. Make in India, Swachh Bharat, Digital India, and Smart Cities. These demands are addressed either through regular PMKVY being implemented by NSDC or through Special Projects by training partners. A project-based approach is promoted for skilling initiatives in traditional skills that need to be nurtured and promoted. The financial and physical allocation to the tune of 20% of the scheme budget is made for the special projects including projects for unorganized and traditional jobs. Further, the concerned administrative Ministries can also contribute funds for these special projects aimed at particular sectors, geographies, and target segments through National Skill Development Fund (NSDF), to be implemented under the overall umbrella of PMKVY.

The RPL under PMKVY2.0 is supporting various government schemes by taking up projects with government organizations involving up-skilling and certifications. Initiatives have been undertaken to provide bridge course training to rural masons for the construction of twin pit toilets in rural areas. This project is being implemented along with the Ministry of Drinking Water and Sanitation to support the 'Swachh Bharat Mission'. Projects have also been undertaken to upskill the construction workers at the worksite itself through bridge training and has focused mainly on assistant masons, bar-benders etc. Armed forces personnel who are to retire in the upcoming 2-3 months are also being provided with bridge training to align the skills learned during the service with industry standards under MoUs signed with the Ministry of Defense. Another initiative has been undertaken in PMKVY along with the Ministry of Environment, Forest, and Climate Change (MoEF & CC) for up-skilling of AC field technicians. Additionally. Service Staff, Cooks, and Supervisors associated with IRCTC are also being provided bridge course training in one of the RPL projects so that their services can be improved. Projects targeting women beneficiaries have also been approved in the food processing sector for pickle-making technician, baking operative, etc. job roles.

11 Accessibility of training partners to the trainings and quality thereof

Accessibility of training partners to the trainings and quality thereof have been assessed considering the resources available at the training centres, and the information shared on the component by the beneficiary trainees. Aadhaar Enabled Biometric Attendance System (AEBAS) Aadhaar Enabled Biometric Attendance System (AEBAS)has been mandated to trainees, trainers, and assessors. This has led to reduction in the duplicate cases of candidates during enrollment and enabled real-time monitoring and tracking of candidates enrolled under the scheme. Further, transparency and accountability have been maintained by linking the first tranche of payment to batch attendance records. The IT-enablement has to ensure the training quality. For example, Knack is a mobile-based counselling tool that uses AI to gauge candidates' aptitude. However, under PMKVY-2.0 the empanelment of placement partners to link the aptitude, aspiration, and knowledge of the skilled workforce demands in the market. Onboarding of placement verification agencies for verification is also conducted using AI and other technological tools. Improvement has also been ensured through implementation of informational posters at every training centre to tackle information asymmetry so that candidates may make informed career decisions. The online learning is also enabled through e-Skill India portal, e-Book Reader application, and KITS Portal for handbook and induction kit delivery and tracking. Re-designing of certain modules to keep pace with industry and market requirements and enhance the employability potential of the PMKVY candidates. The component has been assessed based on the feedback shared by the beneficiary trainees. The summarize form of the findings which are as under:

Table 4.19: Status of beneficiaries before and after the coverage under the Scheme

States	Unemployed		Daily Wager		Seasonal Employment		Stability in Job		Self Employed (including family trade)		Unskilled	
	Before	After	Before	After	Before	After	Before	After	Before	After	Before	After
Assam	58	0	1	0	0	0	0	2	1	5	25	0
Manipur	51	1	8	0	6	2	0	17	0	11	21	0
Bihar	78	13	1	0	0	1	0	11		16	37	1
Odisha	49	0	1	0	1	0	0	22	0	6	23	0
Haryana	68	5	16	1	10	0	0	21	2	32	6	2
Rajasthan	34	12	8	6	1	4	3	10	3	12	17	0
Madhya Pradesh	71	0	0	0	0	0	0	20	26	25	43	0
Uttar Pradesh	58	9	25	3	24	17	1	27	18	9	39	0
Tamilnadu	50	0	4	1	3	5	1	7	1	2	31	0
Karnataka	50	1	0	7	0	3	2	3	1	19	14	1
Gujarat	49	2	3	11	4	1	2	24	9	2	28	2
Maharashtra	52	3	12	0	5	1	2	28	0	12	37	3
Total	**668**	**46**	**79**	**29**	**54**	**34**	**11**	**192**	**61**	**151**	**321**	**9**

The table indicates the impact of the scheme after the coverage of the beneficiary trainees. It informs that after the coverage of under the scheme the unemployment status has drastically been reduced from 668 to 46. The number of daily wagers has descended from 79 to 54. The seasonal employment has gone down from 54 to 34. The number of candidates with a stable job (11) before the scheme has changed to 192 after the coverage under the scheme. The self-employed candidates were 61 before the coverage under the scheme and the same has increased to 151 after the coverage under the scheme. Very significantly a total of 321 candidates were unskilled before the coverage under the scheme and their number has gone down to 9. It shows the improvement in the skill development inter alia components picked up.

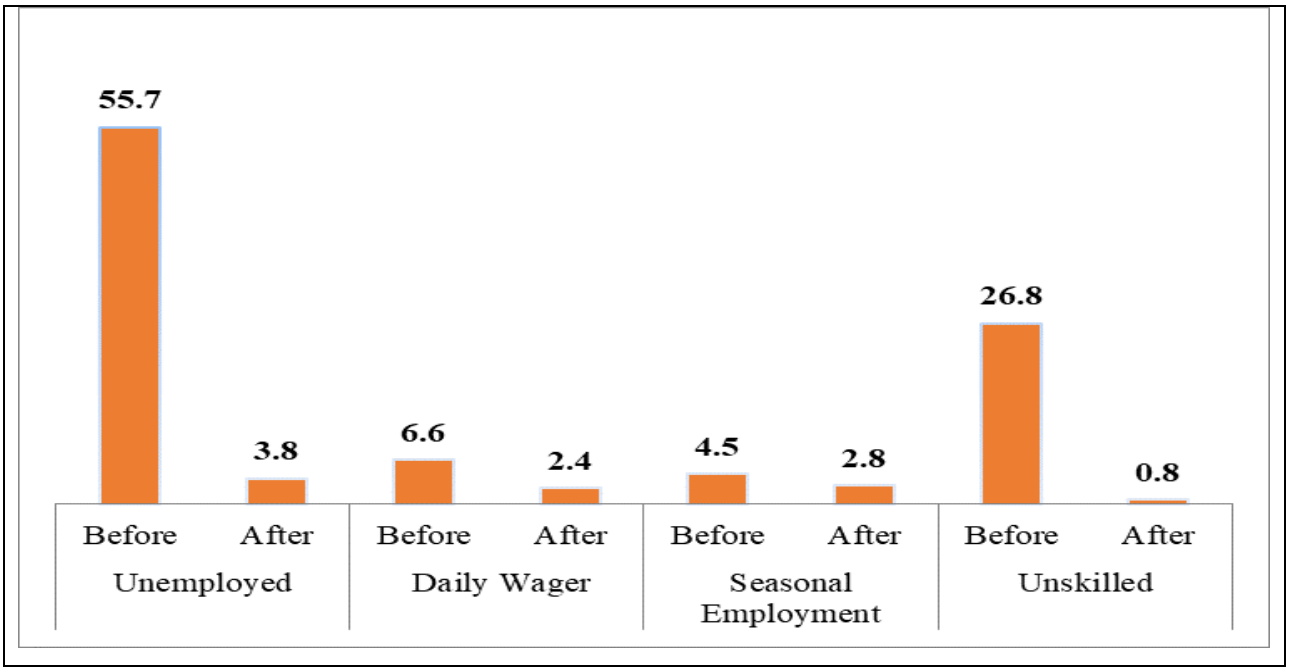

Figure 4.6 Diagram of the pre and post scheme

It shows improvement based on the feedback received from the sampled states.

Table 4.20: Details regarding the efficacy of the scheme

State	Overall Satisfaction	Placement
Assam	4.3	54
Manipur	3.9	50
Bihar	4.5	72
Odisha	4.6	48
Haryana	4.6	67
Rajasthan	4.4	34
Madhya Pradesh	4.7	66
Uttar Pradesh	4.6	55
Tamilnadu	4.4	50
Karnataka	4.3	50
Gujarat	4.8	39
Maharashtra	4.8	46
Total	**4.5**	**631**

The table above presents the overall satisfaction received by the beneficiary trainees using the Likert Scale where one stands for being extremely unsatisfied and 5 stands for extremely satisfied. The good score happens to be 2.5 as an average received on the rating scale. It has been confirmed that the overall satisfaction across the states stands for 4.5 which is close to the extremely satisfied.

The maximum satisfaction score has been attained by the state of Madhya Pradesh (4.7), followed by Odisha (4.6), Haryana (4.6), and Uttar Pradesh.

12 Identification of reasons for Beneficiaries' dropping out

Identification of reasons for beneficiaries dropping out has resulted in one of the critical concerns of the scheme implementation. The information on the component was shared by the training centres. In Assam, three training centres for 0-5%, 1 training centre for 6-10%, and 1 training centre in 11-15% have informed beneficiaries dropping the courses. Similar identification details are placed against other states in the study. However, the beneficiaries dropping out of the course has been limited to 20% of the beneficiaries enrolled. The maximum number of beneficiaries in the range of 0-5% have dropped the course across the sampled training centres of 12 states.

Table 4.21: Dropout rate of beneficiary trainees by training centres

Average dropout rate of trainees in Sampled Training Centres (in Percentage)				
States	**(0-5)**	**(6-10)**	**(11-15)**	**(16-20)**
Assam	3	1	1	NA
Bihar	2	1	NA	NA
Gujarat	3	3	NA	NA
Haryana	1	1	1	NA
Karnataka	2		1	NA
Madhya Pradesh	1	2	NA	1
Maharashtra	3	NA	1	NA
Manipur	5	1	NA	NA
Odisha	1	2	NA	NA
Rajasthan	2	1	NA	NA
Tamil Nadu	3	1	NA	NA
Uttar Pradesh	3	NA	NA	NA
Total	**29**	**13**	**4**	**1**

The table above informs that within the range of dropping the courses, 0%-5% trainees have identified in 29 training centres. In the range of 6%-10%, a total of 13 training centres have responded on trainees leaving the courses. In the range of 16%-20%, one training centre in the state of Madhya Pradesh has reported leaving the course. Overall, the drop-out rate has been found significantly minimal across the states. The reasons identified for dropping the courses have been medical ground, family issues, social problem, distance from residence to training centres, upgradation of social status as married and attached livelihood demands, accessibility to a job, and no improvement noticed on skills either from the course contents or from the training programme.

A number of female candidates have reportedly left the course reasons owing to pregnancy, marriage, short duration of the courses. In Bihar, one candidate reported leaving the course due to fever. 21 Candidates in Gujarat left the course due to family issues, personal issues and ineffective skill upgradation. Two candidates left the course due to illness and personal reasons in Haryana. Due to inaccessibility of bus passes and distance, one candidate left the training in Karnataka. In Madhya Pradesh, due to outdated course material the trainees left the course. In Maharashtra, due to marriage and subsequent pregnancy, the candidate left the course. In Manipur, due to traveling problems and inadequate transport facilities, trainees left the training centres. In Odisha, the trainees found an ineffective window for grievance redressal with the Government and left the training. In Rajasthan, the trainees found private jobs, rent, and retail work, and left the training. No such problem has been identified in the State of Tamil Nadu. The maximum number registered for leaving the training programmes have been found due to the transport issue, followed by ill health, marriage, getting a private job, and social and personal reasons.

13 Identification of problems faced by beneficiary trainees from enrolment to certification

The mobilization of beneficiaries for the enrollment starts with the different publicity measures. The Rozgar Melas, social sites, community leaders are the major channels of the beneficiary mobilization. Based on the aptitude of the beneficiary and availability of sector skill with the Training Centre, unemployed youth or school/college dropouts having an Aadhaar card and bank account, verifiable alternate ID such as PAN or Voter ID, and other criteria, as defined by Sector Skill Council/s for the respective job roles. However, in the case of corporate or factory premises, candidates cannot be their employees or daily wagers. The mobilization process under the PMKVY2.0 starts with the preparation of a specific resource mobilization strategy that follows the identification of the broad stakeholder groups, developing the key messaging and selecting the right information disseminating vehicles, and preparing for enrolment. After the enrolment, the beneficiary trainee is put to training as per the course outlines and frameworks. After the completion of the training/orientation, the candidates are assessed by the approved assessors. After the assessment, the candidate is certified and placed (placement is not mandated under RPL) through the online portal where industry partners are also registered. The benchmark for the placement is laid down as 70% of the total trainees certified. During the focus group discussions, it was reported that some of the beneficiaries did not continue due to reasons owing to personal, social, health, and commutation facilities. Second, the proper information about the PMKVY 2.0

enrollment was not accessible to the uncovered beneficiaries. Third, the classes were found to be conducted but not upto to the expectation level leading to a serious transformation of the skill upgradation. The unavailability of quality trainer was expressed as one of the critical concerns, as many of the tools and equipment required for the training was not properly handled by the trainers. Even if the tools and equipment were handled, the same was not accessible for optimum hours for the beneficiary trainees. Some of the assessors were found to be biased while conducting the assessments. The assessors-training partner nexus was found in several cases. Fourth, the investigating agency were found playing marginal role in conducting surprise visits to ensure the quality of training. Finally, the certification was not considered as accrued credentials in the open job market. However, the quantitative value of online assessment has been shared by the beneficiary trainees which is summarized as under:

Table 4.22: Difficulty in online assessment by beneficiary trainee

States	**Difficult**
Assam	0.0
Manipur	60.0
Bihar	33.3
Odisha	40.0
Haryana	33.3
Rajasthan	25.0
Madhya Pradesh	50.0
Uttar Pradesh	0.0
Tamil Nadu	25.0
Karnataka	0.0
Gujarat	33.3
Maharashtra	0.0
Total	26.0

The table above represents the 26% of the beneficiary trainees felt difficulty in online assessment across the sampled states. The maximum percentage of difficulty was recognized in the state of Manipur (60%), followed by Madhya Pradesh (50%), Odisha (40%) and 33.3% each in Bihar, Haryana and Gujarat, and Tamil Nadu (25%).

It was also revealed by the sampled beneficiary trainees that a total of 28.8 days are delayed in receiving the certificate after the assessment.

Table 4.23: Average delay in receiving the certificates

States	Average days
Assam	27.1
Manipur	23.5
Bihar	31.2
Odisha	21.5
Haryana	42.6
Rajasthan	26.2
Madhya Pradesh	38.6
Uttar Pradesh	32.2
Tamil Nadu	20.8
Karnataka	26.8
Gujarat	18.4
Maharashtra	24.8
Total	**28.8**

The table above represents that the average day in receiving certificates has been accounted for 28.8 days. Delay more than 28.8 days has been found in the state of Haryana (42.6 days), followed by Madhya Pradesh (38.6 days), Uttar Pradesh (32.2 days), Bihar (31.2 days), Assam (27.1 days), Karnataka (26.8 days), Rajasthan (26.2 days), Maharashtra (24.8 days), Manipur (23.5 days), Odisha (21.5 days) and Gujarat (18.4 days).

14 Placement of beneficiaries in the same sector where the training received

The effectiveness of the scheme is considered to be reaching out to the optimum level provided the employment is received. It becomes more pertinent when employment is received in the same sector or job roles for which the beneficiary has undergone the skill development. Under PMKVY 2.0, 70% placement is prescribed. The findings on the component is summarized in the table given below:

Table 4.24: Placement of beneficiary trainees desired sector vis-a-vis other sectors

States	Yes	No	Total
Assam	9 (15.8)	48 (84.2)	57 (100)
Bihar	49 (62.8)	29 (37.2)	78 (100)
Gujarat	45 (91.8)	4 (8.2)	49 (100)
Haryana	56 (82.4)	12 (17.6)	68 (100)
Karnataka	35 (70)	15 (30)	50 (100)
Madhya Pradesh	64 (90.1)	7 (9.9)	71 (100)
Maharashtra	50 (96.2)	2 (3.8)	52 (100)
Manipur	29 (56.9)	22 (43.1)	51 (100)

Odisha	40 (81.6)	9 (18.4)	49 (100)
Rajasthan	30 (93.8)	2 (6.3)	32 (100)
Tamil Nadu	16 (32.7)	33 (67.3)	49 (100)
Uttar Pradesh	45 (77.6)	13 (22.4)	58 (100)
Total	468 (70.5)	196 (29.5)	664 (100)

The table presents that out of 664 responses shared on the component, 70.5% of beneficiaries have received a job in the same sector where they have received the training. However, 29.6% of the beneficiaries have not received a job in the same sector. The maximum percentage of beneficiaries receiving a job in the same sector has been recorded in the state of Maharashtra (96.2%), followed by Rajasthan (93.8%), Gujarat (91.8%), Madhya Pradesh (90.1%), Haryana (82.4%) and so on.

15 Effectiveness of monitoring the placement

Effective monitoring of the placement ensures not only candidates getting wage employment but also self-employment through which the socio-economic condition of skilled youths largely improves. However, PMKVY 2.0 has an online platform to capture the data and gauge the impact. A total of 49 training partners have shared their feedback on the component.

Table 4.25: Job placement/self-employment rate (%)

Job placement/self-employment rate (%)				
States	**0-50**	**51-75**	**76-100**	**Total**
Assam	2	1	2	5
Manipur	1	2	1	4
Bihar	1	1	1	3
Odisha	0	3	2	5
Haryana	0	3	0	3
Rajasthan	1	1	2	4
Madhya Pradesh	1	2	0	3
Uttar Pradesh	1	1	1	3
Tamil Nadu	0	2	2	4
Karnataka	0	2	1	3
Gujarat	1	4	1	6
Maharashtra	2	2	2	6
Total	10	24	15	49

The table above informs that 0-50% placement has been monitored across the states by 10 training partners. 51-75% of the placement Monitoring has been done by the 24 training partners. Only 15 training partners have monitored the placement of beneficiaries up to 76% to 100%. Out of the 10 training partners who shared information under the slab of 0-50%, the maximum score of 2

Training Partners have been noticed in each Assam and Maharashtra. Out of the 24 training partners who shared information under the slab of 51-75%, the maximum score has been noticed in Gujarat (4), followed by Rajasthan (3), and Odisha (3). Out of the 15 training partners who shared information under the slab of 76-100%, the maximum score of two Training Partners were recognized each in Assam, Odisha, Rajasthan, Tamil Nadu, and Maharashtra. One training partner each has informed in the state of Manipur, Bihar, Uttar Pradesh, Karnataka and Gujarat.

16 Best practices in skilling

Best practice in skilling posits out of the box thinking with improved results which can be further replicated in the other areas. It has been that within the PMKVY ambit itself, focus on the PwD candidates found one the best practices. However, there are schemes like DDU-GKY, Skills Acquisition and Knowledge Awareness for Livelihood Promotion (SANKALP), UDAAN, Standard Training Assessment and Reward Scheme (STAR), Polytechnic Schemes, Vocationalization of Education that are implemented to meet the challenges of skilling at scale with speed, standard and sustainability. The aforementioned schemes intend to improve employability and productivity in paving the way forward for inclusive growth in the country. These skill strategies are complemented by specific efforts to promote entrepreneurship in order to create ample opportunities for the skilled workforce. The skill ecosystem of our country has target to train 402.87 million people by 2022. This includes 104.62 million crore new entrants to join the existing workforce in the country who need to be skilled to meet industry requirements. In addition 298.25 million of the existing workforce need to be reskilled, up skilled, and skilled. It is concluded that skilling is a multi-pronged approach that should be aligned with critical- gaps in skilling in terms of sectors, job-roles, geography, etc. If the intended goals of the skilling is reached, our country would harness the demographic dividend.

4.2 Additional parameters

a) Coverage of Sampled Beneficiaries across States

Table 4.26: Coverage of states and districts in the study by NSSO zone

NSSO Classified Zones	State	Districts
North East	Assam	Darrang
		Dhubari
		Kamrup
		Nagaon
	Manipur	Bishnupur

NSSO Classified Zones	State	Districts
		Imphal East
		Imphal West
East	Bihar	Muzafferpur
		Punia
		Samstipur
	Odisha	Cuttack
		Ganjam
		Mayurbhanj
North	Haryana	Gurgaon
		Hisar
		Panipat
	Rajasthan	Jaipur
		Jodhpur
		Nagaur
West	Gujarat	Ahmedabad
		Surat
		Vadodra
	Maharashtra	Dhule
		Nashik
		Pune
South	Karnataka	Benguluru Urban
		Dharwad
		Mysore
	Tamil Nadu	Chennai
		Erode
		Salem
		Vellore
Central	Madhya Pradesh	Indore
		Jabalpur
		Sagar
	Uttar Pradesh	Allahabad
		Bagpat
		Ghaziabad

Table 4.27: Gender distribution of sample-size

State	Male	Female	Total
Assam	32 (55.2)	26 (44.8)	58 (100)
Bihar	46 (59)	32 (41)	78 (100)
Gujarat	13 (26.5)	36 (73.5)	49 (100)
Haryana	45 (66.2)	23 (33.8)	68 (100)
Karnataka	21 (42)	29 (58)	50 (100)
Madhya Pradesh	39 (54.9)	32 (45.1)	71 (100)
Maharashtra	24 (47.1)	27 (52.9)	51 (100)
Manipur	22 (48.9)	23 (51.1)	45 (100)
Odisha	24 (49)	25 (51)	49 (100)

Rajasthan	22 (66.7)	11 (33.3)	33 (100)
Tamil Nadu	19 (38)	31 (62)	50 (100)
Uttar Pradesh	31 (55.4)	25 (44.6)	56 (100)
Total	**338 (51.4)**	**320 (48.6)**	**658 (100)**

The table above informs the gender distribution of the beneficiaries sampled. Overall, women representation has been recorded as 48.6% in the beneficiaries sampled. Above the percentage, the women representation has been recognized in the state of Gujarat (73.5%), followed by Tamil Nadu (62%), Karnataka (58%), Maharashtra (52.9%), Manipur (51.1%), and Odisha (51%).

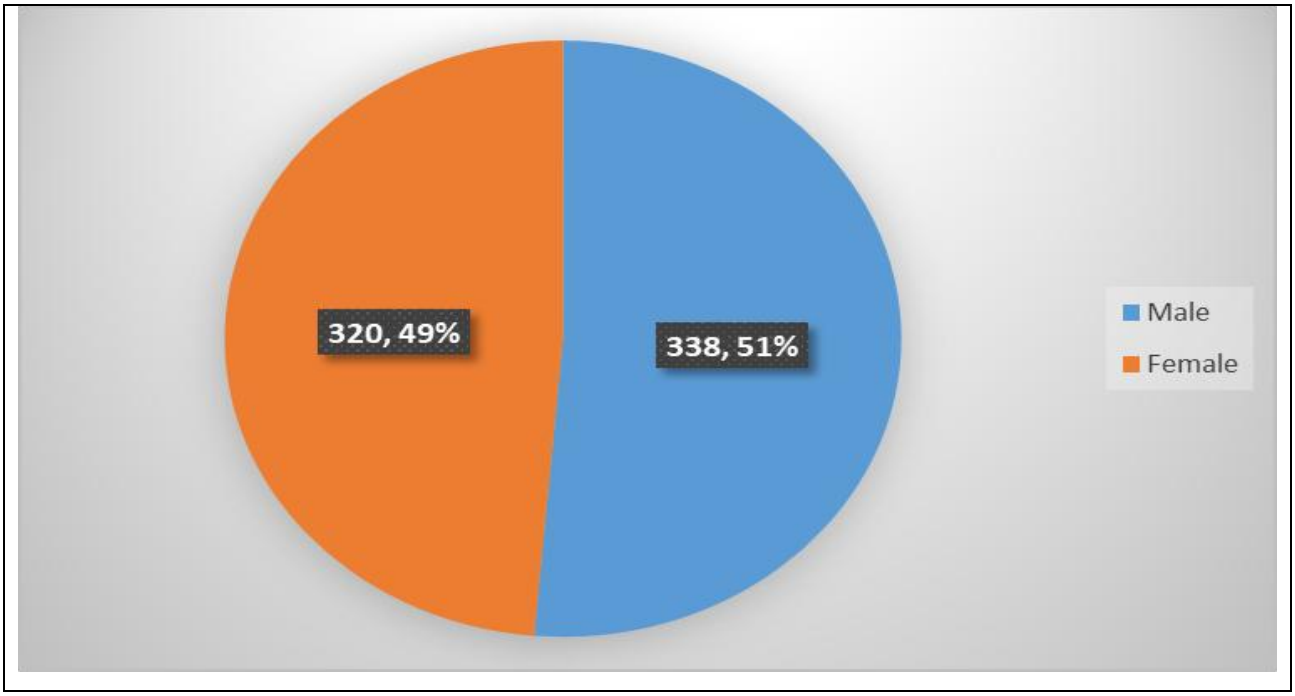

Figure 4.7: Male-female distribution in the study

The diagram above shows the male-female distribution in the study. 49% of women and 51% of representations have been recognized in the sample covered under the study.

Table 4.28: Rural and urban location of beneficiaries sampled

State	Rural	Urban	Total
Assam	39 (67.2)	19 (32.8)	58 (100)
Bihar	53 (67.9)	25 (32.1)	78 (100)
Gujarat	15 (30.6)	34 (69.4)	49 (100)
Haryana	33 (48.5)	35 (51.5)	68 (100)
Karnataka	13 (26)	37 (74)	50 (100)
Madhya Pradesh	48 (67.6)	23 (32.4)	71 (100)
Maharashtra	11 (21.6)	40 (78.4)	51 (100)
Manipur	28 (62.2)	17 (37.8)	45 (100)

State	Rural	Urban	Total
Odisha	22 (44.9)	27 (55.1)	49 (100)
Rajasthan	32 (97)	1 (3)	33 (100)
Tamil Nadu	22 (44)	28 (56)	50 (100)
Uttar Pradesh	38 (67.9)	18 (32.1)	56 (100)
Total	**354 (53.8)**	**304 (46.2)**	**658 (100)**

The table above indicates the rural and urban locations of beneficiaries sampled. 53.8% of beneficiary trainees belonged to rural areas whereas 46.2%, to urban areas. The state having more than the total percentage of beneficiaries in the rural area are: Rajasthan (97%), followed by 67.9% each in Bihar and Uttar Pradesh, Madhya Pradesh (67.6%), Assam (67.2%) and Manipur (62.2%). 46.2% of beneficiaries belonged to urban settings. The beneficiaries belonging to more than the total percentage from urban settings are in the state of Maharashtra (78.4%), followed by Karnataka (74%), Gujarat (69.4%), Tamil Nadu (56%), and Odisha (55.1%).

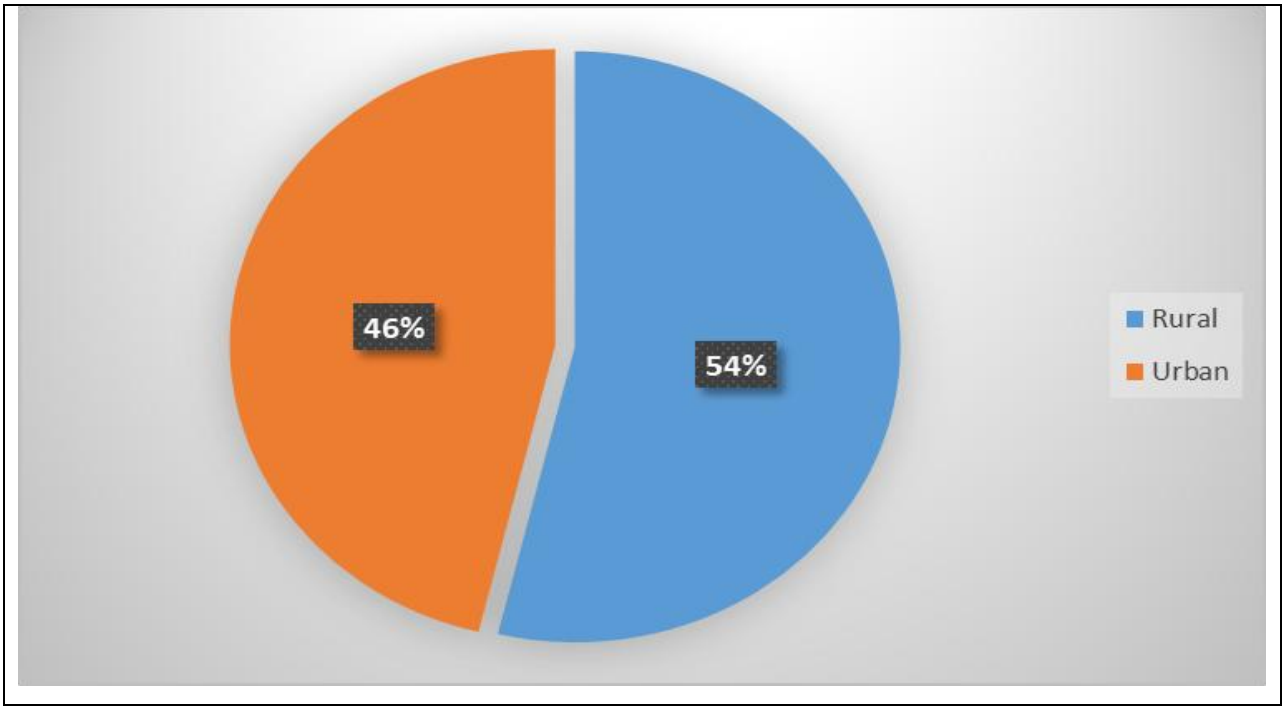

Figure 4.8: Rural-urban location of beneficiaries across the sampled states

The diagram above shows that 54% of beneficiaries' sampled belonged to rural while 46% hailed from the urban area. Overall, the beneficiaries covered from rural areas figured little higher percentage, as compared to the beneficiaries' percentage in urban areas.

Table 4.29: Social category of respondents across the states

State	General	OBC	SC	ST	Minority	Total
Assam	31 (53.4)	9 (15.5)	7 (12.1)	11 (19)	0 (0)	58 (100)
Bihar	26 (33.3)	42 (53.8)	5 (6.4)	3 (3.8)	2 (2.6)	78 (100)
Gujarat	36 (73.5)	7 (14.3)	5 (10.2)	1 (2)	0 (0)	49 (100)
Haryana	38 (55.9)	11 (16.2)	20 (29)	0 (0)	0 (0)	68 (100)
Karnataka	30 (60)	17 (34)	3 (6)	0 (0)	0 (0)	50 (100)
Madhya Pradesh	21 (29.6)	42 (59.2)	7 (9.9)	1 (1.4)	0 (0)	71 (100)
Maharashtra	19 (37.3)	22 (43.1)	8 (15.7)	1 (2)	1 (2)	51 (100)
Manipur	26 (57.8)	17 (37.8)	1 (2.2)	1 (2.2)	0 (0)	45 (100)
Odisha	13 (26.5)	22 (44.9)	9 (18.4)	5 (10.2)	0 (0)	49 (100)
Rajasthan	3 (9.1)	24 (72.7)	2 (6.1)	4 (12.1)	0 (0)	33 (100)
Tamil Nadu	30 (60)	11 (22)	9 (18)	0 (0)	0 (0)	50 (100)
Uttar Pradesh	18 (32.1)	26 (46.4)	10 (17.9)	2 (3.6)	0 (0)	56 (100)
Grand Total	**291 (44.2)**	**250 (38)**	**86 (13.1)**	**29 (4.4)**	**3 (0.5)**	**658 (100)**

The social categories of the surveyed respondents are given in the table above. 44.2% in general, 38% in OBC, 12.5% in SC, 4.9% in ST and 0.5% in minorities have been found in the social category classified. In the general category, the states having more number of total percentage in the column have been identified in the state of Gujarat (73.5%), followed by 60% each in Karnataka and Tamil Nadu, Manipur (57.8), Haryana (55.9%) and Assam (53.4%). Of the total percentage of OBC, above the percentage has been found in the state of Maharashtra (78.4%) followed by Rajasthan (72.7%), Odisha (44.9%), Bihar (53.8%), Uttar Pradesh (46.4%), and Maharashtra (43.1%). Of the total SC category percentage, the highest percentage has been reported from the state of Haryana (23.5%), followed by Odisha (18.4%), Tamil Nadu (18%), Uttar Pradesh (17.9%) and Maharashtra (15.7%). In the similar vein, the ST respondents were drawn the maximum from the state of Assam 919%), followed by Rajasthan (12.1%), and Bihar (3.8%). Likewise, the maximum minority representation was found in the state of Bihar (2.6%), followed by Maharashtra (1%).

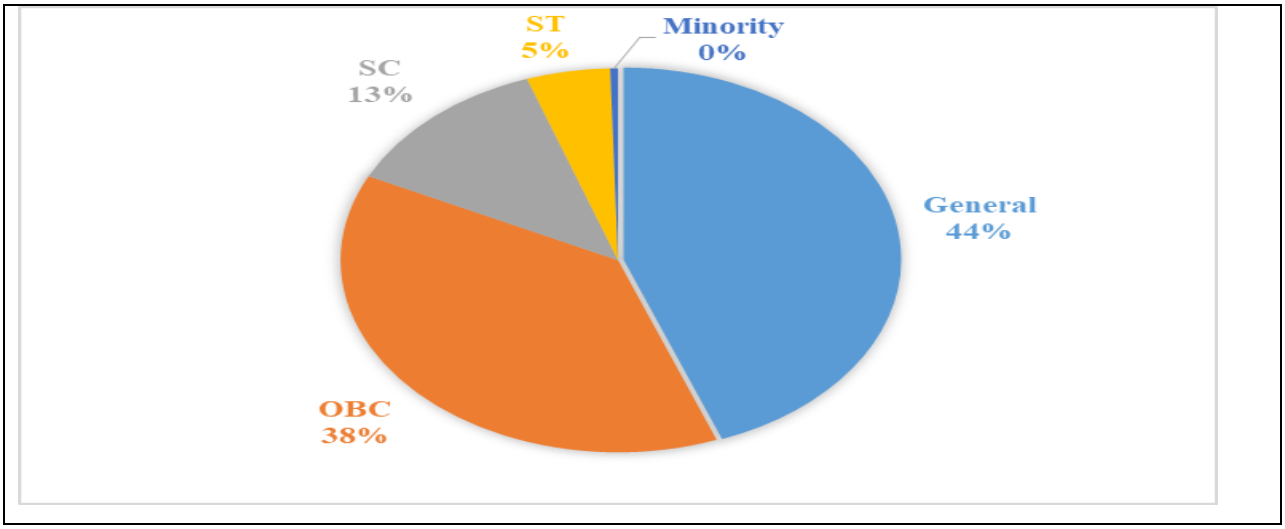

Figure 4.9: Social category of respondents across the sampled states

The diagram above presents the distribution of respondents across the sampled states. It has been found that the maximum share of beneficiaries are from the general category (44%), followed by OBC (38%), SC (13%), ST (5%), and an approximately negligible percentage of minority communities.

Table 4.30: Feedback of trainees on the ecosystem of training conducted under STT

States	Responsiveness	Practical	Theory	Encouragement	Digital tools	Regularity	Infra	Avg.
Assam	4.50	4.62	4.62	4.60	4.53	4.60	4.29	**4.54**
Manipur	4.10	4.39	4.33	4.20	4.22	4.47	4.25	**4.28**
Bihar	4.48	4.71	4.74	4.66	4.71	4.85	4.49	**4.66**
Odisha	4.57	4.71	4.71	4.69	4.53	4.92	4.61	**4.68**
Uttar Pradesh	4.60	4.69	4.66	4.62	4.21	4.74	4.66	**4.60**
Madhya Pradesh	4.84	4.90	4.66	4.86	4.90	4.84	4.76	**4.82**
Haryana	4.44	4.76	4.78	4.51	4.66	4.81	4.51	**4.64**
Rajasthan	4.26	4.50	4.24	4.24	4.29	4.47	4.44	**4.35**
Gujarat	4.73	4.79	4.83	4.85	4.67	4.90	4.81	**4.80**
Maharashtra	4.52	4.67	4.60	4.56	4.44	4.81	4.58	**4.60**
Karnataka	3.74	3.32	3.45	3.36	3.30	3.47	4.23	**3.55**
Tamil Nadu	4.40	4.40	4.46	4.52	4.44	4.50	4.42	**4.45**
Average	**4.43**	**4.54**	**4.51**	**4.47**	**4.41**	**4.61**	**4.51**	**4.50**

The table presents the feedback of the beneficiary trainees on the different components relating to the ecosystem of the training. The feedback has been taken using the Likert scale. In the scale, the

responses of beneficiaries have taken on the scale of 1-5 where-in one being poor and 5, the best/outstanding. The responsiveness of the trainers, practical sessions of the course, theory sessions, encouragement provided by trainers to trainees, usage of digital tools, the regularity of trainer and overall usefulness of infrastructure of training centres were responded by the beneficiary trainees that the study has covered. The maximum score on the above components has been attained by the regularity of trainer (4.61), followed by practical sessions (4.54), 4.51 each for theory sessions and infrastructure, encouragement (4.47), responsiveness (4.43), and digital tools (4.41). In the responsiveness, the expressed maximum score has been found from the beneficiaries of Madhya Pradesh (4.84), followed by Gujarat (4.73), Uttar Pradesh (4.60), Odisha (4.57), Maharashtra (4.52), Assam (4.50), Bihar (4.48), Haryana (4.44), Tamil Nadu (4.40), Rajasthan (4.26), Manipur (4.10), and Karnataka (3.74). For the practical sessions, the maximum score has been found in the state of Madhya Pradesh (4.90), followed by Gujarat (4.79), Haryana (4.76), Bihar (4.71), Odisha (4.71), Uttar Pradesh (4.69), Maharashtra (4.67), Assam (4.62), Rajasthan (4.50), Tamil Nadu (4.40), Manipur (4.39), and Karnataka (3.32). For theory sessions, the maximum qualitative responses were received from the state of Gujarat (4.83), followed by Haryana (4.78), Bihar (4.74), Odisha (4.71), Uttar Pradesh (4.66), Madhya Pradesh (4.66), Assam (4.62), Maharashtra (4.60), Tamil Nadu (4.46), Manipur (4.33), Rajasthan (4.24), and Karnataka (3.45). On the encouragement, the maximum score was received from Madhya Pradesh (4.86), Gujarat (4.85), Odisha (4.69), Bihar (4.66), Uttar Pradesh (4.62), Assam (4.60), Maharashtra (4.56), Tamil Nadu (4.52), Haryana (4.51), Rajasthan (4.24), Manipur (4.20), and Karnataka (3.36). The digital tools were found being used by the training centres. Based on rating scale values, the maximum score was received from Madhya Pradesh (4.90), followed by Bihar (4.71), Gujarat (4.67), Haryana (4.66), Odisha (4.53), Assam (4.53), Maharashtra (4.44), Tamil Nadu (4.44), Rajasthan (4.29), Manipur (4.22), Uttar Pradesh (4.21), and Karnataka (3.30). The regularity of trainer was asked to the trainees. The maximum score on the component was received from Odisha (4.92), followed by Gujarat (4.90), Bihar (4.85), Madhya Pradesh (4.84), Haryana (4.81), Maharashtra (4.81), Uttar Pradesh (4.72), Assam (4.60), Tamil Nadu (4.50), Manipur (4.47), and Karnataka (3.47). For the overall infrastructure of the training centres, the maximum score has been received from Gujarat (4.81), followed by Madhya Pradesh (4.76), Uttar Pradesh (4.66), Odisha (4.61), Maharashtra (4.58), Haryana (4.51), Bihar (4.49), Rajasthan (4.44), Tamil Nadu (4.42), Assam (4.29), Manipur (4.25), and Karnataka (4.23). On the above parameters, the average maximum score was found in Madhya Pradesh (4.82),

followed by Gujarat (4.80), Odisha (4.68), Bihar (4.66), Haryana (4.66), Uttar Pradesh (4.60), Maharashtra (4.60), Assam (4.54), Tamil Nadu (4.45), Rajasthan (4.35), Manipur (4.28), and Karnataka (3.55). The scores appear better than the average of the Likert scale i.e. 2.5. The same has also been processed through Cronbach's alpha reliability test to assess the consistency of responses.

Table 4.31: Particulars of Cronbach's alpha reliability test

Number of Items/questions/components	7
Sum of the items variances	4.36
Variance of total score	19.78
Cronbach's alpha	0.909

Components:

1. Trainer-receptivity to queries
2. Trainer-practical training techniques
3. Trainer-theory teaching
4. Trainer-encouraging trainee participation
5. Trainer-use of the digital tools
6. Trainer-regularity
7. Overall rating on the infrastructure of training centre

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

$$X = Y_1+Y_2+----------+Y_K$$

Cronbach's alpha is defined as:

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

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.

Cronbach's alpha	Internal Consistency
$\alpha>0.9$	Excellent
$0.8<\alpha<0.9$	Good
$0.7<\alpha<0.8$	Acceptable
$0.6<\alpha<0.7$	Questionable
$0.5<\alpha<0.6$	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 (0.909).

b) Implementation Mechanism

Table 4.32: Flow chart of PMKVY implementation

<table>
<tr><td rowspan="2"></td><td colspan="4">Ministry of Skill Development and Entrepreneurship</td><td rowspan="2"></td></tr>
<tr><td colspan="4">PMKVY (2016-20)- Total Outlay Rs. 12000 Cr</td></tr>
<tr><td rowspan="2">75% Targets</td><td colspan="3">National Skill Development Corporation (Total Disbursed Rs. 5301.84 crore</td><td>Fund Disbursed to State Governments Rs. 921.65 crore</td><td rowspan="2">25% Targets</td></tr>
<tr><td>RPL(49.1L)</td><td>Spl. Proj (1.75L)</td><td>STT (34.3L)</td><td>STT (5.94 L)</td></tr>
<tr><td rowspan="2">Stakeholders</td><td>UIDAI</td><td colspan="2">Sector Skill Councils</td><td>Banks</td><td rowspan="2">Stakeholders</td></tr>
<tr><td colspan="2">Training Provider/Centers and Trainers</td><td colspan="2">Assessment Agencies and Assessors</td></tr>
<tr><td colspan="6">Candidates
  </td></tr>
</table>

The PMKVY is implemented by the National Skill Development Corporation. Under the Short Term Training, the provision of 200 to 500-hour long skill-oriented training both core and soft, at PKKVY affiliated and accredited centres to college/School dropouts or unemployed are in place. The duration of the training varies as per job-roles. Upon successful completion of training and assessment, candidates are provided placement assistance by training partners. Under PKVY 2.0, the entire training and assessment fees are borne by the Government. Pay-outs are provided to the training partners in alignment with the stipulated norms. Training imparted under the short-term training component of the scheme is per the NSQF level 5. The Recognition of existing skills and prior experience of the beneficiaries are provided through the orientation of 12 hours. Beneficiaries are also provided bridge course training for a maximum of 68 hours wherever required. Individual benefit by having their prior learning is acknowledged through a structured, NSQF based system and gain certification by saving on time, regardless of how or where the learning occurred. The special project is a component under PMKVY wherein fresh short-term trainings are provided to

candidates in NSQC approved job-roles. Special Projects brings in the flexibility required to cater to vulnerable populations residing in difficult to reach places. It also serves new requirements and innovative modes etc. The component of Special Project under the scheme is different from short term training component of PMKVY by virtue of it being a project and need-based and comparatively a little more flexible.

The PMKVY-CSCM is implemented by the National Skills Development Corporation (NSDC) whereas, the PMKVY-CSSM is implemented by State Skill Development Mission. The PMKVY has two major components, namely (1) Centrally Sponsored and centrally Managed Short Term Trainings (CSCM-STT), (2) Centrally Sponsored and State Managed Short Term Trainings (CSSM-STT). Within the CSCM, there are two sub-components viz. (1) Short Term Training, and (2) Recognition of Prior learning. Within the Short Term Training, there are two pads, namely (1) Regular Short Term Training, and (2) Special Projects. The scheme aims to train the trainees based on the National Skill Qualification Framework (NSQF) and industry-led standards. The scheme is implemented by the National Skill Development Corporation under the guidance of the Ministry of Skill Development and Entrepreneurship, Government of India.

The whole PMKVY workflow ranging from enrolment of candidates to disbursement of tranche-based payments to training providers and certificates to candidates is managed by the Skill Development Management System. The Platform (IT-enabled SDMS) establishes and enforces cross-sectoral, nationally, and internationally acceptable standards of Skill training in the country by creating a sound quality assurance framework.

c) Training/ Capacity Building of administrators/facilitators

The component of training for the different layers of stakeholders especially the implementers are not known to the study team. However, the scheme guidelines while changing should go with intelligible awareness. It was found during the study, the guidelines of the PMKVY 2.0 is not properly known to the training partners, State Skill Development Missions, and sector skill councils to some extent. The indifferent approach of NSDC implicitly speaks volumes. For such an ambitious scheme, the stakeholders should properly be aware of complete guidelines.

d) IEC Activities

Information, Education, and communication are the components that the scheme also focuses on. The CSCM and CSSM components intend to provide not only job-role oriented trainings but soft skill-oriented as well. At the same time, social and community mobilization is extremely critical for

the success of any skill development initiative. It fosters a bottom-up approach not only in effective planning and implementation of interventions in the space but also in effective monitoring, evaluation and ownership of the government programmes by the community. Active participation of the community ensures transparency and accountability and helps in leveraging the cumulative knowledge of the community for better understanding. The Kaushal and Rozagar Mela components are inbuilt with the scheme to the extent that it helps mobilize the potential pool of beneficiaries for the scheme. Under the mobilization channel, mass media, small media, and Kaushal Mela/ Mobilization camps are considered. The sequence of events in the Kaushal Melas are like briefing the PMKVY process, its features and benefits, and sharing the vision of the Hon'ble Minister is allotted 5 minutes. The insights into PMKVY is given for 15 minutes, concluded by a vote of thanks for 5 minutes. As such, the component under the scheme indicates the efficacy of Information, education, and communication.

e) Asset/ Service creation and its maintenance plan

The physical asset creation and maintenance plans were not found under the scheme. However, the huge number of beneficiaries trained and placed are the significant assets of the society. However, to improve infrastructure at training centres, the Ministry may like to take a call on it after conducting a third party independent physical verification.

f) Benefits (Individual, Community)

The scheme has benefitted across the communities. A total of Rs. 964.55 crore on SCs and Rs. 493.53 crore on STs have been paid under the scheme. Looking at the number of beneficiaries placed. Under the scheme, particularly for NER, a total of Rs. 414.9 crore has been spent. With the different components and pads, the scheme has ensured the placement of approximately 15.8 lakh individuals. Considering each household having three members along with investment in social returns, the scheme has benefitted around 60 lakh people. This comprises all communities. As such, the scheme has moved on with gross social inclusiveness.

g) Convergence with Scheme of own Ministry/Department or Other Ministry/Department

PMKVY enables a large number of Indian youth to take up industry-relevant skill training that helps them improving their socio-economic conditions. Under the scheme, initiatives have been undertaken to provide bridge course training to rural masons for the construction of twin pit toilets in rural areas. The project is implemented along with the Ministry of Drinking Water and Sanitation

to support “Swachh Bharat Mission”. Projects have also been undertaken to upskill the construction workers at the worksite itself through bridge training and has focused mainly on assistant masons, bar-benders etc. Armed forces personnel who are to retire in the upcoming 2-3 months are also being provided with bridge training to align the skills learned during the service with industry standards under MoU signed with the Ministry of defense. Another initiative has been undertaken in PMKVY along with the Ministry of Environment, Forest, and Climate Change (MoEF &CC) for up-skilling of AC field technicians. Additionally, service staff, cooks, and supervisors associated with IRCTC are also being provided bridge course training in the RPL projects so that services can be improved. The RPL is also covering women beneficiaries to learn the food processing sector for pickle-making technicians, banking operative, etc. job roles. As such, the scheme has convergence with a number of Ministries.

4.3 Gaps in Achievement of Outcomes

After capturing the feedback of different stakeholders of the scheme, the following gaps have been noticed in the outcome:

1. The revised budget estimate of PMKVY 2.0 has been found relatively lagging, as compared to its actual expenditure across the FYs.
2. The number of beneficiaries enrolled and certified goes with a high incidence of difference that implicitly indicates that the scheme at every level, despite IT-enablement, is not effectively executed. The apparent reality can well be penetrated through a realistic tool like this.
3. Though the limitation of the study has highly been arrested through Covid pandemic, the training partners were found reluctant in sharing the beneficiary details even after the apt intervention of the Ministry of Skill Development and Entrepreneurship. Some of the stakeholders took the excuse of Covid and did not provide access to them, particularly SSDMs and NSDC.
4. The Ministry itself has accepted that out of 252 job-roles, a total of 198 job-roles are in practice (trainings imparted on 198 job-roles). Though the maximum segregation at a different level of data collection was done to arrive at conclusive findings, after conducting a study in the 12 states of the 6 NSSO classified zones, approximately 71 job roles could be found.
5. The scheme is not implemented in Lakshadweep. The coverage of the scheme was not found uniform in terms of including the beneficiaries from the different social categories, and in difficult terrains.

6. The seepage of the manipulated fund at the level of training centres was detected. Some of the TCs were not found paying out their staff online.

7. The reasons for dropping out were not minimized by conducting a baseline survey. This a major challenge that would have been addressed in time.

8. The assessors were found to be biased and the job was completely left to NSDC led SSCs. The nexus between assessors and TPs were observed and reported from the field.

9. Rightsizing the trainer competency level through a technical score or train the trainer programme is not enough. The best trainer is one who can motivate and ensure the learning outcomes of the learner. The same would have given a priority.

4.4 Key Bottlenecks & Challenges

During the evolution of the scheme, the key bottlenecks and challenges identified are as under:

1 Unlike the CSCM component of PMKVY managed online, the CSSM component is still being managed offline, often resulting in delays in most of the operationalization.

2 Delays in payments especially under CSSM-STT have been noticed.

3 Allocation of targets not commiserating the sanctioned capacity is leading to wastage of resource investment by training partners and is also leading to de-motivation.

4 Candidates from poorer families are reluctant to join training in the absence of an adequate stipend to compensate for their existing earnings.

5 Training kit/resource material is available in Hindi or English languages only. The absence of the same in regional languages often poses problems for those trainees who are not familiar with Hindi or English languages.

6 The online assessment is a hurdle for candidates who are not so computer savvy.

7 Female candidates from most states (except Manipur) are reluctant to go outside the state for job placement. This was found stronger in central and some parts of eastern zones.

8 Many of the companies are not acknowledging the relevance of certificates. The present certification results either pass or fail. This was found to be creating disenchantment and disorientation among the target group. The fact that they could not want to see the same thing happening time and again.

4.5 Input Use Efficiency

Input use efficiency, also known as the productivity ratio refers to the extra unit of output generated from an additional unit of input. This indicates how efficient the input (funds disbursed in the context of the scheme evaluation) was in terms of generating the required output (the beneficiaries covered). The efficiency of input use can be computed by taking a simple ratio of output to input. A higher input use efficiency ratio indicates that output is maximized without requiring more of any input values or use of input is minimized while satisfying at least the given output levels.

Table 4.33: Input use efficiency ratio

Financial Years	Actual Expenditure (in crore)	No. of Beneficiaries	Input Use Ratio
2016-17	699.99	49973	71.39
2017-18	1721.18	1594183	926.22
2018-19	1909.19	842487	441.28
2019-20	1648.25	946359	574.16
2020-21	279.88	0	0.00

In the table above, the input use efficiency ratio has been calculated. The input-use efficiency ratio has been 71.39 in 2016-17, 926.22 in 2017-18, 441.28 in 2018-19, 574.16 in 2019-20, and 0 in 2020-21 (the value for the year 2020-21 was not shared). It shows the variation in both actual expenditure and the number of beneficiaries covered across the States/UTs. The input use efficiency graph is as under:

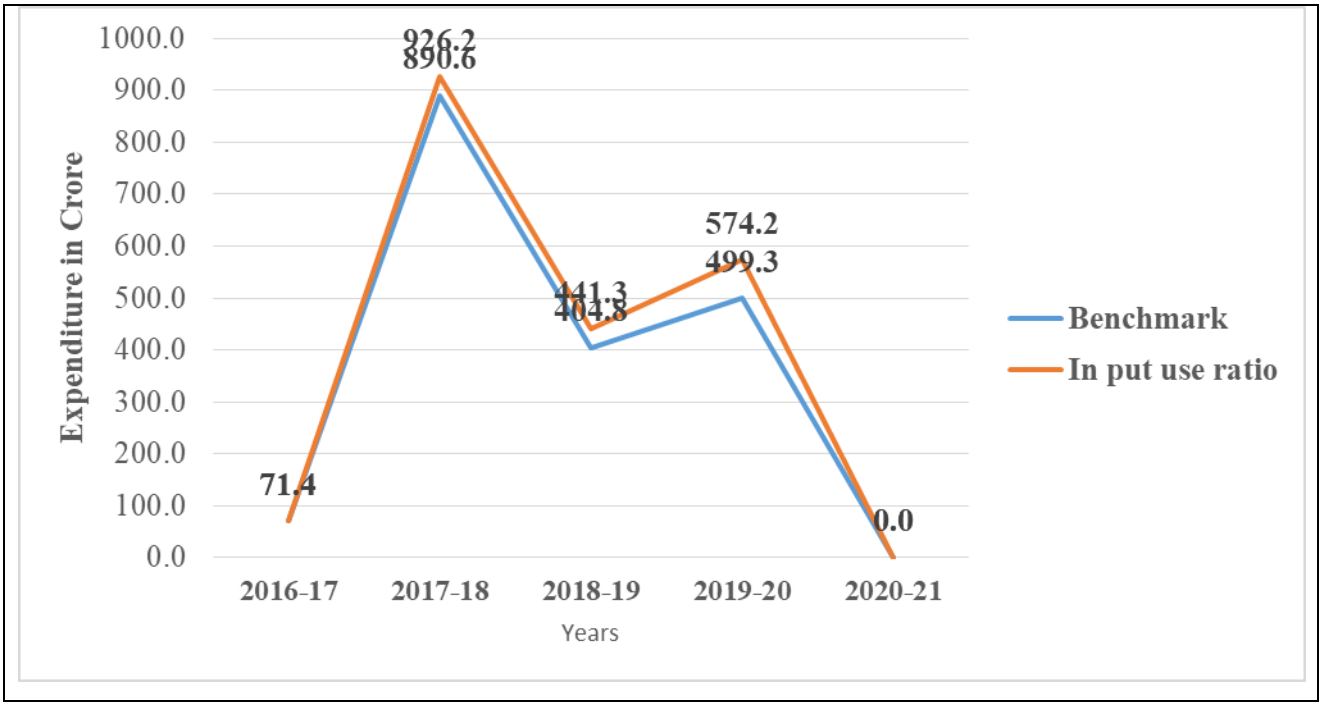

Figure 4.10: Input use ratio graph based on GDP deflator

The line graph given above represents the input use ratio in the five years. The maximum efficiency has been detected in the year 2017-18, followed by 2019-20 and 2018-19 with respect to the amount released and the number of beneficiaries trained. As the beneficiaries trained for 2020-21 is not shared, the interpretation for the year 2020-21 is not being given. The GDP deflator based benchmarking of the actual expenditure has been done which shows efficient actual in-put use in the diagram. The fund flow for 2016-20 shows an optimum utilization.

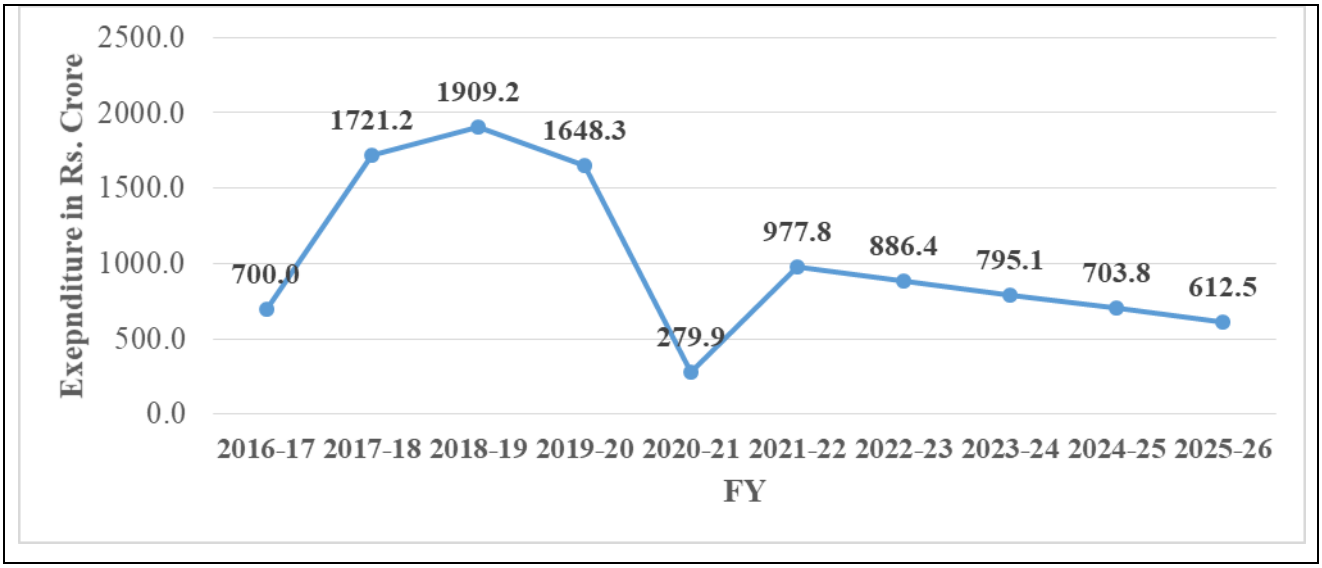

Figure 4.11:Linear predictive analysis of expenditure for the next five years

The line graph above shows the expenditure prediction for the next five years i.e. 2022-26. The prediction is based on the expenditure of the last five years. The lowest expenditure has incurred in the year 2020-21. However, the predicted expenditure in next years have been calculated more, as compared to the year 2020-21. This further informs that based on expenditure pattern, the scheme in the demand by the potential beneficiaries. Similar efforts are being taken to cater to those demands.

5. OBSERVATIONS AND RECOMMENDATIONS

5.1 Thematic Assessment

The scheme is having a proper system for accountability, transparency, and employment generation. The IT enablement through SDMs or NextGen SDMS platform is already embedded under the scheme. The matrix for accountability and accreditation is given under the scheme guidelines. Transparency has been activated through the inclusion of e-governance for the scheme. To ensure that high standards of quality are maintained by PMKVY TCs, NSDC and empanelled inspection agencies use various yardsticks. These involve validations, surprise visits, and monitoring through the Skills Development Management System (SDMS). These standards are intensified using the latest technologies.

To ensure it, the guidelines of the scheme also vouches for incorporating the views of different stakeholders so as to identify the issues and fix them. It was found during the study that though guidelines were put in place, most of the stakeholders were found reluctant to share their feedback on the extent to which they followed the guidelines.

The states are also empowered to monitor the scheme, the details of which are given in the Monitoring Framework of the PMKVY. However, the State officials were not aware of the tasks across the sampled states.

Grading of the TC is one of the outcomes of Continuous Monitoring to ascertain that high-quality TCs get higher targets. This process also ensures continued focus on the quality of training by the TCs. In addition to this, the TCs are required to score a minimum of 40% as per the compliance as well as the Performance Standard Matrix. It has been during the focus group discussions some of the TCs did not receive the allotment and their entire investment went wasted.

The SSCs were found not putting the right agency up for the verification and assessment of the TCs. This has been reinforced in the focus group discussion recorded.

It is prescribed that the scheme involves multi-layer checking. The inspection agency, along with the PMKVY Monitoring Team are responsible to continuously monitor all the TCs based on the Compliance and Performance Standard Matrix. Such visits have hardly been reported by TCs to the study team with the availability of Ministry officials.

5.2 Externalities

Externalities occur in a scheme when the intended outcomes are not achieved or partly achieved due to unintended or latent reasons. The identified externalities under PMKVY are as under:

1. Compliance and Performance Standard Matrix for the allotment of trainings implicitly invited induced opportunity costs to the TCs, as their resources were not properly utilized.

2. The skill development contents should have been designed in such a way that every single beneficiary trained, certified, and received placement. The placement of the beneficiaries should not be restricted to the industry partners alone. The skills would have been improved to a standard where-in the global industries, got cajoled to see the talented youth after training.

6. RECOMMENDATION FOR SCHEME WITH REASONS

Considering the greater correlation between skills acquired and skill prescribed by Policy, IT-based governance through SDMS, effectively produced outcome through STT, RPL and Special Projects, 12.43% SC share, 4.8% inclusion of Divyangjan, 46.1% of BPL population, and 48% of women share under the scheme ambit, **the study team recommends Pradhan Mantri Kaushal Vikas Yojna (PMKVY) scheme for continuation with the following suggestions to be incorporated before kick-starting PMKVY 3.0:**

1. The deployment of various agencies for TC accreditation to assessment and certification, an independent agency may be entrusted to oversee the quality of implementation by NSDC. Also, the deployment of various agencies for TC accreditation to assessment and certification, an independent agency may be entrusted by the Ministry to oversee the quality of implementation by NSDC. It has been found that the NSDC and SSCs have outsourced quality monitoring to a third party. Significantly, the NSDC representatives have always taken an escape route to share their views on the scheme implementation. Similar is the case with State Skill Development Missions. The NSDC has also deputed its representatives at State Skill Development Missions. It was also learnt during the field visits that the officials of State Skill Development Missions have outsourced the quality

monitoring to other agencies who have been deployed as District Skill Managers. These District Skill Development Managers are the employees of the third party who are not well-aware of the PMKVY 2.0 guidelines. Less than the desired frequency of monitoring visits and nearly absent technical guidance on the part of SSDMs was reported. Delays in responding to e-mails of TPs on the part of NSDC have also been noticed. It is therefore recommended that monitoring systems, grievance handling, and technical guidance systems should be strengthened. As such, the study team suggests that while launching the PMKVY 3.0, the quality monitoring should be either handled by a dedicated team of the Ministry or to a centrally appointed & professionally competent Institution. The functions of the NSDC with regard to the scheme implementation may periodically be examined by appointing a professionally competent third party. Under the pool of assessment and certification, reputed academic institutions, industry bodies, government ITIs, Government polytechnic, etc. may be brought-in.

2. The priority to be given for the allotment of seats to PMKKs under PMKVY 2.0 is a good idea. However, the outreach of PMKKs was found in insufficient number during the study. Side by side, the centres given no allotment or marginal allotment need to be prioritized based on their performance. Excluding them from PMKVY ecosystem may cause fathomless opportunity costs. Some of the training partners were found disoriented. Strides to be taken to address gaps so that the coverage of the scheme is scaled-up to the extent that it becomes demand driven. The training centres belonging to aspirational and LWE affected districts should be given priority so that the unutilized youth may be streamlined for meaningful economic growth and inclusive social development. Most TPs have complaints about short target allocation in comparison to their sanctioned capacity. Complaints about the delay in allocation of the next targets were also noticed. This situation is resulting in underutilization of capacities, wastage of resources, and de-motivation of TPs. It is recommended that target allocation should be as per sanctioned capacities of TPs provided all other conditions are duly met with.

3. It was found that some of the SSDMs have not made their system online. Necessary follow-ups with the States may be expedited to enable the complete system e-driven so that improved accountability and transparency in the CSSM can be ensured. The officials of SSDMs may also be put to a customized training of the next version of PMKVY at an early date. A grievance redressal mechanism for applicant, TPs, assessor and other stakeholders may be designed to address the concern in stipulated timeframe.

4. There was a mixed response of industry partners about the job-readiness of candidates employed by them. Therefore, some mechanism of feedback should be developed to review course contents or duration or considering job training for those job roles where candidates are not job-ready. This should be done online to be monitored by the PMU of the Ministry. In case of deficits identified, necessary steps may immediately be taken-up. Side by side, considering the worthiness of the scheme, the candidates dropping out the trainings should also be addressed by providing sufficient top-ups, and negotiating with the states to gear-up transport like facilities to the trainees. Also, women dropping the course due to pregnancy or otherwise should be provided special consideration to complete the training.

5. During FGDs, trainers, as well as trainees, reported having received training kits either in Hindi or English language. In non-Hindi speaking states, trainees were largely dependent on trainers to explain the resource material in the local language. It is therefore recommended that the course material should be provided in regional languages also. Trainers were found using digital material available on the internet particularly the video available on YouTube which may sometimes not be authentic and accurate. Therefore, an online digital library for reference purposes may be set-up. Also, MSDE may involve NSDC to produce home and professional video on different job roles for demonstration during the training. This will create an academic learning resource base for skill development in India.

6. It was surprising that nearly all TPs have not consulted the Skill Gap Survey of their area and reported that job roles were assigned to them by the competent authority of implementing bodies. This appears to be against the spirit of the scheme. It is recommended that TPs and other stakeholders should be oriented in skill gap surveys, and job roles should be assigned in consultation with SSC and TPs. The emerging demand in the sunrise sectors may be identified through a robust skill gap survey study. Course curriculum should have a small module on how to handle online assessment. It was observed that trainees not so conversant with the system were at disadvantage. Need to enhance contents and time duration of soft skill components that have been expressed by TCs, trainees, and trainers.

7. The differences have been observed in priorities of marketed skills expressed by beneficiary trainees and those mentioned in National Skill Development and Entrepreneurship Policy -2015. The Electronic and Hardware skill sector has received the maximum score of (23.1%) in marketed skills expressed by trainees, as against the policy figures of agriculture sector (26.9%) which is 7th

in the hierarchy. Similar mismatch has been observed in other skill sectors too and these need to be addressed in PMKVY 3.0.

8. Linkages with MUDRA loan need to be strengthened for those seeking self-employment which at present is found to be weak.