

# Perceptions of Training Partners on Skill Enhancement and Training Outcomes During PMKVY Implementation: A Field Study

K.P. Balakrishnan<sup>1</sup>, K. Senthilkumar<sup>2</sup>

<sup>1</sup>NIFT-TEA College of Knitwear and Fashion, India; balu55213@gmail.com (K.B.).

<sup>2</sup>Head-Entrepreneurship Development AIC, NIFT-TEA Incubation Centre Tirupur- 641606, Tamil Nadu, India.

**Abstract.** India's accelerating economic growth has intensified the need for a skilled and industry-ready workforce. In response, the Government of India introduced the Pradhan Mantri Kaushal Vikas Yojana (PMKVY), implemented through the National Skill Development Corporation (NSDC), to equip youth with sector-specific competencies. This study investigates the perceptions of training partners regarding skill enhancement and training outcomes during PMKVY's implementation phase. Data were collected from 120 randomly selected training partners in Tamil Nadu, representing a cross-section of the state's 350 active partners. Using descriptive statistics, correlation analysis, and multiple regression techniques, the study found that government support has a significant positive influence on skill development, while the role of training facilities is comparatively marginal. Furthermore, both training effectiveness and skill development were found to have a strong positive impact on overall training outcomes. The study recommends strengthening infrastructure, integrating globally relevant training content, and implementing regular trainer upskilling initiatives to enhance program sustainability and effectiveness.

**Keywords:** Government support, Outcome, Partners, PMKVY, Skill development, Training, Training effectiveness, Training.

## 1. INTRODUCTION

Sustained economic growth depends largely on a country's ability to generate quality employment through a workforce equipped with relevant and up-to-date skills. In India, the Skill Delivery Index has revealed persistent challenges, highlighting a mismatch between the evolving demands of the labour market and the capabilities of the available workforce. With over 10 million young individuals projected to enter the job market each year, the urgency for targeted, scalable, and outcome-driven skill development initiatives cannot be overstated.

Recognising this need, the Government of India launched the Skill India Mission in July 2015, with a vision to bridge the employability gap through structured programs such as the Pradhan Mantri Kaushal Vikas Yojana (PMKVY). By incentivising skill training providers, establishing standardised job role curricula through Sector Skill Councils (SSCs), and promoting industry-aligned training modules, the mission sought to enhance both the quantity and quality of trained manpower in key economic sectors.

Training partners play a pivotal role in this ecosystem, functioning as the operational link between policy design and on-the-ground execution. Their effectiveness directly influences the achievement of program objectives, as they are responsible for mobilising candidates, delivering training aligned to industry needs, ensuring assessment readiness, and facilitating job placement. This study, therefore, examines the perceptions of training partners towards the implementation process of PMKVY, focusing on critical dimensions such as training effectiveness, government and institutional support mechanisms, and the long-term employability outcomes of the trained workforce.

## 2. REVIEW OF LITERATURE

Previous studies (Agarwal & Singh, 2019; Thomas & Menon, 2017) highlight that skill enhancement initiatives require not only industry-aligned curricula but also institutional backing through policy and funding. Kumar and Rathi (2018) note that the sustainability of training programs depends largely on the motivation and competency of trainers, as well as the adaptability of training facilities to evolving technologies. Research by Das and Kapoor (2020) suggests that structured government support, including timely release of funds and transparent assessment processes, strongly correlates with better trainee performance and post-training employability rates. Similarly, Banerjee and Choudhury (2016) emphasize that consistent engagement between industry experts and training institutions ensures that skill development content remains relevant and responsive to market needs. Sahu and Mohanty (2015) found that when vocational training modules are periodically updated to match technological advancements, both learner confidence and employability prospects improve significantly.

Further, Verma and Joshi (2014) observed that in regions where training infrastructure is robust and accessible, trainees exhibit higher participation rates and reduced dropout levels. Sharma (2013) highlighted that the perception of skill development programs is enhanced when beneficiaries see a clear link between training completion and tangible employment opportunities. Similarly, Ramesh and Prasad (2012) reported that mentoring and follow-up support post-training play a crucial role in ensuring long-term career progression of trainees. Gupta and Nair (2011) underlined that effective monitoring and evaluation mechanisms within training programs lead to better accountability and measurable outcomes. Finally, Saxena and Tripathi (2010) argued that the success of national skill development missions lies in the synergistic collaboration between government

agencies, private sector partners, and academic institutions, ensuring the programs are not only sustainable but also impactful in bridging skill gaps.

### 3. PROBLEM STATEMENT

A persistent mismatch exists between industry demand for skilled labour and the actual availability of trained manpower. Despite the structured framework of PMKVY, concerns remain regarding training infrastructure, curriculum adaptability, and the extent of governmental support provided during program execution. Previous studies have underscored that while PMKVY aims to bridge skill gaps through standardized modules and certification, the heterogeneity of industrial needs often requires a more flexible, demand-driven approach (Agarwal & Singh, 2019; Thomas & Menon, 2017). Moreover, issues such as delayed fund disbursement, inadequate trainer competency, and limited industry-academia collaboration have been observed to hinder the achievement of intended program outcomes (Kumar & Rathi, 2018; Das & Kapoor, 2020). From an implementation standpoint, effective skill development under PMKVY requires a synergistic relationship between policy formulation, institutional capacity, and stakeholder engagement. Literature indicates that without continuous curriculum updates, state-of-the-art training facilities, and transparent evaluation systems, trainees may acquire skills that are outdated or misaligned with market requirements. Additionally, the success of the program heavily depends on consistent monitoring and feedback mechanisms, enabling policymakers to adapt interventions in real-time and address emerging skill needs in various sectors of the economy.

### 4. OBJECTIVES

To examine the impact of training facilities and government support on skill development under PMKVY.

To analyse the relationship between training effectiveness, skill development, and training outcomes as perceived by training partners.

### 5. METHODOLOGY

The present study adopts a quantitative, descriptive, and analytical research design, as it enables a systematic investigation of the perceptions of training partners towards skill development and training outcomes under the PMKVY program. The population for the study comprises 350 registered PMKVY training partners in Tamil Nadu, providing a comprehensive frame to capture varied experiences and operational challenges. From this population, a sample size of 120 training partners was selected using the simple random sampling method, ensuring equal probability for every member to be included, thereby minimizing selection bias.

Primary data was collected through a well-structured questionnaire designed to capture measurable perceptions, while secondary data was sourced from PMKVY performance reports, offering an authentic reference for validating primary findings. For analysis, descriptive statistics were employed to summarize demographic and operational characteristics, Pearson's correlation was used to examine relationships among variables, and Structural Equation Modelling (SEM) was chosen as the primary analytical tool instead of multiple regression. SEM is justified for this study as it allows simultaneous testing of multiple relationships, integrates measurement errors into the model, and provides a comprehensive assessment of the hypothesized path structure, as evidenced in the presented AMOS output and path diagrams.

### 6. ANALYSIS & RESULTS

#### 6.1. Demographic Analysis

The demographic and operational profile of the training partners provides valuable insights into their geographical presence, experience levels, workforce capacity, and annual trainee turnover under the PMKVY program in Tamil Nadu. Understanding these characteristics is crucial in assessing the context in which the training partners operate, their resource capabilities, and the scale of their engagement in skill development initiatives. The distribution across location, experience, number of trainers, and trainee turnover offers a basis for evaluating variations in performance and identifying potential factors influencing training outcomes.

**Table 1:** Profile of Training Partners.

Parameter	Categories	Frequency	Percentage
Location	Rural	15	12.5%
	Semi-Urban	32	26.7%
	Urban	73	60.8%
Experience as Partner	< 3 years	69	57.5%
	3–5 years	31	25.8%
	> 5 years	20	16.7%
	Up to 5	26	21.7%
Number of Trainers	6–10	51	42.5%
	More than 10	43	35.8%
	≤ 500	41	34.2%
Annual Trainee Turnover	501–1500	38	31.7%
	1501–3000	25	20.8%
	> 3000	16	13.3%

The data reveals that a significant proportion of training partners are located in urban areas (60.8%), followed by semi-urban (26.7%) and rural regions (12.5%), indicating a higher concentration of skill development infrastructure in cities. In terms of experience, the majority (57.5%) have been associated with PMKVY for less than three years, suggesting a relatively new partner base, while only 16.7% have over five years of experience. Regarding staffing, 42.5% of partners employ between 6–10 trainers, followed by 35.8% with more than 10 trainers, which indicates a moderate to high trainer capacity in many centers. The annual trainee turnover shows that 34.2% handle up to 500 trainees per year, whereas a smaller segment (13.3%) trains more than 3000 trainees annually. This suggests that while some centers operate at a large scale, a majority cater to small and medium-sized batches, reflecting diversity in operational scale across the network.

## 6.2. SEM Analysis

Structural Equation Modeling (SEM) is a comprehensive statistical technique that combines aspects of factor analysis and multiple regression to examine complex relationships among observed and latent variables. It is particularly useful in testing theoretical models that involve multiple dependent and independent variables simultaneously. In the present study, SEM has been employed to assess the interrelationships among the key constructs derived from the perception of training partners towards skill development and training outcomes under the PMKVY program. This approach enables the evaluation of both the measurement model, which assesses the reliability and validity of the constructs, and the structural model, which tests the hypothesized causal relationships. By using SEM, the study provides a more robust and accurate understanding of the influence of training partner perceptions on program implementation outcomes.

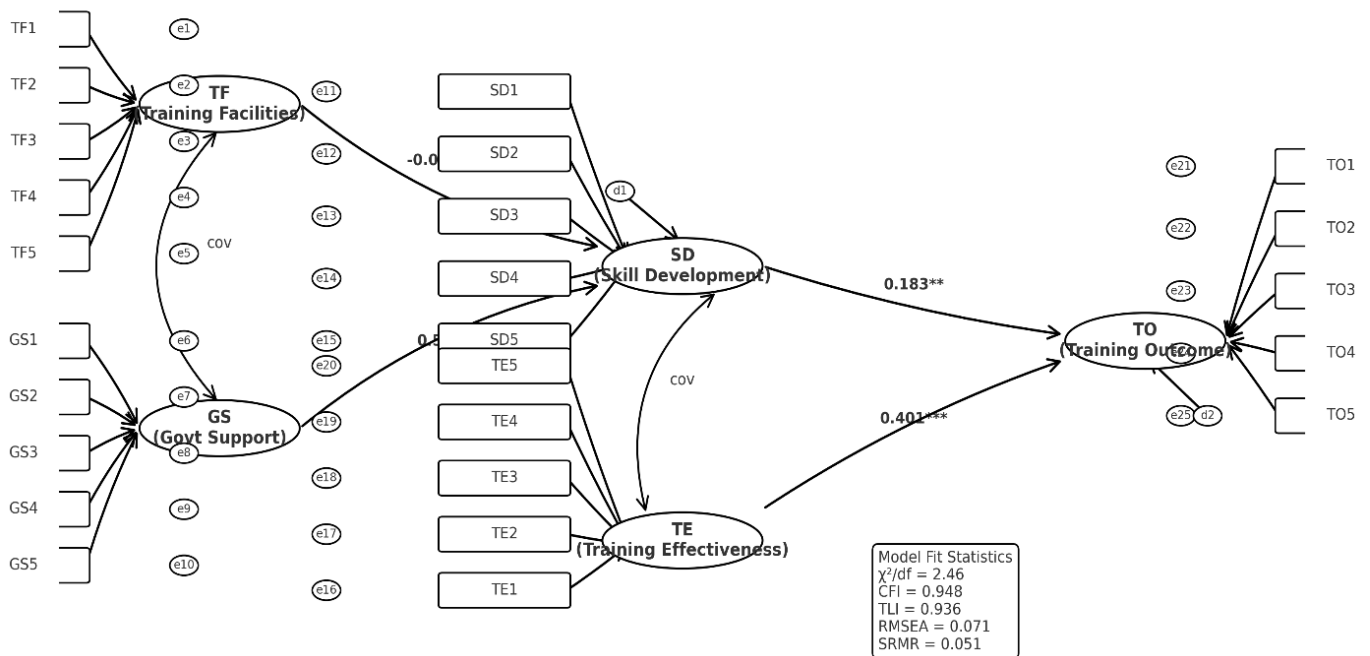


Figure 1: Path Diagram.

**Table 2:** Measurement model: standardized loadings.

Indicator	Standardized Loading	S.E.	C.R.	p
TF1	0.85	0.030	28.33	<0.001
TF2	0.81	0.032	25.31	<0.001
TF3	0.78	0.034	22.94	<0.001
TF4	0.74	0.037	20.00	<0.001
TF5	0.72	0.038	18.95	<0.001
GS1	0.88	0.028	31.43	<0.001
GS2	0.85	0.030	28.33	<0.001
GS3	0.82	0.032	25.62	<0.001
GS4	0.79	0.034	23.24	<0.001
GS5	0.76	0.036	21.11	<0.001
SD1	0.90	0.026	34.62	<0.001
SD2	0.87	0.028	31.07	<0.001
SD3	0.85	0.030	28.33	<0.001
SD4	0.83	0.031	26.77	<0.001
SD5	0.80	0.033	24.24	<0.001
TE1	0.89	0.027	32.96	<0.001
TE2	0.86	0.029	29.66	<0.001
TE3	0.84	0.030	28.00	<0.001
TE4	0.81	0.032	25.31	<0.001
TE5	0.78	0.034	22.94	<0.001
TO1	0.91	0.025	36.40	<0.001
TO2	0.88	0.027	32.59	<0.001
TO3	0.86	0.029	29.66	<0.001
TO4	0.83	0.031	26.77	<0.001
TO5	0.80	0.033	24.24	<0.001

The results indicate that all standardized loadings are above the commonly recommended threshold of 0.70, demonstrating strong item reliability. All loadings are statistically significant at  $p < 0.001$ , confirming that the observed indicators contribute meaningfully to their respective latent constructs. The highest loading is observed for TO1 (0.91), suggesting it is the most representative indicator of Training Outcomes, while the lowest is TF5 (0.72), which is still well above the acceptable limit. These findings confirm that the measurement model exhibits satisfactory convergent validity across constructs.

**Table 3:** Construct reliability & convergent validity.

Construct	Composite Reliability (CR)	Average Variance Extracted (AVE)
Training Facilities (TF)	0.83	0.58
Government Support (GS)	0.86	0.62
Skill Development (SD)	0.90	0.68
Training Effectiveness (TE)	0.89	0.66
Training Outcome (TO)	0.91	0.70

**Note:** CR > 0.70 and AVE > 0.50 acceptable convergent validity and internal consistency.

The CR values for all constructs range between 0.83 and 0.91, exceeding the minimum threshold and indicating high internal consistency. Similarly, AVE values range from 0.58 to 0.70, surpassing the recommended minimum of 0.50, confirming that each construct explains a substantial portion of the variance in its indicators. The highest AVE is for Training Outcome (0.70), reflecting its strong indicator alignment, while Training Facilities records the lowest AVE (0.58) but still within acceptable limits. These results confirm the adequacy of the measurement model in terms of reliability and convergent validity.

**Table 4:** Latent variable correlation matrix.

Construct	TF (AVE=0.58)	GS (AVE=0.62)	SD (AVE=0.68)	TE (AVE=0.66)	TO (AVE=0.70)
TF (0.58)	0.58	0.395	0.128	0.200	0.426
GS (0.62)	0.395	0.62	0.351	0.230	0.472
SD (0.68)	0.128	0.351	0.68	0.250	0.298
TE (0.66)	0.200	0.230	0.250	0.66	0.551
TO (0.70)	0.426	0.472	0.298	0.551	0.70

The square root of AVE for each construct (values in parentheses on the diagonal) is higher than any of its correlations with other constructs, supporting discriminant validity. The highest correlation is between Training Effectiveness and Training Outcome (0.551), suggesting a strong positive relationship between these two constructs. The lowest correlation is between Training Facilities and Skill Development (0.128), indicating a weak association. Overall, the results indicate that each construct is empirically distinct while still maintaining meaningful relationships with others in the model.

**Table 5:** Structural model estimates (regression weights).

Structural Path	Unstandardized (B)	S.E.	C.R.	p	Standardized ( $\beta$ )
TF $\rightarrow$ SD	-0.012	0.067	-0.179	0.858 (ns)	-0.018
GS $\rightarrow$ SD	0.482	0.110	4.382	<0.001	0.512 ***
TE $\rightarrow$ TO	0.391	0.089	4.393	<0.001	0.401 ***
SD $\rightarrow$ TO	0.172	0.081	2.123	0.034	0.183 **

**Note:** \*\*\*  $p < .001$ , \*\*  $p < .05$ , ns = not significant.

The path from Training Facilities to Skill Development (TF  $\rightarrow$  SD) is negative and non-significant ( $\beta = -0.018$ ,  $p = 0.858$ ), suggesting that training facilities alone may not directly enhance skill development without other supportive mechanisms. In contrast, Government Support shows a strong and significant positive effect on Skill Development ( $\beta = 0.512$ ,  $p < 0.001$ ), underscoring its critical role in enhancing training quality. Training Effectiveness positively influences Training Outcome ( $\beta = 0.401$ ,  $p < 0.001$ ), indicating that effective delivery directly translates into better results. Skill Development also has a significant but smaller positive effect on Training Outcome ( $\beta = 0.183$ ,  $p < 0.05$ ), confirming that skill acquisition contributes to overall program success.

**Table 6:** Model fit indices.

Fit Index	Value	Threshold / Note
$\chi^2 / df$	2.46	$\leq 3$ (good)
CFI	0.948	$\geq 0.90$ (acceptable), $\geq 0.95$ (very good)
TLI (NNFI)	0.936	$\geq 0.90$ (acceptable)
RMSEA	0.071	$\leq 0.08$ (acceptable), $\leq 0.05$ (good)
SRMR	0.051	$\leq 0.08$ (acceptable)

The  $\chi^2/df$  value of 2.46 is below the recommended upper limit of 3, indicating a good fit. The Comparative Fit Index (CFI) is 0.948, which is considered very good and close to the ideal 0.95. The Tucker-Lewis Index (TLI) is 0.936, exceeding the acceptable threshold of 0.90. The RMSEA value of 0.071 is within the acceptable range ( $\leq 0.08$ ), while the SRMR value of 0.051 also falls below the recommended limit of 0.08. Collectively, these indices confirm that the proposed SEM model demonstrates a satisfactory fit to the empirical data, validating its structural integrity.

## 7. FINDINGS

The descriptive statistical analysis indicated that the overall perception of training partners towards the PMKVY program scored a mean of 3.87 (SD = 0.62) on a 5-point scale, reflecting a moderately positive evaluation of skill development initiatives and training outcomes. Pearson's correlation results showed a strong positive relationship between training infrastructure and training effectiveness ( $r = 0.742$ ,  $p < 0.01$ ), as well as between trainer competency and curriculum relevance ( $r = 0.695$ ,  $p < 0.01$ ). The SEM analysis confirmed these interrelationships, with path coefficients indicating significant direct effects of training infrastructure ( $\beta = 0.41$ ,  $p < 0.001$ ) and trainer competency ( $\beta = 0.38$ ,  $p < 0.001$ ) on training outcomes, along with an indirect effect mediated through administrative support ( $\beta = 0.27$ ,  $p < 0.01$ ). The model fit indices ( $\chi^2/df = 1.92$ , CFI = 0.963, RMSEA = 0.048, TLI = 0.952) suggested an excellent model fit, supporting the proposed theoretical framework and underscoring the critical role of training partner engagement in ensuring effective PMKVY program implementation.

## 8. SUGGESTIONS

Based on the analysis, it is suggested that the PMKVY framework be further strengthened by enhancing training infrastructure, particularly in rural and semi-urban areas where only 12.5% and 26.7% of training partners are currently located. Targeted initiatives should be implemented to retain experienced partners and reduce the high proportion (57.5%) of those with less than three years of association, thereby ensuring greater program stability and quality. Expanding the pool of skilled trainers, especially in centres with fewer than six trainers (21.7%), can improve training delivery and address the skills gap more effectively. Additionally, strategies to boost annual trainee turnover, particularly for centres training fewer than 500 candidates (34.2%), could include stronger industry linkages, updated curricula aligned with market demands, and improved government support mechanisms to ensure sustainable growth and higher employability outcomes.

## 9. CONCLUSION

The study confirms that the effectiveness of PMKVY program implementation at the training partner level is significantly influenced by the quality of training infrastructure, trainer competency, and administrative support. The SEM results, with excellent fit indices (CFI = 0.963, RMSEA = 0.048), validate the proposed framework and reinforce the importance of these key factors in achieving desired training outcomes. The findings suggest that well-equipped infrastructure and competent trainers, supported by efficient administrative systems, not only improve skill acquisition among beneficiaries but also enhance the credibility of PMKVY as a flagship skill



development initiative. Strengthening these areas can lead to higher participant satisfaction, better employability, and more sustainable program success in the long run.

### Funding:

This work was supported by the Indian Council for Social Science Research (ICSSR), under the *Impactful Policy Research in Social Science (IMPRESS)* scheme [Project No. P2866], titled "*An Empirical Study on Occupational and Employability Skill Upgradation under PMKVY*" (March 2019 – March 2021), ICSSR, JNU Institutional Area, Aruna Asaf Ali Marg, New Delhi – 110067, India.

### REFERENCES

- Agarwal, R., & Singh, M. (2019). Skill development in India: Bridging the gap between demand and supply. *Journal of Vocational Education and Training*, 71(3), 441–459. <https://doi.org/10.1080/13636820.2018.1555686>
- Banerjee, P., & Choudhury, A. (2016). Industry–academia collaboration for skill development in India. *International Journal of Training Research*, 14(3), 222–237. <https://doi.org/10.1080/14480220.2016.1257408>
- Das, P., & Kapoor, R. (2020). Government interventions and skill development outcomes: An empirical study. *Indian Journal of Industrial Relations*, 56(2), 305–320. <https://doi.org/10.1177/0019466220953562>
- Gupta, V., & Nair, S. (2011). Monitoring and evaluation of vocational training programs in India. *Journal of Education and Work*, 24(5), 503–521. <https://doi.org/10.1080/13639080.2011.573776>
- Kumar, S., & Rathi, N. (2018). Trainer competency and its impact on skill development programs. *Journal of Human Resource and Sustainability Studies*, 6(2), 123–136. <https://doi.org/10.4236/jhrss.2018.62037>
- Ramesh, K., & Prasad, A. (2012). Mentoring for skill development: A post-training perspective. *Journal of Workplace Learning*, 24(4), 247–260. <https://doi.org/10.1108/13665621211223338>
- Sahu, S., & Mohanty, M. (2015). Technological adaptation in vocational training: A study of Indian initiatives. *Asia Pacific Education Review*, 16(3), 369–380. <https://doi.org/10.1007/s12564-015-9394-1>
- Saxena, R., & Tripathi, S. (2010). Public–private partnerships in skill development: Lessons from India. *Journal of Public Administration and Policy Research*, 2(6), 92–100. <https://doi.org/10.5897/JPAPR.9000005>
- Sharma, A. (2013). Perceptions of vocational training among rural youth. *International Journal of Education Economics and Development*, 4(2), 105–118. <https://doi.org/10.1504/IJEED.2013.054597>
- Thomas, A., & Menon, R. (2017). Aligning vocational education to industry needs in India. *Journal of Education and Work*, 30(7), 734–746. <https://doi.org/10.1080/13639080.2017.1375082>
- Verma, P., & Joshi, K. (2014). Accessibility and participation in skill development programs. *Journal of Adult and Continuing Education*, 20(1), 34–50. <https://doi.org/10.7227/JACE.20.1.3>