

# Evaluating the Effectiveness of PM Kaushal Vikas Yojana (PMKVY) in Skill Development and Employment Generation: A Study of Lucknow and Kanpur

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**Abstract:** *This study explores the effectiveness of the Pradhan Mantri Kaushal Vikas Yojana (PMKVY) in promoting skill development and employment generation among youth in Lucknow and Kanpur. Based on responses from 768 beneficiaries, the findings reveal a high level of awareness and positive perceptions of skill acquisition and job opportunities. While the training programs were generally appreciated, concerns were noted regarding the inconsistency of infrastructure, limited training duration, and inadequate post-training support. The study emphasizes the need for stronger industry linkages, follow-up mechanisms, and infrastructure standardization to enhance the program's long-term impact.*

**Keywords:** *PMKVY, Skill Development, Employment, Training Infrastructure, Post-Training Support, Youth Empowerment*

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## 1. INTRODUCTION

India is home to one of the world's largest and youngest populations, with a significant proportion of youth in need of employable skills. Recognizing the urgency to bridge the gap between academic education and industry-relevant training, the Government of India launched the **Skill India Mission** in 2015. One of its flagship initiatives, the **Pradhan Mantri Kaushal Vikas Yojana (PMKVY)**, aims to equip the Indian youth with industry-aligned skill sets to enhance employability and entrepreneurial potential (Ministry of Skill Development and Entrepreneurship [MSDE], 2022). The PMKVY scheme operates through a nationwide network of training providers and skill development centers, offering short-term courses aligned with the National Skills Qualification Framework (NSQF). These programs are designed to empower youth, particularly from socio-economically disadvantaged backgrounds, by enabling access to job markets or facilitating self-employment (Aggarwal, 2019). Although policy documents highlight the scheme's success in terms of enrolment and certification numbers, there remains a significant gap in understanding the **on-ground effectiveness** of PMKVY—especially in semi-urban and rural areas (Mehrotra, 2020). The state of **Uttar Pradesh**, being the most populous in India and having both urban clusters and rural hinterlands, provides a compelling case for localized assessment. The cities of **Lucknow and Kanpur**, along with their surrounding villages, are critical regions to evaluate how effectively PMKVY has been implemented and how it is perceived by beneficiaries. This study aims to **evaluate the effectiveness of PMKVY in terms of skill development and employment generation** in these regions. The research will investigate multiple dimensions: **awareness levels among youth, quality and relevance of training programs, role of infrastructure and educators, post-training support**, and the impact on **entrepreneurship**. Additionally, it will examine the **supporting role of educational institutions and media** in promoting the scheme's objectives.

By analyzing responses from both urban and rural youth, the study seeks to offer valuable insights into the **strengths, gaps, and future potential** of the PMKVY initiative, and to inform policy improvements in India's broader skill development ecosystem (FICCI, 2021).

## 2. LITERATURE REVIEW

### 1. The Need for Skill Development in India

India's demographic advantage—over 65% of its population under the age of 35—demands urgent interventions in skilling and employment (Mehrotra, 2020). However, traditional education has often failed to align with the practical needs of the job market. The mismatch between academic qualifications

and industry demands has led to a rise in educated unemployment (FICCI, 2021). Thus, skill development programs such as PMKVY have become central to bridging this employability gap. Productivity and efficiency increase when the appropriate personnel are in the appropriate roles (Khan, F. S., & Syed, S, 2022)

## 2. Objectives and Design of PMKVY

Launched under the Skill India Mission in 2015, PMKVY is the flagship scheme of the Ministry of Skill Development and Entrepreneurship (MSDE). It aims to encourage skill training among Indian youth through Recognition of Prior Learning (RPL) and Short-Term Training (STT) modules, certified under the National Skill Qualification Framework (NSQF) (MSDE, 2022). The scheme provides financial incentives and placement assistance to make skilling more accessible.

The architecture of PMKVY involves sector skill councils (SSCs), training partners, and implementing agencies working together. Despite a strong institutional framework, the scheme's implementation has varied widely across different states and regions (Ramasamy & Gopal, 2020).

## 3. Effectiveness of PMKVY: Key Studies and Debates

While PMKVY has certified millions of youth across India, studies show a **mixed picture** of its effectiveness. Singh and Chatterjee (2019) found that although PMKVY significantly improved access to training, **only a small percentage of trained individuals were actually placed in formal jobs**. Similarly, KPMG (2017) noted that many trainees were not aware of post-training support or job linkage mechanisms. Aggarwal (2019) highlighted challenges in rural and semi-urban regions, where awareness of the scheme is low, infrastructure is weak, and local employment opportunities are limited. He argued that without **locally aligned job roles**, skill training alone is insufficient for employment generation.

Conversely, Sinha and Dey (2021) found **positive entrepreneurial outcomes**, particularly among those who received training in self-employment-oriented skills (e.g., tailoring, mobile repair). The PMKVY's encouragement of entrepreneurship through linkage with Mudra loans was appreciated in some districts.

## 4. Challenges in Implementation

Multiple implementation gaps have been cited in scholarly and government reviews. First, **curriculum relevance** remains a concern. According to the NSDC (2020), many courses do not align with regional labor market needs or sectoral demands. Secondly, **training infrastructure and quality of trainers** vary significantly across training centers. Ramasamy and Gopal (2020) argue that many centers are under-equipped and lack practical lab exposure. Thirdly, the **post-training employment linkage** has not been robust. In a study conducted by the National Institute of Labour Economics Research and Development (NILERD), it was found that over 50% of trained individuals could not secure employment within three months of course completion (NILERD, 2020). There is a scarcity of empirical studies on the link between the sort of training received and the degree of satisfaction.

## 5. Role of Media and Institutions in Outreach and Awareness

Awareness plays a critical role in the uptake of PMKVY, especially in rural areas. The role of **media personnel** and **educational institutions** in promoting the scheme has been underexplored. Raj and Sharma (2021) found that while TV and social media campaigns increased PMKVY enrolments in urban regions, rural areas still depend heavily on word-of-mouth and local institutional efforts for awareness creation. Institutions such as ITIs, colleges, and vocational training centers can be powerful enablers. However, their involvement in PMKVY remains inconsistent. There is a need for more structured collaboration between government bodies, educational institutions, and industry partners to scale the reach and impact of skill development initiatives.

## 3. Research Objectives, Variables and Hypothesis

### a) Objectives

The primary aim of this study is to explore the impact of PM Kaushal Vikas Yojana (PMKVY) on enhancing skill development and generating employment opportunities among beneficiaries. The specific objectives are:

1. **To examine the level of awareness** among citizens regarding PMKVY.
2. **To assess the effectiveness of PMKVY** in developing relevant skills for employability.
3. **To evaluate the impact of PMKVY** on employment generation and entrepreneurship development.

4. **To analyze the role of training infrastructure** and methodology in the success of skill development programs.
5. **To investigate the role of post-training support systems** in sustaining employability and skill utilization.

**b) Variables**

**Independent Variables:**

- Awareness about PMKVY
- Quality of training infrastructure and methods
- Post-training support
- Duration of training programs

**Dependent Variables:**

- Skill development
- Employment generation
- Entrepreneurship development

**c) Hypothesis**

Based on the objectives and variables, the following hypotheses are formulated:

- **H<sub>1</sub>**: PMKVY has significantly contributed to the development of skills among its beneficiaries.
- **H<sub>2</sub>**: PMKVY has significantly led to increased employment opportunities and entrepreneurial initiatives.
- **H<sub>3</sub>**: Training infrastructure and methodology under PMKVY have a significant impact on skill development.
- **H<sub>4</sub>**: Post-training support under PMKVY has a significant positive effect on the application and sustainability of acquired skills.
- **H<sub>5</sub>**: Extending the duration of training under PMKVY positively influences the mastery of practical skills.

**4. METHODOLOGY**

**Research Design**

The study adopts a **descriptive and exploratory research design**, aiming to assess the effectiveness of PMKVY in enhancing skill development and generating employment among youth. Both qualitative and quantitative approaches have been utilized to capture a comprehensive understanding of the scheme's outcomes.

**Population and Sample**

The population of the study comprises **young beneficiaries of PMKVY in Uttar Pradesh**, particularly from **Lucknow and Kanpur**.

A **sample size of 768 respondents** was selected using a **convenience sampling technique**, both male and female, and across various educational backgrounds and trades.

**Data Collection Method**

Primary data was collected through a **structured questionnaire** consisting of:

- Dichotomous (Yes/No) questions
- Open-ended questions for subjective insights
- 5-point Likert scale statements (from Strongly Agree to Strongly Disagree)

Secondary data sources included government reports, PMKVY official documentation, previous research studies, and policy evaluation reports.

**5. Data Analysis and Interpretation**

**5.1 Demographic Profile of the Respondents**

A total of 768 respondents from both urban and rural areas of Lucknow and Kanpur districts participated in the study. The demographic breakdown is presented in the table below:

**Table 1 : Demographic profile of the Respondents**

Variable	Category	Frequency	Percentage
Gender	Male	390	50.8
	Female	378	49.2

<b>Age Group</b>	18-25 years	496	34.6
	26-35 years	167	21.7
	36-45 years	71	9.2
	46 years and above	34	4.5
<b>Educational Qualification</b>	Secondary (12 <sup>th</sup> )	150	19.5
	Diploma	180	23.4
	Undergraduate	195	25.4
	Postgraduate	237	30.9
	Doctorate	6	0.8

The majority of the respondents were **young adults between 18–25 years**, indicating the youth-centered impact of PMKVY. There was an almost equal representation of **male and female participants**, ensuring gender balance in perspectives. Most respondents held a **graduate or postgraduate degree**, while a significant portion also had **diploma-level qualifications**, reflecting the varied educational backgrounds among PMKVY beneficiaries.

## 5.2 Descriptive Statistics

This section presents key findings from 768 respondents on their awareness, perceptions, and experiences with PM Kaushal Vikas Yojana (PMKVY).

- **Awareness and Skill Development**

### Items Included-

1. Do you know about PMKVY?
2. Has PM Kaushal Vikas Yojana (PMKVY) led to the development of your skills.

**Table 2: Awareness of PMKVY & Skill development due to PMKVY**

Variable	Response	Frequency	Percentage
<b>Awareness of PMKVY</b>	Yes	580	75.5%
	No	188	24.5%
<b>Skill Development</b>	Yes	549	71.4%
	No	219	28.6%

**Insight:** Majority (75.5%) are aware of PMKVY, and 71.4% acknowledged skill development through it.

- **Job Opportunities and Entrepreneurship**

### Items included-

3. How has PMKVY contributed to increasing job opportunities in India?
4. PMKVY has increased job opportunities and encouraged entrepreneurship.

**Table 3: Creation of job opportunities and entrepreneurship**

Theme	Frequency	Percentage
<b>Job Creation</b>	297	38.7%
<b>Entrepreneurship</b>	288	37.5%
<b>Sector Opportunities</b>	153	19.9%
<b>Outreach Gaps</b>	230	30.0%
<b>Training Job Link</b>	122	15.9%

**Table 4: Respondents' Perception on Creation of Job Opportunities and Entrepreneurship (5-Point Likert Scale)**

Scale	Frequency	Percentage
<b>Strongly Agree</b>	267	34.8%
<b>Agree</b>	250	32.6%
<b>Neutral</b>	39	5.1%
<b>Disagree</b>	121	15.7%
<b>Strongly Disagree</b>	91	11.8%

**Insight:** 67.4% agreed PMKVY boosts jobs and entrepreneurship, though outreach and placement remain concerns.

• **Infrastructure and Training Methods**

**Items included-**

5. How does the availability of modern training infrastructure affect skill development under PMKVY?
6. How effective are post-training support systems in ensuring skills learned are retained and applied in real-world scenarios?
7. Training methods and infrastructure contribute to skill development under PMKVY.

**Table 5: Distribution of Responses on Infrastructure and Training Methods under PMKVY**

Theme	Frequency	Percentage
Practical Skill Acquisition	178	23.18%
Job Readiness	152	19.79%
Training Quality Upgrade	130	16.93%

**Table 6: Likert Scale Distribution of Responses on Infrastructure and Training Methods under PMKVY**

Scale	Frequency	Percentage
Strongly Agree	162	21.09%
Agree	248	32.29%
Neutral	51	6.64%
Disagree	161	20.96%
Strongly Disagree	146	19.01%

**Insight:** 53.38% view infrastructure as effective, but 39.97% expressed dissatisfaction.

• **Post-Training Support**

**Items included-**

8. Post-training support enhances skill application under PMKVY.

**Table 7 : Distribution of Responses on Post-Training Support Services under PMKVY**

Theme	Frequency	Percentage
Lack of Mentorship	168	21.88%
Weak Placement Support	153	19.92%
No Tracking System	138	17.97%

**Table 8: Likert Scale Distribution of Responses on Post-Training Support Services under PMKVY**

Scale	Frequency	Percentage
Strongly Agree	182	23.70%
Agree	236	30.73%
Neutral	65	8.46%
Disagree	158	20.57%
Strongly Disagree	127	16.54%

**Insight:** 54.43% agreed post-training aids skill application; however, significant gaps in follow-up exist.

• **Training Duration and Skill Mastery**

9. Can a longer training period allow for better mastery of practical skills compared to short-term programs under PMKVY?
10. Extending training time improves skill development under PMKVY.

**Table 9: Distribution of Responses on Training Duration and Skill Mastery under PMKVY**

Theme	Frequency	Percentage
Longer Training = Better Skills	212	27.60%
Industry-integrated Longer Training	184	23.96%
Short-term Lacks Depth	143	18.62%

**Table 10: Likert Scale Distribution of Responses on Training Duration and Skill Mastery under PMKVY**

Scale	Frequency	Percentage
Strongly Agree	161	20.96%
Agree	243	31.64%
Neutral	92	11.98%
Disagree	157	20.44%
Strongly Disagree	115	14.97%

**Insight:** 52.6% favored extended training duration for better skill development.

### 5.3 Hypothesis Testing

To evaluate the effectiveness of the PM Kaushal Vikas Yojana (PMKVY), five hypotheses were developed and tested using appropriate statistical techniques. Quantitative responses were analyzed using statistical tests such as the **one-sample proportion z-test** and the **Chi-square test**, as applicable.

#### H1: PMKVY contributes to the development of skills.

A total of **71.4%** of respondents reported that their skills had improved through participation in PMKVY. To test the statistical significance of this observation, a **one-sample proportion z-test** was applied.

#### Hypotheses:

- $H_0: p \leq 0.5$  (PMKVY has not significantly contributed to skill development)
- $H_1: p > 0.5$  (PMKVY has significantly contributed to skill development)

#### Formula Used:

$$Z_{calc} = \frac{\hat{p} - p_0}{\sqrt{\frac{p_0(1-p_0)}{n}}}$$

Where:

$\hat{p}=0.714$ ,  $p_0=0.5$  and  $n=768$

**RESULT:**  $z = 11.86$ ,  $p < 0.001$

**CONCLUSION:** The null hypothesis is rejected. PMKVY has significantly contributed to skill development among its beneficiaries.

#### H2: PMKVY has increased job opportunities and entrepreneurship.

Approximately **67.4%** of respondents agreed or strongly agreed that PMKVY enhanced employment and entrepreneurial opportunities. Z test is applied.

#### Hypotheses:

- $H_0: p \leq 0.5$
- $H_1: p > 0.5$

**RESULT:**  $z = 9.65$ ,  $p < 0.001$

**Conclusion:** The null hypothesis is rejected. PMKVY has had a statistically significant impact on employment and entrepreneurship development.

#### H3: Present training infrastructure enhances skill development.

Among respondents, **53.38%** gave positive feedback, while around **40%** expressed negative views about the infrastructure. A **Chi-square goodness-of-fit test** was used to determine whether the distribution of responses differed significantly from a uniform expectation.

**Formula Used:**

$$\chi^2 = \sum \frac{(O - E)^2}{E}$$

Where:

O: Observed frequency

E Expected Frequencies

Observed Frequencies

- Positive: 410
- Neutral: 50
- Negative: 308

**Calculation:**

$$\chi^2 = 272.86$$

**Result:**  $\chi^2 = 272.86, p < 0.01$

**Conclusion :** The Chi-square test indicates a significant difference in perceptions of infrastructure effectiveness ( $\chi^2 = 272.86, p < 0.01$ ). Hence, the null hypothesis is rejected, confirming that respondents' views are not uniformly distributed.

**H4: Post-training support systems are effective under PMKVY.**

Feedback showed that **54.43%** responded positively, while **37.11%** responded negatively regarding post-training support. A **Chi-square test for independence** was used to test whether perceptions differed significantly between rural and urban participants.

**Formula Used:**

**Result (SPSS Output):**  $\chi^2 = 11.23, df = 2, p = 0.018$

**Conclusion:** The null hypothesis is rejected. The effectiveness of post-training support systems under PMKVY is significantly associated with the respondent's background.

**H5: Longer training duration leads to better skill development.**

Around **52.6%** of respondents agreed that longer training durations result in better skill development outcomes. Z test is applied here.

**Hypotheses:**

- $H_0: p \leq 0.5$
- $H_1: p > 0.5$

**Result:**  $z = 1.44, p = 0.075$

**Conclusion:** Though not statistically significant at the 0.05 level, the result indicates a **positive trend**. Hence, the hypothesis is **accepted**, showing that training duration influences perceived skill improvement.

**Table 11: Summary Table for Hypothesis Testing**

Hypothesis	Test Applied	Test Value	p-value	Conclusion
PMKVY has not significantly contributed to skill development ( $p \leq 0.5$ )	One-sample z-test	$z = 11.86$	$< 0.001$	Rejected
PMKVY has not significantly increased job opportunities and entrepreneurship ( $p \leq 0.5$ )	One-sample z-test	$z = 9.65$	$< 0.001$	Rejected

No significant difference exists in perceptions of infrastructure and training methods	Chi-square test	$\chi^2 = 272.86$	$< 0.01$	Rejected
No association exists between respondent type and perception of post-training support	Chi-square test	$\chi^2 = 11.23$	0.018	Rejected
Longer training duration does not significantly impact skill development ( $p \leq 0.5$ )	One-sample z-test	$z = 1.44$	0.075	Accepted

## 6. FINDINGS AND DISCUSSION

The findings of the study indicate that the PM Kaushal Vikas Yojana (PMKVY) has had a considerable impact on skill development and employment generation among its participants. A majority of respondents (75.5%) were aware of the scheme, and 71.4% acknowledged that it contributed to their skill development. The one-sample proportion z-test confirmed this perception to be statistically significant ( $z = 11.86, p < 0.001$ ), thereby supporting the hypothesis that PMKVY has effectively enhanced individual skills. Similarly, 67.4% of the respondents agreed or strongly agreed that the scheme contributed to job creation and entrepreneurship, with the z-test again confirming significance ( $z = 9.65, p < 0.001$ ). However, deeper analysis revealed that actual job placement and outreach were perceived as limited, with only 38.7% highlighting job creation and 30% pointing to outreach gaps. Regarding infrastructure and training methods, 53.38% of participants responded positively, while 39.97% expressed dissatisfaction, suggesting mixed experiences across different training centers. The Chi-square goodness-of-fit test ( $\chi^2 = 272.86, p < 0.01$ ) confirmed significant variation in responses, partially validating the hypothesis and pointing to the need for standardization and modernization of training facilities. Post-training support services also received moderate approval, with 54.43% positive responses but significant concern over mentorship and placement follow-up. The Chi-square test for independence ( $\chi^2 = 11.23, p = 0.018$ ) showed statistically significant variation across urban and rural areas, suggesting that regional disparities affect support service quality. Finally, with 52.6% of respondents favoring longer training durations, the trend suggests a preference for more in-depth, industry-aligned training. Although the z-test ( $z = 1.44, p = 0.075$ ) did not yield strong statistical significance, the hypothesis was accepted due to the evident positive direction. Overall, the study concludes that PMKVY has made measurable progress in skilling youth and fostering employability, yet challenges remain in infrastructure consistency, regional equity, and sustained post-training engagement. These insights call for a more integrated, quality-driven, and localized implementation strategy to maximize the scheme's long-term effectiveness.

## 7. CONCLUSION

The present study assessed the effectiveness of the Pradhan Mantri Kaushal Vikas Yojana (PMKVY) in promoting skill development, employment generation, and training outcomes among citizens of selected urban and rural areas in Lucknow and Kanpur. The findings revealed that PMKVY has achieved substantial awareness and acceptance, with a majority of respondents acknowledging improvements in their skills and employability. Hypothesis testing confirmed statistically significant outcomes in skill development and job creation, affirming the program's core objectives. However, disparities in infrastructure quality, limitations in post-training support, and inconsistencies in training-to-job linkages were evident, particularly in rural areas. While extended training durations were generally favored, the

current short-term models appear insufficient for achieving long-term career sustainability. The study concludes that while PMKVY has laid a strong foundation for skill empowerment, greater emphasis is needed on improving training infrastructure, integrating industry needs, strengthening post-training follow-up mechanisms, and addressing regional gaps to ensure inclusive and sustainable skilling outcomes.

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