

# CONFLUENCE OF SKILL GAP REDUCTION, HUMAN RESOURCE CAPACITY BUILDING AND ECONOMIC EFFICIENCY: AN ASSESSMENT OF SELECTED SKILL INDIA MISSION INITIATIVES

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## Abstract

India is steadily advancing to become the skill capital of the world. Favourable demographic patterns accelerate the economic growth of the country. According to the National Skill Development Mission Policy Framework published by Ministry of Skill Development and Entrepreneurship in 2015, the percentage of formally skill trained workforce in Indian economy constitute only 2.3 per cent in contrast to 96 per cent in South Korea, 80 per cent in Japan, 75 per cent in Germany, 68 per cent in UK and other developed economies. Skill India Mission launched in 2015 was a strong policy response to fight out this skill deficiency. The present paper attempts to bring out the progress of specific sub schemes under Skill India Mission over the past six years focusing on enrollment, training, certification etc. State wise analysis of the PMKVY scheme reveals that the percentage of trainees who got certified in its launching year was 73.09 per cent, which enlarged to 83.20 per cent in the second phase of 2016-2020. However, a considerable decline of 17.57 per cent is visible in the latest statistics of PMKY3.0 (2020-2021) indicating the pragmatic constraints to be addressed. The paper also portrays the supply side and demand side restraints aggravating the skill gap in Indian labour market and suggests policy alternatives.

**Keywords:-** EHuman Capital, Skill Development, Employment, Economic Growth, Apprenticeship.

**S**kill advancement of workforce is a critical driver for enhancing productivity, fostering innovation and generating efficient economic outcome. The growth of labour-intensive industrial sector and service sector can be sustained with

distinct apprenticeship programmes.

Initiatives like Pradhan Mantri Kaushal Vikas Yojana (PMKVY), National Apprenticeship Promotion Scheme (NAPS), Jan Shikshan Sansthan (JSS) etc. under the canopy of Skill India Mission accelerate the long run economic growth

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goals through careful interferences in the labour market, combining the training programmes with operative apprenticeship plans. Since investment in human capital is regarded as the most effective intervention in any country's development exertions, India can rely upon the massive work force it possess to achieve the sustainable goals.

### 1.1 Review of Literature

Human capital formation through education and skill upgradation is a quintessential component of any sustainable development strategy generating productive output along with a long-term economic resilience. The Organization for Economic Cooperation and Development (OECD) encompasses the term human capital as the stock of knowledge, skills and other personal characteristics embodied in people that helps them to be productive. Investing in human capital through education and skill training acts as a transformative fostering factor towards more economic output. (Schultz, 1961). Knowledge, skills, and aptitudes hold by people plays a dynamic part in generating growth outcome more positively (Becker, 1964). He also proposed that investments in human capital complemented by innovation, uplifts the holistic economic performance.

Skill enhancement is crucial for making better use of the wide range of opportunities generating in a technology driven knowledge economy and for utilization of the changing demographic dividend patterns. Lucas (1988) emphasized the inter linkages between accumulation of human capital in driving in sustainability and economic efficiency.

Romer (1990) further expanded the theoretical framework of human capital by advocating the significance of skilled manpower for materializing technological improvements and innovations in the market. Chowdhury, S. R. (2014) pinpoint that dual existence of un-employability and skill deficiencies in vital sectors illustrates the incidence of allocative incompetence in Indian labor market. In order to step up the higher trajectories of economic efficiency, a knowledge driven economy reliant on a competent, technologically updated and skilled workforce is vital. (Sharma, R.,2018)

### 1.2 Significance of the Study

Investing in skill development is essential for fostering sustainable economic growth, improving competitiveness, and enhancing the standard of living. The growth strategies of the nation get boosted up by the careful intervention by the government in the areas of skill development and training programmes. Since there is a large deficit in the professionally trained workforce in the country, there was a long need for an umbrella mission like Skill India Mission launched in 2015 that could serve the needs and requirements of the youth for increasing their purchasing power and standard of living. The present study gives an insight about the interventions made under Skill India Mission in the country.

### 1.3 Statement of the Problem

Originally launched in 2015, the Skill India Mission aims to train over 400 million people in various skills by 2022. Through a multifaceted approach, the mission thrives to continue its interventions to equip the young

generation to be skill competitive. Even though the interventions conducted under various institutions are going on a full swing, the challenge raised by the job market about the skilled workers is still a point of discussion. How much effective the scheme could intervene in the job market in bridging the gap between job seekers and job providers can be the potential question the scheme face in the next phase of implementation?

#### 1.4 Objectives of the Study

- To explore the theoretical linkage between skill development, human capital formation and economic growth.
- To understand the provisions and features of selected sub schemes under Skill India Mission focusing on enrollment, training, certification etc.
- To examine the utilization trends and patterns of selected sub schemes under Skill India Mission in the post 2015 phase.
- To identify the critical constraints leading to skill deficiency and suggest policy alternatives.

#### 1.5 Research Methodology

The present study is both descriptive and explorative in nature. The study is conducted principally based on the secondary data collated from the Annual reports of Ministry of Skill Development and Entrepreneurship, Government of India, scholarly research articles, various government websites, journals, newspapers etc. The study has covered the period from 2016-2022.

#### 1.6 Scope of the Study

By focusing on the wide gap between the demand for skilled workforce and the supply of the same, it is obvious that there is a wide scale shortage of proper skill development programmes in the country that could equip and transform the enormous work force potential of the youth. Careful examination of the success stories and challenges faced by the programme is very much necessary for continuing the efforts for paving a new direction in the world of technical education.

#### 2. Skill India Mission

Launched in 2015, the Skill India Mission is a government scheme with an objective to empower the population through imparting the required skills that will enable them to be a part of the workforce with improved productivity. An umbrella scheme with many sub schemes under its purview, the Skill India Mission have marked its role in creating effective and successful inroads in the job market of the country and to prepare the population to take on the global manpower/resource market.

#### 2.1 Pradhan Mantri Kaushal Vikas Yojana (PMKVY)

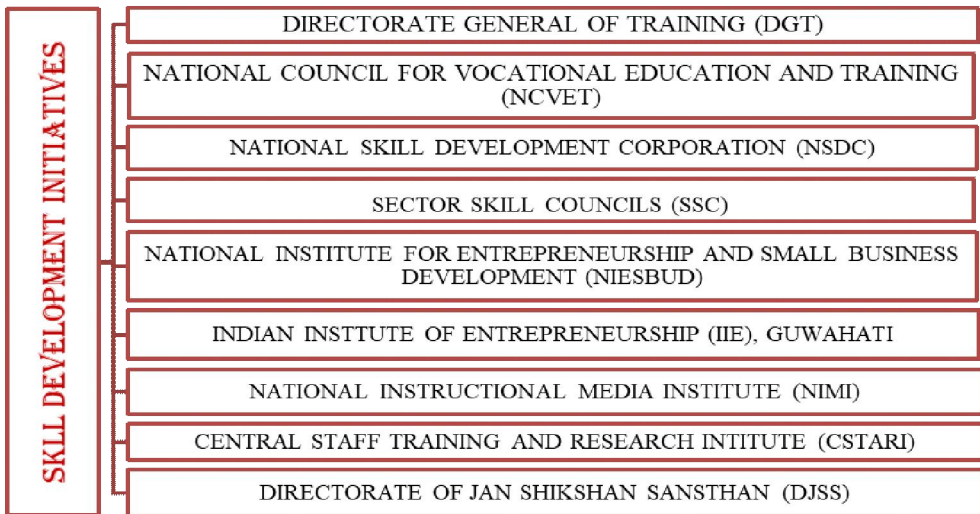
Pradhan Mantri Kaushal Vikas Yojana (PMKVY) was introduced in 2015 as a pilot scheme to foster skill development programme throughout the country through the provision of free short duration skill-oriented programmes. Initially the scheme had duration of a year i.e 2015-2016, but due to the wide popularity it gained, the government decided to reintroduce PMKVY 2.0

**Figure 1**  
**Paradigms and Enablers to Achieve Objectives of Skill India Mission**



Source: National Policy for Skill development and Entrepreneurship, 2015, Govt. of India

**Figure 2**  
**Major Skill Development Institutions under the Ministry of Skill Development and Entrepreneurship**



Source: Compiled by the authors

(2016-2020). The scheme was able to achieve appreciable performance by extending training/orientation with regard to skill development for around 110 lakh candidates since the implementation. The third phase of the programme, PMKVY

3.0, was launched in January 2021 with more focus being laid on district specific schemes and training programmes under which around 7.37 lakh candidates got trained. Owing to the need of new generation courses, the fourth phase of

the programme, PMKVY 4.0, was launched in February 2023 where modern courses in demand like robotics, AI, coding etc. would be conducted by skilled instructors all over the skill development institutions throughout the country.

The scheme was entrusted with not only enrolling the candidates but to train, assess, certify and ensure placement for the candidates. The implementation level hindrances were there resulting in a slow-paced placement trend in the first phase of the scheme.

The PMKVY 2.0 was implemented as a Centrally Sponsored Centrally Managed (CSCM) component with training being provided under three heads; Short Term Training (STT), Recognition of Prior Learning (RPL), and Special Projects (SP). Better placement results emerged as a result of these initiatives.

The PMKVY 3.0 was able to meet the market needs, industry demand and also impart better core/soft skills in the participants that enabled a large section of population to face the post-pandemic era.

## 2.2 Jan Shikshan Sansthan (JSS)

Prior to its rejuvenation in 2018 by the Ministry of Skill Development and Entrepreneurship, Jan Shikshan Sansthan (JSS) scheme was popularly known as Shramik Vidyapeeth (SVP) designed as a multi-layered strategy aiming at imparting non-formal education to the most vulnerable segments of the society including SC, ST minorities, differently abled people, women etc. by the then Ministry of Education and Culture, Government of India. Promotion of self-employment through skill upgradation and training stand as the declared objectives of the scheme. During the course of 2018-2022, almost 14.04 lakh individuals have benefitted out of the scheme. 85 per cent of the above said recipients constitute women. The coverage of beneficiaries extend to distinct social groups including SC (27 per cent), ST (13 per cent), OBC, (35 per cent), Minorities (10 per cent) and General (15 per cent). According to the annual report of Ministry of Skill Development and Entrepreneurship, Government of India (2022-'23), as of 14/02/2023, 490331

**Table 1**

### **Selected State wise Coverage of Beneficiaries under Pradhan Mantri Kaushal Vikas Yojana 1.0 (2015-2016)**

State	Enrolled	Trained	Assessed	Certified	Placed
Arunachal Pradesh	1017	1017	881	611	88
Haryana	86446	86446	83472	63104	8278
Bihar	92047	92047	90492	60655	12047
Madhya Pradesh	168898	168898	166685	125348	22709
Kerala	15339	15339	15098	11572	1487
Gujarat	43999	43999	43313	31092	3152
Karnataka	77051	77051	75742	55979	13877
Andhra Pradesh	136635	136635	134154	108651	18629
West Bengal	129080	129080	126963	88427	14320
<b>India (Total)</b>	<b>1986016</b>	<b>1986016</b>	<b>1951487</b>	<b>1451636</b>	<b>253296</b>

*Source: Annual Report (2022-'23), Ministry of Skill Development and Entrepreneurship, Govt. of India.*

**Table 2****Selected State wise Coverage of Beneficiaries under Pradhan Mantri Kaushal Vikas Yojana 2.0 (2016-2020)**

States	Short Term Training			Recognition of Prior Learning		Total	
	Trained	Certified	Placed	Oriented	Certified	Total Trained/Oriented	Total Certified
Arunachal Pradesh	32536	26669	13288	40652	33115	73188	59784
Haryana	304181	258328	149424	234511	198494	538692	456822
Bihar	267042	217355	112993	234463	198110	501505	415465
Madhya Pradesh	406824	338682	194858	276212	223377	683036	562059
Kerala	74248	58218	24099	146505	118037	220753	176255
Gujarat	144793	118762	65373	188026	159248	332819	278010
Karnataka	145325	121993	58960	260821	215603	406146	337596
Andhra Pradesh	166273	142313	91589	134337	115180	300610	257493
West Bengal	227341	184369	99189	199170	174387	426511	358756
<b>India (Total)</b>	<b>4858838</b>	<b>4032353</b>	<b>2141575</b>	<b>6141870</b>	<b>5121000</b>	<b>11000708</b>	<b>9153353</b>

Source: Annual Report (2022-'23), Ministry of Skill Development and Entrepreneurship, Govt. of India.

**Table 3****Selected State wise Coverage of Beneficiaries under Pradhan Mantri Kaushal Vikas Yojana3.0 (2020-2021)**

States	Short Term Training			Recognition of Prior Learning		Total	
	Trained	Certified	Placed	Oriented	Certified	Total Trained/Oriented	Total Certified
Arunachal Pradesh	4477	2837	550	5144	3170	9621	6007
Haryana	14463	8380	1279	11894	7834	26357	16214
Bihar	32302	20977	2408	7363	4755	39665	25732
Madhya Pradesh	45884	27007	4153	10256	7406	56140	34413
Kerala	13403	9026	760	5079	3443	18482	12469
Gujarat	13330	9190	684	21247	17296	34577	26486
Karnataka	18395	11199	1388	15646	11202	34041	22401
Andhra Pradesh	14305	9310	1379	6012	4575	20317	13885
West Bengal	23938	15174	2202	6524	4078	30462	19252
<b>India (Total)</b>	<b>474767</b>	<b>299381</b>	<b>41169</b>	<b>262705</b>	<b>184665</b>	<b>737472</b>	<b>484036</b>

Source: Annual Report (2022-'23), Ministry of Skill Development and Entrepreneurship, Govt. of India.

beneficiaries have completed enrolment procedures and 274708 beneficiaries got trained under this sub scheme of Skill India Mission.

Raising the upper age limit of beneficiaries to 15-45 years, representation of women members in the Board of Management, establishment of livelihood cell etc., were some novel initiatives added to the scheme after its transition to Ministry of Skill Development and Entrepreneurship, Govt. of India.

**2.3 Craftsmen Training Scheme (CTS) & Craft Instructor Training Scheme (CITS)**

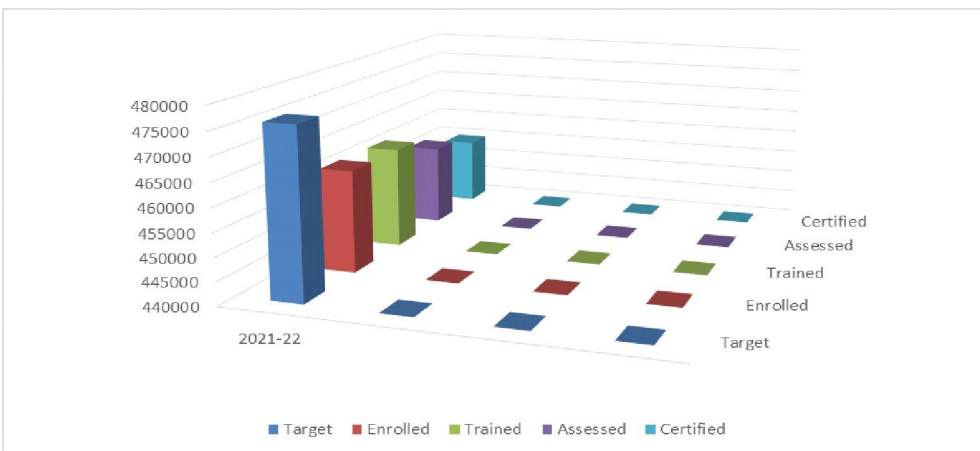
Future manpower analysis for specific industrial and service sectors is critical for structuring the growth patterns of an economy in a positive manner. Skill development initiatives like Craftsmen Training Scheme (CTS) and Craft Instructor Training Scheme (CITS)

effectively running through a vast network of ITIs spreading across the country aims to augment the industrial production trends to elevated levels, thereby reducing the number of educated unemployed youth. Introduced in 1950, Craftsmen Training Scheme (CTS) continuously deliver systematic training to prospective workforce addressing the changing demands of modern industrial structure.

As per the statistics depicted in table, the number of ITIs under Craftsmen Training Scheme (CTS) increased from 81 in 2018 to 978 in 2022. These centres impart skill courses and training in distinct occupational trades to bridge the skill mismatch prevailing in Indian labour market. Training of craft instructors working in ITIs and the quality of the teaching methodology they adopt determines the calibre of the skilled manpower generated out of such institutions to meet the changing industry

**Figure 3**

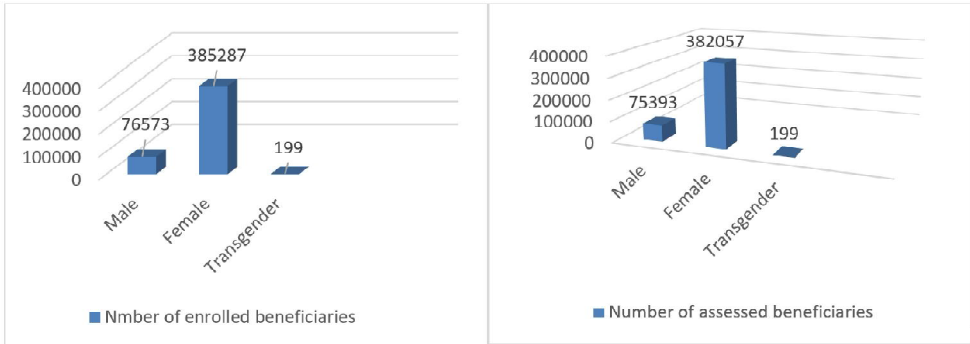
**Coverage of Beneficiaries under Jan Shikshan Sansthan (JSS) Scheme during 2021-'22**



Source: Annual Report (2022-'23), Ministry of Skill Development and Entrepreneurship, Govt. of India.

**Figure 4**

**Gender wise Distribution of Enrolled and Assessed Beneficiaries under Jan Shikshan Sansthan (JSS) Scheme during 2021-'22**



Source: Annual Report (2022-'23), Ministry of Skill Development and Entrepreneurship, Govt. of India.

**Table 4**

**Progress of Craftsmen Training Scheme (CTS) & Craft Instructor Training Scheme (CITS)(2018-2022)**

Year	Number of ITIs under CTS	Number of Trainees under ITIs	Seating Capacity under CITS
2018	81	2247	12385
2019	291	9174	12339
2020	686	24343	11555
2021	997	34880	12765
2022	978	37865	12993

Source: Annual Report (2022-'23), Ministry of Skill Development and Entrepreneurship, Govt. of India.

standards. Although National Council for Vocational Education and Training (NCVET) has made it compulsory for all the trainers in the ITIs to undergo CITS skill courses, it is significant to note that only 15 per cent of the current trainers has utilized the scheme as per the annual report (2022-'23) published by the Ministry of Skill Development and Entrepreneurship, Government of India.

**2.4 National Apprenticeship Promotion Scheme (NAPS)**

Launched by the Ministry of Skill Development and Entrepreneurship,

Government of India on 19<sup>th</sup> of August 2016, National Apprenticeship Promotion Scheme (NAPS) was designed under the Apprentices Act, 1961 for endorsing apprenticeship training by industrial institutions through the provision of financial incentives. Unceasing progress in number of apprentices is visible during the implementation of this scheme. The new trainees engaged under NAPS has increased to 6,61,179 till 31/01/2023. It is also remarkable that the enrollment of women trainees has grown to 20.44 per cent in 2022-'23 compared to the figure of 7.74 per cent in 2016-'17.



The top performing states under the NAPS with regard to apprenticeship enrollment are Maharashtra (4,31,175 apprentices), followed by Gujarat (2,40,037), Tamil Nadu (1,56,127), Haryana (1,52,623), Karnataka (1,27,948), Uttar Pradesh(1,19,814).The statistics portrayed in the annual report (2022-'23) of Ministry of Skill Development and Entrepreneurship, Government of India confirms a strong preference of apprentices towards optional trade (determined by the employer) over designated trade (notified by the Government) over these years. While the trainees enrolled under optional trade has increased tremendously from14,207 in 2018-19 to 4,40,611 in 2022-23, that of designated trade has confined to 220162 in 2022-'23 from 10650 in 2018-'19.

**3. Key Constraints Leading to Skill Deficiency in Indian Labour Market**

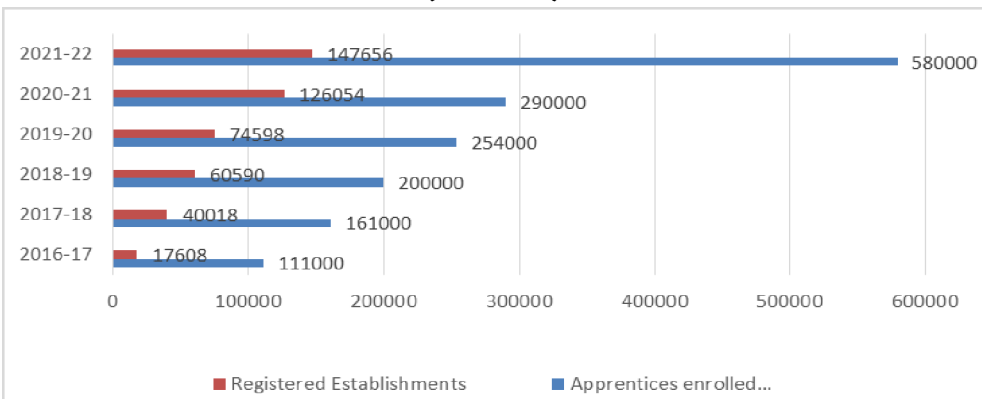
- Lack of proper awareness about the availability and accessibility of skill

development programmes among the youth especially in rural areas.

- Absence of adequate monitoring mechanism for assessing the quality of skill development programmes.
- Lack of potential funding for the programmes with respect to infrastructure, training, and resource development.
- Widened gap between the skill development institutions and the industries result in underutilization of manpower and capabilities.
- Possible chances for underemployment or unemployment due to the mismatch between the demanded skills from the industries and the skills acquired through the skill development institutions.
- Inadequate and inappropriate market linkages can cause problems as far

**Figure 5**

**Utilization Trends of National Apprenticeship Promotion Scheme (NAPS) (2016-2022)**



Source: Annual Report (2022-'23), Ministry of Skill Development and Entrepreneurship, Govt. of India.

as the utilization of developed skills are concerned.

#### 4. Policy Alternatives and Concluding Remarks

Although the concept of human capital has become increasingly useful in economic analysis, all too little use has been made of it in clarifying policy choices (Schultz, 1972). Careful policy interventions from the government will witness positive results only when such interventions cater both demand side and supply side needs of one of the most resourceful countries in the world.

- Ensuring vocationalisation in educational system can bring about drastic changes among the youth right from the years of schooling itself.
- The promising data regarding the young people being trained and certified through the skill development programmes should be fulfilled with the placement of such trained people.
- Proper evaluation and assessment of funds provided to the skill development institutions should be done in lines with the placement records of the beneficiaries.
- Areas of emerging technology like artificial intelligence, data science, machine learning etc. should be

incorporated with the skill development programmes.

- Skill development centres should be unbiasedly established at various regions across the nation to extend proper access to the centres for all.
- Adequate recognition and certification should be done for the courses covered by the skill development centres for increasing the employability possibilities.

The Skill India Mission which is a comprehensive scheme launched in 2015, represents a pivotal initiative aimed at creating a productive and efficient workforce in the country and equip the youth to meet the demands of the rapidly evolving economy. With the focus on vocational training programmes, digital literacy and industry-oriented skill development schemes, the scheme was able to mark its presence in creating environments for a sustainable livelihood. However, the challenges exist in the form of quality assurance, inclusivity principle and mismatch in the employability concerns. Addressing such issues can bring about constructive changes towards the long run success of the scheme. With sustained and committed efforts the scheme can create wonders in transforming the potential of the youth to nation's development.

#### References

1. Agrawal, T. (2014). *Skill development in India: an examination*. *Journal of Education and Work*, 27(6), 629-650.
2. Becker, G. S. (1964). *Human capital: A theoretical and empirical analysis with special reference to education* (1st ed.). National Bureau of Economic Research, Inc.
3. Chowdhury, S. R. (2014). *Skill mismatches in Indian labor market: Policy priorities & challenges ahead*. *The Indian Journal of Industrial Relations*, 422-438.

4. Deka, R. J., & Batra, B. (2016). *The scope of skill development, employability of Indian workforce in context of make in India: A study*. *International Journal of Engineering Technology, Management and Applied Sciences*, 4(4), 275-282.
5. Iyengar, V., & Mishra, D. K. (2017). *Skilling for inclusive growth: SOAR analysis of 'Skill India' Mission*. *International Journal of Applied Business and Economic Research*, 15(16 Part II), 209-221.
6. Lucas, R. E. (1988) 'On the Mechanics of Economic Development', *Journal of Monetary Economics*, vol. 22, pp. 3-42.
7. Romer, P. M. (1990) 'Endogenous Technological Change', *Journal of Political Economy*, October, vol. 96, pp. S71 - S102.
8. Schultz, T. W. (1961). *Investment in human capital*. *The American economic review*, 51(1), 1-17.
9. Schultz, T. W. (1972). *Human capital: Policy issues and research opportunities*. In *Economic Research: Retrospect and Prospect, Volume 6, Human Resources* (pp. 1-84). NBER.
10. <https://www.pmkvyofficial.org/>
11. <https://skillindiamission.in/>
12. <https://www.msde.gov.in/sites/default/files/2023-09/Final%20Skill%20AR%20Eng.pdf>
13. <https://www.msde.gov.in/sites/default/files/2019-09/National%20Skill%20Development%20Mission.pdf>

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*Form IV (See Rule 8)*

- |                               |   |  |
|-------------------------------|---|--|
| 1. Place of Publication       | : | Trivandrum, Kerala   |
| 2. Period of Publication      | : | Quarterly  |
| 3. Printer's Name and Address | : | Navadhara Printers<br>Sreekaryam, Trivandrum - 695 017   |
| 4. Editor's Name and Address  | : | Dr. C.V. Jayamani<br>TC 8/123, Pooja, Kavil Lane<br>Cheruvakal, Sreekaryam<br>Trivandrum - 695 017                   |
| 5. Ownership                  | : | Institute of Management Development<br>and Research (IMDR),<br>Mylam, Cheriyaikonni PO,<br>Thiruvananthapuram-695013 |

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Publisher