



## Social Security as a pillar for inclusive transformation: A study of pension schemes for the self-employed in Agra unorganised sector of Agra towards Viksit Bharat @ 2047

Himanshu Verma <sup>1</sup>, Dr. Ashwani Sharma <sup>2</sup>

<sup>1</sup> (Research Scholar) Department of Commerce, Agra College, Agra.

<sup>2</sup> Assistant Professor and HOD/Incharge, Department of Commerce, Agra College, Agra

### ABSTRACT

Social Security play an important role in sustainable development and growth of a nation. In India approximately 90% of worker force work employed in the unorganised sector while these working population is a backbone for a nation development. These people don't have any regular income or pension in their old age life. To fill this gap the Government of India has launched several contribution based Pension Scheme for unorganised sector such as Atal Pension Yojana has launched in 2015 for unorganised sector worker for the targeted work age group 18-40 years and get the pension 1000 to 5000 p.m. in their old age time. Another pension scheme was Pradhan Mantri Maandhan Yojana introduced in 2019 for selected worker of unorganised sector. Pradhan Mantri Shram Yogi Maandhan Yojana (PM-SYM) for informal worker. Pradhan Mantri Kisan Maan-dhan Yojana for small and Marginal farmer. PM laghu Vyapari Maan dhan for small businessman whose turnover less than 1.5 crores p.a. In PM Maandhan Yojana eligible pension in their old age. To make India Viksit Bharat @ 2047 this pension scheme help in the development of the nation. This paper analyses the enrolment of worker in the Atal Pension Yojana at the Uttar Pradesh level because we don't get secondary data at Agra district level. Enrolment of worker in PM-Maandhan Yojana at Agra level. The study utilise descriptive and analytical research design. Secondary data has been sourced from PFRDA, Ministry of Labour. The study help us understand how these fixed pension scheme are helpful in solving the money problem in their old age life. It also help us to understand that how social security pension scheme contribute to the development of nation on a long term basis. By

linking the pension based social scheme with the Viksit Bharat @ 2047 the study explains that how to enhance the awareness of pension scheme among the worker through financial institution. And by providing more financial services to the people so that they can connect with the different types of scheme and help in supporting the overall development of nation.

**Keywords:** Unorganised Sector, Atal Pension Yojana, PM-Maandhan Yojana, Micro Pension.

## 1. INTRODUCTION

India's population is currently 1.47 billion, ranking it first in the world. Providing social security to such a large population is a big challenge for the government. Now question arise what is social security? Social security is a system in which the government support to individuals when they are not able to earn money due to old age, disability, illness, or unemployment. The government has different ways of helping people in different situations. For example: For old age person the government provides a pension. For ill person, it provides subsidies for medical treatment. For disabled individuals also give disability pension. In this research paper, we will consider one specific part of social security: that is pension for the unorganized sector. In India, 90% of the population works in unorganized sector. The remaining 10% work in the formal sector and are already registered in various pension schemes. This raises a question what about 90% population of India is there any pension scheme for them? To address this sector, the government introduced the first contributionbased pension scheme, known as NPS (National Pension System) for the Self-Employed, in 2009. NPS Swavalamban Yojana NPS LITE was launched in 2010 for unorganized sector in which no pension amount guaranteed and was ended in 2017. In 2015, the Government of India launched the Atal Pension Yojana (APY) for the unorganized sector. This was a milestone scheme where people get fixed amount of pension after reaching the age of 60, pension amounts ranging between ₹1,000 to ₹5,000 per month. In 2019, the government introduced another set of pension schemes for unorganized sector that was P.M. Maandhan Yojana, which targeted specific groups within the unorganised sector: Pradhan Mantri Shram Yogi Maandhan (PMSYM): For unorganized workers. Pradhan Mantri Kisan Maandhan (PM-KMY): For small farmers. PM Vyapari Maandhan Yojana (PMVMY): For small traders and shopkeepers. Under these schemes, individuals receive ₹3,000 per month after reaching the age of 60. The entry age for both Atal Pension Yojana and PM Maandhan is between 18 and 40 years. Individual in different age groups pay different premiums, and the

premium amount is decided based on the age at which they enroll in the scheme. These pension schemes help India work toward the goal of Viksit Bharat 2047. This is because these schemes help in reducing poverty and ensure that people are financially secure for their future at the time of retirement.

## 2. LITERATURE REVIEW

Kalyani, M. (2015) In this research paper the researcher found that 94% of Indian working population employed in unorganised sector informal sector. These worker generate 50% of Indian GDP and they did not get any social security from the government. The study showed that larger number of unorganised sector worker work in agriculture sector 24.6 crore. In term of gender wise Indian women mostly worked in informal sector. These worker face lots of problem in the work area such as long working hours, disguised unemployment and poor working condition. To improve their condition of worker government launched lots of scheme such as cashless medical treatment up to 30000 for the poor under Rashtriya Swasthya Bima Yojana pension scheme to secure their old age life and their family life after their death under Aam Aadmi Bima Yojana life insurance scheme. Finally the researcher suggest that the government should not treat worker as cheap labour and should improve in current scheme, laws by providing guarantee food fair wages and health care.

Namratha Sharma, J. S. (2015) The researcher was focused on the functions and organizational structure of the Atal Pension Yojana (APY) identifying the target sectors for which the scheme was launched. The study highlights that APY developed a habit of saving among the individuals in the 18 to 40 year age people for their retirement. It further explains that APY is an evolved version of the NPS Lite (Swavalamban) scheme, regulated by the PFRDA. Here researcher find out that enrollment in pension scheme higher in urban areas compared to rural area because of better awareness of APY better access to banking services. The study explains that the pension corpus is built through quarterly compounding interest. A key conclusion of the paper is that early enrollment in scheme leads to lower periodic contributions and higher return benefits in the longer period. At the end APY is better scheme for security the old age of unorganized workers and low income groups.

Mohapatra, G. (n.d.) The study revealed that enrollment in pension scheme has improved repeatedly. Awareness campaigns were conducted

by sending text message to worker mobile, using online advertisement and other methods.

However, the study also showed several limitations that enrollment in pension scheme remained low as compared to total organised worker in India, strict eligibility condition related to age income implementation problems. The Committee recommend that PM-SYM and PM-LMY should be combined with Atal Pension Yojana. Additionally they suggested that income and age limit should be increased and add the health insurance and microfinance loan facilities in the e-sharam port for strengthening the scheme. In conclusion PM-SYM is a good incentive by the government for unorganised sector worker. It would be more effective if the government improved awareness and implementation process and integrated other social security scheme into it.

Anjana Devi, S. (2021) A research study was conducted in the Thiruvananthapuram district of Kerala to evaluate the awareness level of the Atal Pension Yojana (APY) among the general public. The researcher collected primary data from 120 respondents with the help of questionnaire. The results revealed that majority of people had a low level of awareness regarding the APY scheme. This lack of knowledge exists despite many advantages such as a fixed pension plan, spousal security, and various tax advantages. However, the study also identified several drawbacks of the Atal Pension Yojana such as not protection against inflation, low pension amounts and returns on investment. The removal of the government's co-contribution after the year 2015. In conclusion, the study suggested that government agencies and banks should launch campaigns for awareness of Atal pension Yojana among the individuals.

Karmakar, D., & Ghosh, A. L. (2025) The research was conducted in the Cachar district of Assam, where findings showed that awareness levels regarding the Atal Pension Yojana (APY) have improved annually but enrollment rates in this pension was low due to irregular income streams, low financial literacy, and a lack of trust in financial institutions. Performance analysis showed that the enrollment was significantly higher during the initial years of its introduction of Atal pension Yojana but current rate of participation has slowed down. The study identifies a critical research gap between awareness level and participation in the pension scheme. The researcher gave suggestions to do micro-level or area wise studies on socio-economic factors. Such research would help us to identify what were the factors which stopped participates to enrolled in pension scheme.



### 3. RESEARCH METHODOLOGY

#### Research design

In this study we used descriptive and analytical research design to examine the pension scheme for the self-employed sector to evaluate the efficiency of social security provision. The descriptive component describes the enrollment trend and growth pattern of pension scheme at state and district level while the analytical component focused on interpretation of the data.

#### Objectives

To study the endowment trend of the Atal pension Yojana at the Uttar Pradesh state level.

To analyse the enrollment trend of the Pradhan Mantri Maandhan Yojana at Agra district level.

#### Data sources

- This study relies on secondary data sources from where we collected the data.
- For the Pradhanmantri Maan Dhan Yojana data collected from the dashboard of Ministry of Labour and Employment and ministry of agriculture and farmer welfare.
- Data for atal pension Yojana was collected from the PFRDA site.
- We studied various existing research paper and online articles

Area and data coverage this study analyses the Pradhanmantri Maandhan Yojana scheme at the Agra district level for supporting and broader understanding we also examined data at the Uttar Pradesh level. For the atal pension Yojana the analysis has been conducted at Uttar Pradesh level from 2015-16 to 2024-25. Different geographical level were chosen due to the data constraints. Especially for the Atal pension Yojana data at Agra level was unavailable that's why state level data for Uttar Pradesh have been used.

#### Limitation

- Based on secondary data only.

- Lack of District-level data for APY.
- Absence of primary data / field insights.

#### 4. DATA ANALYSIS AND RESULT

Table 1: Descriptive analysis of Atal Pension Yojana enrolment at Uttar Pradesh

YEAR	FEMALE	MALE	TRANSGENDER	TOTAL
2015-16	87762	183931	20	271713
2016-17	111961	257752	136	369849
2017-18	248858	490458	158	739474
2018-19	320603	582219	247	903069
2019-20	369834	636389	223	1006446
2020-21	459787	789936	195	1249918
2021-22	590338	940954	576	1531868
2022-23	835191	1300264	847	2136302
2023-24	873447	1249781	688	2123916
2024-25	876369	1028972	419	1905760
TOTAL	4774150	7460956	3509	12238315

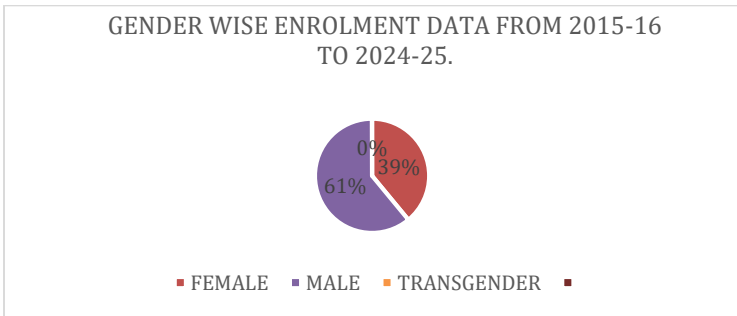


Figure 1: Enrolment trend under atal pension Yojana Uttar Pradesh level.  
Source: Author compiled

The yearly growth of the atal pension Yojana in Uttar Pradesh has shown improvement because in 2015-16 and enrollment participation was 271713 which increased to 1905760 in 2024-25. This show that unorganised sector workers are awaring about the atal pension Yojana. But in 2024-25 new enrolment in pension scheme slightly declined compared to 2023-24. However overall long term trend show that pension coverage in unorganised sector at the Uttar Pradesh level has improved. The atal pension Yojana play a significant role in providing social security to unorganised sector workers of Uttar Pradesh.

#### Gender wise participation in Atal Pension Yojana.

The participation of female was low compared with males enrolment. However the women participation has also improved over the year because in 2015-16 female enrolment was 32.3% which reached to 46.0% in 2024-25. The reason of lower enrolment of female participants such as a irregular income and lack of financial knowledge as compared to male. Transgender enrolment in pension scheme very low therefore there is need to make awareness among them toward the pension scheme.

YEAR	PM-SYM	NPS FOR TRADER AND SELF EMPLOYED	PM-KMY	TOTAL
2019-20	4160	326	4940	9426
2020-21	167	2	43	212
2021-22	196	9	56	261
2022-23	49	1	7	57
2023-24	120	2	4	126
2024-25	201	27	3	231
TOTAL	4893	367	5053	10313

Table 2: Scheme wise registration under Pradhan Mantri Maandhan scheme at Agra level  
Source: Author compiled

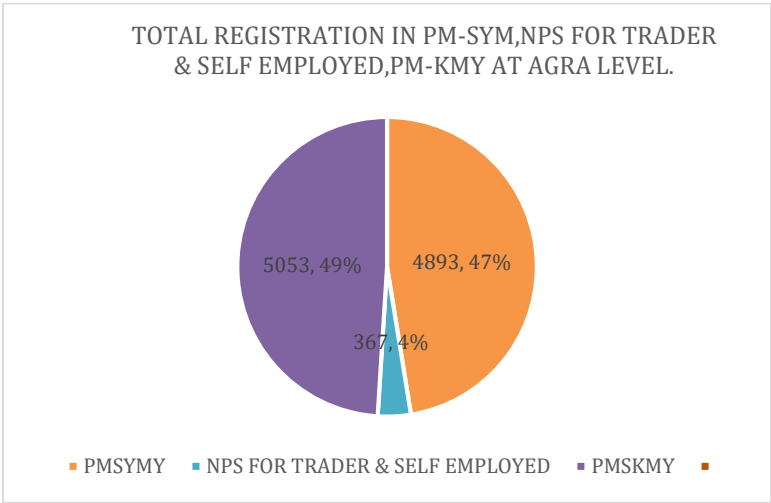


Figure 2: Total registration in PM-SYM, NPS for trader & self employed  
Source: Author compiled

Pradhanmantri Maan Dhan Yojana. The enrolment of participation in the Pradhanmantri Maandhan Yojana shows highly fluctuation because in introduced years the enrollment was 9426 but in 2022-23 enrolment rate was decline to 57. It shows that there were no consistency in enrolment. It also indicate that people were not sufficiently aware for this scheme. PM-SYM from 2019 -20 to 2024-25 total enrolment of participants covered it 47.44% out of total enrollment in PM-MDY. In initial year enrollment was higher but after that it declined afterward. NPS for trader and self-employed from 2019 -20 to 2024-25 total enrollment of participants accounted 3.56% out of total enrollment in PM-MDY. In this is scheme enrolment was very low from the launching year and it became extremely low and 202-23. This scheme appears to be a challenge for the government in term of improving the enrollment in this scheme. PM-KMY from 2019-20 to 2024-25 it constituted 49% enrollment out of total enrollment under Pradhan Mantri Maandhan Yojana scheme. In starting year enrollment was extremely high but after that enrollment declined sharply. Now only few farmers showed interest in this scheme for enrollment.

Atal Pension Yojana (APY)-gender-wise at Uttar Pradesh Level.

(Period: 2015-16 to 2024-25,9 periods for CAGR)

Table 3 Cumulative Enrolment and Growth Analysis under APY (UP Level)  
Source: Author compiled

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YEAR	NEW REGISTRATION	CUMULATIVE REGISTRATION	YOY% CUMULATIVE REGISTRATION	CUMULATIVE FEMALE	YOY% CUMULATIVE FEMALE	CUMULATIVE MALE	YOY% CUMULATIVE MALE
2015-16	271713	271713	-	87762	-	183931	-
2016-17	369849	641562	+136.12	199723	+127.57	441683	+140.14
2017-18	739474	1381038	+115.26	448581	+124.60	932141	+111.04
2018-19	903069	2284105	+65.39	769184	+71.47	1514360	+62.46
2019-20	1006446	3290531	+44.06	1139018	+48.08	2150749	+42.02
2020-21	1249918	4540469	+37.99	1598805	+40.7	2940685	+36.73
2021-22	1531868	6072337	+33.74	2189143	+36.92	3881639	+32.00
2022-23	2136302	8208639	+35.18	3024334	+38.15	5181903	+33.050
2023-24	2123916	10332555	+25.87	3897781	+28.88	6431684	+24.12
2024-25	1905760	12238315	+18.44	4774150	+22.48	7460656	+16.00

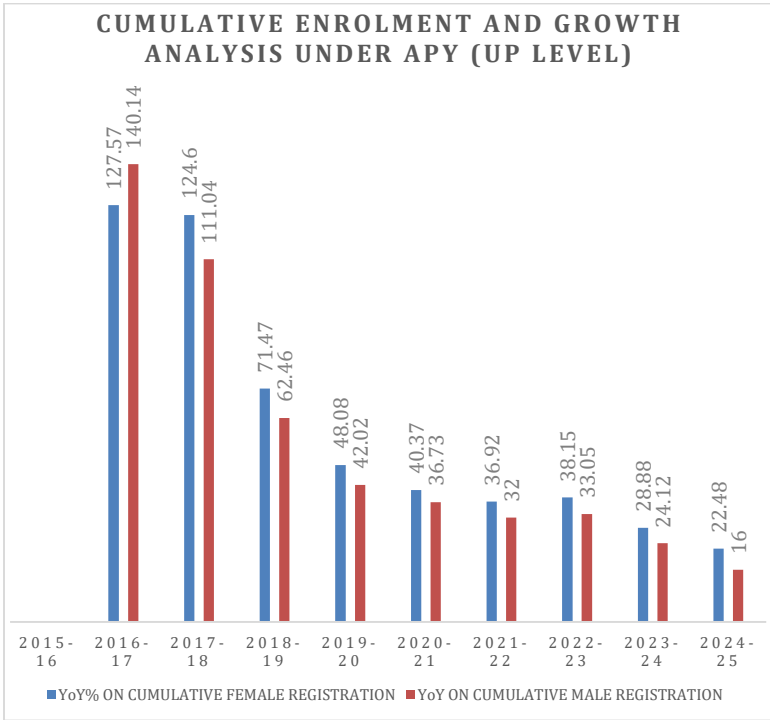


Figure 3: Cumulative Enrolment and Growth Analysis under APY (UP Level)  
Source: Author compiled

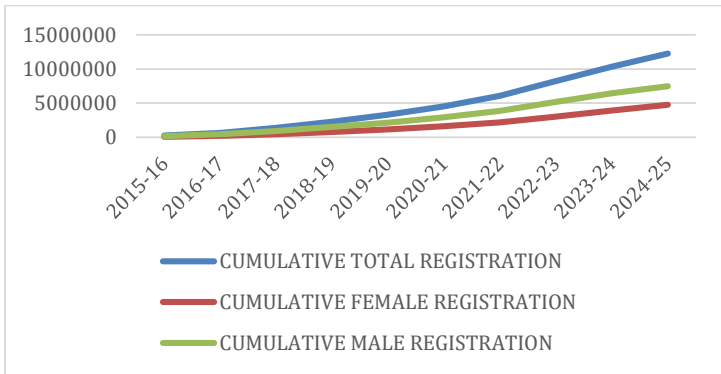


Figure 4: Cumulative Total Registration  
Source: Author compiled

Analysis interpretation of data Atal pension Yojana. In initial year the cumulative base grew by nearly 100% above on year on year bases but now it year on year base slowed down to 18%.

The CAGR of Atal pension Yojana was showed 52.6% growth which indicate strongly growth rate. In term of gender wise the the CAGR for male participation in Atal Yojana Pension was 50.90 growth rate and while the CGR of female participation in Atal pension Yojana showed 55.90 growth rate which has higher than male. This CAGR showed participation of female towards Atal pension Yojana improved overtime.

Pradhan Mantri Maandhan Yojana at Agra level:- 2019-20 to 2024-25.

(Period: 2019-20 to 2024-25, 5 periods for CAGR)

YEAR	NEW REGISTRATION	CUMULATIVE TOTAL	YoY% ON CUMULATIVE	CUMULATIVE PM-SYM	YoY% ON CUMULATIVE PM-SYM	CUMULATIVE NPS TRADER	YoY% ON CUMULATIVE NPS TRADER	CUMULATIVE PM-KMY	YoY% ON CUMULATIVE PM-KMY
2019-20	9426	9426	-	4160	-	326	-	4940	-
2020-21	212	9638	+2.25	4327	+4.01	328	+0.61	4983	+0.87
2021-22	261	9899	+2.71	4523	+4.53	337	+2.74	5039	+1.12
2022-23	57	9956	+0.58	4572	+1.08	338	.30	5046	0.14
2023-24	126	10082	+1.27	4692	+2.62	340	+0.59	5050	0.08

2024-25	231	10313	+2.29	4893	+4.28	367	+7.94	5053	+0.06
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Table 4: cumulative registration and growth analysis under PM Maandhan Yojana at Agra level.

Source: Author compiled

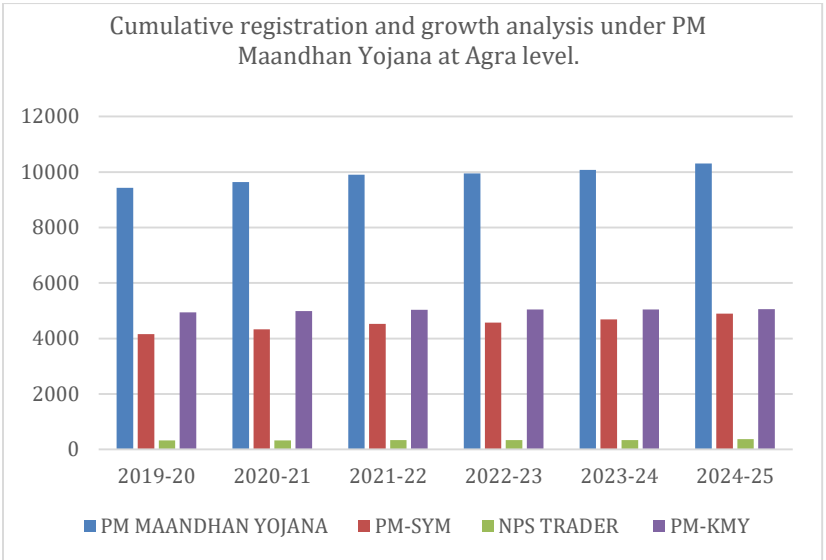


Figure 5: cumulative registration and growth analysis under PM Maandhan Yojana at Agra level.

Source: Author compiled

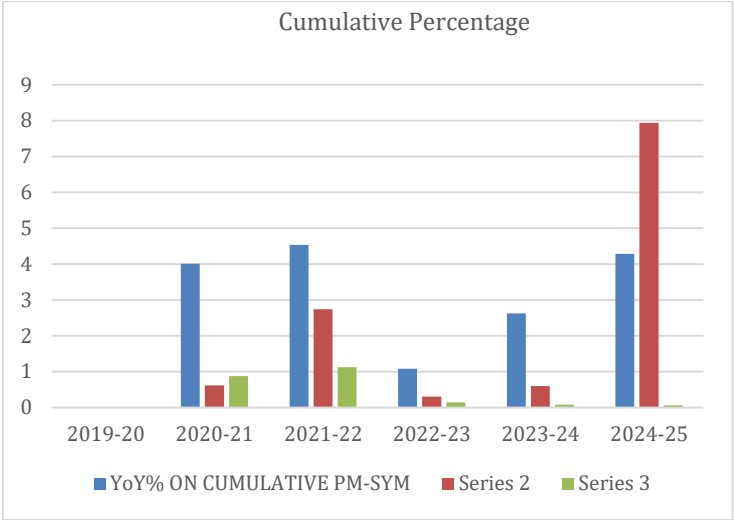


Figure 6: Cumulative Percentages  
Source: Author compiled

Pradhanmantri maandhan Yojana YoY% cumulative enrollment growth rate lie between 2% in initial 2 year and again in 2024-25. In the remaining years growth rate less than 2%. PM-SYM the year on year % cumulative enrollment growth rate about 4% in the initial 2 years also in 2024- 25 and in remaining years it YoY% on cumulative growth rate range between 2.62 to 1% .NPS Trader and self-employed the YoY% cumulative enrolment growth rate was higher only in 2024-25 at 7.94% otherwise and in all other years it YoY% cumulative enrolment growth rate below 3 to 0.2% only. The year-on-year cumulative growth rate remained below 1%. It reached 1% only in 2021–22.

The CAGR for the period 2019-20 to 2024-25 5 period base showed that the total growth of Pradhanmantri MaanDhan Yojana was 1.81% which is extremely low growth rate. If we compare the individual schemes under Pradhanmantri MaanDhan Yojana. PradhanMantri Shram Yogi Maandhan recorded growth rate of 3.30% which is highest among the Pradhanmantri Maandaan Yojana product scheme. NPS recorded growth rate of 2.4% and Pradhanmantri Kisan Maandhan Yojana recorded only 0.45% which is the lowest growth rate among the Pradhanmantri MaanDhan Yojana product scheme.

Pradhan Mantri Maandhan Yojana at Uttar Pradesh level:- 2019-20 to 2024-25.

(Period: 2019-20 to 2024-25, 5 periods for CAGR)

Table 5: cumulative registration and growth analysis under PM Maandhan Yojana at

Y E A R	NE W REGI STR ATI ON	CUM ULA TIVE TOT AL	YoY % ON CUM ULAT IVE TOT AL	CUM ULAT IVE PM- SYM	YoY % ON CUM ULAT IVE PM- SYM	CUM ULAT IVE NPS TRA DER	YoY % ON CUM ULAT IVE NPS TRA DER	CUM ULAT IVE PM- KMY	YoY % ON CUM ULAT IVE
2 0 1 9- 2 0	361 035	3910 35	-	1386 79	-	1092 6	-	2414 30	-
2 0 2 0- 2 1	310 87	4221 22	+7.9 5	1626 43	+17. 27	1164 3	+6.5 6	2478 36	+2.6 5
2 0 2 1- 2 2	164 29	4385 51	+3.8 9	1758 11	+8.1 0	1215 3	+4.3 7	2505 88	+1.1 1
2 0 2 2- 2 3	201 57	4587 08	+4.6 0	1950 22	+10. 93	1229 7	+1.1 9	2513 89	+0.3 2
2 0 2 3- 2 4	117 85	4704 93	+2.5 7	2056 78	+5.4 6	1305 3	+6.1 5	2517 62	+0.1 5
2 0 2 4- 2 5	192 22	4897 15	+4.0 9	2219 24	+7.9 0	1566 4	+20. 01	2521 27	+0.1 5

Uttar Pradesh level.

Source: Author compiled

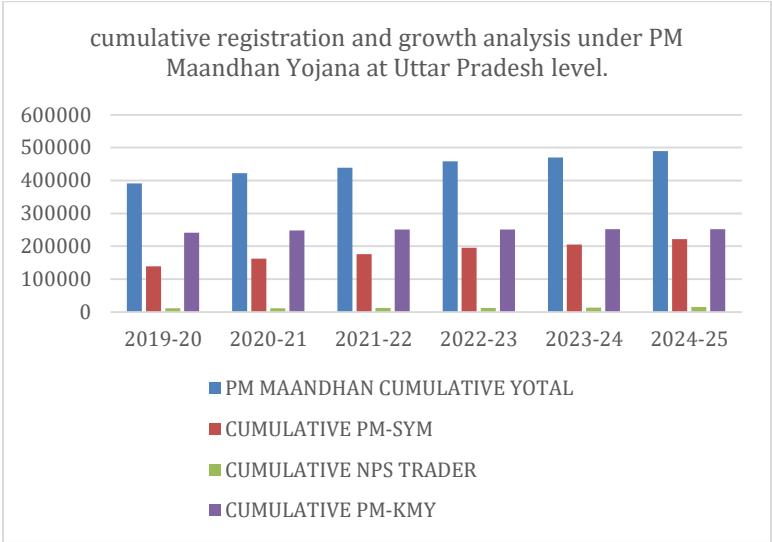


Figure 6: Cumulative registration and growth analysis under PM Maandhan Yojana at Uttar Pradesh level.  
Source: Author compiled

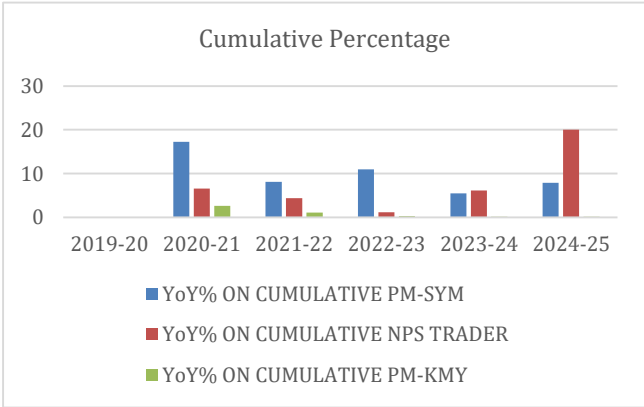


Figure 8: Cumulative Percentages Source: Author compiled

Under Pradhanmantri Maandhan Yojana YoY% cumulative based showed a positive growth rate but it declined from 8% to 4%.

For PM Shram Yogi Maandhan Yojana the cumulative YoY% growth rate ranged between 17.27% in initial year after that it fallen from 10 to 5%. NPS trader it year on year %cumulative growth rate range between

6 to 1%. However in 2024-25 the cumulative year on year% growth increased sharply to 20%. Pradhanmantri Kisan Man Dhan Yojana its cumulative YoY% growth showed that in initial year its growth rate lies between 2 to 1% and afterward its growth rate declined to 0.5 rate.

Pradhanmantri Maan Dhan Yojana at Uttar Pradesh. The overall CAGR of Pradhanmantri Maan Dhan Yojana was 14.6 which showed moderate growth rate. If we look at the CAGR of different pension scheme products wise under PMMDY. PM SYM has recorded 9.86 growth rate which is highest growth rate among the Pradhanmantri Maan Dhan Yojana products whereas NPS trader and self-employed CAGR has covered 7.47 growth rate while PM-KMY CAGR has recorded 0.87% which is lowest growth rate among the PMMDY product scheme.

## 5. CONCLUSION

In India there are two major micro pension schemes for unorganised sector workers. Atal Pension Yojana and Pradhan Mantri Maandhan Yojana. Under Pradhan Mantri Maandhan Yojana there are specific pension schemes designed for specified unorganised sector workers. The growth rate of Atal Pension Yojana shows that people are becoming aware of their pension benefits and are concerned about their old age. Gender wise participation also shows good growth. However in case of PM-Maandhan Yojana the growth rate at the state and district level is very low. Specially under the NPS trader scheme the growth rate is extremely low and PM-KMY growth is also low. Only PM-SYM has shown comparatively better growth.

## 6. SUGGESTION

- If Government wants micro pension schemes towards the vision of Viksit Bharat may increase awareness campaign regarding PM-MDY scheme product at state & district level with the supports of banks and financial institutions.
- The Government should also modified and simplified PM-MDY pension scheme according to need of the end user so that more individuals enrol in it and contribute toward the development of Nation toward the Vikshit Bharat

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