

RESEARCH ARTICLE

Retirement Security for India's Unorganised Sector: A Comparative Study of Atal Pension Yojana and Alternative Pension Schemes

Parichita Basu

Research Scholar (Ph. D), Dept. of Management, Techno India University, Kolkata, India

Dr. Anup Kumar Ghosh

Professor, Dept. of Management, Techno India University, Kolkata, India

Corresponding Author: Parichita Basu (parichitabasu56@gmail.com)

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ABSTRACT

A pension is a type of long-term social security system. It is particularly significant and pertinent for the unorganised sector and offers a steady, regular post-retirement income. Because it lowers poverty in old age, it offers financial stability. If official job benefits are not available, it also seeks to protect against income insecurity in later life. This study assesses how well the Atal Pension Yojana (APY), which offers a government-guaranteed minimum monthly pension after retirement, provides low-income workers in India's unorganised sector with retirement and financial security.

The purpose of the study is to compare different options to see how well APY satisfies the demands of the low-income population. The comparative analytical framework is used to comprehend and assess the pension plans using important components like coverage, affordability, adequate benefits, awareness, government support, administrative efficiency, sustainability, financial inclusion, and socioeconomic aspects. The findings show that APY has grown substantially and gained widespread penetration. This makes it the most well-liked pension plan among workers in the unorganised sector.

1 INTRODUCTION

The Indian economy, which is also the fifth largest economy in the world in terms of GDP, is divided into organised and unorganised sectors. The organised sector comprises both government-registered industries and enterprises and several institutions which have formal establishments that usually provide several employment benefits and social protection to their employees. On the other hand, the unorganised sector is made up of farmers, fishermen, construction labourers, street vendors, domestic workers, and other individuals who engage in different informal employment without a proper employment contract, security, or any kind of institutional social protection. The unorganised sector employs a substantial portion of India's workforce (Sakthivel and Joddar, 2006; Mishra, 2017; Liji and Mathews, 2023).

This large, yet quasi-invisible, sector in India is a diverse part of the economy that employs a significant portion of the population but is not covered by formal labour laws and regulations. Thus, the unorganised sector plays a crucial role in the Indian economy, generating employment and revenue and alleviating poverty to a certain extent. (National Statistical Commission, 2012). An estimated 43.99 crore people worked in the unorganised sector in 2019–20, according to the Economic Survey, 2021–2022. (PIB, 2023). With several shortcomings relating to their nature of employment and income inconsistency, this sector too falls short of social security, health care benefits, and financial stability. (NCEUS, 2007). It is an unfortunate fact that workers in India's unorganised sector do not receive social security benefits and are economically vulnerable, particularly as they age; thus, a pension scheme for people in this sector is imperative too. By promoting financial autonomy, long-term savings, retirement fund accumulation, employee empowerment, and inclusivity, all of which contribute to socioeconomic stability, such a scheme would mitigate poverty (Joddar, 2006).

To safeguard the interests of all workers in this sector, the Government of India has periodically

introduced several social security regulations, and pension schemes are no exception. A fundamental aspect of these initiatives is the provision of pension plans (Narayana, 2019; Kumar, 2019). Atal Pension Yojana (APY), Pradhan Mantri Shram Yogi Maandhan (PM-SYM), Pradhan Mantri Kisan Maandhan (PM-KMY), National Pension System (NPS - voluntary) and NPS - Lite / Swavlamban schemes exemplify targeted pension programmes designed to foster retirement planning and savings among workers in the unorganised sector (Gupta and Singh, 2021; Thomas et al., 2023). Enhancing the socioeconomic status of these workers post-retirement was the central purpose behind each programme's launch (Chatterjee and Nandan, 2025; Panicker and Cherian, 2022).

The Atal Pension Yojana (APY), inaugurated on May 9, 2015, and implemented as of June 1, 2015, provides retirement income security for individuals in the unorganised sector in India. Administered by the Pension Fund Regulatory and Development Authority (PFRDA) under the National Pension System (NPS), the scheme offers a guaranteed monthly pension of ₹1,000 to ₹5,000 on retirement, depending on contributions made earlier by the participants. (Rajasekhar et al. 2016). The Atal Pension Yojana has experienced significant growth and expansion in India's unorganised sector during the past ten years. As of January 2026, Atal Pension Yojana subscribers had considerably surpassed 9 crores (PIB, 2026), according to official reports. Strong enrolment growth and a notable increase in assets under management are observed in this scheme. These patterns show better participation in official retirement arrangements and more market penetration (PIB 2026). According to the trend, APY has emerged as a key component of Social Security expansion for unorganised sector workers.

There are several studies which have been conducted which examined the pension participation and financial inclusion aspects of the scheme, along with the scheme's awareness regarding Social Security, but limited research has critically compared APY with alternative pension schemes specifically designed for the

economically constrained population. Therefore, this study undertakes to critically evaluate the effectiveness of the Atal Pension Yojana in comparison with selected pension alternative schemes by examining parameters like coverage, affordability, benefit adequacy awareness, government support, sustainability and financial inclusion, along with administrative efficiency and socio-economic impact. Through this comparative assessment, the research tries to contribute to the understanding of retirement security schemes and policy effectiveness for workers working in the unorganised sector.

The study conducted here includes a theoretical framework that blends the relationship between financial inclusion, pension participation, savings behaviour, and retirement security among workers in the unorganised sector. The framework describes that financial inclusion acts as the operational mechanism. It provides access to banking services, pension schemes, and formal financial systems, which enable and encourage pension participation among low-income workers. This paves the way for increased participation in several pension schemes, thereby promoting regular savings behaviour, which in turn leads to improved retirement security and reduced financial vulnerability in old age and post-retirement. However, unfortunately, the workers in the unorganised sector are faced with irregular income and limited financial awareness, making retirement savings inconsistent and difficult. Therefore, it can be concluded that government-supported financial inclusion initiatives are able to improve pension participation, strengthen saving habits, and finally contribute to long-term retirement security.

2 REVIEW OF LITERATURE

The literature emphasises how unorganised sector workers in India are vulnerable due to a variety of factors, including inconsistent income, unstable employment, low savings capacity, and insufficient or occasionally non-existent access to formal Social Security institutions (Narayana, 2019; Parameshwar, 2020). In response, the Indian government launched the Atal Pension Yojana, a government-backed voluntary

contributory pension. The programme's objective is to give low-income people a pension in order to secure their income in old age (Asher et al., 2015; Sane & Thomas, 2015).

Current research indicates that the Atal Pension Yojana is successful in increasing pension coverage among economically disadvantaged informal workers and promotes formal saving practices, both of which contribute to financial inclusion (Amutha & Remya, 2022; Rooj & Sengupta, 2024). Nonetheless, knowledge and participation in this pension scheme still vary by location across India. Numerous aspects, including financial literacy, income instability, banking access, age, gender, occupation, and institutional outreach, have a significant impact on enrolment and continuation of contributions towards the scheme (Balamurugan, 2022; Siddiqui, 2023; Chakraborty & Rajaram, 2023). According to Sudindra (2016), Panikar & Cherian (2022), Kavya (2023), and Sengar et al. (2024), the studies also identify several implementation challenges, which include subscribers' irregular contributions, low awareness, several administrative constraints, and perception about pension adequacy in the absence of inflation indexation.

At its core, formal inclusion acts as a gateway for promoting retirement savings behaviour, helping individuals to defer current expenses and secure a stable post-service cash flow that can finance their old-age consumption and spending needs (Alkhwaja & Albaity, 2022). In order to provide and increase general coverage, simplify contribution continuity, and ensure long-term financial security and economic stability for unorganised labourers, policymakers should try to structurally reform social security programmes (Dash & Mohanta, 2024).

3 RESEARCH GAP AND OBJECTIVES OF THE STUDY

The Atal Pension Yojana policy has already been the subject of numerous studies, with a focus on the scheme's popularity, pension coverage, fulfilment of the Social Security goal, financial literacy, and financial inclusion. Research contrasting APY with other pension plans, particularly for the unorganised sector, is lacking in

terms of factors such as the plan's coverage, affordability, perceived benefit adequacy, awareness of the plan, government support, administrative effectiveness and efficiency, sustainability, financial inclusion, and socioeconomic impact.

The objective of this study is to conduct a comprehensive literature review analysing the documented capacity of the APY scheme to provide old-age security to unorganised sector workers and comparing its researched efficacy with alternative pension frameworks designed for the informal economy.

4 RESEARCH METHODOLOGY

The study adopts a descriptive research design to analyse the structure, implementation, and impact of APY. The research relies primarily on secondary data, including (i) government reports and policy documents (ii), academic journals and research articles (ii), PFRDA and Ministry of Finance publications (iii), financial inclusion reports and pension studies (iv), and news reports and statistical data on APY enrolment as published in 'Pension Fund Regulatory and Development Authority (PFRDA) Annual Reports', 'PIB (Press Information Bureau) report', 'NPS TRUST annual reports' and APY brochure.

In order to comprehend and evaluate the schemes' growth performance and policy developments over the decade, the study spans the years 2015, the year APY was launched, to 2025. To assess pension coverage, financial inclusion, and retirement security in the unorganised sector.

To evaluate APY in the context of a broader pension policy. In order to comprehend and assess the accessibility, effectiveness, and long-term viability of the targeted pension schemes for the unorganised sector workers, the following criteria were chosen: coverage affordability, benefit adequacy, awareness of government support, administrative efficiency and sustainability, financial inclusion, and socioeconomic impact.

In order to determine the advantages and disadvantages of APY in relation to other pension plans in terms of fostering old-age income security and stability

for workers in the unorganised sector, the gathered data were thus understood, evaluated, and analysed using descriptive and comparative methods.

5 DISCUSSION

The foundation of a person's livelihood is provided by their earnings from a job, which aid in sustaining a respectable quality of living. Growing older increases the risk of losing one's ability to earn a living, particularly for those who work hard in the unorganised sector (Kumar, 2019; Satpathy, 2023). According to Panneer et al. (2019), these people do not have a formal pension plan in which their company makes contributions. Therefore, in the absence of formal organisational assistance, such individuals require a comprehensive pension plan that can offer them stability and financial security after retirement (Holzmann, Hinz, and Dorfman, 2008; Satpathy, 2023).

Because their earning potential declines with age, those employed in the unorganised sector are particularly sensitive to economic shocks. A social security mechanism, particularly in the form of pensions, is essential given the high percentage of employment in the unorganised sector (Narayana, 2018; Reddy, 2019). With a population of more than a billion and a significant unorganised workforce, it is impossible for any government to fully fund a pension system (Barr and Diamond, 2008; Holzmann, Hinz and Dorfman, 2019). To address this challenge, the government introduced contributory pension schemes. These schemes are available for all, and any informed individual can choose one according to their affordability (Bhattacharya and Sane, 2018). However, designing a contributory pension system is a major challenge for the Indian government (Kumar, 2019; Gupta and Singh, 2021) due to constraints, such as an ageing population, limited financial literacy, digital upgradation, and lack of awareness, particularly among workers in the unorganised sector (Lusardi and Mitchell, 2014; Sane and Thomas, 2015).

Therefore, financial inclusion serves as the foundation for pension participation, which strengthens the retirement

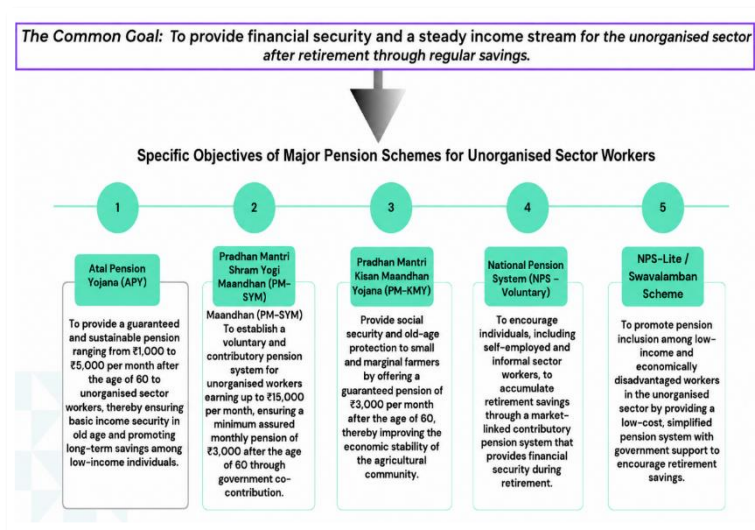
security of workers in the unorganised sector by encouraging and improving, as shown in Figure 1.



Source: Compiled by the Authors

Figure 2 illustrates that the goal of all pension plans is to provide everyone with financial stability and security after retirement.

Figure 2: Targeted Pension Plans for the Unorganised Sector Workers



Source: Compiled by the authors using Canva, dated April 21, 2026

Contributory pension schemes like APY are attractive to the low-income sector due to their affordability (Panicker and Cherian, 2022; Thomas et al., 2023). However, to be effective, such schemes must outshine other available pension schemes in providing maximum benefit to beneficiaries in their old age, which remains a core objective.

Therefore, to evaluate and analyse the APY scheme, certain parameters are considered in this study, such as coverage made by the scheme, affordability, perceived benefit adequacy, awareness about the scheme, government support, administrative effectiveness and efficiency, sustainability, financial inclusion and socio-economic impact. These parameters are chosen to understand how effectively and efficiently the scheme has been able to reach the target audience in providing sustainable old-age security to this sector, especially

considering the vulnerable nature of employment (Narayana, 2018; Holzmann et al., 2019; Gupta and Singh, 2021).

To gain a thorough grasp of the Atal Pension Yojana system, it is discussed here. The APY as a guaranteed pension plan has several important features. With a single distinct APY account, the scheme provides a guaranteed monthly pension of ₹1,000 to ₹5,000 upon retirement, according to the subscriber's previous payments. It should be noted that each individual's contribution level would differ; for instance, early enrolment would lead to a lower contribution level and vice versa (PFRDA, 2023; Thomas et al., 2023). Once a year, the subscriber may alter the amount of their contribution. Additionally, the concerned subscriber receives a physical statement from the bank (Gupta and Singh, 2021). Participants must be Indian nationals

between the ages of 18 and 40, have a cell phone number and a bank account connected to Aadhaar, and have made contributions for at least 20 years (Kumar, 2019; Narayana, 2019). Participants can use the auto-debit service to send payments on a monthly, quarterly, or half-yearly basis (Bhattacharya and Sane, 2018). To get a minimum guaranteed benefit of Rs. 1,000, an individual (18 years of age) must pay a monthly charge of only Rs. 42 (PFRDA, 2023). Both newcomers and those registered under the Swavlamban Yojana may move to APY. Under the National Pension System (NPS), it is managed by the Pension Fund Regulatory and Development Authority (PFRDA). The subscriber will get a set guaranteed pension from the GOI (Holzmann et al., 2019). In this case, the government additionally contributes 50% of the subscriber's contribution or Rs 1000 annually, whichever is less, for each qualifying subscriber (Chatterjee and Nandan, 2025). The pension starts at age 60, and early withdrawals are allowed in the event of death or a terminal illness. After extended nonpayment, accounts may be closed, frozen, or deactivated (Panicker and Cherian, 2022; Thomas et al., 2023).

The nomination and all of the nominee's personal information must be recorded and submitted at the time of registration because the subscriber's family is eligible for benefits (PFRDA, 2023; Chatterjee and Nandan, 2025). An unmarried subscriber should register as a nominee later; the default nominee is the spouse of a married subscriber. The subscriber may propose someone else. Because employees in this sector deal with unpredictable revenue flows (Panicker and Cherian, 2022). Employees in this sector are highly likely to default due to the nature of their jobs (Kumar, 2019; Narayana, 2019). Depending on the amount of contribution, which varies from Re 1 to Rs 100 and up to Rs 10 for donations over Rs 1000, this

APY system provides measures for defaulting subscribers. The subscriber's corpus is increased by these fines (PFRDA, 2023; Thomas et al., 2023). If a subscriber consistently fails to make the required contributions, their APY account will be frozen after six months, deactivated after twelve months, and finally deleted after twenty-four months (Chatterjee and Nandan, 2025). Additionally, the APY programme offers options for subscribers in need who wish to withdraw from the programme due to unforeseen circumstances. If the subscriber opts out of the scheme before the age of 60, they are eligible to get the net actual accrued income that is deposited over the years without the government co-contribution, i.e., contribution minus the maintenance fees (Panicker and Cherian, 2022; Gupta and Singh, 2021). The spouse will continue to make payments until the original subscriber becomes 60 if the subscriber passes away before that age. The spouse would then get the full accrued corpus and the same pension amount as the original subscriber (PFRDA, 2023; Thomas et al., 2023). If the subscriber dies after turning sixty, the spouse is entitled to the pension sum. The entire deposited corpus or pension asset would pass to the subscriber's legal heir (nominee) in the event that both the subscriber and their spouse died (Chatterjee and Nandan, 2025). Awareness activities have contributed to APY's rise in popularity among unorganised sector workers. Because they help the subscriber and their family, the schemes themselves are advantageous.

To understand APY better in comparison to other pension schemes, especially designed for the unorganised sector, a detailed comparison of the schemes is made in the table. The highlighted block indicates the scheme's best advantage.

Table 1: Comparative Analysis of APY with Other Pension Schemes

Evaluation Parameter	Atal Pension Yojana (APY)	Pradhan Mantri Shram Yogi Maandhan (PM-SYM)	Pradhan Mantri Kisan Maandhan Yojana (PM-KMY)	National Pension System (NPS – Voluntary)	NPS-Lite / Swavalamban
Coverage	Unorganised workers aged 18–40 with bank accounts. High growth via financial inclusion, but a small proportion of the total workforce.	Informal workers (vendors, domestic, and construction) aged 18–40 earning less than ₹15,000/month. Large potential, limited actual enrolment.	Small and marginal farmers aged 18–40 owning up to 2 hectares. Sector-specific; excludes landless rural workers.	Universal (All citizens aged 18–70). Low informal sector uptake due to market-linked design and literacy barriers.	Economically weaker/informal groups via aggregators (NGOs/SHGs). Fresh enrolments stopped in 2015 upon APY launch (except GDS).
Affordability	Flexible, low monthly contributions (₹42–₹1,454) based on age and target. Hard for irregular income earners.	High affordability via 50:50 government match. Monthly contributions range from ₹55 to ₹200 based on entry age.	Moderate affordability. Features matching government contributions but vulnerable to seasonal agricultural income shocks.	Voluntary with no fixed minimums. Unpredictable investment returns reduce affordability appeal for low-income segments.	Low and flexible contributions. Historically attractive due to state incentives, which dropped after co-contributions ceased.
Perceived Benefit Adequacy	Guaranteed monthly pension of ₹1,000–₹5,000 post-60. Boosts confidence but is eroded by rising living costs.	Fixed guaranteed pension of ₹3,000/month post-60. Enhances security perception but is vulnerable to long-term inflation.	Offers a fixed ₹3,000/month post-60. Delivers basic rural stability but is insufficient for comprehensive security.	Market-linked returns and corpus accumulation. Offers higher growth potential but lacks predictable guarantees for risk-averse workers.	Depends on corpus accumulation and annuity purchase. Variable outcomes and lack of guarantees reduce perceived adequacy.

Awareness	Moderate; increased via bank outreach campaigns, yet gaps remain regarding exact terms and rules.	Low, particularly among rural and migrant labourers. Broad ignorance of eligibility and enrolment paths.	Relatively higher due to agricultural extension networks, though specific contribution obligations remain poorly understood.	Low among informal segments; concentrated heavily among salaried, financially literate urban demographics.	Limited; historically reliant on intermediaries and aggregators with minimal public promotional campaigns.
Government Support	Direct promotional policy backing; initial co-contribution period (2015–2020) for early eligible subscribers.	Robust support via matching 50% fiscal contributions and structural oversight by the Ministry of Labour & Employment.	Strong institutional backing with matching contributions managed under rural and farmer welfare frameworks.	Regulatory oversight via PFRDA; no direct financial co-contributions provided for most voluntary participants.	Initial co-contribution incentives were provided to spark volume, but subsequent policy shifts phased out direct financial support.
Administrative Efficiency	Efficient digital and bank-led architecture; marginalised segments still face banking access and document barriers.	Streamlined digital enrolment via Common Service Centres (CSCs); slowed by income and identity verification.	Moderately efficient digital delivery; frequently bottlenecked by rural land record verification protocols.	High operational efficiency managed via PFRDA and professional fund managers; complexity deters low-literacy users.	Inconsistent tracking and structural inefficiencies caused by heavy reliance on third-party aggregators.
Sustainability	Dependent on long-term actuarial balancing; fixed guarantees risk fiscal strain if enrolments spike sharply.	It is actuarially planned with shared funding but hinges on a stable subscriber base and sustained fiscal commitments.	Tied directly to state agricultural budgets, long-term viability dictates strict fiscal management and steady participation.	High financial sustainability; market-driven defined contribution model transfers risk entirely to the subscriber.	Low; limited scale and heavy dependency on state incentives eventually forced its restructuring into APY.
Financial Inclusion Contribution	High; structurally dependent on	Promotes inclusion by integrating digital banking	Forces penetration of formal banking	Expands formal savings instruments to	Introduced basic micro-pension concepts to

	bank accounts and digital payments, onboarding unbanked workers.	architecture with informal sector contribution tracking.	and structured retirement planning into rural agricultural ecosystems.	the public, though traction among bottom-of-the-pyramid groups remains low.	previously excluded populations via grassroots channels.
Socio-Economic Impact	Strengthens old-age security and long-term savings culture, though low payout limits transformative potential.	Promotes poverty reduction and old-age income stability, though constrained by low overall enrolment levels.	Moderates vulnerability within rural households, stabilising income for small-scale agricultural families.	Drives long-term retirement planning and capital market growth, but benefits skew heavily toward affluent users.	Cultivated baseline pension awareness among low-income classes, though long-term impact was cut short by structural flaws.

Source: Compiled by the Authors

Based on the chosen characteristics, Table 1 provides a detailed discussion of the unorganised sector pension plans. These metrics aid in comprehending how the programmes operate and penetrate the target

population in the unorganised sector in order to achieve their goals. The aforementioned table makes it evident that many people can get post-retirement financial security under the Atal Pension Yojana.

Table 2: Overall Assessment Schemes

Scheme	Best Suited For	Overall Assessment
APY (Atal Pension Yojana)	Unorganised sector workers seeking guaranteed retirement income	It's the most balanced option for low-income informal workers due to affordability, government backing, and defined pension benefits.
PM-SYM	Low-income informal workers wanting contributory social protection	Good social security support, but enrolment and continuation challenges remain.
PM-KMY	Small and marginal farmers	Strong rural-focused pension support but limited to agricultural beneficiaries.
NPS (Voluntary)	Individuals seeking higher long-term retirement wealth creation	Strongest for flexibility and wealth accumulation, but market risk and financial literacy requirements reduce suitability for poorer informal workers.
Swavlamban / NPS-Lite	Early pension inclusion efforts	Important historically but less competitive compared to newer schemes.

Source: Compiled by the Authors

It is evident from Table 2 that the Atal Pension Yojana and the Pradhan Mantri Shram Yogi Maandhan scheme are the two most popular pension plans among unorganised sector workers. These two programmes are gaining popularity amongst women working in the unorganised sector, and people are progressively embracing the schemes' digital interface for their convenient use (PFRDA, 2025). APY seems to be a more robust and comprehensive pension option for workers in the unorganised sector since it balances guaranteed

retirement security with cost and accessibility. While complementary programmes like NPS PM-SYM and PM-KYM continue to be crucial for meeting the various socioeconomic requirements of this section of the population.

Table 3 demonstrates the enrolment and participation in pension schemes for unorganised sector workers to give an overview of the schemes' awareness and popularity in comparison to each other.

Table 3: Enrolment and Participation in Pension Schemes

Pension Scheme	Performance of the scheme
Atal Pension Yojana (APY)	<p>APY enrolment increased from 2.46 million subscribers in 2016 to over 55.5 million by 2024, reflecting rapid adoption among informal workers (Journal of Informatics Education and Research, 2025).</p> <p>Over 7.6 crore subscribers by March 2025, with more than 1.17 crore new subscribers added in FY 2024–25 alone (PFRDA, 2025).</p> <p>As of January 2026, the number of subscribers enrolled in the Atal Pension Yojana (APY) scheme is over 8.66 crore (PIB, 2026).</p>
Pradhan Mantri Shram Yogi Maandhan (PM-SYM)	<p>As of date, more than 46 lakhs unorganised workers have been enrolled under the scheme (PIB, 2022).</p> <p>Over 5.24 million (52 lakh) unorganised workers have registered as of March 4, 2026 (PIB, 2026).</p>

Pradhan Mantri Kisan Maandhan Yojana (PM-KMY)	As of August 6, 2024, a total of 23.38 lakh farmers has joined the scheme (PIB, 2024).
National Pension System (NPS – Voluntary)	NPS subscriber base nearing 2 crores, including 1 crore government-sector subscribers and 74 lakh members from the general public, of whom 24 lakhs are private-sector employees (PIB, 2025). Together, the NPS and the Atal Pension Yojana (APY) now cater to over 9.12 crore subscribers, managing ₹16.40 lakh crore in Assets Under Management (AUM) (PIB, 2025).
NPS-Lite / Swavalamban Scheme	After Atal Pension Yojana (APY) came to being, in 2015, fresh enrolment under the NPS-Lite / Swavalamban scheme was stopped. Except for the enrolment of Gramin Dak Sevaks (GDS) of the Department of Post (PFRDA, 2021).

Source: Compiled by the Authors

Table 3 illustrates the performance of various pension frameworks, highlighting the exceptional growth of the Atal Pension Yojana (APY), which saw subscribers surge from 2.46 crore in 2016 to 8.96 crore in March 2026, as per the PIB report published on May 7, 2026. This massive expansion establishes APY as the premier pension plan for unorganised sector workers, contrasting sharply with the sluggish enrolment of PM-SYM and the moderate, sector-restricted growth of PM-KMY. Meanwhile, the National Pension System (NPS) maintains

a robust trajectory with a sizeable subscriber base and massive assets under management. Concurrently, new registrations under NPS-Lite/Swavlamban have ceased post-APY launch, with the sole exception of Gramin Dak Sevaks (GDS) within the Department of Posts.

A comprehensive analysis across critical parameters including coverage, affordability, adequacy, awareness, state support, administrative efficiency, sustainability, financial inclusion, and socio-economic impact, reveals the major drawbacks of all the schemes.

Table 4: Major Drawback of Each Pension Scheme

Scheme	Major Drawback	Key Parameter Affected	Implication for Unorganised Sector Workers
Atal Pension Yojana (APY)	Low and fixed pension benefits may become inadequate due to inflation.	Benefit Adequacy	Reduced real pension value may limit old-age income security.
Pradhan Mantri Shram Yogi Maandhan (PM-SYM)	Low awareness and enrolment limit its overall reach and effectiveness.	Awareness & Coverage	Many eligible workers remain outside pension coverage.
Pradhan Mantri Kisan Maandhan Yojana (PM-KMY)	Restricted eligibility excludes many informal rural workers.	Coverage	Non-landholding rural workers are excluded from pension benefits.
National Pension System (NPS – Voluntary)	Market-linked returns provide no guaranteed pension, increasing retirement income uncertainty.	Benefit Adequacy	Uncertain retirement income may discourage participation.
NPS-Lite / Swavlamban	Poor sustainability and dependence on incentives hindered long-term viability.	Sustainability	Limited long-term reliability reduced participant confidence.

Source: Compiled by the Authors

The boundaries of the pension programmes aimed at the unorganised sector are given in Table 4. When assessed and analysed across all critical parameters chosen for the research, it is observed that the glaring weakness of APY is benefit adequacy in the hands of inflation indexation; PM-SYM suffers from low awareness and enrolment problems; PM-KMY is constrained by limited coverage confined to agricultural

labours; NPS faces challenges due to market risk and absence of guaranteed benefits to its subscribers; and NPS-Lite/Swavlamban was obstructed mainly due to poor sustainability and scalability. These disadvantages highlight the key obstacles that keep each programme from providing India's unorganised labour force with complete old-age income security.

Table 5: Drawbacks of APY Enrolment

Drawbacks	Reason
Limited Pension Amount	A maximum pension of ₹5000 may be insufficient due to inflation.
No Government Contribution Currently	Earlier co-contribution was discontinued, unlike PM-SYM, which still has a matching government contribution.
Fixed Benefit Structure	A pension amount cannot increase based on market performance like NPS.
Strict Contribution Requirement	Missed payments attract penalties.
Inflation Risk	The pension amount is not indexed to inflation.

Source: Compiled by the Authors

The limits of the Atal Pension Yojana are shown in Table 5. After turning 60, a subscriber's maximum pension is ₹5,000. This amount may not be sufficient to combat inflation in the future. Furthermore, this project does not provide a significant government contribution, in contrast to the Pradhan Mantri Shram Yogi Maandhan Yojana. Other drawbacks of the Atal Pension Yojana that could lead to financial difficulties are the fixed pension amount and the demand for monthly contributions, which result in penalties for late payments. certain employees in the unorganised industry. The Atal Pension Yojana provides a fixed guaranteed pension amount that must be modified to account for the current rates of inflation in the market.

6 LIMITATIONS OF THE STUDY

The study's reliance on secondary data from several published works may limit the participants' first-hand experiences and ground-level realities. The behavioural factors influencing unorganised sector workers' decisions to participate in pensions may be beyond the scope of the data study. A more thorough investigation is necessary because there can be regional differences in awareness, banking accessibility, and

computer competence. The efficacy of the study, which is not fully addressed, may be impacted by regional variations in administrative practices and implementation difficulties. A thorough evaluation of the long-term pension adequacy component is further hampered by a lack of empirical data. Thus, additional empirical and region-specific research can be carried out to bolster the conclusions and enhance policy comprehension.

CONCLUSION

This study looks at the success of the Atal Pension Yojana, which attempts to give workers in India's unorganised sector financial and social security. Because of its affordability-guaranteed pension structure and connection with financial inclusion programmes, APY is reported to be extensively accepted and one of the most popular and favoured pension schemes among the low-income group. When compared to alternative pension plans for workers in the unorganised sector, APY is found to be a more effective solution for giving this group retirement security. However, there are several issues that somewhat affect the scheme's efficacy, such as low pension adequacy, a lack of inflation indexation, uneven

contribution capacity, and low awareness in some areas, all of which eventually affect the scheme's sustainability. Despite these drawbacks, APY effectively encourages retirement savings and lessens the financial and economic vulnerability of old age.

SCOPE FOR FUTURE RESEARCH

Further research can be directed to micro-level data where the contribution of APY to old-age income security among unorganised workers in WB may be evaluated in respect of perceived benefits and financial security outcomes.

The study can also be analysed in light of making policy recommendations, which can be given only based on the bottlenecks faced by APY. Study can also be done on assessing awareness, adoption and participation patterns, thus identifying the determinants of APY enrolment.

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