

## **WORKING PAPER**

### **An Assessment of the Atal Pension Yojana (APY) Awareness and Penetration in Prayagraj Division of Uttar Pradesh**

#### **Project Awarded under ICSSR Special Call for “Short-term Empirical Research 2023-24”**

**File No. 212/CRP-2023-724/APY/SCD**

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## 1. Abstract

To encourage people from unorganised sector to participate in self-contributory pension system, the Government of India announced the Atal Pension Yojana (APY) for serving the unserved segment of the market at the 'Bottom of Pyramid' and to support individuals in the unorganized sector with much needed old age income security. During the 8+ years the scheme has been in vogue, it has enrolled more than 5.2 crore and has an active participation of approx. 4.7 cr subscribers, as on March 31, 2023.

Broadly, the study proposes to assess the following-

- (a) awareness/ knowledge in respect of APY (eligibility, pension slabs, benefits, costs/charges, co-contribution benefit, nomination, annuity, source of information- social media/ traditional media etc.);
- (b) account ownership (enrolled / not enrolled/ enrolled but closed now and reasons thereof);
- (c) account operation status (active/ dormant); and
- (d) problems, if any, faced in account operation viz. contribution processing, grievance resolution, exit processing and pension amount upgrading/ downgrading etc.
- (e) in case of those who are aware of APY but not enrolled for it, reasons thereof. This will help propose a roadmap for enhancement of enrolments.

The study further proposes to explore the socio-economic (gender, occupation, income level, age, education etc.) and financial attitude & behavioural factors that influence the awareness, account ownership and account operation aspect of the APY in the sample population.

The study adopts both, qualitative and quantitative methodologies. The qualitative aspects will comprise interviews with subscribers and those who have enrolled but have dropped out of the scheme. In terms of the quantitative study, data will be collected on the basis of questionnaires based on the objectives enumerated.

It is expected that the research will be of use to policy makers, and will yield inputs for further enhancement of enrolments in the scheme

## **2. Introduction**

One of the important concomitants of the development of an economy is an increase in life expectancy, a positive sign for economic growth. From a financial standpoint, however, increased life expectancy also carries with it a longevity risk, which necessitates appropriate financial planning to enhance old-age income security. Therefore, pension and retirement savings reform ranks high on the policy agenda of the Nation.

It is against this backdrop that the Atal Pension Yojana (APY) was launched by GoI in August 2015. APY is a minimum guaranteed flagship pension scheme under the Pradhan Mantri Jan Dhan Yojana (PMJDY), aimed primarily at the person at the bottom of the pyramid. The informal sector forms a substantial chunk of the Indian economy, and is characterised by the absence of broad-based social security safeguards such as guaranteed income after retirement. As per OECD's Global Pension Statistics Report (2022), the total pension assets as % of GDP in India (2021) is merely 9.2% as compared to 80%-120% globally.

In the landscape of financial inclusion and social security in India, the Atal Pension Yojana (APY) stands as a pioneering initiative, aiming to address the critical need for a sustainable and accessible pension system for the unorganized sector. Launched by the Government of India in 2015, APY targets workers in the unorganized segment, offering them a structured avenue to secure their financial future during retirement. As the APY scheme plays a pivotal role in fostering social security and mitigating elderly poverty, this study embarks on an assessment of the scheme's awareness and penetration among the intended beneficiaries.

The unorganized sector in India constitutes a substantial portion of the workforce, characterized by informal employment, irregular income patterns, and a lack of access to formal financial instruments. Recognizing the vulnerability of this segment to financial insecurities in their post-employment years, the government introduced APY as a comprehensive solution. The scheme not only provides a defined pension amount but also ensures that the benefits reach those who need them the most.

As the APY enters a crucial phase in its implementation, understanding the levels of awareness and penetration becomes imperative for policy refinement and effective outreach. Awareness, in this context, refers to the knowledge and understanding of the APY scheme among the target population, while penetration assesses the extent to which eligible individuals have enrolled in the program. This study seeks to delve into the factors influencing the awareness

levels, the barriers to penetration, and the overall impact of APY on the financial inclusion landscape.

The socio-economic implications of a successful APY implementation are far-reaching, potentially transforming the retirement landscape for millions in the unorganized sector. However, challenges such as limited financial literacy, lack of awareness, and accessibility barriers may impede the scheme's optimal reach. Through a comprehensive examination of APY awareness and penetration, this study aims to contribute valuable insights that can inform policy adjustments, promotional strategies, and targeted interventions to enhance the effectiveness of the APY scheme, thereby bolstering financial resilience among the unorganized workforce in India.

APY aims to encourage people from the unorganised sector to participate in the self-contributory guaranteed pension system, thereby supporting individuals in this sector with much-needed old-age income security.

Till FY 2022-23, the scheme has been implemented across all the States/ UTs of India. APY works on the National Pension System architecture and is administered by the Pension Fund Regulatory and Development Authority (PFRDA).

As per PFRDA's Handbook of Statistics, total enrolments have crossed 5.2 crores till March 31, 2023. During the period, PFRDA in consonance with the GoI and the Department of Financial Services has introduced various modifications in the scheme features, benefits and attributes. APY is backed by a slew of awareness campaigns and advertisements.

With more than 8 years into the scheme, a need is felt to assess, on the one hand the level of awareness of the general populace about the scheme, their views on existing and/or modifications in the scheme benefits and on the other, measures the satisfaction of the people enrolled in the scheme thus assessing/ categorising their level of satisfaction and reasons for their exiting the scheme prematurely and voluntarily, as well as hindrances to enrolment.

The study proposes to explore the awareness and the penetration level of the APY in the sample population of Prayagraj Division using a multi-pronged approach covering the aspects of the scheme implementation, awareness, distribution, consumer protection and grievance resolution.

The findings of the study hold the potential to inform policy adjustments, enabling evidence-based decision-making for more targeted and efficient implementation of the APY scheme. The identified gaps in financial literacy within the unorganized sector can guide the creation

of educational initiatives, empowering individuals with the knowledge necessary to make informed financial decisions for their future.

Beyond individual benefits, the study anticipates positive impacts on the broader socio-economic landscape. An increased pension coverage could stimulate economic growth as a financially secure elderly population actively participates in various economic activities. This, in turn, might reduce dependency on social welfare programs, fostering a more self-reliant retirement approach.

Moreover, the study's insights can encourage responsible and sustained workforce participation as individuals become more cognizant of the long-term benefits associated with stable employment. This aligns with societal goals of promoting equity, inclusion, and social justice, contributing to the closing of socio-economic gaps.

In essence, the anticipated outcomes of the study encompass a range of socio-economic benefits, including enhanced financial inclusion, poverty alleviation in old age, informed policy adjustments, empowerment through financial literacy, stimulus for economic growth, reduced dependency on social welfare, promotion of responsible workforce participation, and the advancement of social equity and inclusion. These collective impacts align with the overarching objectives of sustainable development and improved well-being within Indian society.

## **2.1 Literature Review**

Pension schemes have been prevalent in workforce area wherein a contribution from an employee/worker is collected on regular basis so as to provide a lump sum or recurring monthly sum after retirement (Mukesh & Ahuja, 2004). Pension schemes provide a means for financial inclusion wherein the better living conditions of retired people is ensured along with utilization of banking systems (Shekar & Veeramani, 2017). The pension system was first introduced in India in 1881 by the Royal Commission on Civil Establishments. Further it was restructured through changes made in 1919 and 1935. The old pension scheme was putting a large burden on the financials of government organization (Goswami, 2001) and hence a new market linked pension scheme was launched for government employees first and then for everyone in 1st June 2004. Government employees who have joined before 1st January 2004 get benefit from old pension scheme while now all employees can take part in New Pension Scheme on a volunteer basis. In order to cater to the unorganized sector and provide a stable

source of income to them after retirement, Atal Pension Yojna was launched on 1st June 2015. In this scheme, workers would get a fixed monthly amount of minimum Rs 1,000 upto Rs. 5,000. According to the study of Dani & Modi (2016), only around 57% of respondents were aware of APY. Bhattacharjee & Rengma (2020) confirm these findings and also suggest that the general perception of people is positive towards APY however they are less aware due to lack of banking awareness. Also, the scheme has not been advertised well and inclusive banking system awareness would have been necessary for success of this scheme (Balamurugan, 2022). Yadav & Mohania (2016) and Sandeep & Sharma (2015) suggest that people in urban areas are more participative and also willing to accept this scheme. Since the Indian economy is growing, savings interest rates will fall in future so a scheme which is market linked will prove to be the better choice (Singh & Devi, 2022). People tend to prefer it due to it being a central government scheme and hence reliable (Amutha & Remya, 2022). However, lack of additional features and amount of pension causes people to refrain from it. Another reason for people not liking it is inability to protect against the inflation. The feeble amount received each month seems to provide no protection against the inflation that would have settled in after such long period of investment (Pushpa & Viswanath, 2022). The study by Sudindra, (2016) shows that the feasibility of APY is low since the present value of the investment made is more than the value of pension that will be received if 8% or 7.5% interest factor is considered. Amutha & Remya, 2022) suggest that introduction of new features like family benefits, increased co-contribution from government and awareness about banking systems can lead to increased participation. There have been very few studies in Indian perspective that do analysis and feasibility of such pensions schemes and the challenges that they face (Singh & Devi, 2022).

It is clear from the literature that financial inclusion is a necessity for the inclusive growth of every economy of the World. Schemes targeted at inclusive growth, including pension benefit schemes, ensure improvement in the standard of living by allowing easy access to country's resources and also helps in improving the economy as a whole.

Pension schemes like APY provide a means for financial inclusion wherein the better living conditions of retired people are ensured along with utilization of banking systems.

Literature further suggests that there have been very few studies in Indian perspective that perform an analysis and study the feasibility of such pension schemes like APY, and the challenges that they face. These reasons could range from awareness/ knowledge gap, socio-

economic factors, behavioural and attitudinal attributes and/or demand or requirement of modification in scheme benefits and payouts.

To understand the issues it is essential to examine the aspects of the scheme like APY's implementation, awareness, distribution, consumer protection and grievance resolution.

The study envisages to explore the said gap by assessing the awareness level of the APY and examining the enrolment. Further this study will be extended to know the reasons for non-enrolment amongst those aware of the APY and to identify the barriers to enrolment. Thus it will help in identifying the problems faced by the subscribers in terms of inaccessibility and operationality and evaluating causes for dropping-out of subscribers once they have enrolled.

The effectiveness of government schemes is a crucial aspect of governance. The monitoring and evaluation of government schemes are vital in order to uphold transparency and accountability throughout their implementation. Certification methods are of paramount importance in guaranteeing the transparent evaluation of regulatory aspects within ecosystem service schemes (Meijaard et al., 2011).

This practice guarantees that projects adhere to regulatory requirements and obtain a favourable assessment of their regulatory compliance. Through the diligent monitoring and evaluation of governmental schemes, policymakers can discern instances of deficient or distorted execution, gauge adherence to agreements, evaluate the societal and environmental ramifications of these schemes, and derive valuable insights from past endeavours to enhance future interventions.

The significance and efficacy of government schemes in the realm of e-government have been acknowledged as pivotal. Governments strive to attain significant levels of accomplishment in electronic services throughout the public sector through the implementation of e-government schemes (Nawafleh, 2018).

The association between e-government programmes and the attainment and provision of public e-services is evident. Nevertheless, various obstacles, including but not limited to corruption, insufficient financial resources, prevailing attitudes, limited accessibility, lack of trust, low levels of citizen participation, and gender inequality, have the potential to impede the efficacy of government schemes and inhibit the successful execution of e-government endeavours (Agangiba & Kabanda, 2017).

Periodically, the Indian Government has been promulgating diverse governmental initiatives throughout all strata of society. The aforementioned schemes may take the form of Central

schemes, state-specific schemes, or collaborative efforts between the Centre and the states. These schemes are implemented with the dual purpose of promoting both economic and social well-being within society. These schemes strive to mitigate poverty, unemployment, and income disparities within the context of economic well-being. Additionally, it emphasizes enhancing individuals' societal well-being through providing educational, healthcare, and sanitation services, as well as implementing targeted initiatives for marginalized segments of the population. This approach aims to mitigate regional inequalities and promote social equity by fostering equal opportunities for all members of society.

The efficiency of government pension schemes is critical for ensuring the effective use of resources, reducing leakage, and delivering benefits to retirees. Studies from around the world emphasize the importance of sustainability, administrative efficiency, resource utilization, and the economic impact of efficient pension systems.

The sustainability of government pension programs depends on their implementation and ability to secure stable expectations for the future, as well as their coverage and benefit levels. Pension program sustainability is influenced by various factors such as formal employment rates, political stability, life expectancy, and coverage by the pension system (Jamie et. al., 2022). Administrative efficiency is a fundamental aspect of government pension schemes, as it directly affects the delivery of benefits, resource management, and overall system effectiveness. Administrative efficiency is a critical factor in government pension schemes, impacting the ease with which beneficiaries receive their benefits and the overall well-being of retirees.

Research has also explored the broader economic impact of efficient pension schemes. Effective schemes can contribute to poverty reduction, economic stability, and overall well-being (Sadikova, 2023). Pension payments contribute to local and national economies. The spending of pensioners has a stimulative effect, boosting demand for goods and services, which, in turn, generates economic growth and employment (Sinfield, A.,2018). The expected outcomes of a government pension scheme are multifaceted and generally revolve around providing financial security and stability for retirees. These outcomes typically include a reduction in elderly poverty, ensuring that seniors can meet their basic needs, maintain their living standards, and access essential healthcare services. Government pension schemes also aim to stimulate economic growth by injecting funds into local economies, generating demand for goods and services, and contributing to job creation.



A primary and widely acknowledged outcome of government pension schemes is poverty reduction among elderly beneficiaries. These schemes play a significant role in preventing retirees from falling into poverty during their later years (Idda, 2022). Many studies suggest that pension payments contribute to economic growth and job creation by increasing demand for goods and services, supporting local and national economies, and positively impacting labor markets, national savings, and investment. Pension schemes can positively impact healthcare outcomes. Beneficiaries with pension benefits are more likely to access necessary healthcare services, reducing the economic burden on families and healthcare systems (Lloyd-Sherlock, 2006).

Transparency and information accessibility are crucial components of government pension schemes, as they ensure that individuals can make informed decisions about their retirement planning and access the benefits they are entitled to. Transparency in program implementation fosters fairness. It ensures that beneficiaries have access to information about the scheme's rules, benefits, and application procedures. Fairness in the implementation of government pension schemes is a fundamental aspect of these programs, ensuring that all eligible individuals have equitable access to their entitled benefits. Transparency, efficient processing, and equitable rules and calculations are crucial components of fairness in program administration. Additionally, specific attention should be given to vulnerable groups to promote inclusivity and reduce disparities.

The importance of both, publicity of government schemes in the social structure, as well as the evaluation thereof, is brought out by Dodd et al. (2017), who aver that there is a pressing need to enhance awareness among rural communities regarding various government projects. The importance of policy evaluation is discussed by Sami and Khan (2016), who contemplate the necessity of assessing the effects and efficacy of various governmental initiatives on the advancement of rural areas. The authors additionally commented on the need for improved governance and enhancements to government programmes in order to increase their effectiveness.

Overall it is believed that the outcome of the study will help to suggest measures towards further modification/propagation of the scheme, so as to achieve the dream of a pensioned society and fulfilling the APY's objective of financial inclusion on ground level in a relatively backward region of the country.

## **2.2 Objectives of the Study**

The specific objectives of the study are:

- a) To enumerate the level of awareness of the target population towards APY.
- b) To assess the percentage of population who are aware of the APY and are enrolled for it.
- c) To identify the problems faced by the subscribers in terms of in accessibility and operationality of APY accounts.
- d) To analyse the reasons for non-enrolment amongst those aware of the APY and to identify the barriers to enrolment.
- e) To evaluate causes for dropping-out of subscribers once they have enrolled.
- f) To propose a roadmap for enhancing the awareness and enrolment rate amongst the target population.

Broadly speaking, the study proposes to explore the awareness and the penetration level of the APY in the sample population of Prayagraj Administrative Division, and to assess it in a multi-pronged approach covering the aspects of the scheme implementation, account operation, awareness, distribution channel penetration, consumer protection and grievance resolution.

## **2.3 Research questions**

The proposed work seeks to answer the following research questions:

1. What is the awareness level of the sample population with respect to the APY, viz., its eligibility, pension slabs, benefits, costs/charges, co-contribution benefit, nomination, annuity, etc.?
2. What are the determinants of the account enrolment and operational status of APY subscribers?
3. What sources of information do the subscribers refer to while searching for information on APY?
4. What are the primary issues involved in accessibility and operationality of APY accounts?

5. What factors compel subscribers to drop out of the scheme once enrolled (i.e., what are the probable cause of increasing voluntary pre-mature exits from the APY)?
6. What are the hindrances to enrolment amongst those who are aware of APY, and how can these be overcome?

The research hypotheses flow directly out of these research questions.

### **3. Research Design/ Methodology**

#### **3.1 Scope/Coverage:**

Uttar Pradesh is the most populous state in India with a population of approximately 200 million people. As much as 16.17% of India's population lives in the State.

Uttar Pradesh, which borders Nepal, comprises 18 administrative divisions. Within these 18 divisions, there are a total of 75 districts. Prayagraj Division is one of the important administrative divisions in U.P. It comprises 4 districts, namely Prayagraj, Pratapgarh, Fatehpur and Kaushambi. The largest district in the Division in terms of area is Prayagraj, (5482.0 sq. km.), while Kaushambi has the smallest geographical area (1780.0 sq. km). Pratapgarh has an area of 3717.0 sq. km while Fatehpur is spread across 4152.0 sq km. Prayagraj Division has 61 Development Blocks (Prayagraj – 23, Kaushambi-08, Fatehpur – 13, Pratapgarh -17) and 19 Tehsils (Prayagraj – 08, Kaushambi-03, Fatehpur – 03, Pratapgarh -05).

Based on the objectives, the study is designed to be exploratory in nature. Prayagraj Administrative Division comprises the target population for the study, and encompasses the four districts of Prayagraj, Pratapgarh, Fatehpur and Kaushambi.

Of these four districts, Fatehpur has the distinction of being classified as an aspirational district, and is benchmarked as the 'Best Performing District in the Country' in terms of APY enrollments (2,886 per lakh population). The summary of subscribers registered under APY, district-wise for the four districts under study as on 31/03/2023 (SLBC) is as follows:

**Table 1:** APY Statistics in Prayagraj Administrative Division as on March 31 2023

<b>District</b>	<b>Annual Target</b>	<b>Enrolled in FY 2022-23 (% of Target)</b>	<b>Cumulative APY Accounts</b>
Fatehpur	14,720	43,700 (297%)	198,784
Pratapgarh	18,410	40,223 (218%)	157,456
Kaushambi	9,440	17,616 (187%)	79,339
Prayagraj	38,540	58,879 (153%)	247,677
Total			683,256

Source: SLBC

### **3.2 Primary data collection component**

The primary component of the study comprises a qualitative aspect as well as a quantitative aspect. At the level of implementation, APY is a bank-led model, and bankers have substantial insights into the scheme. Therefore, interviews with bankers are an integral qualitative aspect that have allowed the researchers to conceptualise the functioning of the scheme. They have also helped in drawing out the variables to be analysed.

The quantitative aspect comprises a pilot survey for formalising the instrument. This will be followed by the actual field survey.

The combined results obtained from the two methods, viz. quantitative and qualitative, will be synthesised to yield recommendations.

The methodology adopted for the field survey is further subdivided as-

- a. **Sampling Design:** the basis of sample selection is differentiated on the basis of whether the respondent is an APY subscriber or not. The generic sample, which includes both subscribers and non-subscribers, is drawn on the basis of convenience sampling. The sample in case of APY subscribers is further augmented through purposive sampling, wherein clusters of subscribers are sought out on the basis of subscription-related information available locally. At the level of each district, the sample size has been designed to be proportionate to the proportion of the district's population to the

overall target population, which is the total population of the entire administrative division.

**Table 2:** Profile of districts comprising Prayagraj Administrative Division

District	Tehsils	Blocks	Population (2011 Census)
Fatehpur	3	13	26.32 Lakhs
Pratapgarh	5	17	32.09 Lakhs
Kaushambi	3	8	15.99 Lakhs
Prayagraj	9	23	59.54 Lakhs
<b>PRAYAGRAJ DIVISION</b>	<b>20</b>	<b>61</b>	<b>133.96 Lakhs</b>

- b. Observational Design: for the survey component of the study, a self-administered questionnaire will be used through door to door survey method, as per sampling plan.
- c. Operational Design: this includes extensive field visits and interactions with bankers and beneficiaries.

### 3.3 Secondary data collection component

Secondary data for the study is available in the form of reports generated by banks, especially at the level of the State Level Banking Committee (SLBC). Of this, aggregate-level data are available for dissemination in the public domain, and this data is being used for the purpose of the study.

Additionally, aggregate-level data from PFRDA and the data provided in the Final Report of the 2019 study on Financial Literacy and Inclusion in India conducted by the National Centre for Financial Education (NCFE-FLIS 2019) are being used extensively in the study.

### 3.4 Identification of variables for the study and their measurement scales

For the purpose of the study, several variables have been identified from an extensive review of literature, which are suitable for meeting the specific objectives of the study. Items falling under the category of government schemes have been formulated based on the study conducted by Sami and Khan (2016), Datta and Singh (2012), Krishnamurthy (2006), and

Ambasta (2008). Certain scales were derived from the research conducted by Pamecha and Sharma (2015) as well as Pandey et al. (2016).

- a. Variables measured on scale: the bibliometric analysis performed on the literature surveyed, along with the canons for policy evaluation, have yielded the seven variables which can be measured on Likert-type scale that are of interest to the study. Additionally, the scale items associated with each of these variables have also been identified. The variables along with their associated scale items are tabulated below:

**Table 3:** Variables of the study and associated scale items

Variable	Abbreviation	Scale items	
Accessibility	AC	AC1	Government officials are cooperative and friendly
		AC2	Bank employees possess sufficient information related to the schemes.
		AC3	Bank employees are easily accessible when needed.
		AC4	The APY bank is conveniently located.
Awareness	AW	AW1	I am aware about the APY Scheme and its benefits
		AW2	I am aware of the Entry and Exit Age of the Scheme
		AW3	I am aware about the amount and years of contribution required
Availability	AV	AV1	Benefits of the schemes are easily available.
		AV2	Benefits of the schemes are available within stipulated time.
		AV3	Procedure involved in account opening and operation is easy.
Perceived usefulness	PU	PU1	APY is successfully implemented.
		PU2	Other family members are also the beneficiaries of these schemes.
		PU3	The scheme will cause my purchasing power to increase.
		PU4	The scheme will cause this area to develop.
		PU5	The scheme will be beneficial to me in my old age.

Variable	Abbreviation	Scale items	
		PU6	I will not need to seek employment in my old age.
		PU7	The scheme will increase my social status.
		PU8	My confidence level has increased because of APY.
Effectiveness	EF	EF1	APY is effective in helping me plan for my pensionary needs.
		EF2	The number of APY centres available is sufficient to facilitate my participation in APY.
		EF3	The outreach programmes organised by the agencies arouse the interest of the general public towards APY.
		EF4	The Government/banks provide clear guidelines on the scheme.
		EF5	The promotions done by agencies help citizens understand the <b>importance</b> of saving for old-age income security.
		EF6	The promotions done by agencies help citizens understand the <b>benefits</b> of saving for old-age income security.
Scheme operation	OP	OP1	Bank account opening is easy.
		OP2	I face no problems with banking administration.
		OP3	Proper information is available.
		OP4	There is no difficulty in paperwork.
		OP5	There are no issues/ problems related to personal identification proof.
		OP6	Operation of pension account is easy.
		OP7	I am confident that I can manage my APY account operation.
Barriers	BA	BA1	Interest rate on APY deposits is adequate.
		BA2	I find it easy to continue to subscribe.
		BA3	The amount of pension I will receive in my old age will be sufficient for my requirements.

- b. Demographic variables: The following demographic variables have been included in the study:

**Table 4:** Demographic variables used in the study

<b>Demographic variable</b>	<b>Options</b>
Village/ Town	Village Town
Gender	Male Female
Age Group (approximate, years)	18-25 (Above 18 up to 26) 26-32 (Above 26 up to 33) 33-39 (Above 33 up to 40)
Education Level	Uneducated Some Education Educated up to Class V Educated up to Class X Graduate Post-graduate or above
Are you aware of APY?	Yes No
Are you subscribing to APY?	Yes No Was subscribing but discontinued

Note: the location from where the data has been collected is captured separately by the field investigator.

- c. Open-ended questions: certain open ended questions have also been added to the questionnaire in order to determine non-subscription or dropout after enrolment. These are as follows-
- i. Please give reason, if any, for non- subscription
  - ii. Please give reasons for discontinuation



#### 4. Presentation of Data and Analysis; Tentative findings

A pilot study covering 12 villages of the area of the study was conducted, and 166 respondents were surveyed. A total of 109 responses were obtained which were amenable to analysis for demographic patterns.

##### 4.1 Descriptive statistics based on demographic variables-

**Table 5:** Descriptive statistics based on demographic variables

<b>Gender</b>	<b>No. of respondents</b>	<b>Aware of APY</b>	<b>Enrolled for APY Overall</b>	<b>Aware and Enrolled for APY</b>	<b>Dropped out post enrolment</b>
(i)	(ii)	(iii)	(iv)	(v)	(vi)
Male	73 (67%)	31 (42%)	12 (16%)	12 (39%)	0 (0%)
Female	36 (33%)	7 (19%)	4 (11%)	4 (51%)	1 (25%)
Total	109	38 (35%)	16 (15%)	16 (42%)	1 (1%)

Note:

- i. Column vi is a subset of Column v
- ii. Column v is expressed as a percentage of Column iii whereas Column iv is expressed as a percentage of Column ii
- iii. Figures in parentheses indicate percentages rounded off to the nearest integer

Interestingly, the figures for awareness of APY correspond closely with those indicated in the NCFE-FLIS 2019 for Central India, while enrolment figures are found to be higher at 14.68% than those reported in the 2019 study, which stood at 8%. However, the sample used in the present study is small, and therefore, a clearer picture will emerge once the final survey is complete.

Two interesting highlights of the results of the pilot survey are as below-

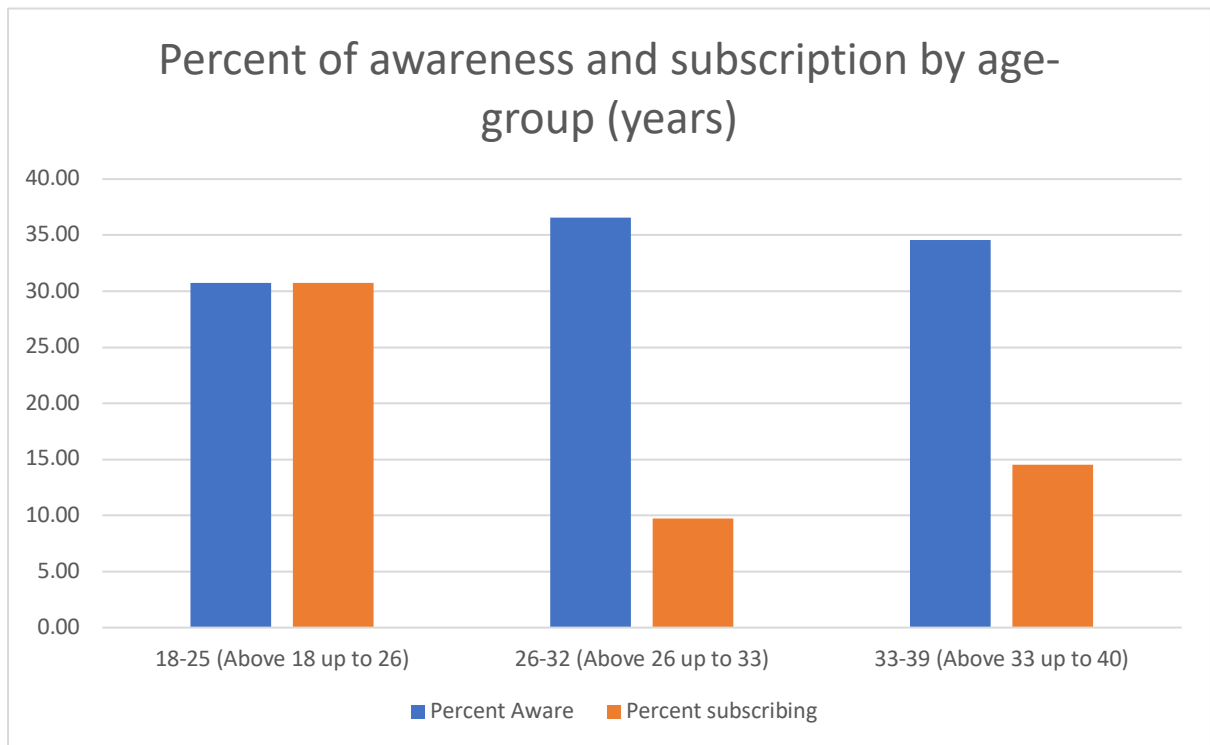
- a. the enrolment rate amongst those aware is substantially high and is observed to be 42%.
- b. although women lag behind men in terms of awareness of APY, they have a substantially higher enrolment rate once they are aware of the scheme.

These observations underscore the need for further enhancing awareness through financial literacy initiatives.

In terms of the percentage of subscribers broken down by age group, Figure 1 indicates that the highest percentage of subscriptions is from the age group 18-25. Data is tabulated below.

**Table 6:** Awareness and subscription levels

Age Group (approximate, years)	Aware	APY Subscribers	Total	Percent Aware	Percent subscribing
18-25 (Above 18 up to 26)	4	4	13	30.77	30.77
26-32 (Above 26 up to 33)	15	4	41	36.59	9.76
33-39 (Above 33 up to 40)	19	8	55	34.55	14.55
<b>Total</b>	<b>38</b>	<b>16</b>	<b>109</b>	<b>34.86</b>	<b>14.68</b>



**Figure 1:** percentage of subscribers by age group

## 4.2 Analysis of scale items

The data was filtered to remove respondents whose responses-

- a. appeared to be patterned; or
- b. had too many missing values

After filtration, 54 valid responses remained, which were used for further analysis.

Based on the analysis of responses on scale, the following values for Cronbach's alpha were obtained for the seven variables taken in the study-

**Table 7:** Cronbach's alpha values of the scale variables

Variable	Cronbach's alpha
Accessibility	0.570
Awareness	0.812
Availability	0.895
Perceived usefulness	0.796
Effectiveness	0.833
Scheme operation	0.755
Barriers	0.708

The above values need to be interpreted with caution considering that the sample is based on a pilot survey and is therefore small. However, the alpha values obtained do indicate that the scale items of individual variables are internally consistent. Therefore, the dataset is taken for factor analysis.

Kaiser-Meyer-Olkin Measure of Sampling Adequacy and Bartlett's Test of Sphericity confirm the amenability of the dataset for factor analysis. Keeping in mind that the study is exploratory in nature, principal component analysis procedure is run, and nine factors are identified. No restriction apart from the underlying requirement of parsimony (Eigenvalue>1) is applied to the number of factors to be identified.

Factor rotation is done by applying a varimax rotation with Kaiser Normalization to simplify the factor structure. The rotated component matrix is given below. Following standard procedure, values below +/- 0.350 are suppressed. No significant cross-loadings are observed:

**Table 8:** Results of EFA

**Rotated Component Matrix<sup>a</sup>**

	Component								
	1	2	3	4	5	6	7	8	9
AW1							.796		
AW2							.847		
AW3							.842		
AC1					.284				

AC2					.459				
AC3					.802				
AC4				.485					
OP1					.780				
OP2					.813				
OP3					.380				
OP4									.596
OP5									.830
OP6								.400	
OP7								.730	
EF1								.765	
EF2		.496							
EF3		.685							
EF4		.686							
EF5				.847					
EF5				.860					
BA1			.650						
BA2	.647								
BA3			.614						
AV1	.817								
AV2	.811								
AV3	.844								
PU1	.662								
PU2		.832							
PU3			.811						
PU4			.688						
PU5						.704			
PU6						.625			
PU7			.569						
PU8		.639							

Extraction Method: Principal Component Analysis.

Rotation Method: Varimax with Kaiser Normalization.

a. Rotation converged in 11 iterations.

Based on the factor analysis, it may be observed that most of the scale items load on to the originally associated variables, as expected. However, two new dimensions (variables) are also identified by the analysis, which merit further analysis.

The nine dimensions (factors/variables) identified through the analysis are as tabulated below:

**Table 9:** Dimensions identified through EFA and associated scale items

Factor No.	Factor Name	Items loading on to variable*
1	Ease of operability of APY	BA2, AV1, AV2, AV3, PU1
2	Effectiveness	EF2, EF3, EF4, PU2, PU8
3	Financial and economic benefits of APY	BA1, BA3, PU3, PU4, PU7
4	Efficiency	AC, EF5, EF6
5	Awareness	AC1, AC2, AC3, OP1, OP2, OP3
6	Old-age income security	PU5, PU6
7	Awareness	AW1, AW2, AW3
8	Self-efficacy	OP6, OP7, EF1
9	Ease of scheme operation	OP4, OP5

\*Note: detailed description of items is provided in preceding table.

It will be interesting to analyse these newly identified dimensions further in the final survey, but at present no change is being made to the factor structure hypothesised at the beginning of the pilot survey, keeping in mind the fact that the pilot survey was based on a small number of respondents.

## 5. Working Conclusion

APY is a much-needed measure in addressing the needs of old-age income security amongst India's growing population. It is designed to help in meeting pensionary requirements of economically vulnerable classes in the country.

At the level of implementation, APY is a bank-led scheme. Interactions carried out with bankers show a very positive attitude amongst bank officials towards the scheme. Their experience regarding the scheme with the target population has also been encouraging. This is

due in part to the fact that the scheme itself is designed in a manner which is easy for bank officials to explain, and for the general populace to understand.

Certain aspects emerging from the ongoing research study are enumerated below.

When compared with NCFE-FLIS 2019 statistics for Central India, which may be used as a benchmark, the following are observed on the basis of the pilot study conducted and detailed in preceding sections-

- a. While the percentage of those aware, tabulated at 35% from the pilot study, is not significantly different from the above-captioned study of 2019 which placed awareness at 37% for Central India, the enrolment levels observed from the pilot study (14%) stand much higher than the 8% reported in FLIS 2019. Even allowing for the difference in area sampled and size of the sample, the figures for enrolment observed in the pilot study do indicate an enhancement in enrolments over the period.
- b. The pilot study clearly indicates that while the awareness level regarding APY is much less amongst females than males, out of those aware of the scheme, enrolment level is substantially higher in females. This is also borne out by interviews with bankers, who also assert that females tend to show greater interest towards the scheme. It is an indication that enhancing the literacy about the scheme amongst females could lead to greater overall participation in the scheme.
- c. The pilot study also indicates that the age group 18-25 is the most ideal group for policymakers to approach, for enrolment in the scheme.
- d. The pilot study does not indicate a high dropout rate post-enrolment.

In addition to the above, exploratory factor analysis indicates that the actual factor structure is likely to be different from the hypothesised factor structure in terms of the constructs of the study.

## **6. Policy recommendations**

While the present research study is still ongoing, the findings of the study will help policy makers review existing policies towards addressing the old age income security needs of a rapidly ageing population. Further, considering the fact that the scheme is for the non-tax paying, “Bottom of the Pyramid” cohort, the study will also provide insights to the policy makers to tweak and customize the financial literacy and capability programs to address the immediate needs of capability building to achieve the dream of a pensioned society.

The scheme is relatively of recent origin, having completed eight years since its inception. There is, therefore, substantial scope for modification in the terms of the scheme to suit the needs of the target population.

Certain policy recommendations, based on the study conducted so far, are as follows-

- a. Enhancement of focus on familiarising women with the scheme will help garner more subscriptions.
- b. Similarly, the figures collected indicate that it is best to tap subscribers at an early age. The age group 18-25 has been observed to have the highest enrolment rate amongst the sample studied. Younger subscribers have a longer period of time for contributing to the scheme, which allows for a smaller monthly subscription amount. This enhances the element of affordability and therefore makes the scheme more attractive.
- c. The added facility of doorstep banking through channels such as banking correspondents could prove as a catalyst for increasing enrolments. Some respondents to the study conducted have clearly mentioned that dealing with bank officials appears to be a daunting task to them. In such a scenario, the banking correspondent, who is typically a member of the same village or neighbouring area, would appear to be a more friendly face. This aspect of human intervention would help in garnering more enthusiasm for the scheme.
- d. Officials who work at the village level, notably BDOs, VDOs, Gram Pradhans, and Gram Sevaks, should be roped in to champion APY amongst the prospective beneficiaries in rural areas.
- e. Publicity for APY may be enhanced using technology interventions, notably through social media and SMS alerts for advertising the benefits and procedures associated with the scheme.

Additional policy recommendations will be made as the study progresses.

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