Pension Finance Literacy of Indian Government Employees with Respect to the National Pension Scheme

Shruti Aggarwal [1]
Ashu Khanna [2]

Abstract

Pension finance literacy of individuals in India is still at a nascent stage owing to low interest and lack of awareness in this sector. The Government of India, in 2004, introduced the National Pension Scheme for government employees in place of the Old Pension Scheme. A survey was done to examine employees' awareness about the new scheme and understand whether they were aware of the various features of the scheme. The survey included a questionnaire designed specifically for government employees and included questions regarding the scheme's features and characteristics. Another aim of the survey was to inspect the satisfaction level of the people from the new scheme. The participants included Central and State government employees. Analysis of the results was done using *t*-test and ANOVA. The effect of demographic variables such as education, gender, income, and marital status on government employees' pension finance literacy was measured. The results revealed the mixed response of employees. Although a good number of people were found to be aware of the various aspects of the scheme, demographic variables majorly affected the awareness level. Employees were found to be dissatisfied with the scheme's performance. People wanted some changes in the scheme in aspects such as withdrawal and taxation and generally thought that the scheme was not employee-friendly. Based on the discussion with employees, some suggestions have been put forward so as to make the scheme more alluring.

Keywords : **NPS, financial literacy, awareness, demographic variables, government employees, DC pension system**

Paper Submission Date : January 15, 2021 ; Paper sent back for Revision: March 18, 2021 ; Paper Acceptance Date : June 29, 2021

To achieve "sustainable and inclusive growth," a faster developing economy like India has to eradicate socio-economic problems such as poverty, discrimination, and inequalities (Planning Commission, 2008). The government needs to provide social security as well as a shield against discrimination for its citizens. Otherwise, poverty is likely to remain due to a drastic decrease in wages and prevailing socio-economic threats, including illness due to old age (Krishna, 2010). But how can a nation like India, which is grappling with a growing informal sector, a poorly educated, unregistered, and mobile population, set up social safety nets such as a multi-billion plus pension system? Pension reform is one of the most challenging problems before India's second wave of economic reforms (Invest India Economic Foundation, 2011), and it demands ambitious public policy strategies mainly at the Central government level.

The Government of India (GOI) introduced the National Pension Scheme (NPS) in January 2004 for Central and State government employees. The NPS was expanded to all people on May 1, 2009, under the umbrella of Pension Fund Regulatory Development Authority (PFRDA). It is an innovative program that offers, on a

[1] *Research Scholar,* Department of Management Studies, Indian Institute of Technology Roorkee, Roorkee, Distt. Haridwar - 247 667, Uttrakhand. (Email : saggarwal@as.iitr.ac.in) ; ORCID iD: https://orcid.org/0000-0003-0234-2920
[2] *Associate Professor,* Department of Management Studies, Indian Institute of Technology Roorkee, Roorkee, Distt. Haridwar - 247 667, Uttrakhand. (Email : ashu.khanna@ms.iitr.ac.in)

DOI : https://doi.org/10.17010/aijer/2021/v10i2-3/167173

voluntary basis, mutual pensions to India's large public sector, except the armed forces. However, this segment of investment has been overlooked by researchers for long and needs consideration on priority because of its importance for the development of the country and its citizens.

This study attempts to look into the level of awareness about NPS among government employees. The effect of demographic variables such as age, income, gender, occupation, and education on the knowledge and awareness of government employees has also been assessed. The study's main aim is to inculcate a sense of responsibility in individuals towards managing their finances and plan for life after retirement. Another objective is to make people aware about the schemes in which one is enrolled. From our point of view, the pension funds and retirement planning sector in India is yet untapped. There have been some studies on determinants of pension finance literacy in various Indian states and union territories, but research specifically on NPS has not been carried out yet. This study attempts to understand the perception of government employees and their preferences. This analysis will be of great help to fund managers, investment bankers, and portfolio managers in the selection of funds for beneficiaries. Last, but not the least, this research tries to make people aware of their NPS accounts as well as various features and characteristics of the same.

Literature Review

Richardson and Kilty (1989) found out that age and income were significant predictors of financial planning. People who had reached retirement were found to be more interested in shares or pensions. The family roles and life cycle influenced the willingness of investors to prepare and invest in any investment option. The authors observed that everyday expenses, such as paying home mortgages and family obligations, such as expenses related to raising children, were first absorbed by investment savings, and the remaining money was then released for retirement savings. Attitudes towards retirement may be less important for pre-retirement planning than social indices. Socio-economic influences are more important to understand retirement financial planning.

Beck's (1984) results indicated that economically and socially privileged employees were more driven to prepare retirement programs as they had the ability to get access to these services. It was observed that older and less qualified employees with low career status, no pension fund provision, and thus with low retirement income were the ones who gained the most from retirement planning services.

Wills and Ross (2002) suggested a model that specified that people must engage in retirement saving decisions. Their research clearly highlighted that the involvement of the person is crucial in the sense of understanding the need to invest for the sake of retirement and recognizing the mechanism of how investments can be made for the same purpose.

With personal involvement, a feeling of ownership is assumed, which allows the consumer to have trust. The definition of the experiential learning cycle model suggests that it is based on the foundation of investment. On the grounds of no engagement or non-involvement, the experience is lost. Individuals should not learn to save until any financial decision is taken for retirement purposes.

Personal retirement funds are required for financial purposes. In the decision to experience planned savings, it is necessary for individuals to be involved in the process. The growing number of people in retirement due to the decreasing birth rate is similarly significant because life expectancy has helped people live longer. It is crucial for individuals to get actively engaged in their retirement portfolios.

In his article, Imam (2011) explored the possible and fundamental role played by the government in handling pension funds. The author observed that the government plays an important role in the success of investments in terms of cost and return and by correctly placing pension accounts to earn the benefits. To some extent, home bias exists when regulators do not place stringent limitations on the proportion of equities, and thus, a substantial extent for improvement in the status of the current system is possible. The tax treatment for making the current pension plan fair is another problem that needs attention.

Sane and Thomas (2014) proposed some immediate measures that could be undertaken since the PFRDA Bill was passed at the end of 2013. These are : (a) establishing portability, (b) enhancing investment options, (c) rationalizing long-term return investment recommendations, and keeping tax policies consistent, (d) increasing accountability, and (f) improving the awareness and usability of NPS while at the same time ensuring that consumer interests are secured against missales and fraud.

The consumer's age is an obvious variable, and it has a huge effect on financial preparation for retirement purposes. The gender of the investor is also an important variable. Because of social and economic development, working environments and trends have evolved in recent decades and have shaped men and women in their own ways (Weagley & Eunjeong, 2004).

Sunden and Surette (1998) indicated that there are significant gaps between men and women in the field of financial decision-making. For example, women prefer less risky investment choices than men, and their investment decisions vary considerably. On the other hand, men are far more adventurous in taking financial risks because they have the upper hand in family decisions.

Numerous research studies have shown that retirement readiness usually increases with age and the older generation shows greater interest in financial preparation for retirement (Evans et al., 1985; Kilty & Behling, 1986). Anticipatory training must begin as early as 15 years of age, much before the eventual retirement, but this phase is not well understood among practitioners (Beck, 1984; Kilty & Behling, 1986).

Jacobs-Lawson and Hershey (2002) intended to supplement this line of study by examining the degree to which demographic variables (age, gender, income, and educational background) are linked to workers' expectations of financial security after retirement. Data showed that demographic factors were related to personal views of how expensive it is to finance one's retirement and perceptions of the value of personal savings, income, pension plans, social security, and family income.

Financial expertise has been described as the ability to make informed judgments and make successful decisions on the use and management of funds (Worthington, 2005). Remund (2010), on the other hand, described it as a test of recognizing the core financial principles. Financial literacy helps individuals develop their financial skills and gives them the courage to make financial choices about their pension plans (Agnew et al., 2007; Choi et al., 2005). Awareness of investments and savings plans are crucial to successful long-term investment choices that are applicable to pension funds (Landerretche & Martinez, 2013).

Households with poor financial awareness do not prepare and thus have smaller retirement funds, shorter planning horizons, and are less likely to commit to the decision of the pension fund rather than those with the necessary knowledge (Lusardi, 2006; Mitchell & Utkus, 2003).

Financial literacy is closely associated with self-interested financial conduct because, without it, individuals will have debt issues, not lend, indulge in exorbitant mortgages, and not prepare for retirement (Hastings et al., 2011; Kefela, 2010; Landerretche & Martinez, 2011). Financial awareness has been seen to have a clear beneficial connection with people's interest in matters related to pension (Moore, 2003), perception of pension rights and responsibilities (Choi et al., 2005), increased risk behavior (Agnew & Szykman, 2005), increased investments and expenditure in dynamic properties (Lusardi & Mitchell, 2007), and enhanced creative ideas (Calvert et al., 2005). The limited effectiveness of voluntary savings schemes is related to low levels of awareness. Arnone (2004) recorded that the general public differs according to the kinds of information they require and should process in pension finance. Arnone thus indicated that factors such as age, level of education, gender, work experience, level of management, salary, and marital status affected the understanding of a person's pension finance issues.

Acharjee and Dutta (2013) stated that as economic development increases, the rate of population aging gains momentum because of the decisive impact of the former upon the death rate. Since India has experienced enormous economic growth since Independence, it has resulted in the longevity rate. Therefore, planning for life after retirement becomes essential in this scenario.

Research Gap

The pension sector in India is untapped and understudied. The NPS was made compulsory for government employees in the year 2004 on account of the government's burgeoning debts caused by the defined benefit (DB) pension system. The NPS contains several features and characteristics that are distinct from the Old Pension Scheme. Although obligatory, employees are yet unaware of several features in the scheme. The reasons for this can be attributed to factors such as ignorance of employees towards the Scheme, indifferent attitude of employees, and assumed complexity in the new system that debars employees from looking into the intricacies of the system. Our study is the first of its kind and looks into the awareness level of government employees. It could be noticed that most of the previous research dealt with aspects such as predicting the determinants of retirement literacy and financial planning behavior in Indian states and cities, but no study has looked at the awareness level of government employees. Thus, our research attempts to look into the knowledge and awareness of government employees in India about NPS.

Objectives of the Study

- To study the level of awareness among government employees about financial planning for retirement in the wealth creation stage.
- To assess the knowledge of government employees about the NPS.
- To predict the effect of demographic variables such as age, education, income level, marital status, and gender on the pension finance literacy of individuals.

Research Methodology

This research study is an analytical and descriptive one. The population for the study consisted of Central and State government employees who had joined service after 2004 (since employees who joined before 2004 came under the Old Pension System). The area selected for the study was Roorkee and the nearby towns of Dehradun and Saharanpur. The study selected a sample of 100 respondents who were selected through convenience sampling. The respondents included bank employees, employees working at technical and non-technical levels in IIT Roorkee, scientists and clerical staff at CSIR, FCI employees, and state university professors. A mix of all types of jobs and occupations was taken so as to have a clear picture of the awareness level of the people. A structured questionnaire was used as the tool for the survey. The questionnaire consisted of two sections. The first section included questions about the demographic profiles of the individuals and the second section comprised of questions relating to knowledge and awareness of the employees about the NPS. Out of 100 respondents, 25 people returned incomplete questionnaires. Therefore, only 75 questionnaires were considered for the analysis. Qualitative data scaling techniques such as ordinal and nominal scales were used in the study. The data was analyzed with the help of Statistical Package for Social Sciences (SPSS 20).

The descriptive statistics included the calculation of frequency, percentiles, mean, and standard deviation. Independent sample *t*-test and ANOVA are used to predict awareness based on demographic variables and inferential analysis. The survey was conducted during November – December 2019.

Validity and Reliability of the Questionnaire

To ensure that the survey instrument was suitable for data collection, the survey was pre-tested on 10 participants. These participants commented on the overall suitability and face validity of the questionnaire. The

questionnaire's content validity was guaranteed by including items supported by literature review, as stated by Arnone (2004) and Jacobs-Lawson and Hershey (2002).

Data Analysis and Results

The respondents' awareness about the NPS is determined based on questions related to features and current updates.

The demographic profile in Table 1 shows that a majority of the respondents belonged to the age group of 31– 40 years. Most of them possessed a college degree, and therefore, we can infer that their awareness level was high on financial terms. A majority (68%) of the respondents were male, and 80% were married.

Table 1. ***Demographic Profile of the Respondents***

	Demographic Characteristics	Frequency	Percentage (%)
Age	18–30	24	32
	31–40	40	53.3
	41–50	9	12
	Above 50 years	2	2.7
	Total	**75**	**100**
Education	High school	–	–
	Intermediate	–	–
	Graduation	24	32
	Postgraduation	36	48
	Doctoral or equivalent	15	20
	Total	**75**	**100**
Gender	Male	51	68
	Female	24	32
	Total	**75**	**100**
Marital Status	Married	60	80
	Unmarried	15	20
	Total	**75**	**100**
Income Level (INR)	20,000 – 40,000	17	22.7
	40,000 – 60,000	26	34.7
	60,000 – 80,000	17	22.7
	Above 80,000	15	20
	Total	**75**	**100**

Graphical Depiction of Descriptive Analysis of the Questionnaire

From Figure 1, we can infer that 65% of the people were aware, and 35% were unaware of annual returns earned on their NPS accounts. Figure 2 implies that 69% of the people had knowledge about two tiers; whereas, 31% did not know about the two-tier facility in NPS accounts. From Figure 3, we can observe that while 56% of the people tracked their accounts regularly, 44% did not. On the criteria of knowledge of government contribution in NPS, Figure 4 indicates that while 93% of people were aware of it, 7% were not.

Figure 1. ***Knowledge about Annual Returns***

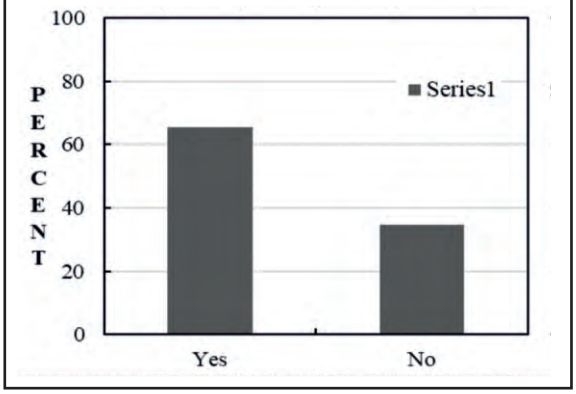


Figure 2. ***Awareness about Two Tiers***

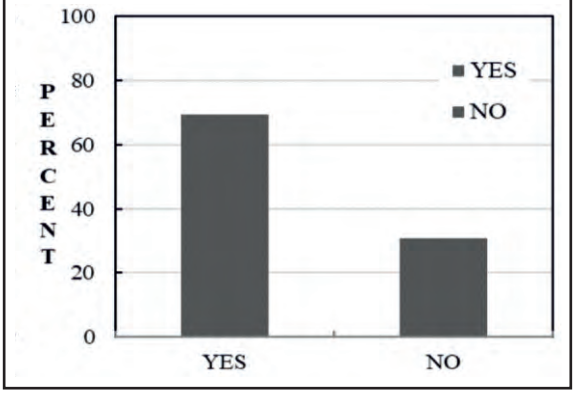


Figure 3. ***Tracking of NPS Accounts on a Regular Basis***

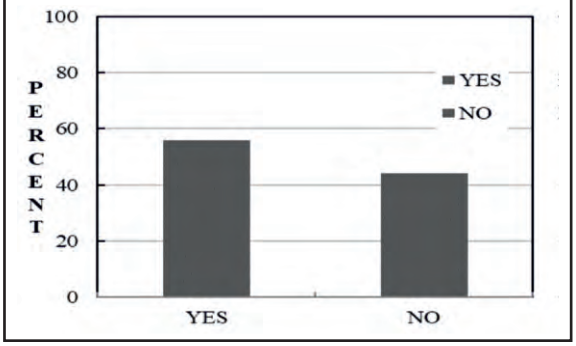


Figure 4. ***Knowledge of Government Contribution in NPS***

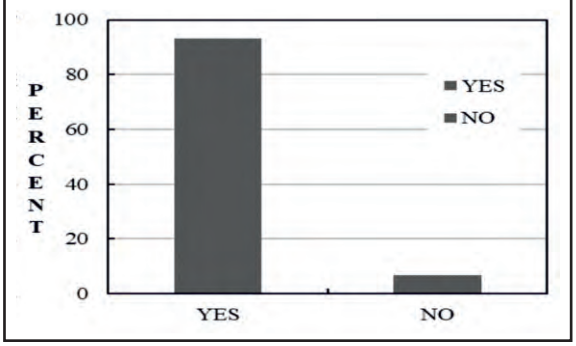


Figure 5 shows that 4% of people stated that there were only three fund managers, 21% knew about a total of four fund managers, 35% stated that there were more than four fund managers, and 40% ticked the option "don't know."

Figure 6 shows that 32% of the people were aware of the change that government contribution increased from 10% to 14%. Only 6.7% of the people knew that 60% of the corpus paid after retirement had become tax-free. Again, just 6.7% of the people were aware that government employees could invest in the tier two scheme as well. Forty percent of the respondents knew about all the recent changes, whereas 14.7% knew about none. Thus, a good number of respondents were aware of the changes in the NPS scheme.

From Figure 7, it can be concluded that 73% of the respondents invested their money in the public provident fund (PPF), which shows that it is a popular investment among government employees. However, 27% percent of the respondents had not invested in PPF. As far as satisfaction with the performance of NPS is concerned, Figure 8 clearly shows that 47% of the respondents were satisfied, and the rest (53%) were unsatisfied.

Analysis of Respondents' Awareness About NPS w.r.t Demographic Variables

We have analyzed awareness of government employees about the NPS with regard to:

- Education
- Age
- Gender

Figure 5. ***Number of Fund Managers in NPS***

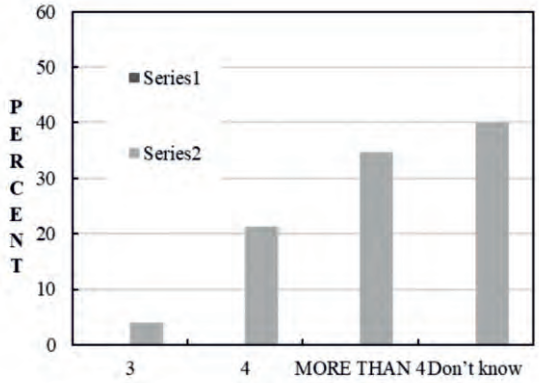
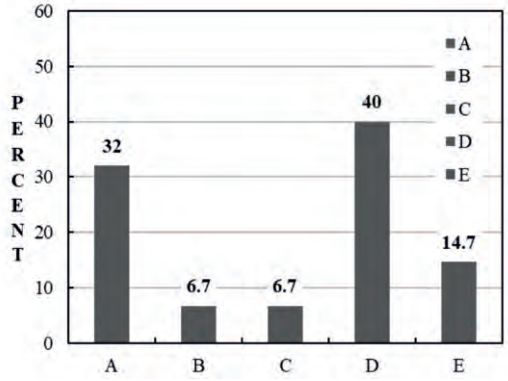


Figure 6. ***Awareness of Recent Changes in NPS***



Note.

A = Government contribution has increased from 10% to 14%.
B = 60% of corpus paid after retirement is tax-free.
C = Government employees can also invest in the tier two scheme.
D = All.
E = Awareness about none.

Figure 7. ***Investment in Public Provident Fund***

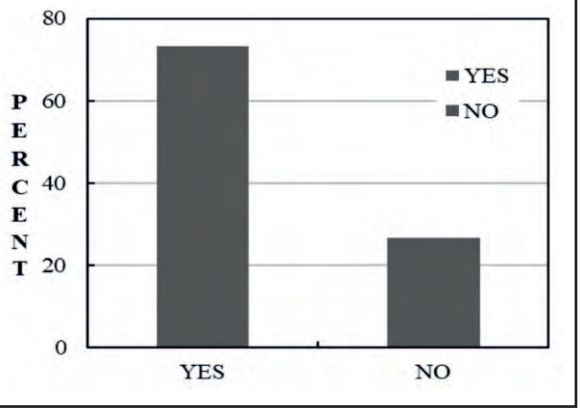
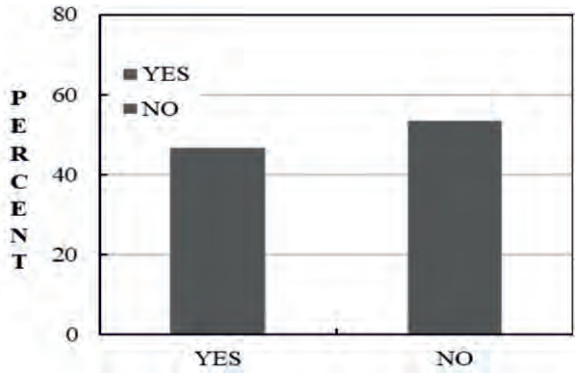


Figure 8. ***Satisfaction with the Performance of NPS***



- Marital Status
- Monthly income

ANOVA (Analysis of Variance) and independent *t*-test are used to analyze the demographic variables. First, we test the following hypotheses :

- **H01:** Respondents' awareness about the National Pension Scheme is independent of gender.
- **Ha1:** Respondents' awareness about the National Pension Scheme is dependent on gender.

In Table 2, since the *p*-value is more than 0.05 in all cases, except for the choice of the fund manager (0.015), we can conclude that there is no significant difference between male and female employees' awareness of NPS, except the first dimension, that is, choice of the fund manager. Therefore, we accept H01. In the case of dimension nos. 1, 3, 4, 5, and 6, the mean score of females is greater than males, which implies that females' level of

Table 2. ***t-test for the Significance of the Difference Between Male and Female Employees with Respect to the Awareness of NPS***

S. No.	Dimensions of Awareness	Gender	Mean	*SD*	*t*-value	*p*-value
1	Choice of fund manager in NPS	Male	1.2549	0.4401	–2.502	0.015
		Female	1.5417	0.5089		
2	Knowledge about annual returns earned in NPS	Male	1.3529	0.4826	0.164	0.870
		Female	1.3333	0.4815		
3	Awareness about two tiers	Male	1.2941	0.4601	–0.339	0.735
		Female	1.3333	0.4815		
4	Tracking of NPS accounts on regular basis	Male	1.3922	0.4930	–1.212	0.229
		Female	1.5417	0.5089		
5	Knowledge of government contribution in NPS accounts	Male	1.0588	0.2376	–0.392	0.696
		Female	1.0833	0.2823		
6	Awareness about the recent changes made in NPS	Male	2.6222	1.4347	–0.161	0.873
		Female	2.6842	1.3355		
7	Investment in public provident fund	Male	1.3333	0.4761	1.925	0.058
		Female	1.1250	0.3378		
8	Satisfaction with the performance of NPS	Male	1.5490	0.5025	0.392	0.696
		Female	1.5000	0.5107		

awareness is greater than males. In dimensions nos. 2, 7, and 8, the males have a better mean score than females. This indicates that females were much more aware than their male counterparts in the knowledge and management of finances. This showcases the changing Indian scenario of women empowerment and the high finance literacy among women. This is a very positive and significant change, especially in India, where women used to look after the home and hearth until a few decades ago and were totally unaware of the external environment in which they lived.

The following hypotheses are considered for testing the variable of marital status:

- **H02 :** Respondents' awareness about the National Pension Scheme is independent of marital status.
- **Ha2 :** Respondents' awareness about the National Pension Scheme is dependent on marital status.

Since in none of the dimensions in Table 3 the score of *p*-value was less than 0.05, the results do not hold significance, which means that there is no significant difference between married and unmarried employees regarding the awareness level of NPS. Therefore, we accept H02. The mean value is greater for married people in the case of dimension nos. 1 (1.366), 6 (2.764), and 8 (1.550), compared to unmarried people. In two dimensions (5 and 7), the mean value is equal in married and unmarried people, indicating that there is no difference in awareness level between married and unmarried people on these two dimensions. In dimensions 2, 3, and 4, the mean value is greater for unmarried people than married people, indicating their high level of awareness on these dimensions.

Thus, from the results, we can conclude that there is no significant difference between married and unmarried people in the awareness level of NPS. This is analyzed by the *p*-value as well as the mean values.

Next, the following hypotheses are tested for the variable of age:

Table 3. ***t-test for the Significance of the Difference Between Married and Unmarried Employees with Respect to the Awareness of NPS***

S. No.	Dimension of Awareness	Marital Status	Mean	*SD*	*t*-value	*p*-value
1	Choice of fund manager in NPS	Married	1.3667	0.4895	0.721	0.473
		Unmarried	1.2667	0.4577		
2	Knowledge about annual returns earned in NPS	Married	1.3333	0.4753	–0.480	0.633
		Unmarried	1.4000	0.5070		
3	Awareness about two tiers	Married	1.3000	0.4621	–0.247	0.805
		Unmarried	1.3333	0.4879		
4	Tracking of NPS accounts on regular basis	Married	1.4167	0.4971	–0.807	0.422
		Unmarried	1.5333	0.5164		
5	Knowledge of government contribution in NPS accounts	Married	1.0667	0.2515	0.000	1.000
		Unmarried	1.0667	0.2582		
6	Awareness about the recent changes made in NPS	Married	2.7647	1.3503	1.420	0.161
		Unmarried	2.1538	1.5191		
7	Investment in public provident fund	Married	1.2667	0.4459	0.000	1.000
		Unmarried	1.2667	0.4577		
8	Satisfaction with the performance of NPS	Married	1.5500	0.5016	0.572	0.569
		Unmarried	1.4667	0.5164		

- **H03:** Respondents' awareness about the National Pension Scheme is independent of age.
- **Ha3:** Respondents' awareness about the National Pension Scheme is dependent on age.

In Table 4, none of the dimensions hold a significant value less than 0.05; hence, we conclude that there is no difference among the age groups on the awareness level of NPS. Therefore, H03 is accepted. The variable of income level is tested with the following hypotheses :

- **H04 :** Respondents' awareness about the National Pension Scheme is independent of income level.
- **Ha4 :** Respondents' awareness about the National Pension Scheme is dependent on income level.

As shown in Table 5, the *p*-value of dimension 2 (0.023) is less than the value at the 5% level of significance (i.e., 0.05). Thus, a significant difference could be seen among people of different income levels on the dimension of knowledge of annual returns earned on NPS. There is much difference in the mean values too of different income level groups in dimension 2. Overall, from the mean scores of different dimensions, we can estimate that

Table 4. ***ANOVA for Significant Differences Among Age Groups with Respect to Awareness Levels of NPS***

S. No.	Dimensions of Awareness	Age Group	Mean	*SD*	*F*-value	*p*-value
1	Choice of fund manager in NPS	18–30	1.3750	0.4945	0.863	0.464
		31–40	1.3750	0.4902		
		41–50	1.1111	0.3333		
		Above 50 years	1.5000	0.7071		
2	Knowledge about annual returns earned in NPS	18–30	1.4167	0.5036	0.358	0.783

		31–40	1.3000	0.4641		
		41–50	1.3333	0.5000		
		Above 50 years	1.5000	0.7071		
3	Awareness about two tiers	18–30	1.2917	0.4643	0.556	0.646
		31–40	1.3000	0.4641		
		41–50	1.4444	0.5270		
		Above 50 years	1.0000	0.0000		
4	Tracking of NPS accounts on regular basis	18–30	1.4583	0.5089	0.858	0.467
		31–40	1.3750	0.4902		
		41–50	1.6667	0.5000		
		Above 50 years	1.5000	0.7071		
5	Knowledge of government contribution in NPS accounts	18–30	1.0417	0.2041	2.337	0.081
		31–40	1.0500	0.2207		
		41–50	1.1111	0.3333		
		Above 50 years	1.5000	0.7071		
6	Awareness about the recent changes made in NPS	18–30	2.5500	1.3945	0.783	0.508
		31–40	2.6389	1.3969		
		41–50	3.1429	1.4638		
		Above 50 years	1.0000	–		
7	Investment in public provident fund	18–30	1.4167	0.5036	1.675	0.180
		31–40	1.2250	0.4229		
		41–50	1.1111	0.3333		
		Above 50 years	1.0000	0.0000		
8	Satisfaction with the performance of NPS	18–30	1.4583	0.5089	0.271	0.846
		31–40	1.5750	0.5006		
		41–50	1.5556	0.5270		
		Above 50 years	1.5000	0.7071		

people in the high-income group were much more aware than people in the low-income group. This can be mainly due to their high contribution to NPS accounts, which induced them to keep updates of their accounts. Another reason could be that people usually fall in the high-income bracket in the later years of their service when the retirement time approaches, and at this time, they become more concerned about their retirement funds. Overall, we accept H04 and reject Ha4.

Next, the variable of education is tested with the following hypotheses :

- **H05 :** Respondents' awareness of the National Pension Scheme is independent of education.
- **Ha5 :** Respondents' awareness of the National Pension Scheme is dependent on education.

Table 6 shows that the *p*-values of dimension nos. 2 (.020), 5 (.040), 6 (.005), 7 (.047) are less than the value at the 5% level of significance (0.05). Therefore, it holds that there is a significant difference among the groups on these dimensions based on the education level. Overall, we accept Ha5 since it is evident that education plays a great role in awareness. When we compare the mean scores of different education levels across different

Table 5. ***ANOVA for Significant Differences Among Income Levels of Employees with Respect to Awareness Levels of NPS***

S. No.	Dimensions of Awareness	Income Level	Mean	*SD*	*F*-value	*p*-value
1	Choice of fund manager in NPS	20,000–40,000	1.2353	0.4372	1.445	0.237
		40,000–60,000	1.2692	0.4523		
		60,000–80,000	1.5294	0.5145		
		Above 80,000	1.4000	0.5070		
2	Knowledge about annual returns earned in NPS	20,000–40,000	1.2353	0.4372	3.380	0.023
		40,000–60,000	1.5769	0.5038		
		60,000–80,000	1.2353	0.4372		
		Above 80,000	1.2000	0.4140		
3	Awareness about two tiers	20,000–40,000	1.3529	0.4925	0.868	0.462
		40,000–60,000	1.3462	0.4851		
		60,000–80,000	1.3529	0.4925		
		Above 80,000	1.1333	0.3518		
4	Tracking of NPS accounts on regular basis	20,000–40,000	1.2941	0.4696	0.634	0.596
		40,000–60,000	1.5000	0.5099		
		60,000–80,000	1.4706	0.5145		
		Above 80,000	1.4667	0.5164		
5	Knowledge of government contribution in NPS accounts	20,000–40,000	1.1176	0.3321	0.596	0.620
		40,000–60,000	1.0769	0.2717		
		60,000–80,000	1.0588	0.2425		
		Above 80,000	1.0000	0.0000		
6	Awareness about the recent changes made in NPS	20,000–40,000	2.1538	1.5191	1.379	0.258
		40,000–60,000	2.5417	1.4440		
		60,000–80,000	2.7143	1.3259		
		Above 80,000	3.2308	1.1657		
7	Investment in public provident fund	20,000–40,000	1.2353	0.4372	0.527	0.665
		40,000–60,000	1.3462	0.4851		
		60,000–80,000	1.1765	0.3929		
		Above 80,000	1.2667	0.4577		
8	Satisfaction with the performance of NPS	20,000–40,000	1.4118	0.5073	0.553	0.648
		40,000–60,000	1.6154	0.4961		
		60,000–80,000	1.5294	0.5145		
		Above 80,000	1.5333	0.5164		

dimensions, it is found that highly educated people or people with a good education were more aware of the features of NPS. Thus, we can conclude from the results that education plays a great and positive role in people's awareness. Therefore, education is one parameter that impacts the awareness of people about the NPS the most. People should be educated more, and awareness programs should be conducted for employees to enhance their knowledge and keep them updated.

Table 6. ***ANOVA for Significant Differences Among Education Level of Employees with Respect to Awareness Levels of NPS***

S. No.	Dimensions of Awareness	Education Level	Mean	*SD*	*F*-value	*p*-value
1	Choice of fund manager in NPS	Graduation	1.250	0.4423	0.876	0.421
		Postgraduation	1.416	0.5000		
		Doctorate or equivalent	1.333	0.4879		
2	Knowledge about annual returns earned in NPS	Graduation	1.500	0.5107	4.129	0.020
		Postgraduation	1.361	0.4871		
		Doctorate or equivalent	1.066	0.2582		
3	Awareness about two tiers	Graduation	1.416	0.5036	0.998	0.374
		Postgraduation	1.250	0.4391		
		Doctorate or equivalent	1.266	0.4577		
4	Tracking of NPS accounts on regular basis	Graduation	1.416	0.5036	0.321	0.726
		Postgraduation	1.416	0.5000		
		Doctorate or equivalent	1.533	0.5164		
5	Knowledge of government contribution in NPS accounts	Graduation	1.166	0.3806	3.375	0.040
		Postgraduation	1.000	0.0000		
		Doctorate or equivalent	1.066	0.2582		
6	Awareness about the recent changes made in NPS	Graduation	2.000	1.3784	5.737	0.005
		Postgraduation	2.709	1.3464		
		Doctorate or equivalent	3.583	0.9962		
7	Investment in public provident fund	Graduation	1.416	0.5036		0.047
		Postgraduation	1.138	0.3507		
		Doctorate or equivalent	1.333	0.4879		
8	Satisfaction with the performance of NPS	Graduation	1.500	0.5107		0.701
		Postgraduation	1.583	0.5000		
		Doctorate or equivalent	1.466	0.5164		

Findings

The descriptive analysis of the questionnaire gave a mixed response of the respondents on various awareness dimensions. Overall, the percentage of people who were aware of the policies and features of NPS was more than the ones who were unaware of the same. As far as investment in the public provident fund is concerned, the respondents liked to invest in specific alternatives rather than investing in one source only. However, PPF is found to be the most popular investment source because the amount invested in this scheme is tax-deductible and has a fixed interest rate. The number of people satisfied and unsatisfied with the performance of NPS is almost equal, although a tad higher for unsatisfied ones (53%). This can be due to the uncertainty of the pension amount they would get in the future since the investments are market-linked, and the total corpus depends on the returns earned in the stock and debt markets. People in India still struggle to understand the concept of the annuity system, and that is yet another problem.

In the analysis of the NPS with regard to demographic variables, it can be concluded from Table 6 that education has the maximum impact on people's awareness of NPS. People with higher levels of education are certainly more aware and updated on the various dimensions of awareness than people with less education. There

was a mixed response for other demographic variables such as gender, marital status, income level, and age group. Table 2 shows that females were more aware between male and female respondents, thus implying the changing Indian scenario and a much better position of women in society. On the front of marital status, as shown in Table 3, we did not find a significant difference in the awareness levels between married and unmarried employees. This signifies that unmarried people also pay an equal amount of attention to managing their funds. The young generation today is much more concerned about managing their finances. As far as age groups are concerned, it can be clearly inferred from Table 4 that there is no significant difference among the various age groups. For the variable of income group, Table 5 shows a significant difference among people with various income levels. It is found that people falling in high-income brackets were much more aware and updated about NPS than their low-income counterparts.

Policy Implications

The results of our study are important for the government, pension fund managers, and pension funds themselves. The study results will help fund managers identify the choices and dislikes of employees about the various aspects of the National Pension Scheme, which will eventually help them make the necessary changes. The government can also make alterations to the Scheme and make it more attractive and lucrative. Employee satisfaction is one of the crucial aspects for any employer, and this study suggests some of the significant measures that can bring employee satisfaction.

The COVID-19 pandemic has also affected pension funds and pension schemes on a global level. Several people have lost their jobs due to pandemic-induced situations and thus have become unable to invest, be it bank schemes or pension funds. Share indices have fallen hugely, causing setbacks to companies and, in turn, fund managers who had invested in those companies. A majority of pension funds have allowed withdrawal from the funds during this pandemic, which is likely to affect retirement income in the long run.

Suggestions

Suggestions from this research study can be outlined in the following categories:

- Increasing awareness level of people.
- Changes in NPS.
- Role of intermediaries.

Increasing Awareness Levels of People

(i) The NPS should be advertised through various media channels such as television, newspapers, and radio to make the scheme popular among the masses.

(ii) As we found that many people are still unaware of the various features of the scheme, it is suggested that knowledge imparting sessions should be conducted in various government departments to increase the awareness level of employees.

(iii) Employees are unaware of the various terminologies associated with the NPS, such as the tier system, annuity market, and asset allocation options, and it is suggested that awareness campaigns should be made in this regard.

Changes in NPS

(i) There is a need to change the NPS structure from taxation perspectives, such as making it from Exempt-Exempt-Tax to Exempt-Exempt-Exempt, similar to PPF and certain tax-saving insurance schemes.

(ii) The withdrawal structure of the scheme needs to change. As of now, premature withdrawal is not available, and hence, people are unable to withdraw money even at the time of emergency. To make the scheme more attractive, more flexibility is required.

(iii) The concept of annuity is still not clear for many. Moreover, the low-interest rates in the annuity lead to individuals' dislike of the annuity system. The annuity system needs to be reformed.

Role of Intermediaries

(i) Intermediaries should focus on increasing awareness about retirement planning among prospective customers rather than simply selling financial products to them.

(ii) The intermediary channel must be incentivized and mandated to push the Scheme.

(iii) Reverse mortgage is an important financial product and must be suggested by intermediaries as the current awareness of individuals in this area is very low.

Conclusion

While carrying out the survey, we got the opportunity to know the approach as well as people's understanding of NPS. Since NPS has been made compulsory for government employees, people tend to compare the Scheme with the Old Pension Scheme. People are not satisfied with certain aspects of the Scheme and want some changes in the same. They are still unable to come to terms with the DC pension scheme in lieu of the DB pension scheme since there is no fixed amount of funds or pension at the time of retirement. However, DC pension schemes are the need of the hour; it is almost impossible for the government to undertake social security measures for each and every individual of the country. The DC pension system has been adopted in the lines of pension systems prevalent in some of the world's developed countries such as the USA, the UK, etc. The economic and demographic structure of these countries differs from India to a great extent. India's population is vast, and a good number of them are still living in poor conditions. This large section of people cannot think beyond their basic needs of food, clothing, and shelter, so the concept of retirement planning does not exist for them. Therefore, to make the concept of retirement planning, specifically the NPS, more popular among the masses, certain changes regarding taxation and withdrawal of money need to be made. The scheme needs a massive push-up from the government in order to take it to every individual of the country. A certain pension amount should be guaranteed so that people do not feel skeptical and are driven to place their trust in the scheme.

Limitations of the Study and Scope for Future Research

The study was conducted on government employees from Roorkee and nearby towns of Dehradun and Saharanpur. Due to the small sample size, the results of the study cannot be generalized for other population of the country. The results can vary if the study area changes to urban, semi-urban, or rural contexts.

Since in-depth studies of this nature have long-term socio-economic implications and repercussions, the scope of this study can be further expanded in the following areas:

- The current work was restricted to the cities of Roorkee, Dehradun, and Saharanpur. A comparative study of equivalent cases in other cities in the country can be taken up in the future.
- Further research can be done by employing new methods like mystery audit to understand the knowledge levels of intermediaries and consumers' preference of investment tools for retirement purposes.

Authors' Contribution

Dr. Ashu Khanna conceived the idea and developed the framework for the study. Shruti Aggarwal did the literature review, looked for high repute research papers, filtered them based on keywords, and developed the concepts relevant to the study design. She developed the questionnaire, completed it by sending it to the respondents, and received the filled-up copies. She then analyzed the questionnaires in SPSS 20 software and wrote the manuscript. Dr. Ashu Khanna supervised the study at various intervals.

Conflict of Interest

The authors certify that they have no affiliations with or involvement in any organization or entity with any financial interest or non-financial interest in the subject matter or materials discussed in this manuscript.

Funding Acknowledgement

The authors received no financial support for the research, authorship, and/or for the publication of this article.

References

Acharjee, C., & Dutta, S. (2013). Relationship between economic development and population ageing: An empirical study on selected states of India. *Arthshastra Indian Journal of Economics and Research, 2*(3), 23 – 31. https://doi.org/10.17010/aijer/2013/v2i3/54519.

Agnew, J. R., & Szykman, L. R. (2005). Asset allocation and information overload : The influence of information display, asset choice, and investor experience. *Journal of Behavioral Finance, 6*(2), 57–70. https://doi.org/10.1207/s15427579jpfm0602_2

Agnew, J. R., Szykman, L., Utkus, S. P., & Young, J. A. (2007). *Literacy, trust and 401 (K) savings behavior.* https://dx.doi.org/10.2139/ssrn.1299171

Arnone, W. J. (2004). *Educating pension plan participants* (Pension Research Council Working Paper, No. 2004–07). The Wharton School, University of Pennsylvania. https://repository.upenn.edu/prc_papers/398

Beck, S. H. (1984). Retirement preparation programs: Differentials in opportunity and use. *Journal of Gerontology,* 39(5), 596 – 602. https://doi.org/10.1093/geronj/39.5.596

Calvert, L., Campbell, J. Y, & Sodini, P. (2006). *Down or out: Assessing the welfare costs of household investment mistakes* (NBER Working Paper No. 12030). National Bureau of Economic Research. https://doi.org/10.3386/w12030

Choi, J., Laibson, D., Madrian, B., & Metrick, A. (2005). Saving for retirement on the path of least resistance. In E. J. McCaffery & J. Slemrod (Eds.), *Behavioral public finance: Toward a new agenda* (pp. 304 – 351). Russell Sage Foundation.

Evans, L., Ekerdt, D. J., & Bosse, R. (1985). Proximity to retirement and anticipatory involvement : Findings from the normative aging study. *Journal of Gerontology, 40*(3), 368–374. https://doi.org/10.1093/geronj/40.3.368

Hastings, J., Mitchell, O. S., & Chyn, E. (2011). *Financial literacy and pension fund fees. Trends and issues.* TIAA-CREF Institute. https://www.tiaainstitute.org/sites/default/f

Imam, A. (2011). Pension fund management in India: Government role and regulatory issues. *ZENITH: International Journal of Multidisciplinary Research, 1*(7), 377–387.

Invest India Economic Foundation. (2011). *India's pension reform: Chronology of events.* IIEF, New Delhi.

Jacobs-Lawson, J. M., & Hershey, D. A. (2002). Perceptions of financial stability in retirement : Do Americans really know what to expect ? In S. P. Shohov (Ed.), *Advances in psychology research* (Vol. 22, pp. 123–136). NOVA Publishing Company.

Kefela, G. T. (2010). Promoting access to finance by empowering consumers: Financial literacy in developing countries. *Educational Research and Reviews, 5*(5), 205–212. https://academicjournals.org/article/article1379607640_kefela.pdf

Kilty, K. M., & Behling, J. H. (1986). Retirement financial planning among professional workers. *The Gerontologist, 26*(5), 525 – 530. https://doi.org/10.1093/geront/26.5.525

Krishna, A. (2010). *One illness away: Why people become poor and how they escape poverty.* Oxford University Press.

Landerretche, O., & Martinez, C. (2013). Voluntary savings, financial behavior and pension finance literacy: Evidence from Chile. *Journal of Pension Economics and Finance, 12*(3), 251–297. https://doi.org/10.1017/S1474747212000340

Lusardi, A., & Mitchell, O. S. (2007). *Financial literacy and retirement planning: New evidence from the Rand American Life Panel* (Michigan Retirement Research Center Research Paper No. WP 2007-157). http://dx.doi.org/10.2139/ssrn.1095869

Lusardi, A. (2006). Financial literacy and financial education: Review and policy implications. *SSRN Electronic Journal*. https://doi.org/10.2139/ssrn.923437

Mitchell, O. S., & Utkus, S. P. (2003). *Lessons from behavioral finance for retirement plan design* (Wharton Pension Research Council Working Paper No. 2003-06). https://repository.upenn.edu/prc_papers/422

Moore, D. L. (2003). *Survey of financial literacy in Washington State: Knowledge, behavior, attitudes, and experiences* (SESRC Technical Report 03–39). Social and Economic Sciences Research Center, Washington State University. https://doi.org/10.13140/2.1.4729.4722

Planning Commission. (2008). *Eleventh Five-Year plan*. http://planningcommission.gov.in/plans/planrel/fiveyr/11th/ 11_v1/11th_vol1.pd

Remund, D. L. (2010). Financial literacy explicated : The case for a clearer definition in an increasingly complex economy. *Journal of Consumer Affairs, 44*(2), 276–295. https://doi.org/10.1111/j.1745-6606.2010.01169.x

Richardson, V., & Kilty, K. M. (1989). Retirement financial planning among black professionals. *The Gerontologist 29*(1), 32–37. https://doi.org/10.1093/geront/29.1.32

Sane, R., & Thomas, S. (2014). *The way forward for India's National Pension System* (IGIDR Working Paper 2014-022). Indira Gandhi Institute of Development Research, Mumbai, India.

Sunden, A. E., & Surette, B. J. (1998). Gender differences in the allocation of assets in retirement savings plans. *The American Economic Review, 88*(2), 207 – 211. https://www.jstor.org/stable/116920

Weagley, R. O., & Eunjeong, H. (2004). The impact of retirement on household leisure expenditures. *The Journal of Consumer Affairs, 38*(2), 262 – 281. https://doi.org/10.1111/j.1745-6606.2004.tb00868.x

Wills, L., & Ross, D. (2002). *Exploring the retirement savings gap: An Australian perspective.* Pensions Institute, Birckbeck College. http://hdl.handle.net/10068/443964

Worthington, A. C. (2005). Debt as a source of financial stress in Australian households. *International Journal of Consumer Studies, 30*(1), 2 – 15. https://doi.org/10.1111/j.1470-6431.2005.00420.x

About the Authors

Shruti Aggarwal is a Research Scholar at the Department of Applied Sciences & Engineering of the Indian Institute of Technology Roorkee. Her areas of specialization are financial management, accounting, and general management.

Dr. Ashu Khanna is an Associate Professor at the Department of Management at the Indian Institute of Technology Roorkee. Her areas of specialization are financial management and general management. She has guided four PhD scholars, and five are currently pursuing PhD under her supervision. She has several published research papers to her credit.