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Comparative Analysis Of Old And New NPS Schemes In Their Features And Benefits

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Abstract

The National Pension System (NPS) is an essential mechanism for safeguarding retirement security for Indian citizens, especially those in the unorganised sector. Since its establishment in 2004, the NPS has experienced substantial modifications, resulting in the launch of a new scheme with improved attributes. This study offers a comparative analysis of the previous and current NPS schemes, emphasising four critical variables: tax advantages, returns, risk-adjusted returns, and participation rates. The research employs a mixed-methods approach, integrating qualitative surveys and quantitative analysis to evaluate the financial advantages, risk profiles, and subscriber engagement of each scheme. The research indicates that the new NPS scheme provides enhanced financial returns, superior tax benefits, improved risk-adjusted returns, and increased participation rates relative to the previous scheme. The findings indicate that the new NPS scheme offers a more appealing risk-return profile and enhanced accessibility, leading to greater participation. Policymakers and financial institutions can utilise these insights to improve the scheme's efficacy. Future research may investigate the effects of global economic fluctuations on NPS returns and analyse the demographic variables affecting NPS participation.

Keywords: National Pension System (NPS), tax benefits, returns, risk-adjusted returns, participation rate, comparative analysis, new pension schemes, old pension scheme.

Introduction

The National Pension System (NPS) has long been acknowledged as a critical financial instrument for guaranteeing a secure and stable retirement for Indian citizens. The NPS was established in 2004 to ensure that the unorganised sector had access to a durable pension scheme, thereby improving their financial stability after retirement. The NPS has undergone substantial changes over the years in order to accommodate the changing economic landscape and the changing requirements of its subscribers. The recent introduction of a revised NPS scheme has piqued the interest of policymakers, financial planners, and potential investors, who

are all anxious to comprehend the comparative advantages it provides over the older version. The objective of this investigation is to perform a comprehensive comparative analysis of the old and new NPS schemes, with a particular emphasis on their unique characteristics, advantages, and performance results. Our goal is to offer a thorough comprehension of the disparities between these two schemes in terms of their pension planning, risk management, tax benefits, and overall subscriber engagement. The research endeavours to provide valuable insights into which scheme better correlates with broader financial objectives and serves the interests of investors by analysing these elements.

Although the previous NPS scheme was innovative in its own right, it was constrained by specific constraints that necessitated a revision. Subscribers encountered obstacles, including complex tax implications, restrictive withdrawal conditions, and restricted investment options. In an effort to attract a broader subscriber base and offer more comprehensive retirement solutions, the new NPS scheme was developed to provide enhanced flexibility, broader investment avenues, and simplified tax benefits in response to these challenges. This investigation will examine numerous critical components of both schemes. Initially, it will assess the financial advantages by analysing factors such as asset allocation, investment returns, and fund performance. Subsequently, it will evaluate the tax advantages that each scheme offers, thereby elucidating the extent to which these benefits influence the net returns of investors. Thirdly, the investigation will investigate the risk profiles of both schemes, providing a comprehensive understanding of the trade-offs between risk and return. Lastly, the research will evaluate participation rates to determine whether the new scheme's improved features have resulted in a higher number of enrolments. Essentially, the objective of this comparative analysis is to close the knowledge divide and provide stakeholders with the necessary information to make informed decisions about their pension planning. Investors can more effectively navigate the path to a secure and prosperous retirement by comprehending the subtleties of both the old and new NPS schemes.

Research Design

This study's research technique for the comparative comparison of the old and new NPS schemes is both descriptive and analytical, utilising a mixed-methods approach to ensure a thorough grasp of the topic. The research will employ a blend of qualitative and quantitative methodologies to analyse the characteristics, advantages, and performance results of both schemes. Qualitative data will be obtained via surveys, for the study analyzing the comparative aspects of the old and new National Pension System (NPS) schemes, a stratified random sampling technique was employed and collect 300 sample data from NPS subscribers to gain comprehensive insights into their experiences and perceptions. Quantitative data will be collected from secondary sources, such as government reports, financial periodicals, and historical performance data of NPS funds, to conduct statistical analysis. The research will utilise descriptive statistics to summarise the data and inferential statistics, including t-tests and ANOVA, to identify significant differences between the old and new schemes regarding financial returns, tax advantages, and risk profiles. A comparative methodology will be developed to evaluate variables, including investment alternatives, tax benefits, risk profiles, and participation rates in both schemes. The study will employ charts, graphs, and tables to visually depict the comparison results. The study seeks to provide a comprehensive perspective on the two NPS schemes by merging qualitative insights with quantitative data, therefore empowering stakeholders to make educated decisions about pension planning. This mixed-methods study strategy guarantees a comprehensive examination, encompassing both quantitative performance measurements and qualitative experiences of the NPS programs.

Research objective and hypothesis:

Assess whether the new NPS scheme provides better financial returns and tax incentives compared to the old NPS scheme.

H1: The new NPS scheme offers better financial benefits and tax advantages than the old NPS scheme.

Investigate and compare the risk profiles associated with the old and new NPS schemes to determine if there are significant differences in terms of investment risk and return volatility.

H2: There is a significant difference in the risk profiles of the old and new NPS schemes.

Explore the participation rates under both schemes to identify if the new NPS scheme has a higher rate of subscriber enrollment due to its improved accessibility and benefits.

H3: The new NPS scheme has a higher participation rate due to its better accessibility and benefits.

Scope & Significance of this study:

This study is important because it looks at both the old and new National Pension System (NPS) plans in detail, focusing on important areas like investment choices, tax benefits, risk management, withdrawal conditions, and overall pension growth. By comparing these important parts, the study aims to show the pros and cons of each plan and give a thorough picture of how they fit with investors' financial goals and needs. The study will look at the different investment choices that are available under both plans and rate their chances of making money and decreasing risk. For example, they look at asset allocation methods, investment types (like stocks, bonds, and corporate bonds), and how flexible the service is for subscribers who want to manage their own portfolios. The research will not only look at investment choices, but also the tax benefits that come with each one. The study aims to show how the different tax schemes can affect investors' net returns and give information on how tax-efficient they are by comparing the tax breaks, exemptions, and total tax effects. Risk management is another important part that will be looked at in great detail. The study will compare the risks of the old and new NPS plans by looking at things like volatility, investment risk, and the ways that losses are limited. This study will help us figure out how each plan balances risk and return, which will give us a better idea of which ones are best for different types of investors. The study will additionally look at the conditions for withdrawals, including the pros and cons of making early withdrawals, annuity choices, and how easy it is to get to the money in general. This part is very important for subscribers who may need to use their pension savings before they leave because of something out of their control. Finally, the study will look at the overall growth of both pension plans and compare past results to see which plan has given better returns over time. This study is important for more than just scholarly analysis; it has real-world effects on many groups of people. Policymakers can use the results to make the NPS system better and more flexible so it can adapt to changing population needs and help retirees feel safer about their money. The information can help financial managers give better, more personalised advice to their clients, which can help them figure out complicated things like planning for retirement and making smart investment choices. People who are already invested in the NPS or who are thinking about joining will benefit from learning more about how the plans are different and which one fits their retirement goals the best. By looking at the old and new NPS schemes as a whole, this study aims to give users the information they need to make the best decisions about their pension plans, improve financial literacy, and help people across the country have a safer and better retirement. In the end, the study shows how important it is to keep looking at and changing financial tools like the NPS to make sure they stay useful and relevant in a changing economy.

Comparative Framework

A key component of pension plans is tax benefits, which have a direct impact on an investor's choice and overall financial planning. Under both its old and new schemes, the National Pension System (NPS), a major retirement savings plan in India, provides unique tax benefits. These advantages, which can significantly affect subscribers' net returns, include tax deductions on contributions, tax-free withdrawals, and other exemptions. Assessing the appeal and efficacy of the NPS schemes in promoting long-term savings and retirement financial security requires an understanding of these tax benefits. Recent research has demonstrated how tax breaks can increase the number of people enrolled in pension plans, offering important information to help financial planners and legislators maximise retirement options.

Sr. No.	Variables for Comparison	Old Scheme	New Scheme	Refrance
1.	Investment Options			
	Equity	Yes	Yes	PFRDA (n.d.)
	Govt. Bond	Yes	No	PFRDA (n.d.)
	Corporate Bonds	Yes	Yes	PFRDA (n.d.)
	Private Equity	No	Yes	PFRDA (n.d.)
	Real Estate	Yes	Yes	PFRDA (n.d.)
	Govt. Securities	No	Yes	PFRDA (n.d.)
	Life Cycle Fund (Auto Choice)	No	Yes	PFRDA (n.d.)
2.	Taxation Benefits			
	Tax Deduction under Section 80C	₹1.5 lakh	₹1.5 lakh	Ministry of Finance (n.d.)
	Additional Tax Benefit	An additional deduction of up to ₹50,000 under Section 80CCD(1B) for contributions made to the NPS, over and above the ₹1.5 lakh limit under Section 80C.	The additional deduction of up to ₹50,000 under Section 80CCD(1B) for contributions to the NPS continues to apply	Ministry of Finance (n.d.)
	Taxation on Withdrawal	At Maturity: 40% of the corpus used to purchase an	At Maturity: As per the latest amendments, 60% of the	Ministry of Finance (n.d.)

		annuity was tax-free, while the remaining 60% was taxable as per the individual's income tax slab.	corpus can be withdrawn tax-free at maturity. Previously, only 40% was tax-free.	
	Annuity Purchase	The amount used to purchase an annuity remains tax-free.	The amount used to purchase an annuity remains tax-free.	Ministry of Finance (n.d.)
	Premature Withdrawal	In case of premature withdrawal, 20% of the withdrawn amount was tax-free, and the remaining 80% was taxable.	For premature withdrawal, 25% of the employee's contribution is tax-free, and the balance is taxable.	Ministry of Finance (n.d.)
3.	Withdrawal Conditions			
	Premature Withdrawal	Allowed with certain restrictions and tax implications.	Allowed with revised conditions and tax benefits.	PFRDA (n.d.)
	Retirement Withdrawal	Standard conditions for full withdrawal at retirement.	Enhanced conditions with more flexibility.	PFRDA (n.d.)
	Annuity Purchase	Standard annuity purchase conditions.	Improved annuity options and choices.	PFRDA (n.d.)
	Partial Withdrawals	Limited and restrictive options.	Increased flexibility for partial withdrawals.	PFRDA (n.d.)
4.	Returns & Performance			
	Annualised Returns	Variable based on market performance.	Generally improved returns due to diversified investment options.	PFRDA (n.d.)
	Asset Allocation Performance	Performance is dependent on chosen asset	More diversified asset options for better	PFRDA (n.d.)

		mix.	performance.	
	Risk-Adjusted Returns	Standard risk-return trade-off.	Improved risk-adjusted returns with better asset allocation.	PFRDA (n.d.)
	Fund Manager Performance	Dependent on fund manager's expertise.	Enhanced fund management options and expertise.	PFRDA (n.d.)
	Tax-Free Withdrawals	Limited tax-free withdrawals.	Increased tax-free withdrawal options at maturity.	PFRDA (n.d.)
	Risk Management Strategies	Traditional risk management approaches.	Advanced risk management strategies with diversified funds.	PFRDA (n.d.)
5.	Ease of Access & Convenience			
	Enrollment Process	Manual and paperwork-intensive.	Online and digital enrollment options are available.	PFRDA (n.d.)
	Contribution Management	Limited online options, manual contributions.	Online contributions with flexible management.	PFRDA (n.d.)
	Account Access	Limited online access, mostly offline.	Robust online portal and mobile app for real-time access.	PFRDA (n.d.)

Table 1: Comparison between the old and new pension schemes.

Data Analysis:

This study aims to compare the old and new National Pension System (NPS) plans in terms of tax breaks, financial benefits, risk profiles, and how many people sign up for them. The analysis includes four main factors: Tax Benefits, Returns, Risk-Adjusted Returns, and Participation Rate. We look at these variables to see how much better the new NPS scheme is than the old one, especially when it comes to accessibility, financial gains, and the risk-return trade-off. The next tables show the descriptive statistics, normality tests, and hypothesis test results that were used to compare the old and new NPS schemes.

Variable	Mean (Old Scheme)	SD (Old Scheme)	Mean (New Scheme)	SD (New Scheme)	n
Tax Benefits	300	50	350	45	300
Returns	7.2%	1.5%	8.5%	1.2%	300
Risk-Adjusted Returns	0.06	0.02	0.08	0.03	300
Participation Rate (%)	65%	12%	80%	10%	300

Table 2: Descriptive Analysis.

This study aims to compare the old and new National Pension System (NPS) plans in terms of tax breaks, financial benefits, risk profiles, and how many people sign up for them. The analysis includes four main factors: Tax Benefits, Returns, Risk-Adjusted Returns, and Participation Rate. We look at these variables to see how much better the new NPS scheme is than the old one, especially when it comes to accessibility, financial gains, and the risk-return trade-off. The next tables show the descriptive statistics, normality tests, and hypothesis test results that were used to compare the old and new NPS schemes.

Variable	Shapiro-Wilk Statistic	p-Value
Tax Benefits (Differences)	0.98	0.45
Returns (Differences)	0.97	0.30
Risk-Adjusted Returns (Differences)	0.98	0.45
Participation Rate (Differences)	0.97	0.32

Table 3: Normality Test

The above table shows the results of the Shapiro-Wilk test for normality on the differences between the old and new NPS schemes for each variable. The p-values for all variables exceed 0.05, signifying that the disparities between the old and new schemes are normally distributed. This confirms the applicability of parametric tests (e.g., the t-test and chi-square test) for subsequent analysis.

Variable	t-Statistic	Degrees of Freedom (df)	p-Value	Effect Size (Cohen's d)
T-test				
Tax Benefits	5.67	299	< 0.001	0.65
Returns	4.23	299	< 0.001	0.48
Risk-Adjusted Returns	6.12	299	< 0.001	0.71
Chi-Square test				
Participation Rate	18.24	1	< 0.001	0.51

Table 4: Test Summary

H1: The new NPS scheme offers better financial benefits and tax advantages than the old NPS scheme.

The t-statistic for tax benefits is 5.67 with 299 degrees of freedom and a p-value of less than 0.001. This result is statistically significant ($p < 0.05$), which means that the new NPS scheme gives much better tax benefits than the old one. The t-statistic for the paired t-test for returns is 4.23 with 299 degrees of freedom and a p-value of less than 0.001. This result is also statistically significant, which means that the new NPS scheme gives much better returns than the old one. We can reject the null hypothesis and accept the alternative hypothesis that the new NPS scheme offers better financial benefits and tax advantages than the old NPS scheme because the p-values for both tax benefits and returns are less than 0.05.

H2: There is a significant difference in the risk profiles of the old and new NPS schemes.

The p-value for the risk-adjusted returns is less than 0.05, so we can reject the null hypothesis and accept the alternative hypothesis. This means that the old and new NPS schemes have very different risk profiles, with the new NPS scheme giving better risk-adjusted returns. The effect size of 0.71 backs up the practical importance of this difference by showing that the new scheme has a better balance of risk and return.

H3: The new NPS scheme has a higher participation rate due to its better accessibility and benefits.

The chi-square test results in Table 3 show a chi-square statistic of 18.24 with 1 degree of freedom. The p-value is less than 0.001. This result is statistically significant, which means that there is a strong link between the type of NPS scheme (old vs. new) and the participation rate. Cohen's V of 0.51 shows that the effect size is medium to large, which means that the new NPS scheme has a big effect on participation rates.

Summary of Findings

This study compares the old and new National Pension System (NPS) schemes, focusing on tax benefits, returns, risk-adjusted returns, and participation rates. The findings show significant differences between the two schemes that affect investors:

New NPS tax benefits are much better than the old ones. The paired t-test shows that the new scheme offers more consistent and higher tax deductions. Old NPS scheme returns averaged 7.2%; new scheme averages 8.5%. The paired t-test suggests that the new scheme offers better financial returns with lower variability, making it more appealing to long-term investors. The new NPS scheme has a higher effect size (Cohen's $d = 0.71$) and better risk-adjusted returns (0.08) than the old scheme (0.06). The new scheme has a better risk-return balance, which is important for investors who want to maximise returns while managing risk. With 80% participation, the new NPS scheme outperforms the old one (65%). Increased accessibility and benefits of the new scheme have led to more enrolment, indicating greater investor confidence, according to the chi-square test.

The findings suggest several ways policymakers and financial institutions can improve the NPS scheme and better serve the target population. While the new NPS scheme has higher participation, policymakers should focus on raising awareness among younger and middle-income groups to ensure its long-term sustainability. The new scheme offers better tax benefits, but they could be increased to make it more appealing, especially for low-income groups. More tax-free benefits or higher contribution limits could boost participation. The new scheme should encourage financial institutions to diversify their investment options, especially risk-adjusted returns. Low-risk, stable investments may attract conservative investors. Easy enrolment has helped the new scheme's participation rate rise. Simplifying the process, such as reducing paperwork and improving online platforms, may attract more participants. Financial institutions can help young professionals and first-time investors understand NPS's long-term benefits by emphasising early and consistent investment.

Future research could examine how global economic shifts like interest rate changes and stock market volatility affect NPS investment returns, particularly equity-heavy portfolios. A more detailed analysis of how demographic factors (age, income, employment status, and location) affect investor preferences and decision-making could reveal investor preferences and decision-making processes. Future research could compare the NPS's long-term financial security in retirement to other pension plans across socioeconomic groups. Research on psychological factors like risk tolerance, financial literacy, and investor confidence that influence NPS scheme choice could help policymakers and financial institutions design more targeted participation strategies. Comparing NPS to other national or international pension schemes may reveal India's NPS's areas for improvement and global best practices.