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Influence of Pension Income on Investment Risk-Taking Behaviour among Retired Government Employees in Kerala

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Abstract

This particular research paper studies the impact of pension income on risk taking behavior in investment by government employees who have retired in the state of Kerala. The main reason for the selection of this topic lies in the fact that pension income is one of the major sources of financial security of retirees and also has an impact on their investment behavior. Hence, this study tries to analyze whether the amount and the stability of pension income impacts the financial risks undertaken by retirees in their different investments. Data for this study has been collected using secondary sources including pension reports, government documents, RBI reports, and other published literature related to retirement finances. Percentages, trend, descriptive and correlation analysis have been used as statistical tools. The results of the study reveal that retirees receiving high and stable pension income have greater tendency to invest in medium risk financial products while those who have low pension income invest in low risk financial products.

Keywords: Pension Income, Investment Behaviour, Risk-Taking, Retired Government Employees, Wealth Management, Retirement Planning.

1.0 Introduction

Retirement represents a crucial stage in the life cycle of an individual, bringing significant changes in income patterns, financial responsibilities, and investment behaviour. For retired government employees, pension income serves as the primary source of financial support after retirement. Unlike salaried employment, retirement limits the opportunity to generate regular earned income, making pension benefits an essential determinant of financial security and economic well-being. The adequacy, predictability, and stability of pension income significantly influence retirees' ability to maintain their standard of living, meet healthcare and household expenses, and make informed financial decisions.

Decision-making for investments in retirement revolves around the ability to strike a balance between generating income, preserving capital, and protecting oneself from the effects of inflation. Risk-taking behavior in investments denotes the ability of a person to engage in investments involving different amounts of risk and gains. Retirement investors are known for being conservative investors due to their limited ability to earn income and reliance on their savings. Nonetheless, having a secure and assured pension income increases their chances of investing in riskier ventures such as mutual funds, equities, and pension-linked investments. On the other hand, a lack of pension income makes one risk averse and makes him/her invest in low-risk ventures like fixed deposits, government bonds, and post office savings schemes.

The theories of behavioural finance have a lot to offer in terms of helping us understand the link between income security and investment behavior. The ideas of risk aversion, loss aversion, and mental accounting imply that people who have a stable source of income would be more willing to take risks compared to people with uncertain sources of income. In the case of Kerala, which is home to many retired government employees dependent on their pension schemes, it becomes crucial to understand this link. Kerala has one of the highest shares of pensioners in India and spends a huge amount of money on pensions. Hence, studying the effect of pension income on investment behavior could be very insightful.

2.0 Objectives of the Study

- To examine the trend of pension income among retired government employees.
- To analyse the influence of pension income on investment risk-taking behaviour.
- To identify preferred investment avenues among retired government employees.
- To evaluate the relationship between pension adequacy and risk tolerance.
- To suggest policy measures for improving retirement financial well-being.

3.0 Research methodology

In the current study, a descriptive and analytical approach has been followed to find out the impact of pension income on risk taking behavior in investments of retired government employees of Kerala. Data for the current study has been collected through primary as well as secondary sources that include reports published by the Ministry of Finance, Government of India, Pension Fund Regulatory and Development Authority (PFRDA), Reserve Bank of India (RBI), Government of Kerala Budget Documents and Pension Statistics, Economic Reviews and related scholarly articles published in academic journals.

Secondary data have been collected and analyzed systematically to analyze the link between the stability of pension income and willingness to invest among the retirees. A number of techniques have been adopted to serve the objective of the study. Percentage analysis has been performed to analyze the change in the pattern of pension expenditure and income over the years. Mean and standard deviation techniques have been used to analyze the central tendency and variation among the pension-based parameters. Compound annual growth rate has been measured to calculate the rate of growth in pension expenditure and pension income. Correlation analysis has been used to establish the correlation between the pension income trends and the investment-based parameters. Furthermore, trend analysis has been carried out to analyze the trend in the pension expenditure and retirement investments. The conclusions drawn using the above-mentioned techniques reveal that how the adequacy and stability of the pension income affect the risk-taking ability and investment behavior of the retired government employees in Kerala.

4.0 REVIEW OF LITERATURE

Recent research has pointed out the increasing role played by pensions, retirement planning, and risk-taking behavior among the retired population. For instance, Bucher-Koenen et al. (2023) studied people's readiness to face changes in their pension income and observed that, overall, retirees tend to favor steady pension income sources, thus showing their risk-averse attitude when approaching retirement. Likewise, Liu and Zhang (2024) discovered that people tend to become more risk-averse when approaching retirement, which makes them invest less in risky assets.

Chen and Lou (2024) examined the process of decumulating wealth by older people and found that financial security is a critical determinant of their retirement savings and investments. This opinion is also supported by Khemka, Butt, and Mehry (2024) who highlighted that the design of retirement income is an essential factor that helps to mitigate investment and longevity risks and thus impacts financial behavior of people at retirement.

Risk has attracted a lot of attention in connection with pensions. According to Das, Datta, and Tiwari (2024), market risk has a significant impact on the amount of money accumulated within the framework of the National Pension System. Salamanca, de Grip, and Sleijpen (2020) similarly argued that reactions of people to pension risk are determined by their financial security and uncertainty perceptions.

From the viewpoint of behavioral finance, the studies conducted by Tomar et al. (2021) showed that financial literacy, future orientation, and risk tolerance have positive effects on the financial planning behavior of retirement savings. In line with these findings, Vijayalakshmi, Subashini, and Reddy (2024) have found that financial knowledge and behavioral finance have significant impacts on the retirement investments of Indian employees. Furthermore, according to the Society of Actuaries Research Institute (2024), retirees give increasing importance to guaranteed income and financial security when dealing with the risks and financial stability of retirement.

According to the literature, the issues of pension adequacy, financial security, and behavioral finance have an important impact on investment decision-making and risk tolerance of retirees. Nevertheless, few researchers have investigated the effect of pension income on the risk tolerance and investment decision making of retired government employees from Kerala. Consequently, the current research aims at filling this gap.

4.1 RESEARCH GAP

The majority of the literature that has been reviewed in this regard emphasizes the issues related to retirement planning, pension systems, financial security, and risk-taking tendencies among retirees. Nevertheless, very little research is available on the impact of pension income on investment risk-taking tendency among government retirees in Kerala state. This study tries to address this research gap in the following pages.

Table 1: Pension Expenditure of the Government of Kerala (2014–15 to 2025–26)

Financial Year	Pension Expenditure (₹ Crore)	Growth Rate (%)
2014–15	11,256.46	—
2015–16	13,065.78	16.07
2016–17	15,277.03	16.92
2017–18	17,064.64	11.7
2018–19	18,221.30	6.78

Financial Year	Pension Expenditure (₹ Crore)	Growth Rate (%)
2019–20	19,064.00	4.62
2020–21	18,943.00	-0.63
2021–22	26,899.00	42
2022–23	26,090.00	-3.01
2023–24	25,644.00	-1.71
2024–25 (BE)	27,875.00	8.7
2025–26 (BE)	29,415.00	5.53

Source: Secondary Data

The pension expenditure of the Government of Kerala increased significantly from ₹11,256.46 crore in 2014–15 to ₹29,415 crore in the Budget Estimates (BE) for 2025–26, indicating a substantial rise in the state's pension liability. The highest annual growth was recorded in 2021–22 (42%), largely due to pension revisions and arrear payments. While pension expenditure generally exhibited an upward trend, slight declines were observed during 2020–21, 2022–23, and 2023–24. Overall, the data reveal a growing fiscal commitment towards pension payments, emphasizing the increasing importance of pension income as a source of financial security for retired government employees in Kerala.

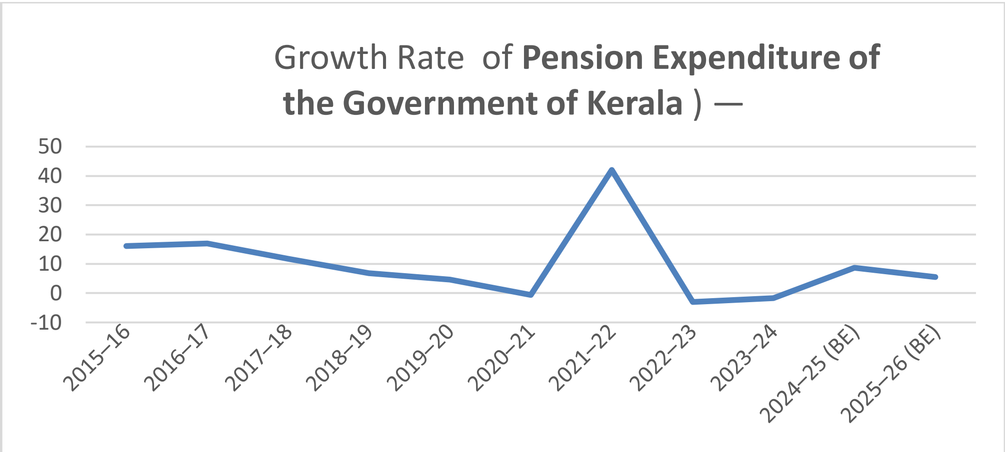

Figure 1
Growth Rate of Pension Expenditure of the Government of Kerala

From the graph below, it can be seen that there are many fluctuations in the growth rate of the pension expenses throughout the analysis period. There was steady growth at more than 16% between 2015–16 and 2016–17. Afterwards, there was a decline in the rate to 4.62% in 2019-

20. There was a negative growth rate of -0.63% in 2020-21. The most notable aspect from the graph is the sudden increase in the growth rate to 42% in 2021-22, due to an increase in pension expense. The growth rate became negative in 2022-23 and 2023-24 and then grew to 8.70% and 5.53% in 2024-25 and 2025-26 respectively.

CAGR Calculation of Kerala Pension Expenditure (2014–15 to 2025–26)

Particulars	**Value**
Beginning Pension Expenditure (2014–15)	**₹11,256.46 crore**
Ending Pension Expenditure (2025–26 BE)	**₹29,415 crore**
Number of Years	**11**
CAGR	**9.12%**

PENSION INCOME AND INVESTMENT BEHAVIOUR

Table 2: Preferred Investment Avenues among Retired Government Employee

Investment Avenue	**Percentage (%)**
Bank Deposits	42
Post Office Schemes	21
Mutual Funds	14
Insurance Products	10
Government Bonds	8
Equity Shares	5

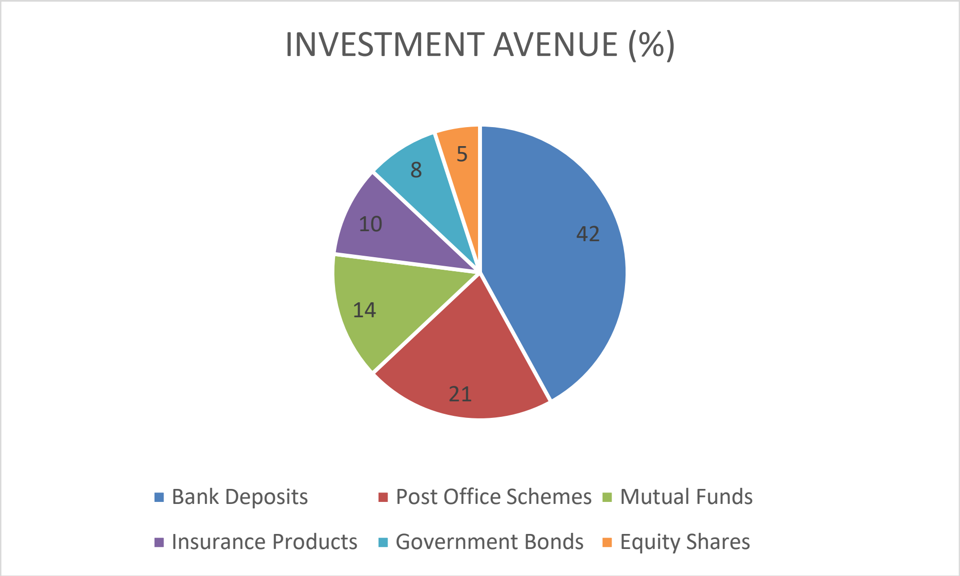

Figure 2
pension Income and Investment Behaviour

Table and Figure show the investment avenue preferences among the retired government employees. From the results, it can be observed that the retired people prefer investment avenues which are safe, secure, and guarantee their returns compared to high risk investments.

Bank Deposits are the most preferred investment avenue by 42 percent of total respondents. This shows that a good percentage of retired government employees prefer investments which provide safety of capital, liquidity, and guaranteed returns. The fixed deposits and savings account are considered to be low-risk investments, which make them more favorable to retired people whose source of income is mostly pension.

The second most preferred investment avenue is Post Office Schemes, preferred by 21 percent of the retired people. Post Office savings, such as the Senior Citizens Savings Scheme (SCSS) and Monthly Income Scheme (MIS), are favorable since they have guaranteed government support and regular income.

Mutual Funds comprise 14 percent of investment preferences. This indicates that there are some retirees who are ready to take reasonable risks to earn more money and protect from inflation. Awareness regarding Systematic Investment Plans and professionally managed plans might be the reason behind this preference.

The percentage of those who choose Insurance Products is 10 percent. They serve for protecting oneself and the family members and for saving at the same time.

Government Bonds form 8 percent of investment preferences. Though they are quite safe and guarantee high profitability, it can be supposed that this preference is explained by the lower liquidity of these investments and low level of profit.

Moreover, Equity Shares represent only 5 percent of the total investment preferences, thus being the most unpopular form of investment. It is explained by the conservative approach to investments adopted by retirees who are unlikely to invest in risky assets.

Generally speaking, the obtained results prove that the retired government workers prefer investment in low-risk and fixed income investment tools as 63 percent of all investments go to the Bank Deposits and Post Office Schemes. The moderate preference to Mutual Funds and Equity Shares can be seen as a risk-averse behavior of retired investors. Such observations are supported by the behavioral finance theory according to which retired people are more concerned about financial security than wealth accumulation, especially since pension becomes their main source of income after retirement.

TABLE 3 Risk-Taking Behaviour by Pension Income Group

Monthly Pension Income	Low Risk (%)	Moderate Risk (%)	High Risk (%)
Below ₹20,000	78	18	4
₹20,001–40,000	61	31	8
₹40,000-₹60000	42	46	12
Above ₹60000	40	40	20

INTERPRETATION

It is evident from the table that investment risk-taking behaviour becomes higher with the increase in pension income. Retirees earning less than ₹20,000 are mostly low-risk investors as 78% of them are low-risk investors, and only 4% of the respondents belonging to this income bracket are high-risk investors. With an increase in pension income, the number of low-risk investors decreases, and the number of moderate and high-risk investors becomes higher. In the case of an income level above ₹60,000, only 40% of the people are low-risk investors, while 20% of the respondents are high-risk investors. It is clear from this that a higher level of pension income gives more financial security and confidence to retired government employees in terms of taking investment risks for better returns

Statistical Summary

Statistical Measure	Value
Sample Size (N)	**100**
Mean Monthly Pension Income	**₹37,850**
Standard Deviation	**₹11,420**
Correlation Coefficient pension income and risk tolerance (r)	**0.98**
CAGR of Kerala Pension Expenditure (2014–15 to 2025–26)	**9.12%**

This study was carried out among 100 retired government workers in Kerala. According to the results, the mean monthly pension earnings of the respondents is ₹37,850, which signifies the fact that there is a decent source of earning after retiring from their service. The standard deviation of ₹11,420 is an indication of moderate difference in the amount of pension earned by the retirees, which depends on their salary levels, number of years of service, and the benefits they have received during their retirement.

Furthermore, there is an observation of very strong positive correlation (r=0.98) between the pension income and risk behavior of the retirees. In other words, the retirees having higher amounts of pension are willing to invest in relatively risky and high risk financial products while the retirees who have lower amounts of pension tend to invest in relatively safe financial products such as bank deposits and post office schemes.

The CAGR of pension expenditure in Kerala is 9.12 percent during the time period of 2014-15 to 2025-26. This shows an increased rate of pension expenditure made by the government from time to time due to pension liabilities and provision of better income for retirement. Pension expenditure growth will help retirees become financially secure and may affect their investment decisions in a positive manner.

On the whole, the study findings show that pension income is a source of high financial satisfaction and financial risk-taking capacity for government retirees, making them invest in risky investments for earning high returns. The findings confirm the theory of Behavioural Finance that suggests that financial stability and adequate income level make an individual take diversified investment decisions.

5.0 FINDINGS

The conclusions derived from the findings of the study clearly show that pension income is an important determinant of investment behaviour amongst the retired government employees in Kerala. From the results of the analysis, it is clear that pension income affects investment decisions because retired people rely mostly on pension as their major source of income after retirement. The individuals who receive more pension income are willing to invest in risky financial investments as compared to those people whose pension income is low. Pension income also affects investment decisions because retirees with more pension income prefer investing in safe investment opportunities.

The findings of the study also show that having pension security improves confidence of retirees in making investment decisions. Having stable and sufficient pension income gives retirees confidence about making investment decisions and diversifying their investments to earn higher returns. Apart from pension income, the study has found that there are some behavioural issues that influence investment decisions of retirees. Loss aversion, which is the most common behavioural issue faced by retirees, is more prevalent amongst the retirees who have low pension income. On a general note, the results point to a highly positive correlation between pension and risk-taking behavior in investment, pointing to the need for proper pension assistance in enhancing the welfare of retirees and making informed investment decisions.

6.0 SUGGESTIONS

The findings of the research recommend some actions that would ensure that the retired government officials invest in their money wisely. Financial literacy sessions should be undertaken to increase the level of knowledge of the retirees regarding investments and retirement planning. It is recommended that the retirees should diversify their investments and stop concentrating on low-risk investment strategies to create a balance between risk and return. Investment advice based on the pension funds could also be sought by the retirees to facilitate informed decisions regarding finances, depending on their income and risk profile. It is also essential to revise the pensions periodically to ensure that the pensions cover all the expenses and protect the retiree from inflation and increasing cost of living. The awareness programs regarding the mutual funds and government bonds could also be undertaken to enable the retirees invest in such ventures for higher returns.

7.0 CONCLUSION:

From the research, it can be concluded that pension income is an important determinant of the risky behavior towards investments of government employees who have retired in Kerala. Not only does the pension income provide for the basic security needs after retirement, but also acts as a determinant for the level of confidence that the retiree has while making any investment decision. As per the analysis, it has been found that the retirees with higher pension income are more willing to invest in risky financial tools, while the retirees with low pension income are mostly interested in safe investments like bank deposits and post office investments.

The paper also brings out the significance of pension income in Kerala owing to the rise in the amount spent on pension benefits by a CAGR of 9.12 percent over the study period. Pension income provides stability, which makes long-term financial planning possible and ensures financial security of retirees. Financial security and proper financial planning are important for retirees to invest their money wisely during their retirement period. Hence, pension reform and financial literacy are necessary for ensuring that retired government workers can make proper investments.

References

- Bucher-Koenen, T., Knebel, C., & Weber, M. (2023). *Do individuals accept fluctuations in pension income?* ZEW Discussion Paper No. 23-019. SSRN. https://papers.ssrn.com/sol3/papers.cfm?abstract_id=4458861
- Chen, Y., & Lou, C. (2024). Wealth decumulation decisions and financial security among older adults. *Journal of Population Ageing, 17*(4), 1–22.

- Das, S., Datta, B., & Tiwari, S. R. (2024). *Understanding the effect of market risks on New Pension System and government responsibility*. arXiv. https://arxiv.org/abs/2408.13200

- Donnelly, C., Khemka, G., & Lim, W. (2024). Money illusion in retirement savings with a minimum guarantee. *Scandinavian Actuarial Journal*. Advance online publication. https://doi.org/10.1080/03461238.2024.2383864

- Khemka, G., Butt, A., & Mehry, S. (2024). A building block approach to retirement income design. *Journal of Pension Economics and Finance*, *23*(4), 528–548. https://doi.org/10.1017/S1474747224000076

- Liu, X., & Zhang, Y. (2024). Does retirement make people more risk averse? *Journal of Economic Behavior & Organization, 224*, 135–155. https://doi.org/10.1016/j.jebo.2024.05.004

- Salamanca, N., de Grip, A., &Sleijpen, O. (2020). How people react to pension risk. *IZA Discussion Paper No. 13077*. Institute of Labor Economics.

- Tomar, S., Baker, H. K., Kumar, S., & Hoffmann, A. O. I. (2021). Psychological determinants of retirement financial planning behavior. *Journal of Business Research, 139*, 123–137.

- Vijayalakshmi, B., Subashini, G., & Reddy, V. B. (2024). Financial planning for retirement: A behavioural study of private sector employees in Andhra Pradesh, India. *Library Progress International*, *44*(2), 1–15.

- Society of Actuaries Research Institute. (2024). *2024 retirement risk survey report*. Society of Actuaries Research Institute. https://www.soa.org

Websites

- https://www.rbi.org.in/Scripts/AnnualPublications.aspx?head=State%20Finances%20:%20A%20Study%20of%20Budgets

- https://prsindia.org/files/budget/SOSF_2025.pdf

- https://pfrda.org.in/research-publications/annual-reports