# EVALUATING THE EFFECTS OF DIGITAL TRANSFORMATION IN FINANCE ON PENSION PLANS AND RETIREMENT SECURITY

*** Dr. Shagun Srivastava**
**** Pankaj B. Maurya**

\* *Principal, Smt. Kamaladevi Gauridutt Mittal College Of Arts & Commerce.*
\*\* Assistant Professor, *Department of Commerce, Nirmala College of Commerce.*

**Abstract:**

*This study examines the significant effects of the continuous financial digitization on pension plans and their function in guaranteeing retirement security. The study explores the potential and difficulties that digital technologies bring to the administration, accessibility, and management of pension funds. It looks into how it affects risk management, investment methods, and retirees' overall financial health. Concerns regarding cybersecurity, privacy, and the necessity of digital literacy in relation to pension plan participants are also covered in the study. By means of an extensive examination, the study seeks to offer significant perspectives on maximizing the advantages of digital finance while preserving the long-term viability and efficiency of pension plans.*

**Keywords***: Digitalization, Finance, Pension Schemes, Retirement Security, Investment Strategies, Risk Management, Cybersecurity, Digital Literacy.*

## Introduction:

Rapid improvements in digital technology are causing a fundamental upheaval in the global financial scene. The digital transformation of finance has significant ramifications for multiple industries, including pension plans. Knowing how digitization affects pension programs is important as retirement becomes a more important part of financial planning as societies age. The objective of this study is to investigate the various aspects of how digital transformation is changing the pension scheme landscape, with a view to impacting its management, accessibility, and overall effectiveness in offering retirement security.

Pension plans have historically been essential in helping people in their post-employment years by providing security and comfort in terms of money. But as digital technologies become more integrated, pension system dynamics are changing dramatically. This change presents opportunities as well as difficulties that call for careful consideration.

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As the financial sector adopts digital advances, worries about cybersecurity and the significance of digital literacy among members of pension schemes are becoming more prominent. Maintaining the trust and efficacy of pension systems requires striking a balance

**Original Research Article**

between the benefits of greater accessibility and efficiency and the necessity of strong security measures.

By carefully examining these elements, this research paper hopes to provide insightful information that will help individuals, financial institutions, and policymakers maximize the advantages of digitization while preserving the integrity and long-term sustainability of pension plans.

**Review of Literature:**

**Kumari 2018** "Impact of Savings and Investment Behavior of Working Women in Chennai City" was the title of a research report that examined Chennai's working women. The purpose of the study was to identify the variables influencing working class women's investment and savings habits. It was discovered that age has a significant role in determining investing decisions in addition to income level and education.

**Casu, O., & Meyerhoff Nielsen, M. (2023)** The digital transformation of Australia's social services has been characterized by strategic initiatives at the federal level, worldwide leadership, and innovative service delivery. The literature analysis has emphasized important areas of study, laying the groundwork for additional research into the subtleties of cooperation, data sharing, and user-centric strategies inside the intricate federal framework of the nation.

**Drobyshevskaya, L., Mamiy, E., Chulkov, A., & Timchenko, A. (2021, October).** The current problem of pension system development is the study's main topic. The role that digitalization plays in economic development is explained. There are increasing demands on the transparency, accessibility, and ease of use of the tax system due to the rise of the digital economy and information space. The study examines the main problems that the Russian Federation's pension system is facing as it develops. The impact of global trends, challenges, and threats increases the risks

to the stability of the national pension system in the contemporary world. COVID-19 has affected pension systems and labor markets worldwide. The nature of the risks to the functioning of the pension system is disclosed. In order to broadly describe the threats facing Russia's pension system,

**(Mukhopadhyay, 2021)** Economic progress is greatly aided by financial inclusion, which is defined as broad access to financial services. The adoption of digital payments in India has been seen as a promising driver for augmenting financial inclusion and, as a result, aiding in the country's overall financial development. The purpose of this review of the literature is to examine current studies and viewpoints regarding how digital payments affect financial inclusion in India and the role played by the government in securing loans from the private sector.

**Ipsa Mohapatra1, Arup Mahapatra (2019)** According to the study's findings, older people thought that in order to achieve their basic necessities, they needed more money. There was a considerable variation in the usage rates despite the sampled urban and rural populations having nearly identical levels of awareness. Further research is required to determine the reasons behind the poor adoption of these measures in rural areas. The most popular source of information on social security programs was mentioned as the media. Health professionals were the only ones to inform 3.7% of urban and 5.56% of rural residents about social security programs.

**Sarangi, B. (2023).** The COVID-19 pandemic has had a significant negative impact on the world economy as well as a number of economic and financial metrics. But this analysis is the first to employ sixteen important financial variables to analyze the short-term impacts of COVID-19 on India's financial development. Using the available short-term data for econometric studies is difficult given the recent onset of the pandemic. In order to clarify the goals, the study uses a descriptive

research design and qualitative techniques with annual growth rates, compound annual growth rates (CAGR), and line diagrams. It's important to note that this study is the first to thoroughly investigate the direct effects of the COVID-19 pandemic on India's financial progress.

**Objectives of the Study:**

1. Evaluate how digitalization has influenced investment strategies within pension schemes.
2. Investigate the impact of digitalization on the accessibility and transparency of information related to pension funds.

**Hypothesis Statements:**

Null Hypothesis (H0): There is no significant difference in the challenges encountered in managing pension funds due to digitalization across different age groups.

Alternative Hypothesis (H1): There is a significant difference in the challenges encountered in managing pension funds due to digitalization across different age groups.

**Research Methodology:**

*Type of Research*

**Data Analysis and Findings of the Study:**

Descriptive research design is used where the focus is on survey and fact-finding inquiries through structured questionnaires. The study uses a quantitative research approach because it allows the researcher to examine the relationship between variables.

*Type and Source of Data*

The present study is based on primary data and secondary data. Primary data was collected by a structured questionnaire. The questionnaire consisted of open and closed ended questions which were related to the objectives set out in the study.

*Target Population and Sample size*

78 working population targeted for data collection.

*Sampling method*

The sampling technique adopted was a convenience sampling method.

*Area of study*

This research was done in the suburbs of Mumbai Suburban.

*Statistical Tools Use*

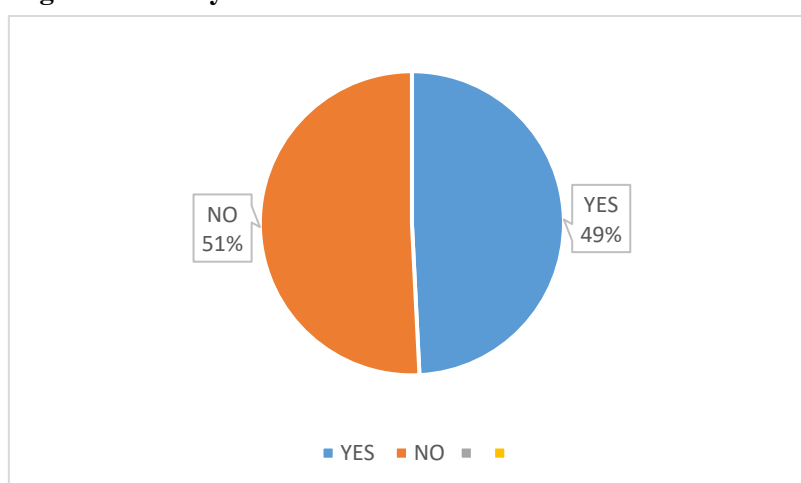Graphs are used to analyze and interpret data. Chi-square is used to test hypotheses.



**Fig. 1** Have you personally experienced any challenges in accessing or managing your pension fund due to digitalization?

Graph states that 62 samples did not face any challenges in accessing managing your pension fund due to digitalization.

**Fig. 2** Do you believe digitalization has influence the investment strategies of pension schemes?
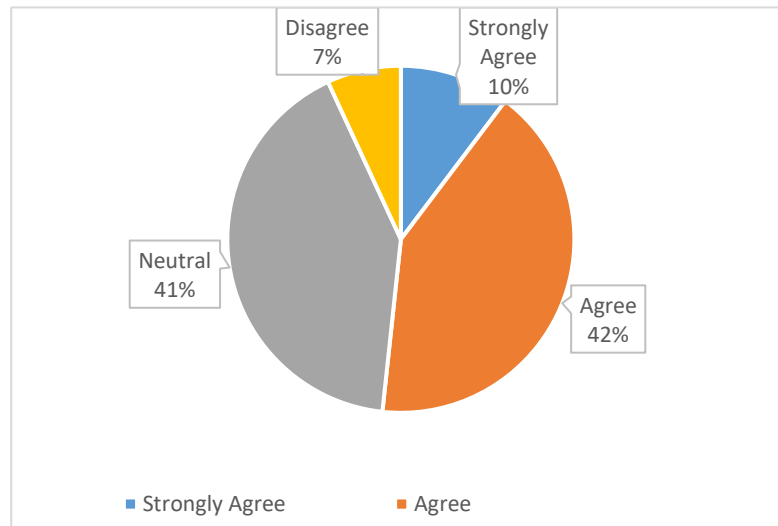


Source: Primary Data

As per the graph, Majority sample believes that digitalization has influence the investment strategies of pension scheme.

**Fig 3** Have you observed any changes in the returns on your pension investments since the introduction of digital technologies?
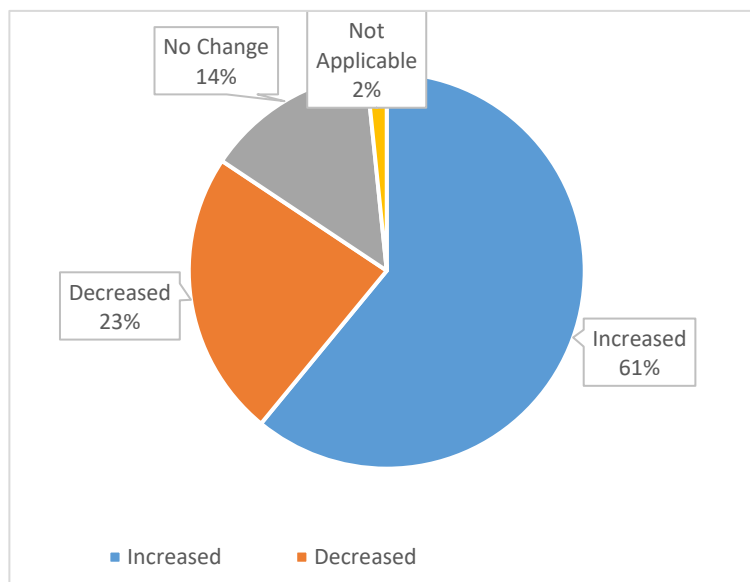


Source: Primary Data

AS per data, majority of sample have observed increased return on their pension investment post introduction of digital technologies.

**Fig 4** How has the digitalization of finance affected your ability to access information about your pension scheme?
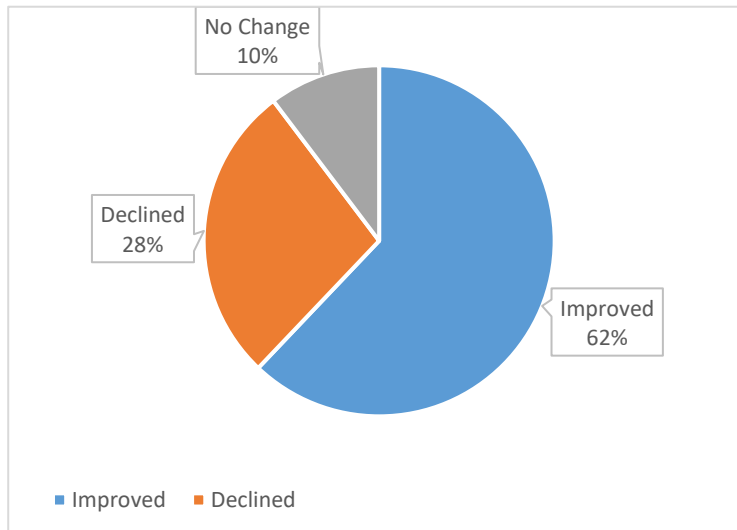


Source: Primary Data

Majority of sample agree that digitalization of finance has improved their ability to access information about pension scheme.
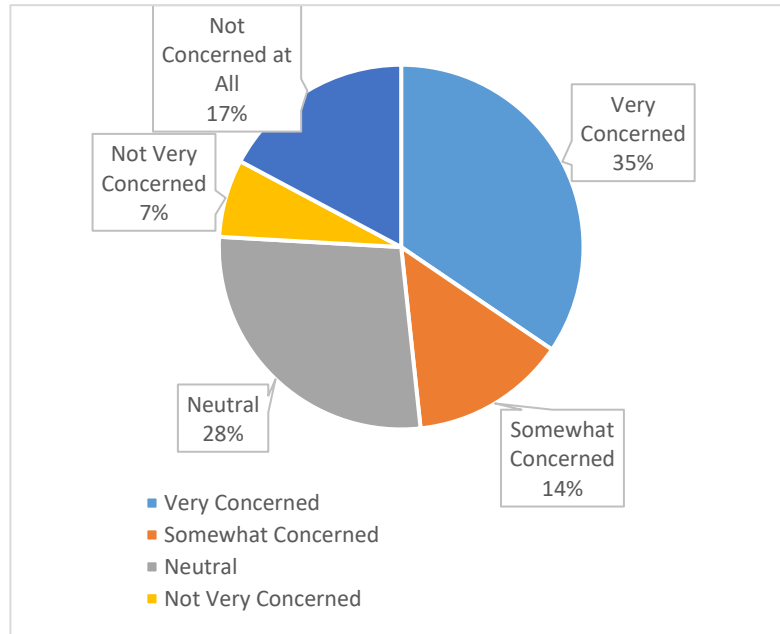
**Fig 5** Do you feel that digitalization has increased transparency in the management of pension funds?
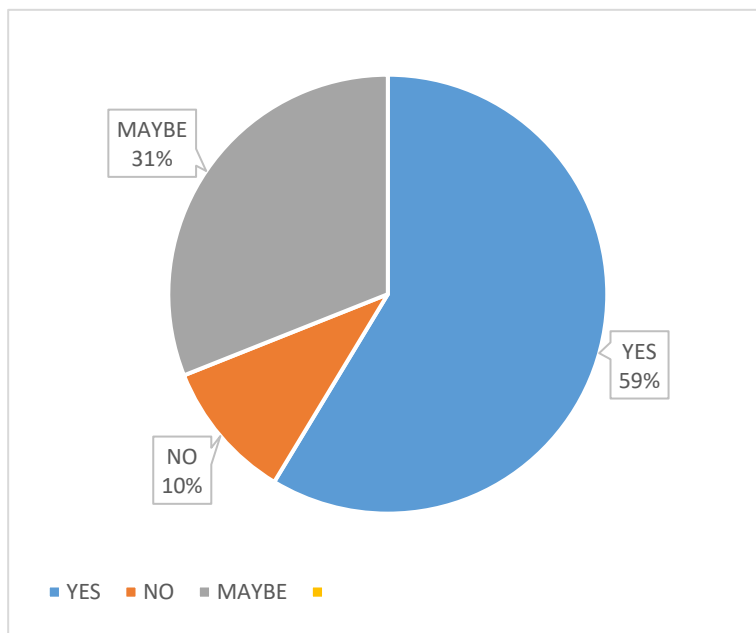


Source: Primary Data

As per the responses 59% agree that digitalization has increases transparency in management of pension funds
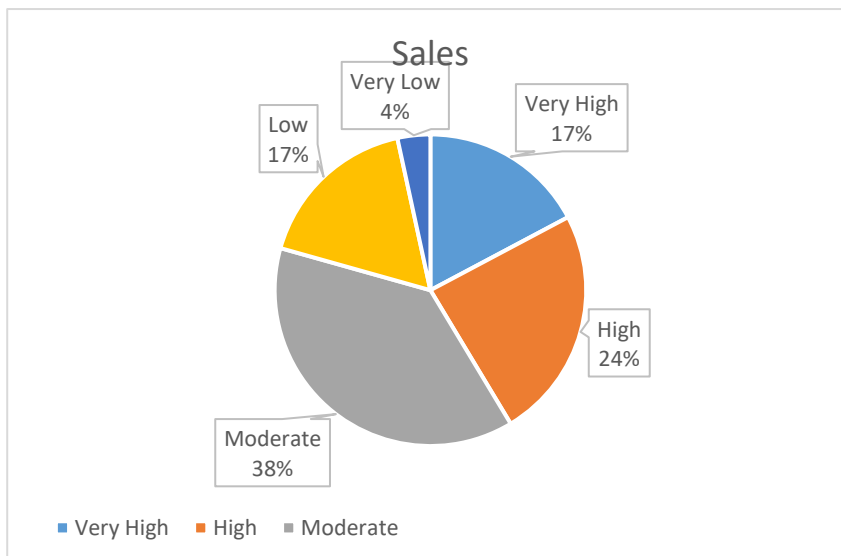
**Fig 6** Are you concerned about the cybersecurity of your pension information in the digital era?

As per data, Majority of sample are very much concerned about cyber security of their pension information in the digital era.

**Fig 7** How would you rate your level of digital literacy in managing your pension-related activities?

Majority of sample have moderate level of digital literacy in managing their pension related activates.

**Hypothesis Testing:**

Null Hypothesis (H0): There is no significant difference in the challenges encountered in managing pension funds due to digitalization across different age groups.

Alternative Hypothesis (H1): There is a significant difference in the challenges encountered in managing pension funds due to digitalization across different age groups.

Avenues of awareness pension schemes in Mumbai suburban

| Chi-square Contingency Table Test for Independence | | | | | |
|---|---|---|---|---|---|
| | | Maybe | No | Yes | Total |
| 18-24 | Observed | **28** | 40 | 16 | 84 |
| | Expected | 23.17241379 | 49.24138 | 11.5862 | 84 |
| 25-40 | Observed | | 12 | | 12 |
| | Expected | 3.310344828 | 7.034483 | 1.65517 | 12 |
| 40-59 | Observed | **4** | **12** | | 16 |
| | Expected | 4.413793103 | 9.37931 | 2.2069 | 16 |
| Above 60 | Observed | | 4 | | 4 |
| | Expected | 1.103448276 | 2.344828 | 0.55172 | 4 |
| **Total** | Observed | 32 | 68 | 16 | 116 |
| | Expected | 32 | 68 | 16 | 116 |
| | | 0.999955999 | **chi-square** | | |
| | | 0.130407852 | **p-value** | | |

Since, here p-value (Asymp. Sig.) = 0.000 > 0.05, H0 is accepted, it is concluded that there is no relationship between age and awareness of pension scheme. In other words, we conclude that age has no effect on awareness of pension schemes in Mumbai Suburban.

**Limitations:**

1.A sample size of 78 is a limitation; Findings may have been different with a higher sample size.

2. Sampling unit and area may be a limitation as the objective and frequency may be different in other areas.

3.Answers given by respondents may be biased.

**Conclusion:**

Studies show that the awareness about retirement planning is mostly found to be higher among men than among women. Most of them were not eligible for the government pension scheme. Most people expected a monthly pension income of Rs 10,000 to Rs 20,000. This also shows that education and business do not go hand in hand for retirement planning. This means that the level of awareness varies with age, education, qualification and gender. The study also

concluded that there are certain factors that affect the retirement planning of individuals such as future and present needs of family and health care.

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