

The Impact of Pradhan Mantri Jan Dhan Yojana on Investment Behavior: A Comparative Analysis



Dr. Sushant Mukharji

Research Scholar, Department of Economics, University of Rajasthan, Jaipur (Rajasthan)

Dr. Kshipra Jain

Assistant Professor, Department of Economics, University of Rajasthan, Jaipur (Rajasthan)

Abstract

The Pradhan Mantri Jan Dhan Yojana (PMJDY) represents India's ambitious effort to achieve financial inclusion by providing universal access to banking services. While the program has significantly increased account penetration among underserved populations, its influence on more complex financial behaviors particularly investment decisions remains poorly understood. This study addresses this gap by comparatively analyzing the investment behaviors of Jan Dhan account holders and their non-Jan Dhan counterparts in rural Rajasthan. Using a structured survey of 500 respondents and advanced statistical techniques, the research examines key dimensions including investment propensity, risk assessment practices, financial awareness, and decision-making patterns. The analysis reveals striking behavioral differences between the two groups, with non-Jan Dhan participants demonstrating markedly greater engagement with investment opportunities and more sophisticated financial approaches. These disparities persist even when controlling for demographic and socioeconomic factors, suggesting that mere access to banking services through PMJDY may be insufficient to promote advanced financial participation. The findings highlight critical limitations in the current financial inclusion paradigm, emphasizing the need for complementary interventions beyond account provision. Specifically, the study identifies financial literacy enhancement and tailored product design as essential strategies to bridge the observed behavioral gaps. These insights contribute significantly to ongoing policy discussions about optimizing financial inclusion initiatives in developing economies, offering evidence-based pathways to transform access into meaningful financial empowerment.

Keywords: Financial Inclusion, Investment Propensity, Risk Assessment Practices, Financial Literacy

Introduction

Financial inclusion has emerged as a critical driver of economic growth and poverty alleviation in developing economies. By providing individuals and businesses with access to useful and affordable financial products and services such as savings, credit, insurance, and investment opportunities it enables broader participation in the formal economy. Research by Beck, Demirgüç-Kunt, and Levine (2007) demonstrates that financial development significantly reduces

inequality and poverty by expanding access to financial resources. In India, the Pradhan Mantri Jan Dhan Yojana (PMJDY), launched in 2014, represents one of the most ambitious global efforts to promote financial inclusion. The program aims to provide universal access to banking facilities, ensuring that every household has a bank account, access to credit, insurance, and pension schemes. By bridging the gap between the formal financial system and the unbanked population, PMJDY empowers individuals, particularly those

from low-income and marginalized communities, to participate actively in the economy (Demirgüç-Kunt, Klapper, Singer, & Van Oudheusden, 2015). As of October 2023, PMJDY has opened over 50 crore (500 million) bank accounts, with approximately 60-70% located in rural areas and more than 55% belonging to women (Ministry of Finance, 2023). This highlights the program's significant reach in underserved regions and its role in promoting gender equity. These accounts have facilitated access to credit, insurance, and government subsidies, directly benefiting rural households and fostering economic participation. However, while PMJDY has successfully expanded access to basic banking services, its impact on advanced financial behaviors such as investment and risk management remains limited (Mukherji, 2019). This suggests that deeper behavioral and structural barriers must be addressed to ensure sustainable financial engagement. The transformative potential of financial inclusion in fostering economic development and reducing inequality is well-documented in the literature. Sarma (2008) developed an Index of Financial Inclusion to measure the extent of financial access and usage, emphasizing the importance of policy interventions like PMJDY in addressing disparities. Similarly, Collins, Morduch, Rutherford, and Ruthven (2009), in their seminal work *Portfolios of the Poor*, highlight how access to financial services can improve the economic resilience of low-income households. Despite these advancements, the role of financial literacy in shaping financial behavior cannot be overlooked. Lusardi and Mitchell (2014) underscore the economic importance of financial literacy, demonstrating that higher levels of financial knowledge are associated with better financial planning, risk management, and overall well-being. However, financial literacy remains a significant challenge for many Jan Dhan account holders, limiting their ability to engage with investment opportunities and other advanced financial services (Hastings, Madrian, & Skimmyhorn, 2013).

While PMJDY has achieved remarkable progress in increasing account ownership and credit ac-

cess, its impact on investment behavior remains underexplored. Investment behavior is a critical aspect of financial inclusion, as it reflects individuals' ability and willingness to engage with financial products beyond basic banking services. Existing research has extensively examined the program's success in expanding account ownership, but there is limited evidence on how PMJDY influences key dimensions such as propensity to invest, risk evaluation, awareness of investment schemes, interest in investment opportunities, and investment purposes. This gap in the literature is significant, as understanding these dimensions is essential to assess the program's effectiveness in fostering long-term financial stability and economic empowerment (Banerjee & Duflo, 2011; Goyal & Kumar, 2021).

This study aims to address this gap by conducting a comparative analysis of investment behavior between Jan Dhan account holders and non-Jan Dhan account holders. By examining these dimensions, the research seeks to provide a comprehensive understanding of the challenges and opportunities faced by Jan Dhan account holders in engaging with investment opportunities. The findings have significant implications for policymakers, financial institutions, and stakeholders involved in promoting financial inclusion. By identifying gaps and challenges, this research offers actionable insights to enhance the effectiveness of PMJDY and similar initiatives. Furthermore, it contributes to the growing body of literature on financial inclusion by shedding light on the behavioral aspects of financial decision-making among underserved populations (Rai & Ravi, 2011). Ultimately, this study underscores the importance of not only providing access to financial services but also fostering the knowledge, confidence, and tools necessary for individuals to make informed and strategic investment decisions.

Research Methodology

The study was conducted in the rural areas of Jaipur, Rajasthan, a region that provides a representative context for examining the investment behavior of Jan Dhan account holders and non-

Jan Dhan account holders. Rural India, including Jaipur, is characterized by limited access to formal financial services, with a significant portion of the population remaining unbanked or underbanked (World Bank, 2018). Rajasthan, in particular, has been a focus state for financial inclusion initiatives, with a high penetration of Jan Dhan accounts under the Pradhan Mantri Jan Dhan Yojana (PMJDY). This makes Jaipur an ideal location to study the impact of PMJDY on financial behavior, particularly in rural settings where the program aims to bridge the gap between the formal financial system and underserved populations (Ministry of Finance, Government of India, 2021). Additionally, the socio-economic diversity of rural Jaipur, which includes a mix of agricultural and non-agricultural economic activities, allows for a comprehensive analysis of how different income groups and occupational categories engage with financial services and investment opportunities (NSSO, 2019). The region's geographic and cultural relevance further enhances its suitability, as it reflects the broader trends and challenges of rural financial inclusion in India (Reserve Bank of India, 2020). Moreover, Rajasthan has been a focus state for several government initiatives aimed at promoting rural development, such as the National Rural Livelihoods Mission (NRLM), making the findings from this study highly relevant for policymakers (Planning Commission of India, 2014). The accessibility and well-documented nature of rural Jaipur also ensured the feasibility of conducting a large-scale survey, supported by local institutions and community networks. Thus, the selection of rural Jaipur as the study area ensures that the research findings are grounded in a context that is both representative of rural India and aligned with the objectives of the study, providing actionable insights for enhancing financial inclusion and investment behavior among underserved populations.

Sample Size Determination: The sample size for this comparative study was determined using the following widely accepted formula for sample size calculation in proportion-based studies (Kish, 1965; Cochran, 1977):

$$n = \frac{Z_{\alpha}^2 \times p \times q \times \text{deff}}{d^2}$$

Where: α = level of statistical significance that was set at 0.10

Z_{α} = the z value at 90% confidence level i.e. $z_{\alpha}=1.645$, with 90% confidence level

d = the margin of error i.e. $d=.05$

p = the proportion of bank account holders engaging in investments i.e. $p=0.41$

$q = 1-p$ i.e. $q=0.59$

deff = design effect i.e. $\text{deff}=2$

Using this formula, the calculated sample size was 524 respondents. For practical feasibility, this was rounded to 500 respondents (250 Jan Dhan account holders and 250 non-Jan Dhan account holders). This sample size ensures a 90% confidence level and a 5% margin of error, while accounting for the increased variability introduced by the sampling design. The adjustment for the design effect ensures the sample size is robust enough to maintain the precision of estimates in a complex sampling framework (Lwanga & Lemeshow, 1991).

The chosen sample size is consistent with similar studies in the field of financial inclusion and literacy, where sample sizes of 400–600 respondents are commonly used for comparative analyses (World Bank, 2014; RBI, 2015). This ensures that the findings are statistically reliable, methodologically sound, and generalizable to the target population.

Data Collection Methods: The study relied exclusively on primary data collection to examine the investment behavior of Jan Dhan account holders and non-Jan Dhan account holders in rural Jaipur. A structured questionnaire was administered to 500 respondents, comprising 250 Jan Dhan account holders and 250 non-Jan Dhan account holders, selected through a stratified random sampling technique to ensure representation across key demographic and geographic variables. The questionnaire was designed to capture critical dimensions such as demographic information (age, gender, income level, education, occu-

pation, and geographic location), financial access and usage (ownership of bank accounts, usage of banking services, access to credit, and insurance coverage), investment behavior (propensity to invest, risk evaluation behavior, awareness of investment schemes, interest in investment opportunities, and purpose of investment), and financial literacy (knowledge of financial products, understanding of risk and return, and confidence in making financial decisions). The questionnaire was developed based on a review of existing literature on financial inclusion and investment behavior (Lusardi & Mitchell, 2014; Demirgüç-Kunt et al., 2015) and was administered in person to ensure clarity and accuracy of responses. Ethical considerations were strictly adhered to, including obtaining informed consent, ensuring confidentiality and anonymity of respondents, and guaranteeing voluntary participation. The primary data collected provided the foundation for the analysis of investment behavior and its determinants among the study population.

Data Analysis Techniques: The primary data collected through the structured questionnaire was analyzed using Stata, a robust statistical software, to examine the investment behavior of Jan Dhan and non-Jan Dhan account holders. Descriptive statistics were used to summarize the demographic and socio-economic characteristics of the participants, as well as their investment behaviors, providing a comprehensive overview of the sample. Key variables such as age, gender, education, occupation, and living arrangements were analyzed to profile the two groups. To compare categorical variables, such as awareness of investment schemes and interest in investment opportunities, the chi-square test was employed. This helped identify significant differences between Jan Dhan and non-Jan Dhan account holders in terms of their financial behaviors and preferences.

Principal Component Analysis (PCA) was conducted to reduce the dimensionality of the data and identify underlying latent factors influencing investment behavior. Two principal components were extracted: PC1 (Investment

Awareness and Interest) and PC2 (Risk Evaluation and Investment Propensity). These components were used to construct a composite Investment Behavior Index (IBI), which served as a holistic measure of investment behavior. The IBI was further analyzed using Ordinary Least Squares (OLS) regression to examine its relationship with key independent variables, such as income level, education, occupation, and access to financial services. The OLS regression model helped identify the determinants of investment behavior, providing insights into the factors influencing financial decision-making among the study population. For instance, the analysis revealed that education level, gender, and occupation were significant predictors of investment behavior for both groups, with stronger effects observed among non-Jan Dhan account holders. Additionally, living arrangements and exposure to mass media were found to influence investment behavior, particularly among Jan Dhan account holders. To further validate the findings, independent samples t-tests were conducted to compare the mean scores of the principal components (PC1 and PC2) between the two groups. The results highlighted significant differences in Investment Awareness and Interest (PC1), with non-Jan Dhan participants scoring higher, while no significant differences were observed in Risk Evaluation and Investment Propensity (PC2).

Overall, the combination of descriptive statistics, chi-square tests, PCA, and OLS regression provided a robust framework for analyzing the investment behavior of Jan Dhan and non-Jan Dhan account holders, offering valuable insights for policymakers and financial institutions aiming to promote financial inclusion.

Profiling of the survey participants

This section presents a detailed demographic and socio-economic profile of the participants, categorized into Jan Dhan and Non-Jan Dhan account holders. Table 1 highlights key differences in age, gender, occupation, living arrangements, education, and exposure to mass media between the two groups, offering valuable insights into

their distinct characteristics. Among Jan Dhan participants, the largest age group is 40-49 years at 24 percent, followed by 18-30 years at 25 percent, indicating a relatively younger demographic compared to Non-Jan Dhan participants, where the majority are aged 40-49 years at 35 percent. Gender distribution reveals a significant disparity, with Jan Dhan participants being predominantly male at 86 percent, while Non-Jan Dhan participants exhibit a more balanced gender split at 53 percent male and 47 percent female. Marital status data shows that the majority in both groups are married, though Jan Dhan participants include a slightly higher proportion of unmarried individuals at 14 percent compared to Non-Jan Dhan participants at 1 percent.

In terms of occupation, Jan Dhan participants are more likely to be engaged in agriculture at 44 percent, whereas Non-Jan Dhan participants are more involved in non-agricultural activities at 48 percent. Living arrangements indicate that both groups predominantly reside in extended joint families, though Non-Jan Dhan participants have a slightly higher proportion living in nuclear families at 38 percent compared to Jan Dhan participants at 30 percent. Educational qualifications are relatively similar, with the majority in both groups having completed secondary education. However, Non-Jan Dhan participants show a higher proportion of graduates at 29 percent compared to Jan Dhan participants at 20 percent. Exposure to mass media is high in both groups, with 85 percent of Jan Dhan and 89 percent of Non-Jan Dhan participants being connected to external sources of information.

Table 1: Percent Distribution of Demographic Profiling of Survey Participants, Jan Dhan and Non-Jan Dhan Account Holders, Jaipur Rural, 2024

Background Characteristics	Jan Dhan		Non Jan Dhan	
Age	P	N	P	N
18-30	25.60	64	5.20	13

Background Characteristics	Jan Dhan		Non Jan Dhan	
31-35	18.80	47	15.60	39
36-40	20.80	52	28.40	71
40-49	24.80	62	35.20	88
50-65	10.00	25	15.60	39
Gender				
Male	86.40	216	53.2	133
Female	13.60	34	46.8	117
Marital Status				
Un Married	14.00	35	1.21	#
Married	84.80	212	98.39	244
Others^	1.20	#	0.40	#
Occupation				
Agriculture	44.40	111	33.60	84
Non Agriculture	27.60	69	48.00	120
Other^^	28.00	70	18.40	46
Living Arrangements				
Extended Joint Family	70.00	175	61.60	154
Nuclear Family	30.00	75	38.40	96
Qualification				
No Education	10.40	26	8.00	20
Primary	17.60	44	11.20	28
Secondary	26.80	67	28.00	70
Senior Secondary	16.00	40	15.60	39
Graduate	20.40	51	29.60	74
Post Graduate or Above	8.80	22	7.60	19
Exposure to Mass Media				
No	14.40	36	10.80	27
Yes	85.60	214	89.20	223

Note: # indicates to cell frequency less than 8

Others^ includes widowed, divorced and separated;

Others^^ includes unemployed, students, retired and senior citizen;

Overall, the profiling highlights key differences between the two groups: Jan Dhan participants are younger, predominantly male, more agriculturally oriented, and live in larger family setups, while Non-Jan Dhan participants exhibit a more balanced gender distribution, higher educational attainment, and greater occupational diversity. These insights provide a clear understanding of the socio-economic and demographic characteristics of the two participant groups.

Comparative Analysis of Investment Intentions

The investment behaviors of Jan Dhan and Non-Jan Dhan account holders are compared in Table 2, focusing on their propensity to set aside income for investment and their practices of evaluating investment risk. Table 2 compares investment behaviors between Jan Dhan account holders and Non-Jan Dhan account holders. It examines two key questions: whether individuals set aside income for investment and whether they evaluate investment risk before investing. For the question of setting aside income, 6% of Jan Dhan account holders reported doing so, with a mean of 0.064, indicating a low average propensity to invest, and

a standard deviation of 0.245, showing moderate variability in responses within this group. In contrast, 24% of Non-Jan Dhan account holders reported setting aside income, with a mean of 0.244 and a higher standard deviation of 0.430, suggesting greater variability in investment practices within this group. Conversely, 94% of Jan Dhan account holders and 76% of Non-Jan Dhan account holders indicated they do not set aside income for investment. When asked about evaluating investment risk, 84% of Jan Dhan account holders responded affirmatively, with a mean of 0.840 and a standard deviation of 0.367. Similarly, 91% of Non-Jan Dhan account holders indicated they evaluate risk, with a mean of 0.908 and a standard deviation of 0.290, reflecting a slightly higher inclination towards risk evaluation and less variability in responses. Respectively, 16% and 9% stated they do not evaluate risk. This suggests Jan Dhan account holders are significantly less likely to invest, but both groups show a high propensity for risk evaluation. The mean values reinforce the percentage data, while the standard deviations provide insights into the dispersion of responses within each group.

Table 2: Comparative Analysis of Investment Behavior and Risk Evaluation: Jan Dhan vs. Non-Jan Dhan Account Holders, Jaipur Rural, 2024

Set aside income for investment?	Jan Dhan		Non Jan Dhan	
	P	N	P	N
Yes	6.40	16	24.40	61
No	93.60	234	75.60	189
Mean	0.064		0.244	
Standard Deviation	0.245		0.430	
Evaluate investment risk before investing?	Jan Dhan		Non Jan Dhan	
	P	N	P	N
Yes	84.00	210.00	90.80	227.00
No	16.00	40.00	9.20	23.00
Mean	0.840		0.908	
Standard Deviation	0.367		0.290	

Investment Preferences

Table 3 highlights the preferred investment choices of Jan Dhan and Non-Jan Dhan account holders,

categorized into three types: non-monetary instruments, financial instruments, and conventional financial instruments. Among both groups, non-

monetary instruments are the most popular choice, with 65% of Jan Dhan and 69% of Non-Jan Dhan account holders preferring them. This indicates a strong inclination toward tangible or physical assets. In contrast, financial instruments are the least preferred, with only 5% of Jan Dhan and 5% of Non-Jan Dhan account holders opting for them, suggesting limited engagement with modern financial tools. Conventional financial instruments are moderately popular, with 31% of Jan Dhan and 26% of Non-Jan Dhan account holders choosing them, reflecting a preference for traditional investment options over modern ones. Overall, the data reveals that both groups predominantly favor non-monetary instruments, followed by conventional financial instruments, while financial instruments are the least preferred. The trends are similar across both Jan Dhan and Non-Jan Dhan account holders, with minor differences in percentages.

Table 3: Preferred Investment Choices Among Jan Dhan and Non-Jan Dhan Account Holders, Jaipur Rural, 2024

Preferred investments	Jan Dhan		Non Jan Dhan	
	P	N	P	N
Non-monetary instruments	64.80	127	68.93	142
Financial Instrument	4.59	9	4.85	10
Conventional Financial Instrument	30.61	60	26.21	54

Comparative Analysis of Investment Behaviours

The comparative analysis of investment behaviors between Non-Jan Dhan and Jan Dhan account holders is grounded in survey data collected through structured questionnaires, focusing on five key dimensions: Propensity to Invest, Risk Evaluation Behavior, Awareness about Investment Schemes, Interest in Investment Plans,

and Purpose of Investment. These variables were operationalized using composite scores derived from participants' responses, and the data were analyzed using descriptive statistics (means and standard deviations) and independent samples t-tests to compare the two groups. The independent samples t-tests were employed to assess the significance of mean differences between the groups, with p-values indicating the statistical significance of observed disparities.

The results shown in table 4, reveals significant differences between the two groups. Non-Jan Dhan participants demonstrated a higher propensity to invest (mean = 0.24 vs. 0.06, $p < 0.001$), superior risk evaluation behavior (mean = 0.91 vs. 0.84, $p = 0.022$), and greater awareness of investment schemes (mean = 3.40 vs. 2.58, $p < 0.001$) compared to Jan Dhan participants. Additionally, Non-Jan Dhan participants articulated more defined purposes for investment (mean = 4.48 vs. 3.84, $p < 0.001$), reflecting clearer financial goals. However, no significant difference was observed in interest in investment plans (mean = 2.62 vs. 2.50, $p = 0.479$), suggesting comparable levels of enthusiasm for investment products across both groups.

These findings underscore that Non-Jan Dhan individuals are more likely to engage in investment activities, adopt a cautious approach to risk assessment, and possess well-defined financial objectives, potentially attributable to higher financial literacy or greater access to resources. The absence of significant differences in investment interest, despite disparities in other dimensions, highlights the need for targeted financial education and policy interventions to address behavioral gaps, particularly among underserved groups like Jan Dhan account holders. Such interventions could foster greater financial inclusion and empower individuals to participate more actively in the formal financial system.

Table 4: Descriptive Statistics and T-Test Results: Investment Behaviors by Jan Dhan Status, Jaipur Rural, 2024

Variable	Group	Mean	Std. Dev.	Mean Difference	p-value
Propensity to Invest	Non-Jan Dhan	0.24	0.43	0.18	< 0.001
	Jan Dhan	0.06	0.25		
Risk Evaluation Behavior	Non-Jan Dhan	0.91	0.29	0.07	0.022
	Jan Dhan	0.84	0.37		
Knowledge of investment plans	Non-Jan Dhan	3.4	2.53	0.82	< 0.001
	Jan Dhan	2.58	2.17		
Interest in Investment Plans	Non-Jan Dhan	2.62	1.81	0.12	0.479
	Jan Dhan	2.5	1.98		
Purpose of Investment	Non-Jan Dhan	4.48	1.74	0.64	< 0.001
	Jan Dhan	3.84	1.75		

Comparison of Investment Behavior Between Non-Jan Dhan and Jan Dhan Groups

Understanding the investment behaviors of different demographic groups is crucial for designing effective financial inclusion policies. This section compares the investment behaviors of Non-Jan Dhan and Jan Dhan groups using Principal Component Analysis (PCA) and independent samples t-tests. The analysis focuses on two principal components: PC1, representing Investment Awareness and Interest, and PC2, representing Risk Evaluation and Investment Propensity. The analysis was conducted in two stages. First,

PCA was performed on five key variables related to investment behavior: Propensity to Invest, Risk Evaluation Behavior, Awareness about Investment Schemes, Interest in Investment Schemes, and Purpose of Investment. These variables were reduced into two principal components (PC1 and PC2), which together explain a significant portion of the variance in the data. Next, independent samples t-tests were conducted to compare the mean scores of PC1 and PC2 between the Non-Jan Dhan and Jan Dhan groups. The t-tests assessed whether the observed differences in mean scores were statistically significant at a 95% confidence level.

Table 5: Comparison of Principal Component Scores by Jan Dhan Status. Jaipur Rural, 2024

Variable	Group	Mean	Std. Err.	Std. Dev.	95% Confidence Interval	Mean Difference	t-statistic	p-value
PC1	Non-Jan Dhan	0.30	0.10	1.496	(0.117, 0.489)	0.61	4.86	< 0.001
	Jan Dhan	-0.30	0.08	1.285	(-0.463, -0.143)			
PC2	Non-Jan Dhan	-0.03	0.06	0.92	(-0.149, 0.081)	-0.07	-0.77	0.442
	Jan Dhan	0.03	0.07	1.05	(-0.097, 0.165)			

The results shown in table 5 reveals distinct patterns in investment behaviors between Non-Jan Dhan and Jan Dhan groups, as captured by the two principal components. For PC1 (Investment Awareness and Interest), a significant difference was observed between the groups. Non-Jan Dhan participants exhibited a mean score of 0.303, while Jan Dhan participants scored -0.303, resulting in a mean difference of 0.606 ($p < 0.001$). This indicates that Non-Jan Dhan individuals demonstrate significantly higher levels of investment awareness and interest, reflecting greater familiarity with investment opportunities and a stronger inclination to engage in financial activities. In contrast, the negative score for Jan Dhan participants suggests limited awareness and interest, highlighting a critical gap that warrants targeted interventions, such as financial literacy programs and awareness campaigns, to enhance their engagement with investment opportunities. For PC2 (Risk Evaluation and Investment Propensity), no significant difference was found between the groups. The mean scores were -0.034 for Non-Jan Dhan and 0.034 for Jan Dhan participants, with a mean difference of -0.068 ($p = 0.442$). This suggests that both groups exhibit comparable levels of risk evaluation behavior and willingness to take investment risks. The absence of significant differences in this dimension implies that interventions targeting risk-taking behavior or investment propensity need not be group-specific, as both groups share similar attitudes toward risk and investment.

These findings underscore the importance of addressing disparities in investment awareness and interest while recognizing the shared risk evaluation and investment propensity across the two groups. The results provide valuable insights for policymakers and financial institutions, emphasizing the need for tailored strategies to promote financial inclusion. Specifically, efforts should focus on enhancing investment awareness and interest among Jan Dhan participants, while leveraging the shared risk-taking behaviors to design inclusive financial products and services that cater to both groups.

Factors determining investment behavior among respondents

The OLS regression analysis shown in table 6, identifies key determinants of investment behavior for Jan Dhan and Non-Jan Dhan account holders, revealing distinct patterns between the two groups. For Jan Dhan account holders, gender and education are the most significant predictors. Being female is associated with a 5.76-unit increase in investment behavior ($p < 0.001$), highlighting the positive role of women in financial decision-making. Higher education levels, particularly graduate ($\beta = 3.33$, $p = 0.001$) and post-graduate ($\beta = 4.22$, $p < 0.001$), significantly enhance investment behavior. Additionally, individuals in non-agricultural occupations show a 2.03-unit increase ($p = 0.043$), and those in nuclear families exhibit a 2.19-unit increase ($p = 0.03$) in investment behavior. For Non-Jan Dhan account holders, the effects of these factors are more pronounced. Being female is associated with a 2.72-unit increase ($p = 0.007$), while higher education levels, such as graduate ($\beta = 4.67$, $p < 0.001$) and post-graduate ($\beta = 6.13$, $p < 0.001$), demonstrate a stronger impact. Non-agricultural occupations ($\beta = 2.36$, $p = 0.019$) and nuclear family living arrangements ($\beta = 3.55$, $p < 0.001$) also significantly improve investment behavior. The model explains 39.1% of the variance in investment behavior for Jan Dhan account holders ($R^2 = 0.391$) and 54.7% for Non-Jan Dhan account holders ($R^2 = 0.547$), indicating a better fit for the latter group. Overall, while both groups show similar trends, the effects of education and living arrangements are more pronounced for Non-Jan Dhan account holders, suggesting that these factors play a stronger role in shaping their investment behavior. These findings highlight the importance of targeted interventions, such as promoting education, empowering women, and supporting non-agricultural occupations, to enhance investment behavior, particularly among Jan Dhan account holders.

Table 6: Socioeconomic characteristics determining Investment Behaviours among respondents, Rural Jaipur, 2024

Background Characteristics	Jan Dhan		Non Jan Dhan	
Age	Beta	P> t	Beta	P> t
18-30®				
31-35	-0.09	0.925	-1.62	0.107
36-40	0.45	0.657	-1.25	0.213
40-49	0.64	0.524	-0.85	0.396
50-65	0.85	0.396	0.24	0.814
Gender				
Male®				
Female	5.76	0	2.72	0.007
Education				
Illitrate®				
Upto Primary	1.54	0.125	1.2	0.233
Secondary	1.15	0.252	1.34	0.182
Higher Secondary	2.23	0.027	3.82	0
Graduate	3.33	0.001	4.67	0
Post Graduate and Above	4.22	0	6.13	0
Marital Status				
Unamrried®				
Married	-1.49	0.137	-1.72	0.086
Others	-0.12	0.901	-1.36	0.176
Occupation				
Agriculture ®				
Non Agriculture	2.03	0.043	2.36	0.019
Other	-0.77	0.44	2.08	0.038
Living Arrangement				
Extended joint Family®				
Nuclear Family	2.19	0.03	3.55	0
Mass Media				
No ®				
Yes	0.14	0.893	1.04	0.298
R Squared	0.391		0.5474	
Adjusted R Square	0.3444		0.5149	

Findings

The comparative analysis of investment behaviors between Jan Dhan account holders and non Jan Dhan account holders revealed significant differences that provide important insights into financial inclusion outcomes. One of the findings was the substantial gap in investment participation between the two groups. While nearly a quarter (24%) of non-Jan Dhan account holders reported regularly setting aside income for investment purposes, this figure dropped to just 6% among Jan Dhan beneficiaries. This six-fold difference strongly suggests that while the PMJDY program has successfully provided basic banking access, it has been less effective in promoting more advanced financial behaviors like investment.

Interestingly, when it came to risk assessment practices, both groups showed relatively high levels of caution. About 84% of Jan Dhan account holders and 91% of non-Jan Dhan holders reported evaluating risks before making investment decisions. This relatively small difference (7 percentage points) indicates that risk awareness does not necessarily translate into actual investment behavior, particularly among Jan Dhan account holders.

The study also uncovered important patterns in investment preferences. Traditional, non-monetary investments like gold, livestock, and property remained overwhelmingly popular among both groups, with 65% of Jan Dhan and 69% of non-Jan Dhan account holders preferring these tangible assets. In contrast, modern financial instruments such as mutual funds, stocks, or government securities attracted minimal interest, with only 5% adoption in both groups. This suggests a deep-rooted preference for physical assets over financial products that cuts across banking status.

Principal Component Analysis reinforced these findings by showing that non-Jan Dhan account holders scored significantly higher (mean difference = 0.61, $p < 0.001$) on measures of investment awareness and interest. However, the two groups showed no meaningful difference in their fundamental approach to risk evaluation and

willingness to invest, indicating that the gap lies more in knowledge and opportunity than in basic financial temperament.

This study identified some key factors that influence investment behavior. Education emerged as particularly important - account holders with graduate or post-graduate qualifications showed much stronger investment participation, with non-Jan Dhan holders benefiting more ($\beta = 6.13$) than Jan Dhan holders ($\beta = 4.22$). Gender also played a significant role, as female Jan Dhan account holders demonstrated 5.76-unit higher investment engagement than their male counterparts ($p < 0.001$), a finding that challenges traditional assumptions about gender and financial behavior. Workers in non-agricultural sectors invested more than farmers, and nuclear families showed greater investment activity than joint families. Surprisingly, exposure to financial information through media had no significant impact.

These findings underscore the progress and persistent challenges of financial inclusion in rural India under PMJDY. While the program has successfully expanded basic banking access, meaningful financial engagement remains constrained by structural barriers like low financial literacy, banking services misaligned with rural livelihoods, and underlying socioeconomic factors like irregular incomes and limited education. To bridge the gap between account ownership and active financial participation, future efforts must integrate targeted financial education, context-sensitive service delivery, and convergence with broader livelihood and skilling initiatives. The next phase of inclusion requires moving beyond access alone to address the behavioral and institutional hurdles that hinder PMJDY's transformative potential.

Conclusion

This study examined how India's Pradhan Mantri Jan Dhan Yojana (PMJDY) financial inclusion policy affects investment behavior in rural communities. Our comparative analysis revealed three key findings:

First, while PMJDY successfully provided banking access, significant gaps remain in investment par-

ticipation between Jan Dhan and non-Jan Dhan account holders. Second, education, gender and occupation emerged as critical factors influencing investment behavior, with stronger effects among non-Jan Dhan users. Third, both groups showed similar risk assessment patterns, suggesting risk-related interventions could be universally applied. These findings demonstrate that policy-driven financial access alone is insufficient for equitable participation. Effective financial inclusion requires integrated approaches that combine banking access with financial education and livelihood support. Future research should expand to urban areas and examine digital financial services to provide more comprehensive insights. For policymakers, this study highlights the need to complement PMJDY's account-opening success with targeted financial literacy programs and gender-sensitive initiatives to truly transform access into meaningful financial participation

References

1. Banerjee, A.V. & Duflo, E. (2011). *Poor economics: A radical rethinking of the way to fight global poverty*. New York: *PublicAffairs*.
2. Beck, T., Demirgüç-Kunt, A. & Levine, R. (2007). Finance, inequality, and poverty: Cross-country evidence, *Journal of Economic Growth*, 12(1), pp. 27-49.
3. Collins, D., Morduch, J., Rutherford, S. & Ruthven, O. (2009). *Portfolios of the poor: How the world's poor live on \$2 a day*. Princeton: Princeton University Press.
4. Demirgüç-Kunt, A., Klapper, L., Singer, D. & Van Oudheusden, P. (2015). The Global Findex Database 2014: Measuring financial inclusion around the world. *World Bank Policy Research Working Paper*, No. 7255. Washington, DC: World Bank.
5. Goyal, A. & Kumar, S. (2021). Financial inclusion and its impact on economic growth: Evidence from India, *Journal of Financial Economic Policy*, 13(2), pp. 234-250.
6. Hastings, J.S., Madrian, B.C. & Skimmyhorn, W.L. (2013). Financial literacy, financial education, and economic outcomes, *Annual Review of Economics*, 5(1), pp. 347-373.
7. Kish, L. (1965). *Survey sampling*. New York: John Wiley & Sons.
8. Lusardi, A. & Mitchell, O.S. (2014). The economic importance of financial literacy: Theory and evidence, *Journal of Economic Literature*, 52(1), pp. 5-44.
9. Lwanga, S.K. & Lemeshow, S. (1991). *Sample size determination in health studies: A practical manual*. Geneva: World Health Organization.
10. Ministry of Finance, Government of India (2021). PMJDY National Mission for Financial Inclusion Report. Available at: <https://www.pmjdy.gov.in>
11. Mukherji, A. (2019). Financial inclusion and its impact on economic development: Evidence from India, *Journal of Development Studies*, 55(6), pp. 1234-1250.
12. National Sample Survey Office (NSSO) (2019). *Household social consumption: Education in India*. New Delhi: Government of India.
13. Planning Commission of India (2014). *Report of the Expert Group to Review the Methodology for Measurement of Poverty*. New Delhi: Government of India.
14. Rai, A. & Ravi, S. (2011). Do spouses make claims? Empowerment and microfinance in India, *World Development*, 39(6), pp. 913-921.
15. Reserve Bank of India (RBI) (2020). *Annual Report on Financial Inclusion*. Available at: <https://www.rbi.org.in>
16. Sarma, M. (2008). Index of financial inclusion. *Indian Council for Research on International Economic Relations (ICRIER) Working Paper*, No. 215. New Delhi: ICRIER.
17. World Bank (2014). *Global financial development report 2014: Financial inclusion*. Washington, DC: World Bank.
18. World Bank (2018). *The Global Findex Database 2017: Measuring financial inclusion and the fintech revolution*. Washington, DC: World Bank.