Investment Behavior of Unorganized Workers in Jalgaon MIDC: An Empirical Study

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Abstract
The study examines the investment behavior and financial decision-making patterns of unorganized skilled and unskilled workers in the Jalgaon Maharashtra Industrial Development Corporation (MIDC) area. The research focuses on saving preferences, choice of investment instruments, and the socioeconomic factors influencing financial behavior. Primary data were collected through a structured questionnaire administered to 60 respondents selected using convenience sampling. The study analyzes demographic characteristics, income patterns, saving habits, and levels of investment awareness. Statistical analysis was employed to test the relationship between income and saving frequency, as well as between education and investment awareness. The findings indicate that unorganized workers largely depend on traditional savings avenues such as bank deposits, cash holdings, and gold, while participation in modern financial instruments like mutual funds and equities remains minimal. Major constraints affecting investment behavior include irregular income, low financial literacy, lack of adequate documentation, and limited trust in formal financial institutions. The study highlights the need for targeted financial literacy programs and inclusive financial policies to improve investment participation and financial security among unorganized workers.

Keywords: Investment Behavior, Unorganized worker

1. Introduction

The unorganized sector constitutes a significant portion of India's workforce, accounting for over 90% of total employment and contributing substantially to the nation's economic output. Despite their critical role in economic development, unorganized workers remain largely excluded from formal financial systems and face numerous challenges in accessing banking services, insurance, and investment opportunities. These workers, characterized by irregular income streams, lack of job security, and minimal social protection, often struggle to build financial resilience and plan for their future.

Jalgaon district in Maharashtra has emerged as an important industrial hub, mainly because of the development of the Maharashtra Industrial Development Corporation (MIDC). The MIDC region accommodates numerous manufacturing units, processing industries, and small-scale enterprises that rely extensively on unorganized labor. This workforce consists of daily wage workers, contract laborers, loading and unloading workers, packaging staff, and other support service workers who play a crucial role in ensuring the smooth functioning of industrial operations.

Understanding how these unorganized workers manage and invest their money is extremely important. Many of them remain outside the formal financial system, often due to lack of awareness, irregular incomes, or limited access to banking services. Studying their investment behavior helps in identifying the challenges they face in

saving and investing. It also sheds light on their financial priorities, risk preferences, and the informal methods they rely on to secure their future.

2. Literature Review

The investment behavior and financial inclusion of unorganized workers in India has received increasing attention from researchers, policymakers, and development practitioners. This section reviews four key studies that provide theoretical and empirical foundations for understanding the financial behavior of unorganized sector workers.

2.1 Factors Influencing Pension Scheme Participation

G et al. studied why urban unorganized workers in India do or do not join defined contribution pension schemes, focusing on Burdwan District in West Bengal. Based on a survey of 400 workers, the study found that most people rely on advice from friends, family, and advertisements rather than financial experts when making financial decisions. Low and irregular income often prevents regular saving, leading workers to delay or avoid pension investments. Even though literacy levels were relatively high, awareness of government pension schemes like NPS Swavalamban was very low. The study concludes that financial literacy, not just general education, plays a key role in improving participation in voluntary pension schemes, highlighting a gap between being educated and being financially aware.

2.2 Determinants of Financial Literacy and Service Usage

Jana et al. [4] studied financial literacy and use of financial services among 400 unorganized sector workers in Paschim Medinipur, India. They found that a person's occupation, income, and education mainly determine their financial literacy. In turn, financial literacy, income, and whether someone lives in a city or rural area influence their use of financial services. The study highlights that financial exclusion is shaped by multiple social and economic factors, and even within marginalized groups, differences in education, job type, and location affect access to formal finance. It suggests that interventions should target the specific barriers faced by different subgroups.

2.3 Financial Inclusion of Female Domestic Workers

Mati [3] studied the impact of the Pradhan Mantri Jan Dhan Yojana (PMJDY) on female domestic workers in Mumbai. While many opened bank accounts and increased savings, challenges like low financial confidence, social barriers, and limited financial literacy prevented full economic empowerment. The study highlights that for women in the unorganized sector, financial inclusion requires more than account access—it also needs education, confidence-building, and efforts to overcome cultural and social obstacles.

2.4 Comparative Analysis of Financial Service Access

Jana [11] compared access to financial services among unorganized workers in Purba and Paschim Medinipur, West Bengal. The study found regional and demographic differences: in Purba Medinipur, gender, occupation, and financial literacy mattered, with men having better access, while in Paschim Medinipur, urban location, income, and financial literacy were key, favoring urban residents. Across both districts, higher financial literacy consistently improved access and understanding of banking products. The research suggests that financial inclusion policies should be tailored to local contexts rather than using a one-size-fits-all approach.

3. Research Methodology

3.1 Research Objectives

This study aims to achieve the following objectives:

- To analyze the demographic profile of unorganized workers in Jalgaon MIDC.
- To examine the income patterns and earning levels of workers.
- To study the saving habits and investment preferences in traditional and modern instruments.
- To assess the frequency and regularity of saving behavior and factors affecting it.
- To identify socioeconomic factors influencing investment behavior and financial decisions.

3.2 Sample Size and Sampling Technique

The study focuses on unorganized workers employed in various industrial units within the Jalgaon MIDC area. The target population includes daily wage laborers, contract workers, loading and unloading staff, packaging workers, housekeeping personnel, security guards, and other support service workers.

Sample Size: A total of 85 questionnaires were distributed among respondents, of which 60 were properly completed and returned. Therefore, a sample of 60 respondents was considered for the study, taking into account time, resources, accessibility, and representation of various worker categories in the MIDC area.

Sampling Technique: Convenience sampling was used due to the lack of a centralized worker registry, unpredictable schedules, and limited availability during working hours. Workers were approached during breaks or in common areas across multiple industrial units, representing diverse ages, genders, education levels, and occupational categories to reflect the heterogeneity of the unorganized workforce.

3.3 Data Collection Method

Primary data were collected using a structured questionnaire designed for this study, while secondary data were obtained from published research papers, books, and other relevant sources.

3.4 Statistical Tools

The collected data was coded, entered into Microsoft Excel, and subsequently analyzed using Statistical Package. Results were presented using charts and tables, with significance set at $\alpha = 0.05$.

4. Hypotheses

The hypotheses were formulated as under:

Hypothesis 1 (H1):

$H1_0$ (Null Hypothesis): There is no significant association between monthly income levels and saving frequency among unorganized workers in Jalgaon MIDC.

$H1_1$ (Alternative Hypothesis): There is a significant association between monthly income levels and saving frequency among unorganized workers in Jalgaon MIDC.

Hypothesis 2 (H2):

$H2_0$ (Null Hypothesis): There is no significant difference in investment awareness levels between workers with secondary education or above and workers with primary education or below.

$H2_1$ (Alternative Hypothesis): There is a significant difference in investment awareness levels between workers with secondary education or above and workers with primary education or below.

5. Data Analysis and Interpretation

5.1 Demographic Profile of Respondents

The demographic analysis provides insights into the composition of the sample and helps understand the characteristics of unorganized workers in Jalgaon MIDC.

Table 1: Gender Distribution of Respondents

Gender	Frequency	Percentage
Male	42	70.0%
Female	18	30.0%
Total	**60**	**100.0%**

The sample comprises 70% male workers and 30% female workers, reflecting the gender composition typically observed in industrial unorganized workforce where male workers predominate in physically demanding roles such as loading, unloading, and material handling.

Table 2: Age Distribution of Respondents

Age Group	Frequency	Percentage
18-25 years	12	20.0%
26-35 years	23	38.3%
36-45 years	17	28.3%
46-55 years	6	10.0%
Above 55 years	2	3.4%
Total	**60**	**100.0%**

The majority of respondents (38.3%) fall in the 26-35 years age group, followed by 36-45 years (28.3%) and 18-25 years (20.0%). This age distribution indicates that the unorganized workforce is predominantly young to middle-aged, with workers in their prime working years. Only 13.4% of workers are above 45 years, suggesting either lower employment of older workers or shorter working life spans in the unorganized sector.

Table 3: Educational Qualification of Respondents

Educational Qualification	Frequency	Percentage
Illiterate	8	13.3%
Primary	15	25.0%
Secondary	22	36.7%
Higher Secondary	11	18.3%
Graduate	4	6.7%
Total	**60**	**100.0%**

The educational profile reveals that 36.7% of respondents have completed secondary education, while 25% have only primary education and 13.3% are illiterate. Only 6.7% have graduate-level education. This distribution indicates relatively low educational attainment among unorganized workers, which has important implications for financial literacy and investment awareness.

Table 4: Occupational Categories of Respondents

Occupation Type	Frequency	Percentage
Loading/Unloading Worker	16	26.7%
Packaging Worker	12	20.0%
Machine Operator Helper	9	15.0%
Housekeeping Staff	8	13.3%
Security Guard	7	11.7%
Other Support Services	8	13.3%

The occupational distribution shows diversity in work types, with loading/unloading workers forming the largest category (26.7%), followed by packaging workers (20.0%) and machine operator helpers (15.0%). This diversity is important as different occupations may have varying income levels, work stability, and financial needs.

5.2 Income Distribution

Understanding the income patterns of unorganized workers is crucial for analyzing their saving capacity and investment behavior.

Table 5: Monthly Income Distribution

Monthly Income Range	Frequency	Percentage	Cumulative Percentage
Below ₹10,000	16	26.67%	23.67%
₹10,000 - ₹12,000	25	41.67%	68.34%
₹12,001 - ₹15,000	19	31.66%	100%
Total	**60**	**100.0%**	

5.3 Saving Preferences

This section examines whether workers save, how much they save, and what motivates their saving behavior.

Table 6: Monthly Saving Amount

Monthly Saving Amount	Frequency	Percentage
Below ₹500	18	36.0%
₹500 - ₹1,000	20	40.0%
₹1,001 - ₹1,500	9	18.0%
₹2,000	3	6.0%

Note: This table includes only the 50 respondents who reported saving money.

Among those who save, 76% save ₹1,000 or less per month, with 36% saving less than ₹500. Only 6% are able to save more than ₹2,000 monthly.

Table 7: Purpose of Savings

Purpose of Savings	Frequency	Percentage*
Emergency/Medical expenses	47	94.0%
Children's education	34	68.0%
Marriage/Family functions	22	44.0%
Festival expenses	20	40.0%

Note: Multiple responses allowed; percentages calculated based on 50 savers.

5.4 Investment Instrument Preferences

Understanding which financial instruments workers use provides insights into their investment behavior and financial inclusion levels.

Table 8: Investment Instruments Used

Investment Instrument	Users	Percentage*	Non-users	Percentage*
Bank Savings Account	48	80.0%	12	20.0%
Cash at Home	45	75.0%	15	25.0%
Post Office Savings	12	20.0%	48	80.0%
Chit Funds	8	13.3%	52	86.7%
Life Insurance	2	3.3%	58	96.7%

Note: Multiple responses allowed; percentages based on total sample of 60.

5.5 Frequency of Savings

Table 9: Saving Frequency

Saving Frequency	Frequency	Percentage
Daily	8	16.0%
Weekly	12	24.0%
Monthly	18	36.0%
Occasionally (irregular)	12	24.0%
Total	**50**	**100.0%**

Note: Based on 50 respondents who save.

Among savers, 36% save monthly, 24% save weekly, and 16% save daily. However, 24% save only occasionally without a regular pattern, reflecting the impact of irregular income on saving consistency.

5.6 Hypothesis Testing

5.6.1 Testing Hypothesis 1: Association between Income Level and Saving Frequency

Hypothesis Statement:

- $H1_0$: There is no significant association between monthly income levels and saving frequency.
- $H1_1$: There is a significant association between monthly income levels and saving frequency.

Statistical Test: Chi-square test of independence

Table 10: Cross-tabulation of Income Level and Saving Frequency

Income Level	Daily	Weekly	Monthly	Occasionally	Total
Below ₹10,000	1	2	3	5	11
₹10,000-₹13,000	2	4	6	4	16
₹13,001-₹15,000	3	4	5	2	14
₹15,001-₹17,000	2	2	4	1	9
Total	**8**	**12**	**18**	**12**	**50**

Note: Analysis includes only 50 respondents who save money.

SPSS Output:

Chi-Square Tests:

- Pearson Chi-Square Value: 8.742
- Degrees of Freedom: 9
- Asymptotic Significance (2-sided): 0.462

Interpretation:

The chi-square test examines whether there is a statistically significant association between income level and saving frequency among unorganized workers. The calculated chi-square value is 8.742 with 9 degrees of freedom, yielding a p-value of 0.462.

Since the p-value (0.462) is greater than the significance level of 0.05, we fail to reject the null hypothesis. This indicates that there is no statistically significant association between monthly income level and saving frequency among the sampled unorganized workers in Jalgaon MIDC.

Decision: Accept $H1_0$ (Null Hypothesis)

5.6.2 Testing Hypothesis 2: Difference in Investment Awareness between Education Groups

Hypothesis Statement:

- $H2_0$: There is no significant difference in investment awareness levels between workers with secondary education or above and workers with primary education or below.

- $H2_1$: There is a significant difference in investment awareness levels between workers with secondary education or above and workers with primary education or below.

Statistical Test: Independent Samples t-test

Investment Awareness Score Calculation:

An investment awareness score was calculated for each respondent based on their knowledge of eight investment instruments (bank deposits, fixed deposits, post office schemes). Each correct awareness response was scored as 1, giving a maximum possible score of 8.

Table 11: Descriptive Statistics for Investment Awareness by Education Group

Education Group	N	Mean Score	Std. Deviation	Std. Error Mean
Primary or below	23	4.26	1.42	0.296
Secondary or above	37	5.89	1.38	0.227

SPSS Output:

Levene's Test for Equality of Variances:

- F = 0.142
- Sig. = 0.708

Independent Samples t-test:

- t-value = -4.287
- Degrees of Freedom = 58
- Sig. (2-tailed) = 0.000
- Mean Difference = -1.630
- 95% Confidence Interval of the Difference: Lower = -2.391, Upper = -0.869

Interpretation:

The Levene's test for equality of variances yields a p-value of 0.708 (> 0.05), indicating that the assumption of equal variances is met, and we can use the equal variances assumed row for interpretation.

The independent samples t-test reveals a t-value of -4.287 with 58 degrees of freedom and a p-value of 0.000 (< 0.001). This indicates a highly significant difference in investment awareness scores between the two education groups.

Workers with secondary education or above have a mean awareness score of 5.89 (SD = 1.38), while those with primary education or below have a mean score of 4.26 (SD = 1.42). The mean difference of 1.63 points represents a substantial gap in investment awareness.

Since the p-value (0.000) is less than the significance level of 0.05, we reject the null hypothesis and accept the alternative hypothesis.

Decision: Reject $H2_0$, Accept $H2_1$ (Alternative Hypothesis)

6. Findings

Based on the comprehensive data analysis, the following key findings emerge from this study:

- The unorganized workforce in Jalgaon MIDC is predominantly male, mostly in the young to middle-aged group, and generally has low levels of education.
- Workers are engaged in a variety of occupations, including loading and unloading, packaging, and supporting machine operations, reflecting the diverse nature of unorganized industrial work.
- Most workers report saving to some extent, but only a minority save regularly, while a notable group is unable to save due to insufficient income.
- Saving is mainly motivated by emergency and medical needs and children's education.
- Unorganized workers show a strong preference for traditional and highly liquid saving instruments such as bank savings accounts, cash kept at home.
- Fixed deposits, post office savings, and life insurance exhibit moderate levels of use.

7. Suggestions and Recommendations

- Targeted financial literacy programs should be designed for unorganized workers with modules suited to different education levels, using simple language, visual aids, local languages, and practical demonstrations to teach basic concepts such as budgeting, emergency funds, and compound interest.
- Awareness of government schemes such as PMJDY, APY, and PMJJBY should be enhanced through workplace campaigns, mobile vans, and community meetings in industrial areas, as current awareness remains low despite the availability of these schemes.

8. Conclusion

This study provides valuable insights into the financial behavior and inclusion of unorganized workers in Jalgaon MIDC, revealing that while a majority engage in basic saving and possess bank accounts, their participation in modern financial instruments remains minimal, reflecting shallow financial inclusion. Income limitations, irregular earnings, and low investment knowledge emerge as major barriers, compounded by institutional challenges, while education significantly influences investment awareness. The findings underscore the need for integrated policy interventions that combine income stabilization, financial literacy programs tailored to education levels, product diversification, and institutional reforms to promote deeper financial inclusion. Despite limitations related to sample size, convenience sampling, cross-sectional design, and geographic specificity, the research contributes empirical evidence from an understudied population, demonstrates the application of appropriate statistical methods, and offers actionable guidance for policymakers, financial institutions, employers, and NGOs. Future studies should employ larger, representative samples, longitudinal or experimental designs, comparative analyses across regions and sectors, and qualitative approaches to further understand and enhance the financial behavior of unorganized workers in India.

In conclusion, improving the investment behavior and financial inclusion of unorganized workers in Jalgaon MIDC and similar areas requires sustained, coordinated efforts from multiple stakeholders. Despite challenges such as irregular incomes, low financial literacy, institutional barriers, and lack of trust, meaningful progress is achievable through supportive policies, innovative financial products, accessible services, and targeted

education. Bringing unorganized workers into the financial mainstream will strengthen their financial security and economic well-being. As India moves toward becoming a developed economy, ensuring financial inclusion for the unorganized sector nearly 90% of the workforce is both a social necessity and an economic imperative.

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