

Financial Literacy and Investment Patterns of College Students - A Study with Reference to Greater Noida

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Abstract

This project examines the financial literacy levels and investment behaviors of 150 undergraduate students across colleges in Greater Noida. Survey data was collected via Google Forms, cleaned using Microsoft Excel, and visualized through Power BI. The average financial literacy score was 61%, with students showing higher awareness of investment-related concepts (SIPs, mutual funds, inflation) and lower awareness of insurance, credit scores, and the distinction between saving and investing. Most students prefer low-risk options like savings accounts and fixed deposits. Gender-wise, females favor low-risk avenues while males and other-gender respondents lean toward

moderate-risk investments. The study recommends integrating structured financial literacy programs into college curricula and leveraging AI-driven tools to make financial education more accessible.

Keywords: *Financial literacy, investment behaviour, AI analytics, college students, Power BI, Greater Noida.*

I. Introduction

Financial literacy has become a vital life skill in the modern digital economy. As financial products grow more accessible through

smartphones and online platforms, young adults are expected to make informed financial decisions earlier in life. Research indicates that financial knowledge among youth remains significantly low, affecting their ability to manage money or plan for long-term goals (OECD, 2022). Greater Noida, an educational hub hosting thousands of students, sees heavy usage of UPI, PhonePe, Paytm, Groww, and Zerodha—yet financial behaviour often depends on peer influence and family habits rather than formal knowledge.

Financial literacy includes budgeting, saving, investing, insurance, credit scores, and basic economic concepts. Without these skills, young adults struggle with critical decisions such as taking loans, managing credit cards, or planning for emergencies. This study examines the financial literacy levels and investment patterns of undergraduates in Greater Noida to identify gaps and propose improvements for institutions, policymakers, and fintech companies.

A. Problem Statement

Despite widespread use of UPI apps and digital investment platforms, many college students lack the financial knowledge necessary for informed decision-making. This study investigates financial literacy levels and investment behavior among students in Greater Noida.

B. Business Domain Background

Financial literacy includes budgeting, saving, and understanding investment products. The growth of fintech apps like Paytm, PhonePe, and Groww has made financial products accessible, but students often use these platforms without adequate

knowledge of risk, returns, or long-term financial planning.

C. Objectives

1. To study the level of financial literacy among college students in Greater Noida—how much students know about savings, budgeting, and investments.
2. To identify common saving and investment habits of students—where they prefer to invest and what influences their decisions.

D. Scope and Limitations

The study focuses on undergraduates from different colleges in Greater Noida based on survey responses. Limitations include potential bias or inaccurate self-reporting, a relatively small sample size limiting generalizability, coverage of only basic financial literacy concepts, and exclusion of postgraduate students or working professionals.

II. Literature Review

A. Concept and Definition of Financial Literacy

Remund (2010) defines financial literacy as the degree to which a person understands key financial concepts and has the ability and confidence to manage personal finances. Lusardi and Mitchell (2014) link financial literacy with economic outcomes—financially literate individuals are more likely to plan for retirement, invest appropriately, and avoid high-cost debt. The OECD/INFE framework treats financial literacy as a combination of knowledge, behaviour, and attitudes, and recent updates include digital financial

literacy covering online payments, mobile banking, and fintech apps.

B. Financial Literacy Among Youth and Students

The S&P Global Financial Literacy Survey (2015) found only 33% of adults worldwide are financially literate, with South Asia among the lowest-scoring regions. Chen and Volpe (1998), surveying 924 U.S. college students, reported an average correct response rate of 53%—with female students, non-business majors, and younger students scoring lower. In India, Bhushan and Medury (2013) found modest literacy among young employees, while Agarwal and Chakraborty (2021) reported that many Indian youth have partial knowledge of financial products but lack deeper understanding of risk and long-term planning.

C. Digital Financial Literacy and AI Applications

Modern financial literacy must include digital literacy, as most transactions now occur through UPI and online platforms. AI-powered tools—including chatbots, robo-advisors, and personalized dashboards—help individuals understand complex financial products. However, these tools are only effective if users have basic financial and digital literacy as a foundation. This study uses Power BI and ChatGPT to analyze financial behavior, demonstrating practical AI application in financial education research.

D. Research Gap

Most international studies cover students in the US or Europe; fewer address Indian undergraduate students in specific hubs like Greater Noida. The present study fills this

gap by assessing literacy and investment habits specific to Greater Noida undergraduates and demonstrating AI tools for analysis.

III. Methodology

A. Data Sources

The study is based entirely on primary data. A structured questionnaire was created using Google Forms and distributed to students across different colleges in Greater Noida. A total of 150 students participated, providing responses on demographic profiles, financial concept awareness, saving habits, and investment preferences.

B. Data Preprocessing

Incomplete or partially filled responses were removed. Remaining data was examined for inconsistencies and standardized manually in Excel. Investment responses were categorized into low-risk, medium-risk, or high-risk groups. Financial awareness questions were converted to a 0–100% scoring scale for consistent comparison across concepts like inflation, SIP, credit score, and insurance.

C. Tools and Technologies

Table 1: Tools and Technologies Used

| Tool | Purpose |
|-----------------|-------------------------------------------------|
| Microsoft Excel | Data entry, cleaning, sorting, basic statistics |
| Power BI | Interactive dashboards and visual findings |
| ChatGPT (AI) | Interpreting trends, summarizing findings |
| Google Forms | Survey design and data collection |

D. Workflow

The research followed a systematic workflow: (1) Data Collection via Google Forms → (2) Data Cleaning in Excel → (3) Import into Power BI → (4) AI-assisted interpretation → (5) Compilation into a structured research report.

IV. Implementation

A. Data Cleaning

After collecting all responses, data was exported to Microsoft Excel. Incomplete or invalid entries were removed. Functions such as sorting, filtering, and removing duplicates were applied. Text-based responses were standardized for uniformity, and data validation checks ensured consistency before analysis.

B. Survey Structure

The survey covered four sections: (1) Demographics—age, gender, academic year; (2) Financial awareness—inflation, SIP, mutual funds, interest, credit scores; (3) Saving habits—frequency and preferred methods; (4) Investment preferences—interest in financial products and risk-taking behaviour.

C. Data Interpretation and Visualization

Excel was used to calculate percentages, averages, and frequency distributions. Charts and tables visually represented financial awareness levels, saving tendencies, and risk preferences. Power BI dashboards provided interactive filtering by gender and risk category for deeper segmentation.

D. Use of AI Tools

ChatGPT was used to analyze organized data values, generate clear chart

explanations, identify behavioral trends, and summarize findings in structured academic format. AI assistance improved readability, organized insights logically, and ensured interpretations aligned with research standards.

V. Results and Discussion

A. Financial Awareness Levels

Students were assessed on familiarity with ten financial concepts. Overall awareness ranged between 64% and 78%. Students showed highest awareness in investment-related concepts (risk identification, inflation, compounding) due to social media exposure. Lowest awareness areas—saving vs investing (64%), insurance (66%), and credit score (69%)—represent critical gaps. The average overall literacy score was 61%.

Table 2: Awareness Scores of Financial Concepts

| Financial Concept | Awareness (%) |
|------------------------------|---------------|
| Identifying Risk Investments | 78% |
| Understanding Inflation | 73% |
| Compound Interest | 72% |
| Aware of Mutual Funds | 71% |
| Familiar with SIP | 70% |
| Know FD vs RD | 70% |
| Know Credit Score | 69% |
| Understanding Insurance | 66% |
| Saving vs Investing | 64% |

B. Investment Patterns and Saving Behaviour

Most students prefer UPI-based applications and bank savings accounts—convenient, accessible, and risk-free. Only a small proportion invest in mutual funds, shares, or SIPs. Key barriers include fear of financial loss, lack of knowledge, family preference for traditional saving methods, and limited financial resources.

Table 3: Saving Methods Preferred by Students

| Saving Method | Risk | Preference |
|-------------------------|--------|------------|
| UPI / Digital Wallets | Low | Very High |
| Bank Savings Account | Low | High |
| Fixed Deposits (FD) | Low | Moderate |
| Recurring Deposits (RD) | Low | Moderate |
| Mutual Funds / SIPs | Medium | Low |
| Stocks / Shares | High | Very Low |

C. Investment Risk Preference by Gender

Table 4: Risk Preference by Gender

| Risk Level | Female | Male | Other |
|-------------|--------|------|-------|
| High-Risk | 19% | 17% | 0% |
| Medium-Risk | 39% | 50% | 50% |
| Low-Risk | 42% | 32% | 50% |

High-risk investment preference is low across all genders. Males and other-gender respondents favor medium-risk instruments at 50%, while females lean toward low-risk options (42%). Overall, moderate

investment options appeal most across genders, with risk appetite varying significantly.

D. Key Findings

Table 5: Summary of Key Findings

| Finding | Detail |
|-----------------------|--------------------------------------------|
| Avg. Literacy Score | 61% — basic but incomplete knowledge |
| Highest Awareness | Risk Investments (78%), Inflation (73%) |
| Lowest Awareness | Saving vs Investing (64%), Insurance (66%) |
| Most Preferred Saving | UPI apps and bank savings accounts |
| Primary Barrier | Lack of knowledge and fear of loss |
| Gender: Females | Prefer low-risk investments (42%) |
| Gender: Males | Prefer medium-risk investments (50%) |

VI. PDSA Cycle (Iterative Improvement)

A. Plan

Issues identified in early review: inconsistent survey responses, unclear Power BI visualizations, generic AI summaries, and risk preference data not segmented by gender. Plan: improve data cleaning, rebuild visualizations, use structured AI prompts, segment by gender, and normalize scores to 0–100%.

B. Do

Actions taken: (1) Data Cleaning—removed duplicates, standardized Yes/No answers, converted text to categorical variables. (2) Dashboard Enhancement—recreated Power BI visuals; added filters. (3) AI Insight Generation—used structured prompts for deeper analysis. (4) Score Normalization—created uniform 0–100% awareness scale.

C. Study

Observations: updated charts were more professional; AI summaries became more accurate; gender segmentation revealed

distinct risk patterns; normalized scores made comparisons fair; cleaned data significantly reduced errors. Faculty feedback confirmed findings were logical and well-aligned with business context.

D. Act

Final actions: exported high-resolution dashboards; rewrote insight paragraphs in academic tone; updated conclusions; added chart titles, legends, and explanations. Future improvements: predictive AI risk-scoring models, expanded dataset, advanced NLP tools.

Table 6: PDSA Cycle Summary

| Phase | Key Actions | Outcome |
|-------|------------------------------------------------|--------------------------------------|
| Plan | Identify data and visualization gaps | Clear improvement roadmap |
| Do | Clean data, rebuild dashboards, use AI prompts | Refined dataset and enhanced visuals |
| Study | Evaluate revised charts and insights | Improved accuracy and relevance |
| Act | Finalize report, export dashboards | Polished academic-quality output |

VII. Conclusion and Recommendations

A. Conclusion

This research analyzed financial literacy levels and investment patterns of 150 college students in Greater Noida using AI-based tools. The average financial awareness score of 61% indicates basic but incomplete financial knowledge. Concepts like saving vs investing, insurance, and credit scores remain poorly understood despite strong familiarity with investment terms. Gender influences risk preference, with females favoring low-risk and males

favoring medium-risk instruments. The study underscores the urgent need for structured financial education within university curricula.

B. Recommendations

For Students:

- Attend budgeting and investment workshops.
- Start with low-risk instruments like SIPs.
- Track expenses using digital finance apps.
- Learn about credit scores.

For Colleges:

- Introduce a mandatory Financial Literacy Module.
- Conduct awareness programs on insurance, taxation, and credit scores.
- Collaborate with banks, SEBI, and fintech companies.

For Fintech Companies:

- Offer student-friendly investment tools with low minimum investment.
- Provide gamified financial learning modules.
- Build AI-driven personalized advisory systems.

C. Future Scope

3. Increase sample size to include more colleges across NCR.
4. Compare financial literacy across undergraduate and postgraduate students.
5. Include variables like family income and employment status.
6. Use predictive AI models to forecast investment behaviour.

7. Conduct longitudinal studies measuring how financial literacy evolves over time.

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