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A Study on Derivatives Trading in Indian Stock Market - Investors's Perception

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Abstract

"A Study on Derivatives Trading in Indian Stock Market – Investors' Perception" aims to examine the awareness, participation, and perception of investors toward derivative trading in the Indian stock market. Derivatives have become an important financial instrument for risk management, speculation, and portfolio diversification in modern financial markets. With the rapid growth of the Indian capital market and the increasing popularity of futures and options trading, understanding investors' attitudes and behavior toward derivatives has become essential. The study focuses on analyzing the level of knowledge investors possess regarding derivative instruments, the factors influencing their investment decisions, and the risks and returns associated with derivative trading. It also evaluates investors' preferences between equity and derivative segments and identifies the major reasons for participation in derivatives such as hedging, speculation, and arbitrage opportunities. The research is based on primary and secondary data collected through questionnaires, journals, books, stock market reports, and online financial sources. Statistical tools such as percentage analysis, charts, and graphical representations are used for interpretation of the data. The study reveals that while many investors are attracted to derivatives due to the possibility of higher returns, a significant number of investors are also concerned about market volatility and high risk involved in derivative trading. The study concludes that investor perception toward derivatives is influenced by factors such as market knowledge, risk tolerance, income level, investment experience, and market fluctuations. It also highlights the need for greater investor awareness and financial education to ensure safer and more effective participation in the derivatives market.

Keywords: Derivatives Trading, Indian Stock Market, Investors' Perception, Futures and Options, Investment Behaviour, Risk Perception, Trading Strategies, Market Volatility, Investor Awareness, Financial Derivatives

I. INTRODUCTION

The Indian stock market has witnessed significant growth and transformation over the past few decades due to economic liberalization, technological advancements, and increased investor participation. Among the various financial instruments available in the market, derivatives have emerged as one of the most important tools for investment and risk management. Derivatives are financial contracts whose value is derived from underlying assets such as stocks, indices, commodities, currencies, or interest rates. The most commonly traded derivative instruments in India are futures and options.

Derivative trading was introduced in the Indian stock market to provide investors with opportunities for hedging risks, price discovery, and portfolio management. The introduction of derivatives by the National Stock Exchange and the Bombay Stock Exchange has contributed significantly to the development of the Indian financial system. Today, the derivatives segment records a higher trading volume compared to the cash market, indicating its growing popularity among investors and traders.

Investors participate in derivative trading for different reasons such as earning speculative

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profits, minimizing losses through hedging, and taking advantage of market volatility. However, derivative trading also involves a high level of risk due to leverage, market fluctuations, and lack of proper market knowledge. As a result, investors' perception toward derivatives differs based on their financial literacy, investment experience, income level, and risk-bearing capacity.

This study focuses on understanding investors' perception toward derivatives trading in the Indian stock market. It aims to analyze the level of awareness among investors, their attitude toward risk and return, and the factors influencing their investment decisions in derivative instruments. The study also examines whether investors consider derivatives as a beneficial investment avenue or as a highly risky financial instrument.

The research is important because investor perception plays a major role in the growth and stability of the derivatives market. Understanding the behavior and opinion of investors can help financial institutions, policymakers, and market regulators develop better investor education programs and strengthen market confidence. The findings of the study may also help new investors understand the opportunities and challenges associated with derivative trading in India.

Research Objective:

- To study the concept and growth of derivatives trading in the Indian stock market.
- To analyze the level of investors' awareness regarding derivative instruments.
- To examine investors' perception toward derivatives trading.
- To identify the factors influencing investors to invest in derivatives.
- To study the risk and return associated with derivative trading.
- To understand the purpose of investors participating in derivatives such as hedging, speculation, and arbitrage.
- To compare investors' preference between equity trading and derivatives trading.
- To analyze the impact of market fluctuations on investors' decisions in derivative trading.
- To evaluate the satisfaction level of investors toward derivatives market performance.
- To provide suggestions for improving investor awareness and participation in derivative trading.

Research Methodology:

- **Research Design:**
  Descriptive research design is used to analyze investors' perception toward derivatives trading in the Indian stock market.

- **Nature of Study:**

The study is based on both analytical and survey methods.

- **Sources of Data:**

Primary Data: Collected through questionnaires and direct interaction with investors.

Secondary Data: Collected from books, journals, research articles, stock market reports, company websites, and financial websites.

Sampling Method: Convenience sampling method is used for selecting respondents.

Sample Size: The study is conducted among selected investors participating in the Indian stock market.

Area of Study: The study focuses on investors involved in derivatives trading in India.

Data Collection Tools: Structured questionnaires and online survey forms are used for collecting data from respondents.

- **Statistical Tools Used:**

Percentage Analysis

Tables and Graphs

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Charts and Diagrammatic Representation

- **Period of Study:** The study covers a specific period for analyzing investors' perception and trading behavior.
- **Scope of the Study:** The research mainly focuses on futures and options trading and investors' attitudes toward derivative instruments.
- **Limitations of the Study:**

The study is limited to selected respondents only.

Responses may vary according to individual perception and market conditions.

Time and data availability constraints may affect the study results.

II. Review Of Literature

Derivative trading has become an important component of the Indian financial market due to its role in risk management, speculation, and price discovery. Several researchers and financial experts have studied the growth of derivatives markets and investors' perception toward derivative instruments. Their studies highlight the advantages, risks, and behavioral aspects associated with derivatives trading in India.

According to John C. Hull, derivatives are financial instruments that derive their value from underlying assets such as stocks, indices, currencies, and commodities. His studies explain that derivatives help investors reduce financial risk through hedging and also provide opportunities for speculation and arbitrage. Hull emphasized that proper knowledge and market understanding are essential for successful derivatives trading.

A study conducted by M. Thenmozhi examined the development of the derivatives market in India and found that derivatives significantly improved market efficiency and liquidity. The study revealed that futures and options trading increased investor participation and contributed to better price discovery in the Indian stock market.

Research by S. Kevin highlighted that many investors participate in derivative trading mainly for speculative purposes rather than hedging. The study pointed out that investors are attracted by the possibility of higher returns, but lack of awareness and insufficient market knowledge often expose them to higher financial risk.

Another study on investor behavior toward derivatives trading indicated that factors such as income level, investment experience, education, risk tolerance, and market volatility greatly influence investors' perception. Experienced investors were found to have a more positive attitude toward derivatives because of their better understanding of market movements and trading strategies.

Studies related to the Indian derivatives market also revealed that awareness among retail investors is gradually increasing due to technological advancements, online trading platforms, and financial literacy programs. However, many small investors still perceive derivatives as highly risky instruments because of market uncertainty and leverage-related losses.

Previous literature concludes that derivatives trading plays a vital role in the growth of the Indian stock market, but investor perception depends largely on awareness, experience, and risk-bearing capacity. Most researchers recommend improving investor education and providing proper market guidance to encourage safe and informed participation in derivative trading.

III. Data Analysis & Interpretation

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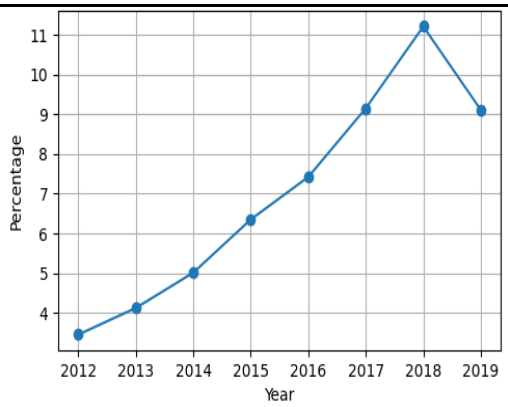


Fig 1. Gross NPA Ratio

Interpretation

The Gross NPA Ratio showed a continuous increase from 2012 to 2018, reaching 11.21%, which indicates a rise in bad loans and deterioration in asset quality. However, in 2019 the ratio declined to 9.11%, reflecting improvements in recovery and NPA management practices.

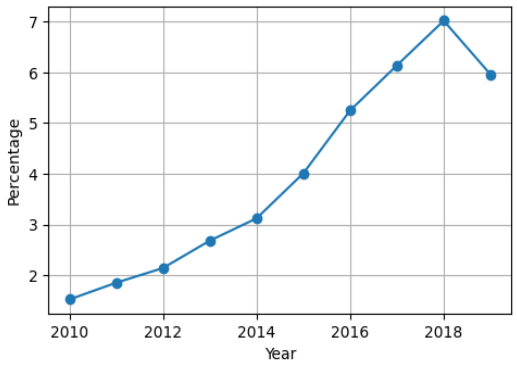


Fig 2. Net NPA Ratio

Interpretation

The Net NPA Ratio increased steadily from 2010 to 2018, indicating growing pressure on the bank's profitability and loan recovery system. The decline in 2019 suggests improved provisioning and effective recovery measures.

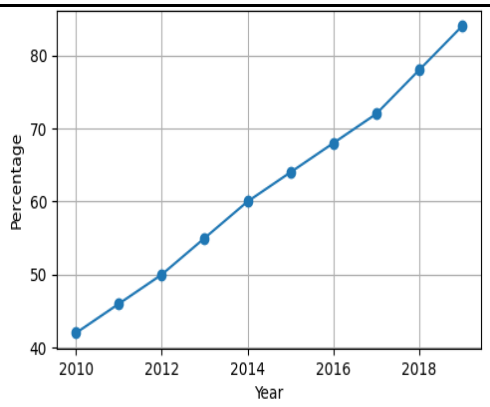


Fig 3. Provision Coverage Ratio

Interpretation

The Provision Coverage Ratio improved consistently over the years, indicating that banks maintained higher provisions against bad loans. This reflects stronger financial stability and better risk management practices.

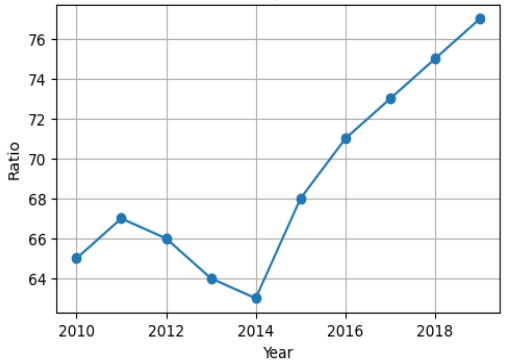


Fig 4. Credit Deposit Ratio

Interpretation

The Credit Deposit Ratio fluctuated moderately during the study period. The gradual increase after 2014 indicates improved lending activities and efficient utilization of deposits by banks.

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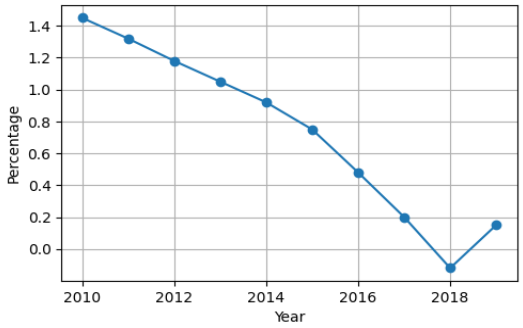


Fig 5. Return on Assets (ROA)

Interpretation

The Return on Assets declined continuously from 2010 to 2018 due to rising NPAs and reduced profitability. However, a slight improvement in 2019 indicates better operational efficiency and recovery performance.

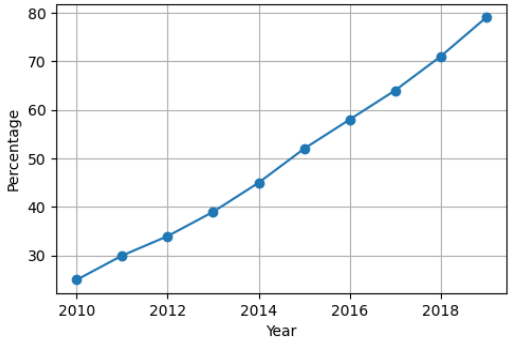


Fig 6. Recovery Ratio

Interpretation

The Recovery Ratio showed continuous improvement during the study period, indicating that banks strengthened their recovery mechanisms and reduced the burden of bad loans effectively.

IV. Findings

- The Gross NPA Ratio increased continuously from 2012 to 2018, indicating deterioration in asset quality and growth in bad loans.
- A decline in the Gross NPA Ratio during 2019 reflects improvement in NPA recovery and management practices.
- The Net NPA Ratio showed an increasing trend up to 2018, which created pressure on bank profitability and loan recovery systems.
- The decrease in Net NPA Ratio in 2019 indicates effective provisioning and improved recovery performance.
- · The Provision Coverage Ratio improved steadily over the study period, showing that banks maintained stronger reserves against bad loans.
- Higher Provision Coverage Ratio reflects better financial stability and sound risk management practices by banks.
- The Credit Deposit Ratio fluctuated moderately, indicating variations in lending and deposit utilization activities.
- The gradual increase in Credit Deposit Ratio after 2014 shows improvement in lending efficiency and utilization of deposits.
- Return on Assets (ROA) declined continuously due to rising NPAs and reduction in profitability levels.
- A slight improvement in ROA during 2019 indicates better operational efficiency and recovery measures adopted by banks.
- The Recovery Ratio improved consistently throughout the study period, showing strengthening recovery mechanisms.
- Improved recovery performance helped banks reduce the burden of non-performing assets effectively.
- Rising NPAs adversely affected profitability, liquidity, and overall financial performance of banks.
- Effective NPA management practices and recovery strategies contributed to improvement in financial health during the later years of the study.

V. Conclusion

The study on Non-Performing Assets (NPAs) and related financial ratios reveals that rising NPAs had a significant impact on the financial performance and stability of banks during the study period. The continuous increase in Gross NPA Ratio and

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Net NPA Ratio up to 2018 indicates deterioration in asset quality, weak recovery systems, and growing financial stress in the banking sector. High NPAs reduced profitability and negatively affected operational efficiency, which is reflected in the declining trend of Return on Assets (ROA).

At the same time, the study shows that banks adopted effective measures to control and manage bad loans in the later years. The improvement in Provision Coverage Ratio demonstrates that banks maintained stronger provisions against doubtful assets, which enhanced financial stability and risk management practices. Similarly, the increase in Recovery Ratio indicates that banks strengthened their recovery mechanisms and improved loan collection performance.

The Credit Deposit Ratio analysis reflects that banks gradually improved their lending efficiency and utilization of deposits after 2014. Although fluctuations existed during the study period, the banking sector showed signs of recovery and improved performance in 2019. The decline in Gross and Net NPA Ratios during the final year of the study indicates successful implementation of recovery strategies, better provisioning, and stricter banking regulations.

Overall, the study concludes that effective NPA management is essential for maintaining profitability, liquidity, and financial stability in banks. Proper credit appraisal systems, strong recovery measures, continuous monitoring of loans, and timely corrective actions are necessary to reduce the burden of NPAs. The banking sector must continue to focus on risk management practices and policy reforms to strengthen the overall financial health of banks and ensure sustainable growth in the future.

VI. Future Scope

The future scope of studying derivatives trading in the Indian stock market with reference to investors' perception is considerable because the derivatives market continues to evolve with changing regulations, technological advancements, market volatility, and increasing investor participation. Future studies can examine how investors' awareness, knowledge, experience, and risk tolerance influence their participation in futures and options trading. A larger sample covering investors from different geographical and demographic backgrounds can provide more comprehensive results.

Further research can focus on the relationship between financial literacy and derivatives trading behaviour. Derivative instruments involve complex risk-return characteristics, making investor knowledge an important factor in trading decisions. Future studies can examine whether financially literate investors demonstrate better understanding of leverage, margin requirements, hedging, speculation, and potential losses compared with less experienced investors.

There is significant scope for studying the influence of digital trading platforms, mobile applications, artificial intelligence, and algorithmic trading on investors' perceptions. The growing availability of real-time market information, analytical tools, automated strategies, and low-cost online trading platforms has changed how retail investors participate in derivatives markets. Future research can assess whether these developments improve decision-making or encourage excessive and speculative trading.

Future studies can also examine the role of behavioural factors such as overconfidence, herding behaviour, loss aversion, risk perception, anchoring, and investor sentiment in derivatives trading. These psychological factors may significantly influence the selection of futures and options and the frequency of trading. Advanced statistical techniques can be applied to determine the relationship between behavioural biases and investment outcomes.

Finally, future research can evaluate the impact of regulatory changes, market volatility, economic conditions, and investor-protection measures on derivatives participation in India. Comparative studies between different investor groups, market segments, or international derivatives markets can further strengthen the analysis. Such research can help regulators, financial institutions, brokers, and investors develop

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better risk-management practices, improve financial awareness, and promote more informed participation in the Indian derivatives market.

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