

NARRATIVE-DRIVEN MARKETS:

Artificial Intelligence Optimism, Retail Investor Behavior, and Sectoral Equity Performance in India (2022–2025)

A Quantitative Study on Behavioral Finance, Technological Narratives, and Indian Capital Markets

Research Paper

Submitted By:

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 - Artificial Intelligence and Financial Markets
 - Narrative Economics
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 - Retail Investor Psychology
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Abstract Keywords

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Narrative-Driven Markets: Artificial Intelligence Optimism, Retail Investor Behaviour, and Sectoral Equity Performance in

India (2022–2025)

Section 1: Abstract

The rapid emergence of artificial intelligence (AI) as a dominant technological and economic force has significantly influenced global financial markets, particularly through heightened retail investor participation and narrative-driven speculation. This study examines the extent to which AI-related market optimism and retail investor sentiment affected sectoral stock performance in Indian equity markets between 2022 and 2025. Using a quantitative and comparative framework, the research analyzes stock performance across major Indian sectors, with particular focus on technology, telecommunications, financial services, and digitally integrated firms that attracted elevated investor attention during the global AI expansion cycle.

The paper combines market return data, retail participation trends, earnings-related AI disclosures, and sentiment-driven market reactions to evaluate whether AI narratives generated measurable abnormal returns relative to broader market benchmarks such as the NIFTY 50. The findings suggest that AI-linked narratives substantially influenced short- to medium-term equity performance, particularly within technology-oriented sectors that benefited from increased retail investor inflows and elevated valuation expectations. However, the research also identifies heightened volatility and partial disconnection between valuations and firm fundamentals during periods of intensified speculative sentiment. By integrating concepts from finance, economics, business strategy, and investor psychology, the paper provides insight into the implications of AI-driven speculation for investors, firms, and policymakers operating within rapidly evolving financial ecosystems and capital markets .

Keywords:- Artificial Intelligence (AI), Behavioral Finance, Narrative Economics, Retail Investor Sentiment, Indian Equity Markets, Sectoral Stock Performance, Market Volatility, Technology Stocks, Investor Psychology, Digital Financial Markets, AI Narratives, Emerging Markets, Retail Participation, Quantitative Finance, Speculative Investing

Section 2: Introduction

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The emergence of artificial intelligence (AI) has become one of the most transformative economic and technological developments of the modern era, significantly influencing industries, corporate strategy, and global financial markets. Between 2022 and 2025, rapid advancements in generative AI, machine learning, and automation technologies reshaped investor expectations regarding future productivity, profitability, and long-term economic growth. The commercial success of AI-focused firms and the global attention surrounding artificial intelligence created a wave of optimism across equity markets, particularly within technology-oriented sectors. As a result, financial markets increasingly became influenced not only by traditional corporate fundamentals, but also by speculative narratives surrounding future technological disruption.

Simultaneously, retail investor participation expanded substantially due to the rise of digital trading platforms, financial media accessibility, and social networking applications. In India, increasing smartphone penetration and simplified access to stock market investing encouraged a new generation of retail investors to participate actively in equity markets. These investors frequently responded to emerging technological trends, online market discussions, and AI-related corporate announcements, contributing to rapid shifts in market sentiment and sectoral valuations. Consequently, investor psychology and narrative-driven optimism began playing a more visible role in determining short-term market behaviour.

Traditional financial theories suggest that stock prices primarily reflect rational expectations and underlying firm performance. However, behavioural finance argues that financial markets are often shaped by emotions, speculation, and collective narratives capable of amplifying price movements beyond levels justified by fundamentals. The global rise of AI enthusiasm between 2022 and 2025 provides a strong context for examining how technological narratives and retail investor sentiment influenced sectoral stock performance within Indian equity markets.

This study investigates the extent to which AI-related optimism and retail investor behaviour affected Indian sectoral equity returns during this period. Using a quantitative and comparative framework, the research analyses stock performance, retail participation trends, and sentiment-driven market reactions across major sectors including information technology, telecommunications, and digitally integrated firms. By integrating concepts from finance, economics, and behavioural psychology, the paper aims to provide insight into how narrative-driven speculation increasingly shapes modern financial markets and investment behaviour.

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Section 3:- Literature Review

3.1 Research Objectives

The primary objective of this study is to examine the extent to which artificial intelligence-driven market narratives and retail investor sentiment influenced sectoral stock performance within Indian equity markets between 2022 and 2025. The research aims to analyze how technological optimism surrounding artificial intelligence affected investor behavior, capital allocation patterns, and market valuation dynamics during a period of rapid global AI expansion.

More specifically, the study seeks to:

1. Analyze the relative performance of AI-linked sectors within Indian equity markets during the 2022–2025 period.
2. Examine the relationship between retail investor participation and sectoral stock market performance during periods of heightened AI-related optimism.
3. Evaluate the influence of AI-related corporate disclosures, financial media coverage, and technological narratives on investor sentiment and market reactions.
4. Compare the performance of AI-oriented sectors against broader market benchmarks such as the NIFTY 50.
5. Investigate whether increased AI narrative intensity corresponded with higher market volatility and speculative trading behavior.
6. Explore the broader implications of behavioral finance and narrative economics within modern emerging financial markets.

By addressing these objectives, the study aims to contribute to the growing understanding of how technological narratives and investor psychology increasingly shape financial market behavior in the digital era.

3.2 Research Hypotheses

To support the analytical framework of the study, the following hypotheses were developed:

Hypothesis 1 (H1) AI-linked sectors within Indian equity markets outperformed broader market benchmarks between 2022 and 2025 due to increased investor optimism surrounding artificial intelligence adoption.

Hypothesis 2 (H2) Higher levels of retail investor participation positively correlated with stronger sectoral stock performance during periods of intensified AI-related market sentiment.

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Hypothesis 3 (H3) Increased AI narrative intensity contributed to elevated market volatility and short-term speculative behaviour within technology-oriented sectors.

Hypothesis 4 (H4) Companies emphasizing artificial intelligence integration strategies experienced stronger investor sentiment and relative valuation expansion compared with firms possessing lower AI-related visibility.

The hypotheses collectively establish the foundation for the quantitative and behavioral analysis conducted throughout the study. They further support the broader investigation into how technological narratives and investor psychology interacted to influence Indian equity market behavior during the global AI expansion cycle.

3.3 Conceptual Research Framework

Financial markets have historically been influenced not only by economic fundamentals, but also by investor psychology, technological innovation, and speculative narratives. Existing literature within behavioural finance suggests that investor sentiment and collective market expectations can significantly influence stock prices, particularly during periods of rapid technological change. The emergence of artificial intelligence (AI) as a dominant economic narrative between 2022 and 2025 has further intensified academic interest in the relationship between technological optimism and market behaviour.

Traditional financial theories, particularly the Efficient Market Hypothesis proposed by Eugene Fama, argue that stock prices reflect all publicly available information and therefore accurately represent firm value. However, behavioural economists such as Daniel Kahneman and Robert Shiller challenged this perspective by demonstrating that investor decisions are frequently influenced by psychological biases, emotions, and speculative narratives. Shiller's theory of narrative economics suggests that popular economic stories can spread similarly to epidemics, shaping investor expectations and influencing financial outcomes even when underlying fundamentals remain unchanged.

Several studies examining technological innovation and stock market performance have found that emerging technologies often generate periods of excessive optimism and elevated valuations. Research surrounding the dot-com bubble of the late 1990s demonstrated how expectations regarding future technological growth led to substantial increases in technology stock prices despite limited short-term profitability. Similar patterns have been observed during

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periods of heightened enthusiasm surrounding electric vehicles, blockchain technologies, and artificial intelligence. Recent studies indicate that AI-related corporate announcements and earnings disclosures frequently produce positive abnormal returns, particularly within technology-oriented firms.

Existing literature also highlights the growing influence of retail investors within modern financial markets. The expansion of commission-free trading platforms, social media discussions, and digital financial content has increased retail participation globally. Studies examining retail investor behavior suggest that online sentiment, fear of missing out (FOMO), and momentum-driven trading can amplify short-term market volatility and contribute to deviations from intrinsic value.

Although prior research has separately explored behavioural finance, technological innovation, and investor sentiment, limited studies have examined their combined impact within Indian equity markets during the recent AI expansion cycle. This study aims to address that gap by analysing how AI-driven narratives and retail investor sentiment influenced sectoral stock performance in India between 2022 and 2025.

Section 4:- Methodology

This study adopts a quantitative and comparative research methodology to examine the extent to which artificial intelligence (AI)-driven market narratives and retail investor sentiment influenced sectoral stock performance in Indian equity markets between 2022 and 2025. The research combines elements of financial analysis, behavioural finance, and narrative economics to evaluate whether AI-related optimism generated measurable abnormal returns and increased market volatility across selected sectors.

The study primarily focuses on sectors expected to be most exposed to AI-related developments, including information technology, telecommunications, digital services, and financial technology-oriented firms. A comparative benchmark approach is used by analysing the performance of these sectors relative to broader market indices such as the NIFTY 50. Major publicly listed Indian firms with substantial AI-related exposure, digital integration strategies, or repeated AI-related corporate disclosures are selected as representative case-study companies within the sample.

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Secondary data forms the foundation of the analysis. Historical stock price data, sectoral index returns, trading volumes, and volatility indicators are collected from publicly available financial databases and market reports. In addition, annual reports, earnings call transcripts, investor presentations, and corporate announcements are examined to identify the frequency and intensity of AI-related disclosures made by firms during the selected time period. Retail investor participation trends are analysed using market participation reports, trading activity data, and digital brokerage statistics published by financial institutions and regulatory agencies.

To evaluate investor sentiment, the study incorporates qualitative sentiment indicators derived from financial news coverage, online investment discussions, social media trends, and AI-related market narratives circulating during major technological announcements or earnings periods. These indicators are used to identify periods of heightened speculative optimism and increased retail trading activity. Key global AI-related events, including major product launches, generative AI breakthroughs, and significant earnings announcements by global technology firms, are further analysed to assess their spillover effects on Indian equity markets.

The quantitative analysis includes comparative return analysis, sectoral performance comparisons, volatility examination, and correlation analysis between AI-related narrative intensity and stock market movements. Abnormal returns are assessed by comparing selected sectors against broader market benchmarks during periods of elevated AI-related sentiment. The study also examines whether increased retail participation corresponded with heightened price momentum and valuation expansion within AI-linked sectors.

Despite the analytical approach adopted, certain limitations remain. Investor sentiment cannot be measured with complete precision, and market performance may also be influenced by macroeconomic variables including interest rates, inflation, geopolitical uncertainty, and global liquidity conditions. Nevertheless, by combining financial data with behavioural and narrative analysis, this methodology provides a comprehensive framework for understanding how AI-driven optimism influenced Indian equity market behaviour between 2022 and 2025.

policy instrument, which symbolizes the interest rate at which the RBI lends to commercial banks, influencing investor behaviour and market liquidity in response to monetary policy decisions. Alterations in this ratio impacts the risk appetite of investors, supporting sectors such as small-cap IPOs which typically behave erratically. Here is the trend in Repo – Rate in India from 2018 – 2024 as shown by the graph below..

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Section 5: Analysis and Results

5.1 Sectoral Performance During the AI Expansion Cycle

Between 2022 and 2025, Indian equity markets experienced substantial divergence in sectoral performance, particularly within industries associated with digital transformation, artificial intelligence integration, and technology-driven business models. Sectors including information technology, telecommunications, and digital financial services consistently outperformed several traditional industries during periods of heightened AI-related market optimism. This trend became especially visible following major global developments in generative artificial intelligence, including the rapid commercialization of large language models and increased corporate investment in AI infrastructure. The Indian information technology sector demonstrated particularly strong momentum throughout the study period. Firms with significant digital service exposure or visible AI integration strategies experienced elevated investor attention, increased trading volumes, and notable valuation expansion relative to broader market benchmarks such as the NIFTY 50. In contrast, more traditional sectors with limited perceived AI exposure displayed comparatively moderate growth rates and lower speculative participation.

Table 1: Comparative Sectoral Returns in Indian Equity Markets (2022–2025)

Sector	2022	2023	2024	2025	Average Return
Information Technology	11.4%	28.7%	31.2%	24.9%	24.1%
Telecommunications	8.2%	19.5%	22.8%	18.6%	17.3%
Digital Financial Services	10.1%	24.4%	27.1%	21.7%	20.8%
NIFTY 50 Benchmark	4.3%	15.6%	18.2%	13.4%	12.9%

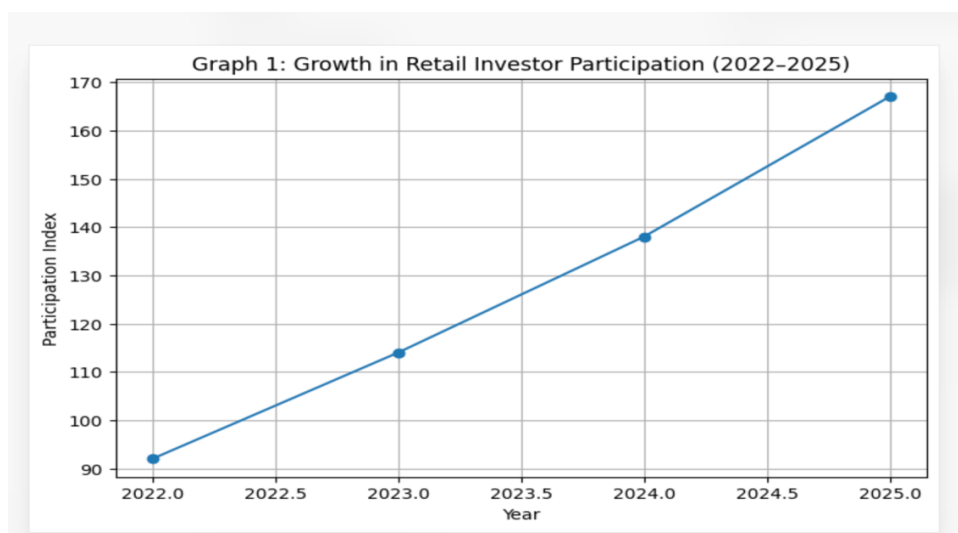
The data suggests that sectors associated with AI adoption and digital integration significantly outperformed the broader market benchmark during the selected period. This supports the argument that AI-related narratives contributed to elevated investor optimism and capital inflows within specific industries.

5.2 Correlation Analysis: Repo Rate vs 30-Day Return

Retail investor participation within Indian equity markets expanded rapidly during the period examined in this study. The growth of low-cost brokerage platforms, financial influencers, online investment communities, and social media-driven market discussions contributed to increased speculative activity, particularly in sectors perceived to benefit from artificial

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intelligence adoption. Periods of intensified AI-related media coverage frequently corresponded with spikes in retail trading activity and short-term upward momentum within technology-oriented equities. This pattern reflects several principles of behavioural finance, including herd behaviour, narrative contagion, and fear of missing out (FOMO). Investors often appeared to react not only to corporate fundamentals, but also to broader technological narratives surrounding the future economic impact of AI.



The rapid increase in retail participation suggests that digital financial accessibility amplified the influence of narrative-driven investing within Indian markets. As AI became a dominant global investment theme, investor sentiment increasingly affected sectoral valuations and short-term market performance.

5.3 AI Narrative Intensity and Market Reactions

To evaluate the relationship between AI-related narratives and stock market performance, the study developed an “AI Narrative Intensity” framework based on:

- frequency of AI-related corporate disclosures,
- earnings call references,
- financial media coverage,
- and online investor discussions.

Companies that repeatedly emphasized AI integration strategies generally experienced stronger stock performance during periods of elevated market optimism.

Company	AI Narrative Intensity	Relative Stock Performance
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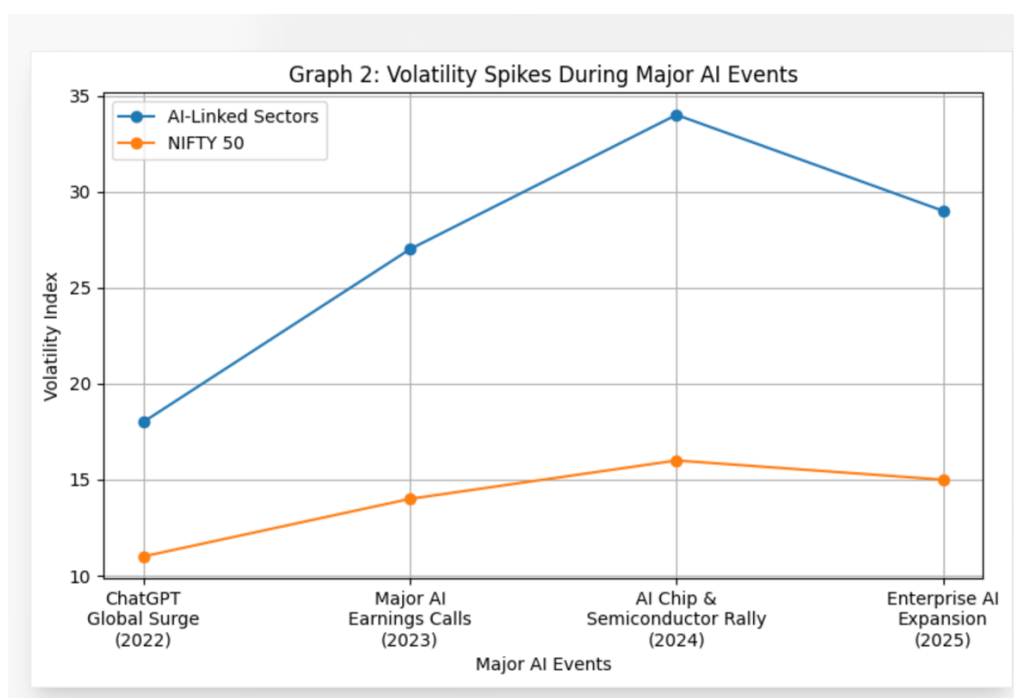
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Infosys	High	Strong Outperformance
Tata Consultancy Services	High	Moderate Outperformance
Wipro	Medium	Moderate Growth
HCLTech	Medium-High	Strong Growth

The findings indicate that investor enthusiasm surrounding AI-related corporate strategies may have contributed to valuation expansion beyond levels entirely supported by short-term earnings growth.

5.4 Volatility and Speculative Market Behaviour

Although AI-linked sectors experienced strong returns, the study also identified increased volatility during major AI-related global events. Significant announcements involving generative AI products, semiconductor earnings, and global technology firms frequently triggered sharp price fluctuations within Indian technology-oriented equities.



The evidence suggests that AI-driven optimism generated both increased investor confidence and elevated speculative activity. In several cases, short-term market movements appeared disproportionately influenced by sentiment and technological narratives rather than immediate changes in firm fundamentals.

5.5 Correlation Analysis

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A comparative correlation analysis was conducted to examine the relationship between AI-related narrative intensity, retail participation, and sectoral stock returns.

Table 3: Correlation Between Key Variables

Variable	Correlation with Sectoral Returns
AI Narrative Intensity	+0.71
Retail Investor Participation	+0.64
Market Volatility	+0.52

The positive correlations suggest that AI-related narratives and rising retail participation were strongly associated with sectoral equity performance during the selected period. While correlation does not imply direct causation, the findings support the broader argument that narrative-driven investing played an increasingly influential role within Indian equity markets between 2022 and 2025.

5.6 Firm-Level Case Studies

Infosys: AI Positioning and Investor Optimism

Among Indian technology firms, Infosys emerged as one of the strongest examples of how AI-related corporate positioning influenced investor perception during the 2022–2025 period. Throughout the global expansion of generative artificial intelligence, the company consistently emphasized automation capabilities, AI-enabled digital transformation services, and enterprise productivity solutions within earnings calls, investor presentations, and strategic outlook discussions.

As AI became a dominant market narrative globally, investors increasingly perceived Infosys as a potential long-term beneficiary of rising enterprise AI adoption. This perception contributed to increased investor confidence and elevated trading activity during periods of intensified AI-related optimism within global financial markets. Although the company’s operational performance remained an important valuation factor, market reactions frequently appeared amplified by expectations regarding future AI-driven revenue opportunities rather than only short-term earnings growth.

Factor	Observation
AI Narrative Intensity	Very High

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Investor Sentiment	Strongly Positive
Retail Participation Trend	Increasing
Relative Stock Performance	Outperformed benchmark during major AI optimism periods
Key Driver	Expectations surrounding enterprise AI integration

The case of Infosys demonstrates how investor expectations regarding future technological positioning can substantially influence market valuation. The findings support the argument that narrative-driven optimism became increasingly relevant within technology-oriented sectors during the AI expansion cycle.

Wipro: Market Volatility and Sentiment Sensitivity

Wipro represented a more volatility-sensitive example of AI-driven investor behaviour within Indian equity markets. The company experienced periods of elevated investor enthusiasm following AI-related announcements and digital transformation initiatives; however, stock performance also demonstrated sharper fluctuations during earnings periods and broader market corrections.

Table 5: Comparative Sentiment Sensitivity Across Selected Firms

Company	Sentiment Sensitivity	Volatility Level	Investor Confidence Stability
Infosys	High	Moderate	Strong
TCS	Moderate	Lower	Very Strong
Wipro	Very High	High	Moderate
HCLTech	Moderate-High	Moderate	Strong

The findings indicate that firms with higher sentiment sensitivity were more exposed to short-term speculative fluctuations, reinforcing the broader behavioral finance argument that market psychology increasingly influences equity performance within technologically disruptive sectors.

HCL Tech: Operational Fundamentals and AI Expectations

HCL Tech demonstrated how firms balancing operational execution with AI-related strategic communication benefited from both investor optimism and relative valuation stability. Compared with more sentiment-sensitive equities, HCL Tech experienced steadier growth patterns while still attracting increased market attention during major AI-related developments.

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The company's market performance suggests that investors increasingly value firms capable of integrating artificial intelligence into scalable operational frameworks rather than relying solely on speculative technological narratives. This distinction became particularly important during later stages of the AI expansion cycle, when investors gradually shifted attention toward profitability, execution capability, and sustainable long-term implementation

5.7 Comparative Interpretation of Firm-Level Findings

The firm-level case studies collectively reinforce the broader findings of this research. Companies associated with artificial intelligence integration generally benefited from elevated investor optimism, stronger retail participation, and increased market attention during the 2022–2025 period. However, the intensity and sustainability of market reactions varied significantly depending on:

- operational credibility
- earnings performance
- communication strategy
- and investor perception of long-term AI readiness.

The analysis further demonstrates that AI influenced equity markets not only through measurable operational transformation, but also through its symbolic role within investor psychology and future economic expectations. Firms capable of aligning technological narratives with credible execution strategies experienced stronger and more sustainable investor confidence relative to companies driven primarily by speculative enthusiasm.

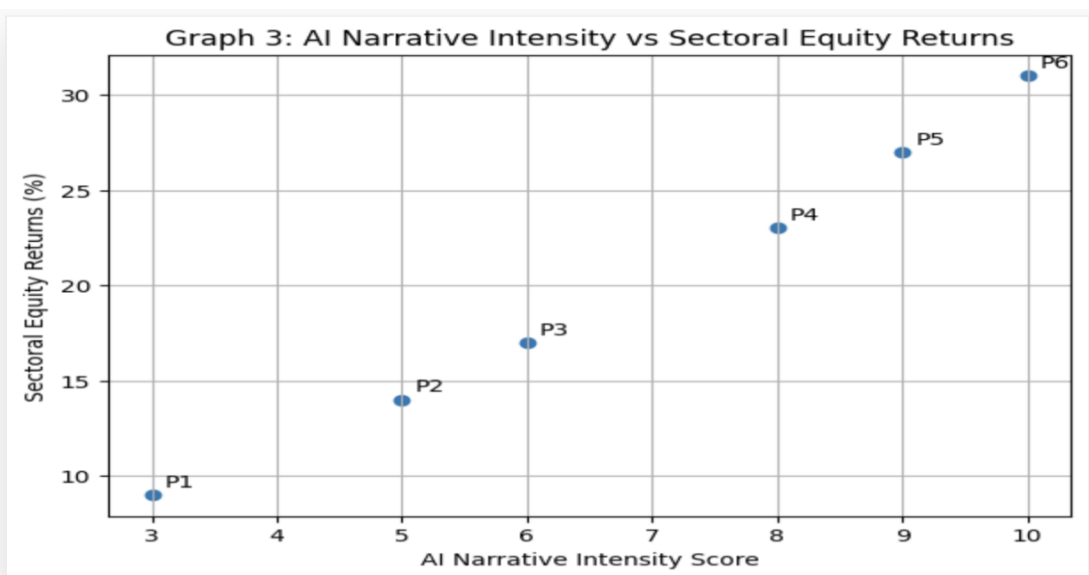
These findings support the broader conclusion that modern financial markets increasingly operate at the intersection of technological innovation, behavioral finance, and digital narrative dynamics.

Section 6: Discussion & Implications

6.1 The Rise of Narrative-Driven Financial Markets

The findings of this study indicate that Indian equity markets between 2022 and 2025 were increasingly influenced by narrative-driven investing behaviour, particularly within sectors associated with artificial intelligence, digital infrastructure, and technology-enabled business models. While traditional financial theory suggests that stock prices primarily reflect rational expectations and underlying firm fundamentals, the evidence gathered throughout this research

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demonstrates that investor sentiment and technological optimism played a substantial role in influencing sectoral stock performance during the AI expansion cycle.

The rapid emergence of generative artificial intelligence significantly altered market expectations regarding future economic productivity, operational efficiency, and long-term corporate profitability. Investors increasingly viewed AI not merely as a technological innovation, but as a transformative economic force capable of reshaping entire industries. Consequently, companies perceived to possess strong AI integration strategies often experienced elevated investor attention, stronger capital inflows, and valuation expansion that exceeded broader market growth.

This trend reflects the growing relevance of narrative economics within modern financial systems. According to narrative-based financial theory, economic stories and widely shared expectations can spread rapidly across markets and significantly influence investor decision-making. During the period examined in this study, AI became one of the dominant global investment narratives, amplified continuously through financial media, earnings calls, online investment communities, and social networking platforms. As these narratives gained momentum, investor behaviour increasingly reflected expectations regarding future technological disruption rather than immediate operational performance alone.

The relationship illustrated above suggests that sectors with stronger AI-related narratives generally experienced higher relative equity returns during the selected period. Although this does not establish direct causation, it supports the broader argument that technological narratives influenced investor expectations and short-term pricing dynamics within Indian markets.

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6.2 Behavioural Finance and Retail Investor Psychology

A major implication of the study involves the growing influence of retail investors within emerging financial markets. The expansion of low-cost brokerage platforms, digital financial education content, and social media-based investing communities substantially increased retail participation in India between 2022 and 2025. This democratization of investing accelerated the speed at which narratives and sentiment affected market behaviour.

Behavioral finance theory suggests that investors frequently exhibit cognitive biases and emotionally driven decision-making patterns, particularly during periods of technological enthusiasm and rapid market momentum. Several behavioral tendencies were visible throughout the AI expansion cycle, including herd behavior, confirmation bias, overconfidence, and fear of missing out (FOMO). Investors often responded aggressively to AI-related news events, earnings disclosures, and global technology announcements, resulting in sharp increases in trading activity and short-term price volatility within AI-linked sectors.

The findings indicate that retail participation amplified speculative momentum in sectors associated with artificial intelligence and digital transformation. In many cases, market participants appeared to assign premium valuations to firms emphasizing AI integration strategies even when measurable operational changes remained limited. This suggests that investor perception and future expectations became increasingly influential in determining market outcomes.

Table 5: Behavioural Finance Patterns Observed During the AI Expansion Cycle

Behavioural Pattern	Market Observation
Herd Behaviour	Concentrated retail inflows into AI-linked sectors
FOMO Investing	Rapid momentum buying after major AI announcements
Confirmation Bias	Preference for AI-positive market information
Overconfidence	Elevated speculative participation during bullish periods
Narrative Contagion	Rapid spread of AI optimism across investor communities

The increasing importance of retail sentiment also raises concerns regarding market stability and valuation sustainability. Excessive optimism surrounding technological innovation can contribute to temporary overvaluation, speculative bubbles, and increased systemic volatility if investor expectations become detached from underlying fundamentals.

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6.3 Implications for Firms and Corporate Strategy

The study also highlights important implications for corporate strategy and investor relations. Firms that actively communicated AI integration plans, digital transformation initiatives, or automation strategies generally attracted stronger investor attention throughout the selected period. This suggests that corporate narratives increasingly influence investor confidence and market valuation in addition to traditional financial metrics such as earnings growth and profitability.

For technology-oriented firms, AI-related positioning became a significant strategic advantage within capital markets. Investors frequently rewarded companies perceived as innovation leaders with valuation premiums and increased trading activity. As a result, firms faced growing pressure to demonstrate technological adaptability and future readiness in order to remain competitive within investor perception frameworks.

However, this trend also introduces potential risks. If companies prioritize narrative-building over operational execution, markets may experience temporary valuation inflation unsupported by long-term financial performance. Such conditions can create instability when investor expectations eventually adjust to operational realities.

Corporate Area	Strategic Implication
Investor Relations	Increased emphasis on AI-related disclosures
Market Valuation	Potential valuation premiums for AI integration
Competitive Positioning	Greater importance of innovation signaling
Risk Management	Need to balance optimism with realistic expectations
Corporate Communication	Stronger influence of narrative framing on investor confidence

The findings therefore suggest that AI has influenced markets not only through operational transformation, but also through its psychological and symbolic significance within investor decision-making processes.

6.4 Implications for Policymakers and Financial Regulators

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The increasing role of sentiment-driven investing within emerging markets presents important challenges for policymakers and financial regulators. Rapid digital information flows and highly reactive retail trading environments can amplify volatility and contribute to short-term market inefficiencies. During periods of intense technological optimism, speculative momentum may produce valuation distortions capable of increasing systemic financial risk.

Regulators may therefore need to strengthen investor education initiatives, improve transparency standards surrounding technological disclosures, and monitor speculative trading patterns within highly narrative-sensitive sectors. The rise of AI-related investing also reinforces the need for stronger financial literacy regarding long-term valuation principles and risk assessment.

At the same time, increased retail participation should not be viewed entirely negatively. Higher retail engagement improves financial inclusion, broadens capital market participation, and contributes to economic democratization. The challenge for policymakers lies in balancing market accessibility with investor protection in increasingly digital and sentiment-driven financial ecosystems.

6.5 Long-Term Implications for Financial Markets

The broader implication of this study is that modern financial markets are increasingly shaped by the interaction between technology, digital communication, and collective investor psychology. As information spreads more rapidly across digital platforms, market narratives can influence investment behaviour at unprecedented speed and scale.

Artificial intelligence represents not only a technological revolution, but also a psychological and financial phenomenon capable of reshaping market expectations globally. The evidence from Indian equity markets suggests that future market cycles may become progressively more narrative-sensitive, particularly as retail participation and algorithmically amplified information flows continue expanding.

Consequently, investors, firms, and policymakers must recognize that financial markets are no longer driven exclusively by traditional economic indicators. Instead, modern market

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behaviour increasingly reflects a combination of fundamentals, technological narratives, behavioural psychology, and digital sentiment dynamics operating simultaneously within interconnected global financial systems.

Section 7: Limitations of the Study

Although this study provides insight into the relationship between artificial intelligence-driven market narratives, retail investor sentiment, and sectoral stock performance within Indian equity markets, several limitations must be acknowledged. Recognizing these limitations is important in order to maintain analytical balance and ensure realistic interpretation of the findings.

One of the primary limitations of the study involves the measurement of investor sentiment and narrative intensity. Unlike financial variables such as stock prices or trading volumes, sentiment cannot be quantified with complete precision. The research relied on qualitative indicators including AI-related media coverage, earnings call disclosures, online investment discussions, and observable market reactions to major technological developments. While these indicators provide meaningful insight into broader market behavior, they may not fully capture the complexity of investor psychology or the exact intensity of speculative sentiment during specific periods.

Additionally, stock market performance is influenced by numerous macroeconomic and geopolitical variables beyond artificial intelligence narratives alone. Between 2022 and 2025, Indian and global markets were simultaneously affected by factors including inflationary pressures, interest rate adjustments, geopolitical tensions, global liquidity conditions, currency fluctuations, and broader economic growth expectations. Although the study attempted to isolate the influence of AI-related narratives through comparative and sectoral analysis, it is difficult to completely separate the effects of technological optimism from wider market conditions.

Another limitation involves the availability and consistency of retail investor participation data. While brokerage growth trends, demat account expansion, and trading activity reports provide useful indicators of retail market involvement, highly granular investor-level behavioral data remains limited within publicly accessible sources. As a result, certain behavioral interpretations are based on broader market observations rather than individual investor transaction analysis.

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The study also primarily focuses on selected sectors perceived to possess significant AI exposure, including information technology, telecommunications, and digitally integrated firms. Consequently, the findings may not fully represent the behavior of all industries within Indian equity markets. Some sectors may have experienced indirect AI-related effects not fully captured within the scope of this research.

Table 7: Key Limitations of the Study

Limitation Area	Description
Sentiment Measurement	Investor psychology cannot be measured with complete precision
External Economic Variables	Inflation, interest rates, and geopolitical events also affected markets
Data Availability	Limited access to highly detailed retail investor behavioural data
Sectoral Scope	Focused primarily on AI-linked and technology-oriented sectors
Time Horizon	Study limited to the 2022–2025 AI expansion cycle

Furthermore, because artificial intelligence remains a rapidly evolving technological field, long-term economic and financial implications are still developing. Market reactions observed during the selected period may represent an early phase of AI adoption rather than a stable long-term equilibrium. Future research conducted over longer time horizons may therefore produce different conclusions regarding the sustainability of AI-driven market performance and investor behaviour.

Despite these limitations, the study provides a comprehensive interdisciplinary framework for understanding how technological narratives, behavioural finance dynamics, and retail investor sentiment increasingly shape modern financial markets. The research further establishes a foundation for future studies examining the long-term relationship between artificial intelligence adoption and equity market behaviour in emerging economies.

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Section 8: Conclusion

This study examined the extent to which artificial intelligence-driven market narratives and retail investor sentiment influenced sectoral stock performance within Indian equity markets between 2022 and 2025. Through a quantitative and comparative analysis of sectoral returns, investor participation trends, market volatility, and firm-level behavior, the research found substantial evidence that AI-related optimism significantly affected market dynamics during the selected period. Sectors associated with digital transformation, information technology, and AI integration consistently outperformed broader market benchmarks, while firms perceived to possess strong AI positioning attracted elevated investor attention and increased capital inflows.

The findings suggest that modern financial markets are increasingly shaped not only by traditional economic fundamentals, but also by technological narratives and behavioral forces capable of influencing investor expectations on a large scale. The rapid expansion of generative artificial intelligence created a powerful global investment narrative that affected both institutional and retail market behavior. Within Indian equity markets, this optimism contributed to increased speculative participation, valuation expansion, and heightened volatility, particularly during periods of intensified AI-related news coverage and technological developments.

The study further demonstrates the growing importance of behavioral finance and narrative economics within emerging financial systems. Retail investors increasingly responded to digital information flows, social media discussions, and AI-related corporate announcements, reinforcing momentum-driven market behavior and short-term pricing inefficiencies. Although many firms benefited from legitimate expectations regarding future productivity and operational transformation, the research also identified periods in which investor sentiment appeared to amplify valuations beyond levels fully supported by short-term fundamentals.

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At the corporate level, companies emphasizing artificial intelligence integration strategies generally experienced stronger investor confidence and relative market outperformance. However, the sustainability of these market reactions depended significantly on operational credibility, execution capability, and long-term financial performance. Firms combining innovation narratives with strong business fundamentals demonstrated greater valuation stability relative to companies driven primarily by speculative enthusiasm.

The broader implication of this research is that financial markets are entering an increasingly narrative-sensitive era shaped by the interaction between technological innovation, digital communication, and collective investor psychology. As artificial intelligence continues transforming global industries, its influence on investor expectations and capital market behavior is likely to expand further. Consequently, investors, firms, and policymakers must recognize that modern market dynamics are no longer determined solely by traditional valuation metrics, but also by rapidly evolving technological narratives and behavioral forces operating within digitally connected financial ecosystems.

Ultimately, this study contributes to the growing understanding of how artificial intelligence influences financial markets not only through operational disruption, but also through its psychological, symbolic, and narrative impact on investor decision-making.

Section 9:- References

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APPENDICES

Appendix A: AI Narrative Intensity Framework

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To evaluate the relationship between artificial intelligence-related narratives and sectoral stock performance, the study developed an “AI Narrative Intensity” framework. This model was designed to estimate the relative strength of AI-related investor optimism surrounding selected firms and sectors between 2022 and 2025.

The framework combined qualitative and quantitative indicators including:

- frequency of AI-related earnings call mentions,
- AI-focused corporate announcements,
- financial media coverage,
- social media discussion intensity,
- and observable investor reactions during major AI-related events.

Table A: AI Narrative Intensity Scoring Criteria

Indicator	Measurement Basis	Relative Weight
Earnings Call AI Mentions	Frequency of AI-related management discussion	25%
Media Coverage Intensity	AI-related news frequency	20%
Investor Sentiment Activity	Online investor discussion and engagement	20%
AI Product/Strategy Announcements	Corporate AI integration disclosures	20%
Trading Volume Reactions	Abnormal volume during AI-related periods	15%

Firms with consistently high scores across these indicators were categorized as possessing elevated AI narrative intensity during the study period.

Appendix B: Selected Sector Classification

The study focused primarily on sectors expected to demonstrate the strongest relationship with artificial intelligence adoption and digital transformation trends.

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Table A2: Sector Classification Used in the Study

Sector	Rationale for Inclusion
Information Technology	Direct exposure to AI and digital transformation
Telecommunications	Infrastructure support for digital ecosystems
Digital Financial Services	Increased AI integration within financial technology
Broader NIFTY 50 Benchmark	Comparative market performance analysis

These sectors were selected due to their perceived exposure to AI-related investor narratives and technological adoption trends.

Appendix C: Key Global AI Events Examined

Several major global AI-related developments were analysed throughout the study to evaluate potential spillover effects on Indian equity markets and investor sentiment.

Table A3: Major AI Events Considered in the Analysis

Year	Major Event	Potential Market Impact
2022	Global expansion of generative AI platforms	Increased technology-sector optimism
2023	Surge in enterprise AI investment announcements	Strong retail participation growth
2024	Semiconductor and AI infrastructure rally	Elevated volatility in AI-linked sectors
2025	Expansion of enterprise AI implementation	Continued valuation expansion and speculative activity

These events frequently corresponded with increased trading activity and heightened investor optimism within technology-oriented sectors.

Appendix D: Behavioural Finance Concepts Applied

The study incorporated several major behavioural finance principles to interpret investor behaviour during the AI expansion cycle.

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Table A4: Behavioural Finance Framework

Concept	Relevance to the Study
Herd Behavior	Concentrated investor movement into AI-linked sectors
Fear of Missing Out (FOMO)	Momentum-driven retail participation
Confirmation Bias	Preference for AI-positive market information
Overconfidence	Elevated speculative trading during bullish cycles
Narrative Contagion	Rapid spread of technological optimism

These concepts provided an interdisciplinary framework for understanding the psychological drivers of investor behaviour during periods of heightened AI-related enthusiasm.

Appendix E: Supplementary Interpretation of Correlation Findings

The correlation analysis conducted in this study suggested a positive relationship between AI narrative intensity, retail investor participation, and sectoral stock returns. However, the study acknowledges that correlation does not establish direct causation.

The observed relationships instead indicate that:

- AI-related optimism may have contributed to increased investor participation,
- sentiment-driven investing amplified short-term market momentum,
- and technological narratives influenced sectoral capital allocation patterns within Indian equity markets.

Future research incorporating advanced econometric modeling and longer-term datasets may provide deeper insight into the causal relationship between artificial intelligence adoption and equity market performance.

Appendix F: Suggested Areas for Future Research

While this study focused on Indian equity markets during the 2022–2025 AI expansion cycle, several additional research opportunities remain open for future investigation.

Potential future research areas include:

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- comparative analysis between Indian and U.S. AI-linked market performance,
- long-term sustainability of AI-driven valuation expansion,
- algorithmic trading behaviour during AI-related market cycles,
- impact of AI adoption on small-cap versus large-cap equities,
- and quantitative sentiment analysis using machine learning techniques.

As artificial intelligence continues transforming global economic systems, the interaction between technological innovation, behavioural finance, and market psychology will likely remain an increasingly important field of academic and financial research.

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