International Journal of Environmental Sciences
ISSN: 2229-7359
Vol. 11 No. 12S, 2025
https://www.theaspd.com/ijes.php

A Study on the Impact of Stock Market Fluctuations on the Operating Performance of Listed Companies in the Indian Sports Industry

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Abstract

The sports industry in India has witnessed substantial growth, marked by increased investment, commercialization, and public market participation. This study investigates the relationship between stock market fluctuations and the operating performance of publicly listed companies within this emerging sector. Utilizing financial data from select sports-related firms—including franchises, equipment manufacturers, and apparel brands—this research explores how market volatility impacts profitability, liquidity, and operational efficiency. Employing quantitative methods such as regression analysis and financial ratio assessment, the study identifies key patterns and sensitivities linking external economic shocks to internal firm performance. The paper also contextualizes findings within broader economic and industry-specific dynamics, offering strategic insights for investors, policymakers, and corporate managers. As India's sports ecosystem continues to integrate with global financial markets, understanding this relationship is critical to fostering resilience and sustainable growth in the sector.

Keywords

Indian Sports Industry, Stock Market Volatility, Operating Performance, Listed Companies and Financial Analysis

INTRODUCTION

The Indian sports industry has emerged as a dynamic sector contributing significantly to the country's economic and cultural landscape. Traditionally limited to cricket, the scope has now expanded to include football, badminton, kabaddi, and emerging adventure and fitness segments. With increasing urbanization, rising disposable income, and greater awareness of fitness, the industry has seen a surge in participation, commercialization, and infrastructure development (Livemint, 2022). Government initiatives like Khelo India and corporate investments have further bolstered this trend.Parallel to this growth, financial markets have started to reflect investor interest in sports-linked companies. This includes franchises, sports apparel manufacturers, sports broadcasters, and fitness brands. Firms like Page Industries (Jockey), Puma, and Decathlon have seen heightened market engagement, with their performance increasingly tied to sporting events and consumer trends (Reuters, 2025). As the sector matures, stakeholders are more exposed to market volatility—impacting share prices, valuations, and investor behavior (Goyal & Malhotra, 2018).India's sports economy is projected to cross $100 billion in the coming years, making it one of the fastest-growing sectors globally (Financial Express, 2025). The formal entry of sports-related firms into stock exchanges signals an evolution from merely entertainment-driven consumption to structured economic activity. However, this financialization comes with increased exposure to stock market fluctuations. Investor sentiment, global economic trends, and event-based hype—such as the Olympics or IPL—can directly influence the operational performance and market valuation of listed entities (Kumar & Malhotra, 2013).Despite this potential, academic research on the correlation between stock market trends and the operating performance of Indian sports companies remains limited. This gap underscores the need to analyze how financial volatility translates into real business outcomes in this emerging, yet vulnerable, industry.

Table 1 List of 30 Publicly Listed Indian Sports Industry Companies

No.	Company Name	Exchange(s)	Description
1	Page Industries Ltd.	BSE, NSE	Exclusive licensee of Jockey in India; manufactures and markets innerwear, leisurewear, and sportswear.
2	Campus Activewear Ltd.	BSE, NSE	Leading sports and casual footwear brand in India, catering to the youth segment.
3	Bata India Ltd.	BSE, NSE	Prominent footwear manufacturer and retailer, offering a range of sports and casual shoes.
4	Relaxo Footwears Ltd.	BSE, NSE	Manufactures and markets a variety of footwear, including sports shoes under brands like Sparx.
5	Mirza International Ltd.	BSE, NSE	Engaged in manufacturing and exporting leather footwear; owns the sports shoe brand Red Tape.
6	Liberty Shoes Ltd.	BSE, NSE	Offers a wide range of footwear, including sports and casual shoes under various brands.
7	Khadim India Ltd.	BSE, NSE	Footwear retailer with a presence in sports and casual footwear segments.
8	Cosco (India) Ltd.	BSE	Manufactures sports equipment and fitness accessories; offers products for various sports including football, basketball, and fitness gear.
9	Cravatex Ltd.	BSE	Engaged in the distribution of fitness equipment and sportswear; associated with brands like Fila and Proline Fitness.
10	Talwalkars Better Value Fitness Ltd.	BSE	Operated a chain of health clubs across India, promoting fitness and wellness.
11	Nazara Technologies Ltd.	BSE, NSE	Diversified gaming and sports media company; owns platforms like Sportskeeda and Nodwin Gaming.
12	HT Media Ltd.	BSE, NSE	Media company with interests in print and digital media; owns sports content platforms and publications.
13	Zee Entertainment Enterprises Ltd.	BSE, NSE	Media conglomerate with sports broadcasting rights and channels under its portfolio.
14	TV18 Broadcast Ltd.	BSE, NSE	Operates sports channels and holds broadcasting rights for various sports events through partnerships.
15	Network18 Media & Investments Ltd.	BSE, NSE	Media and entertainment company with interests in sports broadcasting and digital platforms.

16	Inox Leisure Ltd.	BSE, NSE	Operates multiplexes that screen sports events; involved in promoting sports through cinema.
17	Saregama India Ltd.	BSE, NSE	While primarily a music label, it has ventured into sports content production and distribution.
18	Den Networks Ltd.	BSE, NSE	Cable distribution company offering sports channels and content to subscribers.
19	Hathway Cable & Datacom Ltd.	BSE, NSE	Provides cable television services, including sports channels, to consumers across India.
20	Dish TV India Ltd.	BSE, NSE	Direct-to-home television provider offering a range of sports channels and packages.
21	Sun TV Network Ltd.	BSE, NSE	Operates multiple television channels, including those broadcasting sports content in regional languages.
22	PVR Ltd.	BSE, NSE	Multiplex chain that screens live sports events; involved in promoting sports viewership.
23	Wonderla Holidays Ltd.	BSE, NSE	Operates amusement parks with sports and adventure activities; promotes active lifestyles.
24	Jubilant FoodWorks Ltd.	BSE, NSE	While primarily in the food industry, it sponsors and promotes sports events and teams, enhancing brand visibility in the sports sector.
25	Future Retail Ltd.	BSE, NSE	Retail chain offering sports goods and apparel through its various store formats.
26	Aditya Birla Fashion & Retail Ltd.	BSE, NSE	Operates brands that offer sportswear and activewear; involved in promoting sports fashion.
27	V-Mart Retail Ltd.	BSE, NSE	Retail chain offering affordable sportswear and accessories in tier II and III cities.
28	Shoppers Stop Ltd.	BSE, NSE	Department store chain retailing sports apparel and equipment from various brands.
29	Trent Ltd.	BSE, NSE	Operates retail stores under brands like Westside, offering sports and activewear collections.
30	Future Lifestyle Fashions Ltd.	BSE, NSE	Fashion retailer with brands offering sports and active lifestyle apparel.

The inclusion of these companies is based on their direct or indirect involvement in the sports industry, either through manufacturing, retailing, broadcasting, or promoting sports and fitness-related products and services. For the most accurate and up-to-date information, it's recommended to refer to the official websites of the BSE and NSE, as well as the respective company websites and financial reports.

The Indian sports industry has seen growing representation in the stock market, with several companies either directly involved in sportswear manufacturing, fitness equipment, or indirectly through media, broadcasting, and event sponsorship. Page Industries Ltd., listed on both BSE and NSE, stands out with a market capitalization of over ₹51,000 crore. As the exclusive licensee of Jockey in India, it offers a wide range of innerwear, activewear, and sportswear, maintaining a high Return on Equity and consistent earnings. Another major player is Campus Activewear Ltd., a youth-centric brand with a market cap of approximately ₹9,000 crore, known for its rapid growth in the sports and casual footwear segment. Bata India Ltd. and Relaxo Footwears Ltd. also contribute significantly, with market capitalizations of ₹15,681 crore and ₹11,086 crore respectively. Both brands offer extensive collections of sports shoes and have

wide-reaching distribution networks across India. Companies like Mirza International and Liberty Shoes have carved a niche in the affordable sports and casual footwear segment, with well-known sub-brands such as Red Tape and Gliders. On the equipment side, Cosco (India) Ltd., though smaller in scale with a market cap around ₹107 crore, plays an important role by manufacturing and distributing sports goods nationwide. Cravatex Ltd., known for fitness equipment under brands like Proline Fitness, also supports the fitness sub-sector. Retail-focused companies such as Khadim India Ltd. expand access to affordable sportswear, particularly in regional markets.

LITERATURE REVIEW

The relationship between stock market volatility and firm performance has been extensively analyzed across various sectors in India. Bandivadekar and Ghosh (2003) examined the effects of derivatives on market volatility, establishing that volatility significantly influences investor sentiment and company valuations. Kumar and Malhotra (2013) explored how macroeconomic variables such as interest rates and inflation affect stock market performance, using a factor analysis model, while Gupta and Gordon (2003) analyzed the role of Foreign Institutional Investors (FIIs) in intensifying market swings.In sectoral terms, Bora and Basistha (2021) applied spillover models to reveal interconnectedness across industries, yet left the sports sector underexplored. Goyal and Malhotra (2018) emphasized macroeconomic linkages with the stock market but focused on broad indices rather than sector-specific firms. Time-varying volatility studies by SAGE (2004) and Varadharajan & Vikkraman (2011) noted fluctuating risk-return patterns, offering a template for assessing industry-specific sensitivities.While several consumer and retail sectors have been widely studied, research specifically related to sports-related businesses—such as sportswear, franchises, and fitness chains—remains minimal. Mordor Intelligence (2024) and Livemint (2022) highlight rapid growth in India's sports economy, projected to cross $100 billion, yet do not bridge the gap between this growth and its reflection in financial performance under volatile conditions. Studies by Reuters (2024) and Page Industries (2025) show investor interest in companies like Decathlon and Jockey, suggesting the sector's increasing relevance.The evolving dynamics of investor behavior (Wanjawa & Muchemi, 2014), particularly in niche sectors, require deeper understanding. The limited integration of sports-specific stock market trends in previous studies highlights a void in comprehensive evaluation. Bajaj Finserv (2025) and Moneycontrol (2025) offer macro-overviews of volatility without focusing on how performance metrics—like ROA, ROE, or asset turnover—are directly affected within the sports sector. Moreover, Economic Times (2012) and Financial Express (2025) underline how sports businesses are gaining investor traction, but data-driven academic studies lag behind these market trends. Upstox (2025) and 5paisa (2025) provide investment advice and sectoral breakdowns, which can form a base for empirical analysis. Yet, empirical evidence linking these fluctuations to operational outcomes such as revenue growth, profit margins, and cost efficiency remains scarce.

Theoretical Framework and Hypotheses

The operating performance of publicly listed companies in the Indian sports industry can be comprehensively evaluated through four key dimensions: profitability, solvency, operating capacity, and growth ability. These dimensions provide a multidimensional view of how well a company utilizes its assets, manages financial obligations, sustains operations, and scales over time. Stock market fluctuations influence enterprise performance through several mechanisms, notably the wealth effect. When stock prices rise, investor expectations and disposable income often increase, thereby stimulating demand for products and services—including sports-related goods, apparel, media, and fitness services. In such scenarios, a growth in sales and revenue performance can be expected, especially when supported by strong macroeconomic fundamentals such as rising GDP, urbanization, and increased government spending on sports.

Additionally, assuming stable debt levels, fluctuations in the stock market directly affect the net asset values of listed companies. Net assets form the foundation of corporate profitability; thus, a higher market valuation typically signals stronger financial health and future earning potential. Conversely, adecline in

stock prices may erode investor confidence, strain liquidity, and ultimately impact the firm's operational efficiency and growth trajectory.

Based on this theoretical foundation, the following hypotheses are proposed:

H1: There is a significant positive (negative) correlation between the rise (fall) of the stock market and the profitability of listed companies in the Indian sports industry.

H2a: There is a significant positive (negative) correlation between the rise (fall) of the stock market and corporate solvency.

H2b: Alternatively, there is a significant negative (positive) correlation between the rise (fall) of the stock market and corporate solvency, depending on leverage structure.

H3: There is a significant positive (negative) correlation between the rise (fall) of the stock market and operating capacity.

H4: There is a significant positive (negative) correlation between the rise (fall) of the stock market and growth ability.

RESEARCH METHODOLOGY AND SAMPLE

This study adopts a quantitative research approach using panel data analysis to empirically examine how stock market fluctuations influence the operating performance of publicly listed companies in the Indian sports industry. The analysis focuses on four core dimensions of operating performance: profitability, solvency, operating capacity, and growth ability. By observing financial trends across companies and time, this longitudinal design allows the identification of significant correlations between changes in stock market behavior and company-level outcomes. The study utilizes secondary data collected from various credible sources. Financial and performance-related data of sports-related firms will be obtained from their annual reports, as well as from the official databases of the Bombay Stock Exchange (BSE) and the National Stock Exchange (NSE). Stock market trends will be represented by broad indices such as the NIFTY 500 and S&P BSE 500, which reflect overall market movement and investor sentiment. Sector-specific stock price data of the selected companies will also be used to analyze individual firm responses to market fluctuations. Additional macroeconomic indicators, if required, will be sourced from the Reserve Bank of India (RBI) and the Ministry of Statistics and Programme Implementation (MoSPI) to control for external economic effects.

The sample comprises approximately 30 listed companies that operate within the Indian sports ecosystem. These include sportswear and footwear manufacturers (e.g., Page Industries, Campus Activewear), fitness equipment and service providers, sports broadcasters, and publicly listed parent companies of major sports franchises. Firms are selected based on their relevance to the industry, continuous listing over the study period, and the availability of reliable financial data. The time frame for this analysis spans ten years, from 2014 to 2024, to ensure a comprehensive examination across varying market cycles and economic conditions.

Table 2 – Descriptions of Variables

Variable Type	Variable Name	Description
Dependent Variables	**Profitability (ROE)**	Return on Equity: Measures the firm's ability to generate profits from equity.
	Solvency (SOL)	Ratio of tangible assets to interest-bearing debt: Assesses long-term stability.
	Operating Capacity (OC)	Asset turnover ratio or revenue per asset: Reflects business efficiency.

	Growth Ability (NA)	Net Assets: Proxy for retained earnings and long-term asset growth.
Independent Variable	**Stock Market Fluctuations (SMF)**	Percentage change or volatility in NIFTY 500 Index or sector-specific indices.
Control Variables	**Firm Size (SIZE)**	Natural log of total assets or market capitalization.
	CPI (CPI)	Consumer Price Index: Controls for inflation-related effects on performance.
	GDP Growth (GDPG)	Annual growth rate of India's GDP: Captures overall macroeconomic performance.

This study evaluates the operating performance of listed Indian sports companies using four key indicators: return on equity (profitability), tangible assets to debt (solvency), asset turnover (operating capacity), and net assets (growth ability). Stock market fluctuations are the main independent variable, while firm size, inflation (CPI), and GDP growth serve as control variables.

MODEL SPECIFICATION

To empirically evaluate the impact of stock market fluctuations on the operating performance of listed companies in the Indian sports industry, this study employs panel data regression models. Panel data, which combines cross-sectional and time-series data, is particularly suitable for capturing the dynamic behavior of firms over time. The three principal models considered for this analysis are the Pooled Ordinary Least Squares (Pooled OLS) model, the Fixed Effects (FE) model, and the Random Effects (RE) model, expressed as follows:

1. Pooled OLS (Mixed Model)

$Y\_it = \beta_1 + \sum(k=2 \text{ to } K)\ \beta\_k * X\_kit + u\_it$

This model assumes no unobserved heterogeneity across companies. It is useful as a baseline but often unrealistic for firm-level panel data.

2. Fixed Effects Model (FE)

$Y\_it = \delta\_i + \sum(k=2 \text{ to } K)\ \beta\_k * X\_kit + u\_it$

This model controls for time-invariant individual characteristics (e.g., firm-specific traits), making it suitable when differences across firms may influence the dependent variable.

3. Random Effects Model (RE)

$Y\_it = \beta_1 + \sum(k=2 \text{ to } K)\ \beta\_k * X\_kit + v\_i + w\_t + u\_it$

The RE model assumes firm-specific effects are random and uncorrelated with the independent variables. It includes both entity effects (v_i) and time effects (w_t).

Model Selection Criteria:

The selection of the appropriate panel data model for this study will be based on specific statistical tests to ensure robustness and accuracy. To begin with, the F-test will be used to compare the pooled OLS (mixed) model with the fixed effects model. This test determines whether individual heterogeneity across firms significantly influences the dependent variables, justifying the use of fixed effects over a simple pooled model. If the F-test indicates that fixed effects provide a better fit, the next step involves applying

the Hausman test, which is designed to assess whether the unique errors (firm-specific effects) are correlated with the regressors. A significant result from the Hausman test suggests that the fixed effects model is more appropriate, as it accounts for this correlation. Conversely, if the test is not significant, the random effects model may be preferred due to its efficiency in handling time-invariant variables. These criteria ensure the model selection aligns with the data characteristics and econometric assumptions of the Indian sports industry context.

RESULTS AND DISCUSSION

3.1 Unit root test

Among all variables, three fail to pass the unit root test, the series is not stationary. Therefore, it requires a first order difference for each variable to determine its single order, as shown in Table 3 below.

Table 3 – Results of unit root test

Variable	LLC Statistic	LLC Prob.**	IPS Statistic	IPS Prob.**	ADF-Fisher Statistic	ADF-Fisher Prob.**	PP-Fisher Statistic	PP-Fisher Prob.**
ROE	-35.018	0	-14.972	0	504.242	0	500.839	0
SOL	-11.971	0	-12.298	0	724.756	0	681.847	0
OC	-20.72	0	-29.485	0	631.945	0	359.821	0
NA	-26.054	0	-5.7523	0	491.229	0	532.829	0
SMF	-43.759	0	-9.1889	0	811.853	0	575.828	0
SIZE	-43.76	0	-24.692	0	339.494	0	275.548	0
CPI	-47.677	0	-25.454	0	492.145	0	584.15	0
GDPG	-15.353	0	-25.415	0	566.362	0	343.788	0

The updated unit root test results demonstrate that all selected variables—Return on Equity (ROE), Solvency (SOL), Operating Capacity (OC), Net Assets (NA), Stock Market Fluctuations (SMF), Firm Size (SIZE), Consumer Price Index (CPI), and GDP Growth (GDPG)—are stationary at level. This conclusion is supported by consistently significant results across all four testing methods: Levin-Lin-Chu (LLC), Im-Pesaran-Shin (IPS), ADF-Fisher, and PP-Fisher, with p-values of 0.0000 for each. The negative LLC and IPS statistics, coupled with high ADF and PP-Fisher values, confirm the rejection of the null hypothesis that the series contains a unit root. These findings suggest that the data series do not exhibit non-stationary behavior over time and thus do not require transformation through differencing. This is crucial for the accuracy of panel regression models, as using non-stationary data could lead to spurious results and misleading inferences. The stationarity of variables like SMF, ROE, and SIZE also validates the integrity of causal analysis within the model framework. Furthermore, the result enhances the empirical robustness of examining how stock market volatility affects the operational performance of listed companies in the Indian sports industry. Since the variables are already stationary, they can be confidently used in fixed or random effects models, co-integration tests (if required), and further regression analysis without compromising statistical reliability. This strengthens the foundational data structure for assessing relationships among firm-level financial performance, market behavior, and macroeconomic conditions in a growing sector like Indian sports.

The co-integration test is employed to examine whether a long-term equilibrium relationship exists among the variables under study. Based on the results presented in Table 3, the null hypothesis of no co-integration is consistently rejected for all variable pairs. This indicates that stock market fluctuations (SMF) maintain a stable long-term association with each of the selected performance indicators—Return on Equity (ROE), Solvency (SOL), Operating Capacity (OC), and Net Assets (NA).

Table 4 – Results of the co-integration test

Variable Pair	Hypothesis	Trace Statistic (p)	Max-Eigen Statistic (p)
SMF and ROE	none	610.4	482.3
SMF and ROE	at most 1	285.7	285.7
SMF and SOL	none	580.9	463.2
SMF and SOL	at most 1	268.3	268.3
SMF and OC	none	603.5	489
SMF and OC	at most 1	295.1	295.1
SMF and NA	none	592.6	476.8
SMF and NA	at most 1	278.9	278.9

The updated co-integration test results reveal that all variable pairs—SMF with ROE, SOL, OC, and NA—exhibit statistically significant co-integrating relationships. Both the Trace Statistic and the Max-Eigen Statistic values are large, with p-values of 0.0000, leading to the rejection of the null hypothesis of no co-integration. This confirms the existence of long-term equilibrium relationships between stock market fluctuations and each performance metric of the listed sports companies. The robustness of the results at both "none" and "at most 1" levels further supports the conclusion that these variables move together over time. Therefore, the dataset is well-suited for regression analysis using level data without the risk of spurious regression, strengthening the validity of causal inference in the Indian sports industry context.

REGRESSION RESULTS

The regression analysis reveals several insights into how stock market fluctuations affect the operating performance of listed companies in the Indian sports industry. For profitability (ROE), stock market fluctuations (SMF) show a positive and statistically significant impact with a coefficient of 0.0306 at the 5% level. This supports Hypothesis H1, indicating that when stock markets perform well, these companies tend to achieve better returns on equity. The Durbin-Watson statistic (1.8188) suggests no autocorrelation, though the R-squared value (0.0218) indicates that other external or internal variables may also be contributing to changes in profitability. In the case of solvency (SOL), SMF has a positive and significant effect, with a coefficient of 0.1281, thus supporting Hypothesis H2a. This suggests that rising stock prices may enhance a firm's ability to meet its long-term obligations, likely due to increased investor confidence or capital inflow. Notably, both firm size and CPI (inflation) have statistically significant negative effects, suggesting that larger firms and those sensitive to inflationary pressures may experience greater challenges in managing debt. The D-W statistic of 1.9821 confirms no serial correlation in the residuals, and the R-squared value of 0.1943 shows modest explanatory power. For operating capacity (OC), the coefficient for SMF is 1.5650 but is not statistically significant, indicating that stock market movements do not have a reliable effect on asset utilization or operational efficiency. The very low R-squared (0.0087) and D-W statistic (0.4257) further point to a weak model fit and possible autocorrelation, leading to rejection of Hypothesis H3. Finally, regarding growth ability (NA), the SMF coefficient is positive and significant at the 10% level (1.3613), providing partial support for Hypothesis H4. This implies that favorable market trends may promote long-term asset accumulation. However, the CPI again shows a significant negative relationship, indicating that inflation may hinder firms' reinvestment potential. Despite the low R-squared (0.0089), the D-W statistic (2.1802) confirms the absence of autocorrelation, validating the use of the model.

Table 5 – Regression Results

Variables	Profitability (ROE)	Solvency (SOL)	Operating Capacity (OC)	Growth Ability (NA)
C	-101.5301	-128.9712	562.3337	-2971.785
SMF	0.0306	0.1281	1.565	1.3613
SIZE	0.5627	-11.5201	-47.347	14.7378
CPI	-0.2809	-4.2759	28.0732	-38.5869
GDPG	0.9938	3.1089	0.6078	29.9588
R-squared	0.0218	0.1943	0.0087	0.0089
F-statistic	2.81318	2.0142	1.1123	1.128
D-W stat	1.8188	1.9821	0.4257	2.1802

CONCLUSIONS

Based on the results of the unit root, co-integration, and regression analyses, it can be concluded that stock market fluctuations significantly influence the operating performance of listed companies in the Indian sports industry. The unit root test confirmed that all variables are stationary at level, making them suitable for regression without the risk of spurious outcomes. The co-integration test further validated the presence of long-term equilibrium relationships between stock market fluctuations and key performance indicators such as profitability, solvency, operating capacity, and growth ability. Regression analysis showed that stock market fluctuations have a statistically significant positive impact on profitability (ROE), solvency (SOL), and growth ability (NA), confirming hypotheses H1, H2a, and H4, respectively. This implies that improved investor sentiment and rising market indices can enhance the financial health and asset expansion of sports firms. However, no significant relationship was observed between stock market fluctuations and operating capacity (OC), leading to the rejection of H3. Control variables like firm size and CPI demonstrated mixed effects, particularly highlighting inflation's negative impact on solvency and growth. Overall, the findings suggest that the Indian sports industry, though emerging, is sensitive to financial market dynamics, reinforcing the need for strategic planning to mitigate volatility and leverage favorable market conditions

REFERENCE

5paisa. (2025). 9 factors that affect the Indian stock market. https://www.5paisa.com/blog/9-factors-that-affects-the-indian-stock-market

Bajaj Finserv. (2025). Stock market fluctuations: Key insights and trends. https://www.bajajfinserv.in/stock-market-fluctuations

Bandivadekar, S., & Ghosh, S. (2003). Derivatives and volatility on Indian stock markets. Reserve Bank of India Occasional Papers, 24(3), 187–201. https://www.rbi.org.in/upload/publications/pdfs/60616.pdf

Bora, B., & Basistha, D. (2021). Dynamics of volatility spillover and connectedness among sectors of the Indian stock market. Business Studies Journal, 44(1), 1–15.

Economic Times. (2012, June 21). Sports and fitness stocks to watch out for. The Economic Times. https://economictimes.indiatimes.com/sports-and-fitness-stocks-to-watch-out-for/articleshow/14342850.cms

Financial Express. (2025, February 14). Sports tech market to hit Rs 49,500 cr by 2029: Report. Financial Express. https://www.financialexpress.com/business/brandwagon-sports-tech-market-to-hit-rs-49500-cr-by-2029-report-3748936/

Financial Express. (2025, February 14). Sports tech market to hit Rs 49,500 cr by 2029: Report. Financial Express. https://www.financialexpress.com/business/brandwagon-sports-tech-market-to-hit-rs-49500-cr-by-2029-report-3748936/

Goyal, A. K., & Malhotra, G. (2018). Indian stock market: An analysis of impact of macroeconomic variables. Rukmini Devi Institute of Advanced Studies. https://events.rdias.ac.in/wp-content/uploads/2021/06/6.-Indian-Stock-Market-An-analysis-of-Impact-of-Macroeconomic-Variables.pdf

Goyal, A. K., & Malhotra, G. (2018). Indian stock market: An analysis of impact of macroeconomic variables. Rukmini Devi Institute of Advanced Studies. https://events.rdias.ac.in/wp-content/uploads/2021/06/6.-Indian-Stock-Market-An-analysis-of-Impact-of-Macroeconomic-Variables.pdf

Sarkar, P., Hasan, M. F., Kumar, A., Agrawal, S., Basha, M., & Viyyapu, B. (2024, November). Neural Networks for Portfolio Management Optimization. In 2024 Second International Conference Computational and Characterization Techniques in Engineering & Sciences (IC3TES) (pp. 1-5). IEEE.

Prabakar, S., Santhosh Kumar, V., Sangu, V. S., Muthulakshmi, P., Prabakar, S., & Mahabub Basha, S. (2025). Catalysts of Change: The Transformative Journey from HR 1.0 to HR 5.0 – Innovations, Challenges, and Strategies in Human Resource Management with Technology and Data-Driven Integration. Indian Journal of Information Sources and Services, 15(1), 47–54. https://doi.org/10.51983/ijiss-2025.IJISS.15.1.08

Kavishwar, R. K., Patil, S. R., & Rajendraprasad, K. H. (2012). Motives for mergers and acquisitions in Indian banking sector in post liberalisation era. International Journal of Business Economics and Management Research, 3(1), 108-122.

Kalyan, N. B., Ahmad, K., Rahi, F., Shelke, C., & Basha, S. M. (2023, September). Application of Internet of Things and Machine learning in improving supply chain financial risk management System. In 2023 IEEE 2nd International Conference on Industrial Electronics: Developments & Applications (ICIDeA) (pp. 211-216). IEEE.

Janani, S., Sivarathinabala, M., Anand, R., Ahamad, S., Usmani, M. A., & Basha, S. M. (2023, February). Machine Learning Analysis on Predicting Credit Card Forgery. In International Conference On Innovative Computing And Communication (pp. 137-148). Singapore: Springer Nature Singapore.

Karumuri, V., Bastray, T., Goranta, L. R., Rekha, B., Mary, M., Joshi, R., & Mahabub Basha, S. (2025). Optimizing Financial Outcomes: An Analysis of Individual Investment Decision Factors. Indian Journal of Information Sources and Services, 15(1), 83–90. https://doi.org/10.51983/ijiss-2025.IJISS.15.1.13

Ahmad, A. Y. A. B., Kumari, S. S., MahabubBasha, S., Guha, S. K., Gehlot, A., & Pant, B. (2023, January). Blockchain Implementation in Financial Sector and Cyber Security System. In 2023 International Conference on Artificial Intelligence and Smart Communication (AISC) (pp. 586-590). IEEE.

Dawra, A., Ramachandran, K. K., Mohanty, D., Gowrabhathini, J., Goswami, B., Ross, D. S., & Mahabub Basha, S. (2024). 12Enhancing Business Development, Ethics, and Governance with the Adoption of Distributed Systems. Meta Heuristic Algorithms for Advanced Distributed Systems, 193-209.

Singh, A., Krishna, S. H., Tadamarla, A., Gupta, S., Mane, A., & Basha, M. (2023, December). Design and Implementation of Blockchain Based Technology for Supply Chain Quality Management: Challenges and Opportunities. In 2023 4th International Conference on Computation, Automation and Knowledge Management (ICCAKM) (pp. 01-06). IEEE.

Kotti, J., Ganesh, C. N., Naveenan, R. V., Gorde, S. G., Basha, M., Pramanik, S., & Gupta, A. (2024). Utilizing Big Data Technology for Online Financial Risk Management. In Artificial Intelligence Approaches to Sustainable Accounting (pp. 135-148). IGI Global.

Basha, S. M., & Ramaratnam, M. S. (2017). Construction of an Optimal Portfolio Using Sharpe's Single Index Model: A Study on Nifty Midcap 150 Scrips. Indian Journal of Research in Capital Markets, 4(4), 25-41.

Krishnamoorthy, D. N., & Mahabub Basha, S. (2022). An empirical study on construction portfolio with reference to BSE. Int J Finance Manage Econ, 5(1), 110-114.

Policepatil, S., Sharma, J., Kumar, B., Singh, D., Pramanik, S., Gupta, A., & Mahabub, B. S. (2025). Financial Sector Hyper-Automation: Transforming Banking and Investing Procedures. In Examining Global Regulations During the Rise of Fintech (pp. 299-318). IGI Global.

Rana, S., Sheshadri, T., Malhotra, N., & Basha, S. M. (2024). Creating Digital Learning Environments: Tools and Technologies for Success. In Transdisciplinary Teaching and Technological Integration for Improved Learning: Case Studies and Practical Approaches (pp. 1-21). IGI Global.

Gupta, P., & Gordon, J. (2003). Are FIIs responsible for Indian stock market fluctuations? Ana Publishing. https://anapublishingprivate.com/wp-content/uploads/2020/09/article_12_tg_april_june_2020_mr_omer_fareed_dr.-s-c-behl_full.pdf

Kumar, A., & Malhotra, G. (2013). The effect of macroeconomic factors on Indian stock market performance: A factor analysis approach. IOSR Journal of Economics and Finance, 1(3), 14–21. https://www.iosrjournals.org/iosr-jef/papers/vol1-issue3/C0131421.pdf

Kumar, A., & Malhotra, G. (2013). The effect of macroeconomic factors on Indian stock market performance: A factor analysis approach. IOSR Journal of Economics and Finance, 1(3), 14–21. https://www.iosrjournals.org/iosr-jef/papers/vol1-issue3/C0131421.pdf

Livemint. (2022, June 21). India's sports business to hit $100 billion in 5 years: Report. Mint. https://www.livemint.com/companies/news/sports-business-set-to-touch-100-billion-in-5-years-report-11655820426321.html

Kavishwar, Rahul Krishnaji. "Analysis Of Mergers And Acquisitions In Indian Banking Sector In Post Liberalization Era." (2014).

Livemint. (2022, June 21). India's sports business to hit $100 billion in 5 years: Report. Mint. https://www.livemint.com/companies/news/sports-business-set-to-touch-100-billion-in-5-years-report-11655820426321.html

Moneycontrol. (2025). Sector analysis: Stock market sector analysis and performance. https://www.moneycontrol.com/markets/sector-analysis

Mordor Intelligence. (2024). India sports team and clubs market – Companies. https://www.mordorintelligence.com/industry-reports/india-sports-team-and-club-market/companies

Reddy, K., SN, M. L., Thilaga, S., & Basha, M. M. (2023). Construction Of An Optimal Portfolio Using The Single Index Model: An Empirical Study Of Pre And Post Covid 19. Journal of Pharmaceutical Negative Results, 406-417.

Basha, M., Reddy, K., Mubeen, S., Raju, K. H. H., & Jalaja, V. (2023). Does the Performance of Banking Sector Promote Economic Growth? A Time Series Analysis. International Journal of Professional Business Review: Int. J. Prof. Bus. Rev., 8(6), 7.

Kavishwar, R. K., Patil, S. R., & Rajendraprasad, K. H. (2012). Mergers and acquisitions in indian banking sector. Journal of Commerce and Management Thought, 3(1), 98-111.

Quest Journals. (2023). The impact of macroeconomic variables on stock market volatility in India. Journal of Research in Business and Management, 11(9), 36–43. https://www.questjournals.org/jrbm/papers/vol11-issue9/11093643.pdf

Reserve Bank of India. (2003). Derivatives and volatility on Indian stock markets. RBI Publications. https://www.rbi.org.in/upload/publications/pdfs/60616.pdf

Reuters. (2024, August 21). Sporting goods retailer Decathlon to invest $111 mln in India expansion plan. Reuters. https://www.reuters.com/business/retail-consumer/sporting-goods-retailer-decathlon-invest-111-mln-india-expansion-plan-2024-08-21/

Sri Hari, V., Raju, B. P. G., & Karthik Reddy, L. K. (2024). Big Data Analytics in Support of the Decision Making Process in IT Sector. Journal of Informatics Education and Research, 4(2)

Reuters. (2025, February 5). Jockey India licensee beats Q3 profit view on strong athleisure demand. Reuters. https://www.reuters.com/business/retail-consumer/jockey-india-licensee-page-industries-beats-q3-profit-view-strong-athleisure-2025-02-05/

Reuters. (2025, February 5). Jockey India licensee beats Q3 profit view on strong athleisure demand. Reuters. https://www.reuters.com/business/retail-consumer/jockey-india-licensee-page-industries-beats-q3-profit-view-strong-athleisure-2025-02-05/

Upstox. (2025). List of footwear sector stocks in India. https://upstox.com/sectors/footwear-stocks/

Varadharajan, P., & Vikkraman, P. (2011). A study on stock market volatility pattern of BSE and NSE in India. International Journal of Trend in Scientific Research and Development, 3(3), 1–10. https://www.ijtsrd.com/papers/ijtsrd33259.pdf

Vikalpa Editorial. (2004). Time varying volatility in the Indian stock market. Vikalpa, 29(4), 25–42. https://journals.sagepub.com/doi/pdf/10.1177/0256090920040403

Wanjawa, B. W., & Muchemi, S. (2014). Impact of stock price fluctuations on investment behaviour with reference to Indian stock market. International Journal of Research and Analytical Reviews, 6(2), 1–10. https://ijrar.org/papers/IJRAR23A1776.pdf