Analysis on the Movement of Sectoral Indices With special Reference To BSE

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Abstract- The Bombay Stock Exchange (BSE), which was started in 1875, is the oldest stock exchange in Asia. It is still very important for the growth of India's economy and finances. Sector-specific indices inside this dialogue provide insightful information on the performance of several sectors, including banking, information technology, finance, oil, healthcare, and consumer products, and They also affect the benchmark's movement. SENSEX. Ten major industry indices are examined in this research across the 2015–2025 period in order to find trend patterns and assess their impact on the Sensex and researching how macroeconomic events affect industry trends. For its interpretation, the study makes use of trend analysis and regression analysis with secondary data. The trend analysis reveals cyclical market activity, with 2016–2017 and 2020–2021 showing strong growth phases, 2018–2019 experiencing drops, and a more stable yet inconsistent performance between 2022 and 2025. During unsure times, some industries, like IT and healthcare, showed resilience and quick recovery, whereas others, such as automobile and construction, showed more volatility and a weaker impact. The regression analysis results show that, with finance, excluding the vehicle industry, all the chosen sectorial indices strongly influence the Sensex. While the most influential are banking and consumer products, the construction and healthcare industries show somewhat smaller effects. Ultimately, the results confirm that, in view of their relevance for reflecting the larger economic scene and for driving stock market volatility, sectoral indices are crucial drivers. Investors looking for portfolio diversification, government officials monitoring industry growth, and portfolio managers creating risk-sensitive investment plans in India, a developing country.

Keywords- Bombay Stock Exchange (BSE), Sectoral Indices, Sensex.

I. INTRODUCTION

The Bombay Stock Exchange (BSE) is one of India's primary financial markets and has been instrumental in the country' s economic development. The oldest stock exchange in Asia, established in 1875, remains a significant hub for capital formation and investment prospects. With a wide range of financial products, the BSE has evolved from a marketplace for a few securities to a highly sophisticated technological exchange.

Sectoral indexes are used to determine the performance of certain sectors within the BSE. These indices categorize companies operating in similar industries, such as banking, information technology, energy, healthcare, and fast-moving consumer items (FMCG). These might be used by analysts and investors. Measures for assessing the contribution of specific industries to the stock market.

Sectoral indices are helpful because they highlight the relative strengths and weaknesses of various industries, assist investors in diversifying their portfolios, and shed light on market trends. Policymakers that understand industry growth. Additionally, sector performance frequently mirrors larger economic trends like shifts in consumer demand, technological progress, and regulatory improvements. As a result, financial system players are better able to make choices and become more cognizant of market trends by consulting industry indicators on the BSE.

OBJECTIVES:

- To analyse the trend pattern of selected sectoral indices.
- To identify the impact of sectoral indices on stock market (Sensex).

II. REVIEW OF LITREATURE

- **Mohanty, D. Et al (2019),** explored "Impact of Sectoral Indices' Fluctuation on SENSEX" with the purpose of assessing performance and correlations of BSE's sectoral indices with SENSEX over 2015–2019. Secondary daily data for seven sectors were analysed using Sharpe ratio, Treynor ratio, Skewness, Kurtosis, and Pearson's correlation. Findings indicated that Bankex and Oil & Gas outperformed other sectors, while FMCG and IT sectors offered stable returns. The study showed that sectoral

indices were positively correlated with each other and with SENSEX, thereby limiting diversification benefits within the BSE. It concluded that investors and portfolio managers should select high-performing sectors, measured by Sharpe and Treynor ratios, to build efficient portfolios and minimize risks.

- **Sutrisno, B. (2017)**, conducted a study titled "Macroeconomic Variables and Sectoral Indices: Case in the Indonesian Stock Exchange" to examine the effect of macroeconomic variables on sectoral indices in Indonesia using monthly data from 2005 to 2014. Employing Ordinary Least Squares (OLS) as the estimation method, the study analysed the impact of interest rate, inflation rate, and exchange rate on ten sectoral indices of the Indonesian Stock Exchange. Findings revealed that interest rates negatively influenced most sectors except basic industry, finance, and infrastructure, while exchange rates had a consistently negative effect across all industries. Inflation showed no significant influence. The study concluded that sectoral indices in emerging markets react differently to macroeconomic changes, and policymakers as well as investors must consider sector-specific sensitivities to enhance stability and investment strategies.

- **Shanmugasundram, G. and Benedict, J. (2013),** in their work titled "Volatility of the Indian Sectoral Indices – A Study with Reference to National Stock Exchange" investigated risk factors across CNX Nifty and sectoral indices including Auto, Bank, FMCG, IT, and Infrastructure from 2004 to 2012. Using Two-sample T-tests and One-way ANOVA, the study compared risk differences across indices and across time intervals. Results showed no significant differences in standard deviations across sectors, suggesting similar risk exposure among them. However, risks varied significantly across time intervals, reflecting market shifts and economic changes. The findings provided practical implications for investors and portfolio managers in managing portfolio risk and returns by carefully timing investments across different phases of volatility.

- **Saeed, S. (2012)**, examined "Macroeconomic Factors and Sectoral Indices: A Study of Karachi Stock Exchange (Pakistan)" with the objective of measuring the influence of five macroeconomic variables—money supply, exchange rate, industrial production, short-term interest rate, and oil prices—on nine sectoral indices from 2000 to 2010. The study employed Augmented Dickey Fuller (ADF) tests, correlation matrix, and Ordinary Least Squares (OLS) for analysis. Results indicated that the short-term interest rate significantly affected multiple sectors, while exchange rates and oil prices influenced specific industries such as oil & gas and automobiles. Other variables had relatively minor effects. The study highlighted that macroeconomic variables, though significant, explained only a small variation in returns. It concluded that multifactor Arbitrage Pricing Theory (APT) models are more effective than single-index models for analysing emerging markets.

- **Maysami, R.C., et al (2004),** carried out a study titled "Relationship between Macroeconomic Variables and Stock Market Indices: Cointegration Evidence from Stock Exchange of Singapore's All-S Sector Indices". The research sought to identify long-term equilibrium relationships between macroeconomic variables and both composite and sectoral indices (finance, property, and hotel). Utilizing Johansen's Vector Error Correction Model (VECM), the study analysed monthly data from 1995 to 2001 on interest rates, industrial production, inflation, exchange rate, and money supply. Results confirmed a significant cointegrating relationship particularly between the property index and macroeconomic fundamentals, with interest rates and exchange rates exerting major influence. The study concluded that sectoral indices respond differently to macroeconomic forces and provided evidence that sector-specific analysis is critical for policy decisions and investment diversification in developed economies.

STATEMENT OF PROBLEM:

Stock markets are highly influenced by the performance of sectoral indices, which represent the collective behaviour of industries such as banking, IT, energy, and FMCG. These sectoral movements often determine the direction of the overall market index, yet they differ in volatility, risk, and responsiveness to economic events. In emerging economies like India, sectoral indices are particularly sensitive to domestic and global macroeconomic changes, making their influence on the stock market more complex. Despite their importance, research on how sectoral indices individually and collectively drive market fluctuations remains limited. This knowledge gap creates difficulties for policymakers, investors, and portfolio managers in predicting market movements and formulating efficient investment strategies.

III. RESEARCH METHODOLOGY:

DATA COLLECTION:

The study is based on secondary data.The share price ofTop 10 sectoral indices from the sectors such as Banking sector,IT Sector,Finance Sector,Automobile sector, Petroleum Sector, Healthcare sector, Consumer goods Sector, Construction Sector,Metal and Mining Sector, Power Sector have taken for the study.

PERIOD OF STUDY:

The study has been undertaken with 10 years data of top 10 sectoral indices from 2015 to 2025.

LIMITATION:

1. The study has undertaken only top 10sectoral indices.
2. The data collected for the study is limited to 10 years only.

TOOLS USED:

1. Trend analysis
2. Regression analysis

IV. ANALYSIS AND INTERPRETATION

Table 1: Trend Analysis of Selected Sectoral Indices

Year	S1	S2	S3	S4	S5	S6	S7	S8	S9	S10
2015	-	-	-	-	-	-	-	-	-	-
2016	7.35	-8.00	6.98	9.39	27.17	-12.88	3.29	11.78	36.65	1.53
2017	39.08	10.83	42.88	32.06	34.00	0.49	31.54	35.22	47.78	19.83
2018	5.27	24.93	1.98	-22.12	-15.57	-5.92	10.60	-21.37	-20.75	-16.06
2019	20.72	9.84	18.00	-11.27	7.25	-3.55	-3.58	-11.27	-11.92	-3.65
2020	-2.14	56.68	0.83	12.59	-4.44	61.45	10.55	4.37	11.23	7.05
2021	12.59	56.07	14.10	19.25	24.26	20.87	9.32	47.16	65.92	68.84
2022	21.03	-24.24	11.05	16.54	16.57	-12.10	16.62	11.56	8.36	25.84
2023	11.19	25.60	17.09	46.00	12.80	36.97	27.33	56.75	29.42	32.81
2024	6.19	19.93	8.78	22.34	13.22	43.51	1.48	27.98	7.05	19.71
2025	10.42	-12.82	12.55	3.52	8.05	-2.25	0.79	-0.42	8.42	-0.66

Source: Secondary Data

(S1- Banking sector, S2- IT Sector, S3 – Finance Sector, S4 – Automobile sector, S5 – Petroleum Sector, S6 – Healthcare sector, S7 – Consumer goods Sector, S8- Construction Sector, S9 – Metal and Mining Sector, S10 – Power Sector).

The Table no 1 presents a 10-year trend analysis of ten different sectoral indices (S1 through S10). The data from 2015 indicates the baseline year. The analysis reveals periods of both significant growth and decline, with distinct trends for different sectors.

Overall Market Performance: The period from 2016 to 2017 appears to have been a bull market, with most sectors experiencing substantial positive growth. S3, S9, and S5 showed exceptionally strong performance in 2017, with returns of 42.88, 47.78, and 34.00 respectively. This widespread growth suggests a robust economic environment during this period.

Period of Decline and Volatility: The years 2018 and 2019 marked a significant shift, characterized by a general market downturn. Many sectors, particularly S4, S5, S8, and S9, registered steep negative returns in 2018. For instance, S4 and S8 had returns of −22.12 and −21.37 respectively. This suggests a bear market or a period of economic uncertainty. The negative trend continued for several sectors into 2019, albeit with less severity, indicating a challenging financial landscape.

Resilience and Rebound: The year 2020 seems to have been a turning point, with several sectors demonstrating remarkable resilience and recovery. S2 and S6 showed explosive growth with returns of 56.68 and 61.45 respectively. This could be indicative of sectors that thrived amidst new economic conditions or market shifts. This rebound was followed by another strong year in 2021, where sectors like S9 and S10 achieved their peak performance with returns of 65.92 and 68.84 respectively, indicating a new period of accelerated growth.

Recent Trends (2022-2025): The later years show a more mixed and stabilized performance. While some sectors continued to grow, others experienced more modest returns or even minor declines. Notably, S8 and S6 maintained strong performance in 2023 and 2024. In 2025, a general slowdown or correction appears to be occurring, with most sectors showing either single-digit positive returns or slight declines. This could suggest a more mature or saturated market, or a response to changing macroeconomic factors.

INDIVIDUAL SECTOR HIGHLIGHTS:

S9 and S10: These indices were top performers in 2017, and reached their highest returns in 2021, showcasing a strong growth trajectory.

S2 and s6: These sectors demonstrated exceptional resilience and performed well in 2020, likely capitalizing on new opportunities.

S4 and S8: These were among the hardest hit sectors in 2018, but both rebounded significantly in the following years, showing a strong recovery.

The data illustrates a cyclical nature of market trends, with periods of strong growth followed by corrections and subsequent rebounds. The performance of individual sectors varied significantly, highlighting the importance of diversification and the impact of specific economic factors on different industries.

Table 2: Regression Analysis – Sectoral Indices & BSE Sensex

H0: Sectoral Indices have no significant influence on the selected BSE Sensex

Independent Variable	R	Sig.value	S/NS	Rank
Banking sector	0.986	0.000	S	2
IT sector	0.953	0.000	S	6
Finance Sector	0.987	0.000	S	1
Automobile	0.273	0.416	NS	-
Petroleum sector	0.955	0.000	S	5
Healthcare sector	0.923	0.000	S	8
Consumer goods	0.981	0.000	S	3
Construction sector	0.905	0.000	S	9
Metals	0.957	0.000	S	4
Power	0.942	0.000	S	7

Source: Secondary Data

It is evident from the table that sig-value is less than 0.05 for all the selected sectoral indices except Automobile Sector, which mean null hypothesis is rejected. It indicates that selected Sectoral indices except Automobile sector index have significant influence on the Benchmark index (BSE Sensex).

R value in the table shows how much the selected sectoral indices has its influence on the benchmark index (BSE Sensex). Ranking has been assigned based on the R-Value which indicates that influence of Finance sector is ranked 1 as it has influence level of 98.7% followed by Banking Sector (98.6%) which is Ranked 2, Consumer Goods Sector (98.1%) which is ranked 3, Metals sector (95.7%) which is ranked 4, Petroleum sector (95.5%) which is ranked 5, IT sector (95.3%) which is ranked 6, Power sector (94.2%) which is ranked 7, Healthcare sector (92.3%) which is ranked 8 and Construction sector (90.5%) which is ranked 9.

V. CONCLUSION

This research shows that movements in sectoral indices have a strong influence on the overall performance of the BSE Sensex. The analysis indicates that while each sector responds differently to economic and market changes, Finance, Banking, and Consumer Goods exert the highest impact, whereas the Automobile sector contributes the least. The results also highlight that sectoral trends often follow cycles of expansion, decline, and recovery, reflecting the dynamic nature of both the industries and the economy. These insights confirm that sectoral indices act as important drivers of stock market direction, making them highly relevant for investors, policymakers, and portfolio managers when planning strategies, assessing risks, and making informed financial decisions.

REFERENCES

[1] Mohanty, D., Satpathy, M., & Mohaptra, S. R., Impact of Sectoral Indices' Fluctuation on SENSEX, International Journal of Recent Technology and Engineering (IJRTE), pp. 2603–2607, Vol. 8, Issue 4, ISSN 2277-3878, 2019.

[2] Bambang Sutrisno, Macroeconomic Variables and Sectoral Indices: Case in the Indonesian Stock Exchange, Etikonomi, 10 pages (pp. 71–80), Vol. 16, No. 1, P-ISSN: 1412-8969; E-ISSN: 2461-0771, 2017.

[3] Dr. G. Shanmugasundram, D. John Benedict, "Volatility of the Indian Sectoral Indices – A Study with Reference to National Stock Exchange," International Journal of Marketing, Financial Services & Management Research, Vol. 2, No. 8, pp. 1–11, ISSN 2277-3622, 2013.

[4] Sadia Saeed, Macroeconomic Factors and Sectoral Indices: A Study of Karachi Stock Exchange, European Journal of Business and Management, 14 pages (pp. 132–145), Vol. 4, No. 17, ISSN (Paper): 2222-1905; ISSN (Online): 2222-2839, 2012.

[5] Maysami, R. C., Howe, L. C., & Hamzah, M. A., Relationship between Macroeconomic Variables and Stock Market Indices: Cointegration Evidence from Stock Exchange of Singapore's All-S Sector Indices, JurnalPengurusan, pp. 47–77, Vol. 24, ISSN 0127-2713, 2004.