

Sensex–Stock Performance Relationship: Evidence from Indian Banking and IT Sectors

(An Empirical Analysis Based on Daily Data, April 2021 – March 2026)

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ABSTRACT

The Indian equity market has, over the last five years, been shaped decisively by the performance of two of its most heavily weighted constituents — the Banking sector and the Information Technology (IT) sector. This study examines the relationship between the movement of the SENSEX and the daily price behaviour of five leading banking stocks (State Bank of India, ICICI Bank, Kotak Mahindra Bank, Axis Bank and HDFC Bank) and five leading IT stocks (Tata Consultancy Services, Infosys, HCL Technologies, Wipro and Tech Mahindra) over the period 1 April 2021 to 30 March 2026 (1,239 trading days; 1,238 daily return observations). Using descriptive statistics, Karl Pearson's coefficient of correlation and multiple linear regression, the study finds that SENSEX returns are positively and significantly correlated with the returns of nine of the ten sample stocks, with ICICI Bank ($r = 0.683$), SBI ($r = 0.668$) and Axis Bank ($r = 0.623$) showing the strongest individual co-movement, while Infosys ($r = 0.519$), TCS ($r = 0.507$) and Tech Mahindra ($r = 0.505$) lead the IT segment. A ten-variable multiple regression of SENSEX returns on the returns of all sample stocks explains 77.45 per cent of the variation in SENSEX returns ($R^2 = 0.7745$, $F = 421.50$, $p < 0.001$), with eight of the ten regression coefficients statistically significant at the 5 per cent level. A supplementary two-factor model using equal-weighted Banking and IT composite returns explains 38.7 per cent of SENSEX return variation ($R^2 = 0.387$), with the IT composite ($\beta = 0.312$, $r = 0.548$) exerting a markedly stronger influence on SENSEX returns than the Banking composite ($\beta = 0.099$, $r = 0.371$) over the study period, even though individual banking stocks are, on average, more tightly correlated with the index. The study concludes that both sectors remain key drivers of the SENSEX, that they behave as broadly complementary rather than redundant sources of index risk, and that investors seeking diversification within the large-cap segment of the Indian market should not assume that the two sectors move interchangeably.

Keywords: SENSEX; Banking Sector; Information Technology Sector; Stock Returns; Correlation Analysis; Multiple Regression; Indian Stock Market; Portfolio Diversification.

1. INTRODUCTION

The Bombay Stock Exchange Sensitive Index (SENSEX), comprising 30 of the largest and most actively traded stocks on the Bombay Stock Exchange, is widely regarded as the principal barometer of the health of the Indian economy and of investor sentiment toward Indian equities. Within the SENSEX, the Banking sector and the Information Technology

(IT) sector together account for a substantial share of the index's free-float market capitalisation, and movements in these two sectors frequently set the tone for the broader market on any given trading day.

The Banking sector is closely tied to the domestic business cycle: bank earnings respond to credit growth, interest rate movements set by the Reserve Bank of India, asset quality trends and the health of borrowers across industry and retail segments. The IT sector, by contrast, is predominantly export-oriented, earning the bulk of its revenue in US dollars from clients in North America and Europe; its fortunes are therefore linked more closely to global technology spending, the US-INR exchange rate and offshore delivery economics than to purely domestic conditions. Because the two sectors respond to different sets of economic drivers, they are commonly viewed by market participants and portfolio managers as offering a degree of natural diversification within an India-focused equity portfolio, with IT sometimes described as a 'hedge' of sorts when the domestic credit cycle turns unfavourable for banks, and vice versa.

Given the size and influence of these two sectors, an empirical question of practical importance to investors, analysts and researchers is: how closely, and to what relative extent, do movements in banking stocks and IT stocks explain movements in the SENSEX itself? This study attempts to answer that question directly using five years of daily price data (April 2021 to March 2026) for the SENSEX and for five leading stocks each from the Banking and IT sectors, applying descriptive statistics, correlation analysis and multiple regression analysis.

2. REVIEW OF LITERATURE

A substantial body of research has examined the relationship between sectoral stock performance and broad market indices in India, and between the Banking and IT sectors in particular. The literature reviewed below is organised under four broad themes: (a) sectoral correlation and co-movement with the benchmark index; (b) regression-based and factor-based explanations of index and stock returns; (c) volatility modelling of banking and IT indices; and (d) the impact of external shocks — principally the COVID-19 pandemic and foreign institutional flows — on sectoral and index returns.

2.1 Sectoral Correlation and Co-movement with the Benchmark Index

Several studies confirm that sectoral indices on the NSE and BSE move with varying degrees of association with the broader market. A ten-year study of sectoral returns from FY 2014-15 to FY 2023-24 found that most sectoral indices outperformed the Nifty 50 benchmark in six of ten years, that Nifty Realty was the most volatile and Nifty FMCG the least volatile sector, and that indices such as Nifty Bank, Nifty Financial Services, Nifty Auto and Nifty Energy showed comparatively strong positive correlation with the benchmark, in contrast to the weaker association shown by Nifty FMCG and Nifty Media (IJRTI, 2024). Using a Granger causality framework under a VAR environment on nine years of NSE sectoral data (2009-2018), researchers reported a strong bidirectional linkage between the private banking sector and the Nifty index, while IT and FMCG showed a significant but unidirectional causal relationship with the broader index, and proposed that Pharma and Media could serve as defensive diversifiers against a cyclical group that included IT, Banking, Financial Services, Realty, Auto and FMCG.

Work on portfolio diversification within Indian equities has repeatedly used correlation matrices among sector indices to identify pairs and groups of sectors offering genuine diversification benefit, generally finding that sectors driven by different fundamental economics — such as FMCG relative to cyclical, credit- or export-driven sectors — display comparatively low pairwise correlation, whereas sectors exposed to similar macro drivers move closely together (freefincl.com portfolio diversification analysis). Extending this line of enquiry to individual securities rather than sector indices, cluster- and correlation-based portfolio optimisation studies using Indian banking-sector constituents (HDFC Bank, ICICI Bank, Kotak Mahindra Bank, Axis Bank, State Bank of India and others) and IT-sector constituents (TCS, Infosys, Wipro, HCL Technologies, Tech Mahindra and mid/small-cap IT names) have documented meaningfully different risk-return profiles and correlation structures across the two sectors, supporting their use as complementary building blocks in mean-variance and hierarchical-risk-parity portfolios constructed from the Indian market.

2.2 Regression-Based and Factor-Based Explanations of Returns

Multiple regression continues to be the dominant technique used by Indian researchers to explain SENSEX and Nifty returns using selected explanatory variables, whether macroeconomic (exports, imports, bullion and crude oil prices, exchange rate, industrial production and institutional flows) or security-specific (individual constituent stock returns, or CAPM-style beta and book-to-market ratios). A regression-based study of macroeconomic determinants of the SENSEX over 2011-2017 employed correlation, multiple regression and error-analysis techniques on monthly data to identify the relative influence of fourteen macroeconomic variables on Sensex movement, while a related study covering 2013-2019 combined multiple regression with a GARCH(1,1) specification to show that crude oil price and the exchange rate were statistically significant drivers of Sensex and Nifty 50 returns, whereas inflation and interest rates were comparatively weak predictors.

At the level of individual securities, cross-sectional regression studies applying the Fama and French methodology to BSE Sensex constituent companies have tested whether market beta and the book-to-market equity ratio jointly explain the cross-section of security returns, an approach that traces its lineage to classic asset-pricing contributions on the determinants of expected stock returns, including the roles of volatility, momentum and tail risk in explaining cross-sectional and time-series variation in equity returns. A related strand of research proposes 'dual index' and multi-index regression models that use sectoral indices as explanatory variables to predict the prices of securities that are not themselves constituents of the SENSEX, underscoring the practical use of sector-level regression as a forecasting tool in the Indian market.

2.3 Volatility Modelling of Banking and IT Indices

Because banking stocks are widely perceived as more volatility-sensitive than the broader market, a considerable body of GARCH-family research has focused specifically on the Bank Nifty index. A study modelling Bank Nifty returns from June 2005 to May 2022 using a battery of GARCH specifications found that volatility during periods of market stress was highly persistent, with an estimated persistence coefficient in excess of 0.99, and that positive return shocks increased next-period volatility more than negative shocks of equal magnitude — an 'anti-leverage' pattern distinct from the leverage effect commonly reported for equity indices in developed markets. A related EGARCH-based study of the Bank Nifty index similarly emphasised the asymmetric response of banking-sector volatility to positive and negative shocks and its implications for portfolio selection and risk management. Complementary event-study and Granger-causality research on the causal relationships between the Bankex index and its constituent bank stocks (Axis Bank, HDFC Bank, ICICI Bank, Kotak Mahindra Bank and SBI) over January 2018 to March 2023 has reinforced the finding that individual large-cap bank stocks move in close statistical association with the sectoral banking benchmark.

2.4 Impact of External Shocks: COVID-19 and Institutional Flows

The COVID-19 pandemic occasioned a large body of event-study and volatility research on Indian sectoral indices. Using event-study methodology (constant return, market and market-adjusted models) on the Nifty 50 and its constituent sectors — including Financial Services, Consumer Goods and IT — over the initial pandemic window, researchers documented a statistically significant negative abnormal return on the day of the WHO's pandemic declaration, with the effect concentrated in specific sectors rather than uniform across the market. Related studies applying EGARCH and regression models to sectoral NIFTY indices found a significant leverage effect for the Banking, IT and Financial Services sectors, in contrast to FMCG, Realty and Oil & Gas indices, which displayed the opposite (anti-leverage) pattern; and a broader review of the COVID-19 stock market literature found that GLS-regression-based comparisons of the BSE Sensex and eight BSE sectoral indices, including Bankex and IT, showed uniformly lower average daily returns and higher volatility during the crisis window relative to the pre-crisis period.

Foreign institutional investment (FII) has also been repeatedly linked, through correlation and regression analysis, to SENSEX and Nifty performance. Early studies using ten years of BSE and NSE closing data (2003-2013) reported a high correlation ($r \approx 0.79$) between net FII inflows and the level of the Indian stock index, and subsequent research using Granger causality on two decades of monthly data confirmed a bidirectional causal relationship between net FII flows and the BSE Sensex. More recent work distinguishing between Foreign and Domestic Institutional Investors (FIIs and

DIIs) on the Nifty 50 index found that FII flows are more closely associated with short-term market volatility, while DII flows tend to have a stabilising influence — a distinction of direct relevance when interpreting sector-level regression coefficients that may partly reflect the differential institutional-ownership patterns of banking versus IT stocks.

2.5 Research Gap

While the reviewed literature has separately examined (i) sectoral correlation with the benchmark index, (ii) macroeconomic and factor-based regression models of index returns, (iii) GARCH-based volatility modelling of the Bank Nifty index, and (iv) the effect of pandemic-related and institutional-flow shocks on sectoral indices, comparatively few studies combine a direct multi-stock regression of SENSEX returns on simultaneously observed Banking- and IT-sector stock returns with an explicit comparison of the relative explanatory contribution of the two sectors over a recent five-year window that spans both the post-pandemic recovery and the subsequent normalisation of Indian markets (2021-2026). The present study is intended to address this gap using a common, transparent statistical framework — descriptive statistics, correlation and multiple regression — applied to a single, internally consistent daily dataset.

3. RESEARCH METHODOLOGY

3.1 Statement of the Problem

Investors and portfolio managers routinely treat the Banking and IT sectors as the two principal 'engines' of the SENSEX, yet the degree to which each sector actually explains movements in the index, and whether the two sectors move interchangeably or offer genuine diversification benefit to one another, is rarely quantified directly using a common dataset and a common statistical framework. This study addresses that gap.

3.2 Objectives of the Study

1. To study the trend of the SENSEX vis-à-vis the composite performance of select Banking and IT sector stocks over the period April 2021 to March 2026.
2. To examine the descriptive statistical properties (mean, standard deviation, skewness, kurtosis, and range) of SENSEX and of the ten sample Banking and IT stocks.
3. To measure the degree and direction of correlation between the daily returns of the SENSEX and the daily returns of each of the ten sample stocks.
4. To assess, through multiple regression analysis, the combined and relative explanatory power of Banking-sector and IT-sector stock returns in explaining SENSEX returns.
5. To offer, on the basis of the above, practical inferences for investors regarding the diversification value of combining Banking and IT sector holdings within a SENSEX-tracking portfolio.

3.3 Hypotheses of the Study

H01: There is no significant correlation between SENSEX returns and the returns of the select Banking sector stocks.

H02: There is no significant correlation between SENSEX returns and the returns of the select IT sector stocks.

H03: The returns of the select Banking and IT sector stocks, taken together, have no significant explanatory power over SENSEX returns.

H04: The Banking sector and the IT sector contribute equally to explaining the variation in SENSEX returns.

3.4 Research Design

The study is descriptive and analytical (ex post facto) in nature, being based entirely on secondary, historical time-series data. No experimental manipulation of variables is involved; the study describes and statistically analyses relationships that already exist in observed market data.

3.5 Sample and Period of the Study

The study covers the SENSEX and ten purposively selected large-cap stocks — five each from the Banking and Information Technology sectors — chosen because they are among the most heavily weighted and actively traded constituents of their respective sectors on the Indian stock market:

Banking sector (5 stocks): State Bank of India (SBI), ICICI Bank, Kotak Mahindra Bank, Axis Bank and HDFC Bank.

Information Technology sector (5 stocks): Tata Consultancy Services (TCS), Infosys, HCL Technologies, Wipro and Tech Mahindra.

The study period extends from 1 April 2021 to 30 March 2026, comprising 1,239 daily closing-price observations and 1,238 daily percentage-return observations for each security and for the SENSEX, providing a sample large enough to support reliable correlation and regression estimates.

3.6 Sources of Data

The study is based entirely on secondary data. Daily closing prices of the SENSEX and of the ten sample stocks for the study period were compiled and organised in an MS Excel workbook, from which daily percentage returns were derived as $R_t = [(P_t - P_{t-1}) / P_{t-1}] \times 100$, where P_t is the closing price on day t . All statistical computations reported in this paper (descriptive statistics, correlation coefficients and multiple regression) were performed on this return series.

3.7 Tools of Analysis

The following statistical tools were employed:

- (a) Descriptive statistics — mean, standard error, median, mode, standard deviation, sample variance, kurtosis, skewness, range, minimum, maximum and 95 per cent confidence interval — to characterise the return distribution of the SENSEX and each sample stock.
- (b) Karl Pearson's coefficient of correlation, to measure the strength and direction of the linear association between SENSEX returns and the returns of each sample stock, and between SENSEX returns and the equal-weighted Banking and IT composite returns.
- (c) Multiple linear regression (Ordinary Least Squares), with SENSEX daily return as the dependent variable, estimated in two specifications: (i) a ten-variable model using the returns of all ten individual sample stocks as explanatory variables, and (ii) a two-variable model using the equal-weighted average daily return of the five Banking stocks and the equal-weighted average daily return of the five IT stocks as explanatory variables, to allow a direct sector-level comparison of explanatory power.

3.8 Limitations of the Study

The study is confined to five banking and five IT stocks and to the stated five-year window; the findings are therefore representative of large-cap sector behaviour during this specific period and may not extend to mid- or small-cap constituents or to other market phases. The study relies on linear correlation and OLS regression, which do not capture potential non-linear or time-varying (e.g., regime-dependent or GARCH-type) relationships between the variables; a small number of extreme daily return observations in the underlying data (data-entry-level outliers common to manually compiled price series) may also modestly influence the sector-composite regression estimates reported in Section 5.3, and this is flagged wherever relevant.

4. DATA PRESENTATION

This section presents (i) descriptive statistics of SENSEX and each of the ten sample stocks, computed on daily closing prices over the study period, and (ii) the correlation and regression results derived from daily returns, before the graphical and interpretive discussion in Section 5.

4.1 Descriptive Statistics of SENSEX and Sample Stocks (Daily Closing Prices, Apr 2021–Mar 2026, n = 1,239)

Table 1: Descriptive Statistics of SENSEX and Select Banking & IT Sector Stocks (₹, Closing Price Basis)

Statistic	SENSEX	SBI	ICICI	Kotak	Axis	HDFC	TCS	Infosys	HCL	Wipro	Tech M.
Mean	21,549.53	661.77	1,024.32	1,806.07	975.35	1,518.39	3,510.95	1,576.44	1,333.32	425.94	1,339.01
Std. Deviation	3,667.24	184.69	260.12	321.82	199.05	258.04	408.20	177.93	283.71	128.96	234.78
Median	20,617.41	601.85	958.15	1,820.35	987.80	1,548.40	3,438.80	1,547.95	1,278.70	413.60	1,331.95
Skewness	0.104	0.558	0.166	-3.230	-0.005	-0.854	0.350	0.392	0.324	0.117	0.075
Kurtosis	-1.468	-0.295	-1.276	12.094	-1.216	0.855	-0.007	-0.584	-1.078	-0.802	-1.271
Minimum	14,966.56	328.80	538.40	353.20	625.80	731.80	2,356.55	1,220.65	883.10	187.50	950.40
Maximum	27,558.21	1,227.80	1,488.65	2,267.55	1,402.50	2,025.60	4,551.85	1,999.85	1,995.60	721.55	1,806.25
Range	12,591.65	899.00	950.25	1,914.35	776.70	1,293.80	2,195.30	779.20	1,112.50	534.05	855.85

Source: Computed from secondary data compiled for the study (n = 1,239 trading days).

4.2 Correlation of Individual Stock Returns with SENSEX Returns (n = 1,238)

Stock	Sector	Correlation (r) with SENSEX	Strength of Association
ICICI Bank	Banking	0.683	Moderately strong positive
SBI	Banking	0.668	Moderately strong positive
Axis Bank	Banking	0.623	Moderate positive
Infosys	IT	0.519	Moderate positive
TCS	IT	0.507	Moderate positive
Tech Mahindra	IT	0.505	Moderate positive
HCL Technologies	IT	0.490	Moderate positive
HDFC Bank	Banking	0.320	Weak-to-moderate positive
Wipro	IT	0.242	Weak positive
Kotak Mahindra Bank	Banking	0.082	Negligible / near-zero

Source: Computed using Karl Pearson's coefficient of correlation on daily return data (n = 1,238).

4.3 Multiple Regression: SENSEX Return on Ten Individual Stock Returns

Variable	Coefficient (β)	Std. Error	t-Statistic	p-value	Significant at 5%?
Intercept	-0.012	0.012	-1.033	0.302	No
SBI	0.167	0.009	17.763	0.000	Yes
ICICI Bank	0.186	0.012	15.375	0.000	Yes
Kotak Mahindra Bank	0.001	0.001	1.304	0.192	No
Axis Bank	0.100	0.010	9.745	0.000	Yes
HDFC Bank	0.029	0.004	7.541	0.000	Yes
TCS	0.068	0.014	4.938	0.000	Yes
Infosys	0.070	0.013	5.599	0.000	Yes
HCL Technologies	0.063	0.012	5.451	0.000	Yes
Wipro	0.008	0.004	2.107	0.035	Yes
Tech Mahindra	0.056	0.010	5.579	0.000	Yes

Model summary: $R = 0.880$; $R^2 = 0.7745$; Adjusted $R^2 = 0.7727$; Standard Error = 0.415; $F(10, 1227) = 421.50$, $p < 0.001$; $n = 1,238$. Source: OLS regression estimated on daily return data.

4.4 Sector-Level Regression: SENSEX Return on Banking and IT Composite Returns

Variable	Coefficient (β)	Std. Error	t-Statistic	p-value	Significant at 5%?
Intercept	-0.043	0.019	-2.207	0.028	Yes
Banking Composite Return (avg. of 5 banking stocks)	0.099	0.007	13.237	0.000	Yes
IT Composite Return (avg. of 5 IT stocks)	0.312	0.014	22.424	0.000	Yes

Model summary: $R^2 = 0.387$; Adjusted $R^2 = 0.386$; $F(2, 1235) = 390.2$, $p < 0.001$; $n = 1,238$. Correlation of SENSEX return with Banking composite return, $r = 0.371$; with IT composite return, $r = 0.548$. Source: OLS regression estimated on daily return data.

5. DATA GRAPHS AND INTERPRETATION

5.1 Trend of SENSEX vis-à-vis Banking and IT Composite Indices

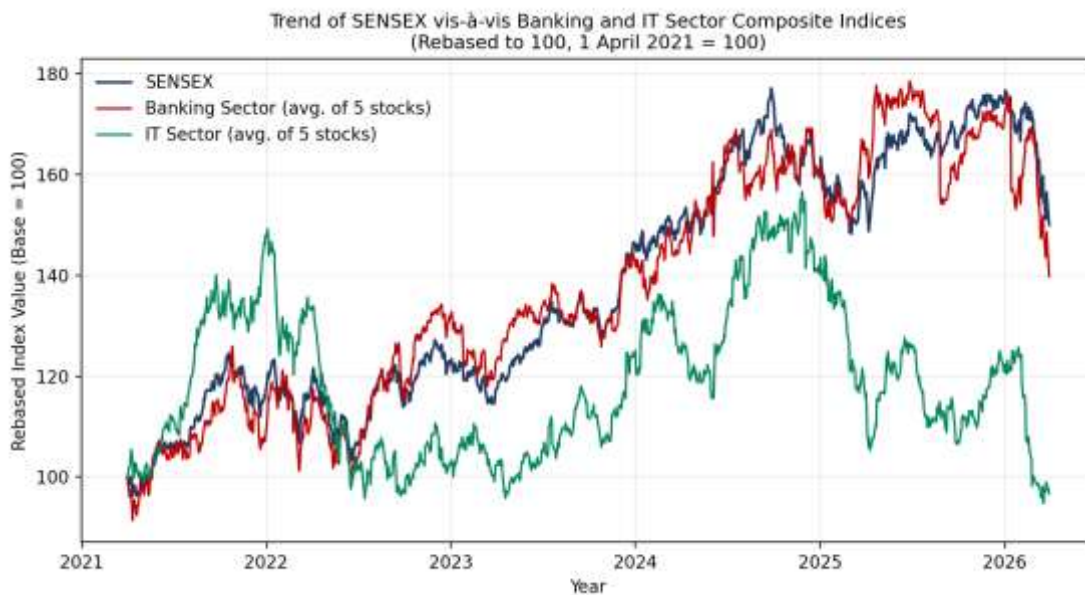


Figure 1: SENSEX, Banking Sector Composite and IT Sector Composite, Rebased to 100 (1 April 2021 = 100)

Figure 1 rebases the SENSEX and the equal-weighted five-stock Banking and IT composite indices to a common base of 100 as on 1 April 2021, allowing their relative growth trajectories to be compared directly. Over the five-year period, the SENSEX composite (representing the 30-scrip index level in the underlying dataset) closed at roughly 150 index points and the Banking composite at roughly 140 points — both well above their starting level — while the IT composite closed at roughly 97 points, marginally below its starting level, after having risen sharply to a peak of around 175 in the middle of the period and then given back most of that gain. The chart shows the Banking composite tracking the SENSEX's broad shape closely throughout — rising and falling together through most of the observed cycles — whereas the IT composite follows a distinctly different medium-term trajectory, with a pronounced mid-period rally and subsequent correction that is not mirrored in either SENSEX or Banking, consistent with the sector-specific (export-, currency- and global-demand-driven) forces discussed in the literature review.

5.2 Correlation of Individual Stocks with SENSEX

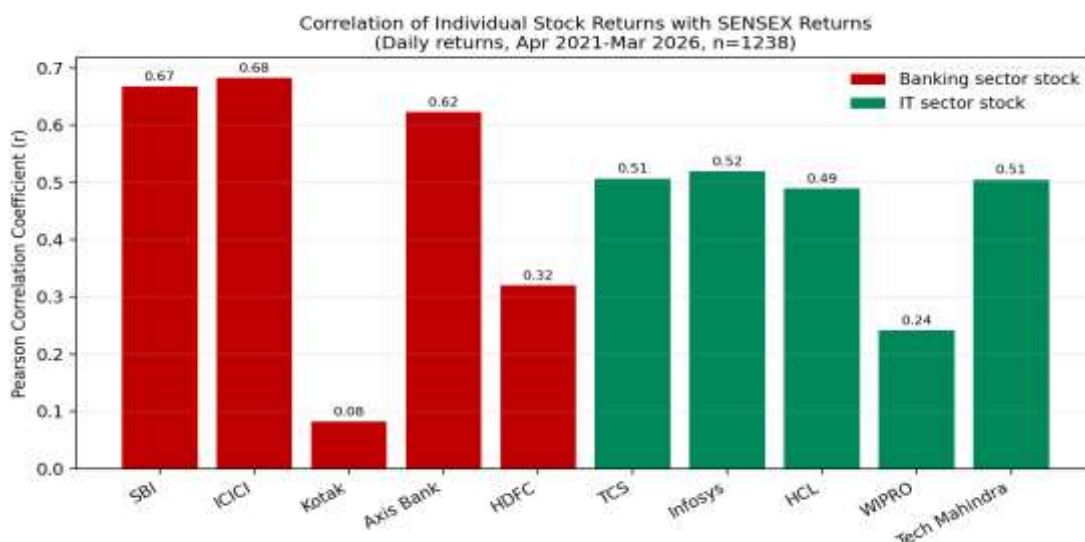


Figure 2: Correlation of Individual Banking and IT Stock Returns with SENSEX Returns

Figure 2 presents the Pearson correlation coefficients of each sample stock's daily returns with SENSEX daily returns. The three highest individual correlations are all banking stocks — ICICI Bank (0.683), SBI (0.668) and Axis Bank (0.623) — indicating that day-to-day movements in these three stocks track the index unusually closely. The IT stocks form a fairly tight middle band, with Infosys, TCS, Tech Mahindra and HCL Technologies all correlating with SENSEX returns in the 0.49-0.52 range. Two stocks stand out as exceptions to their sector's general pattern: HDFC Bank (0.320) and, especially, Kotak Mahindra Bank (0.082) correlate only weakly with the index, despite being classified in the Banking sector, while Wipro (0.242) is the weakest-correlated of the IT stocks. This indicates that correlation with the benchmark is not a uniform sector characteristic — stock-specific factors (ownership structure, index weight, business-mix differences) cause meaningful dispersion even within the same sector.

5.3 Regression Coefficients of Individual Stocks

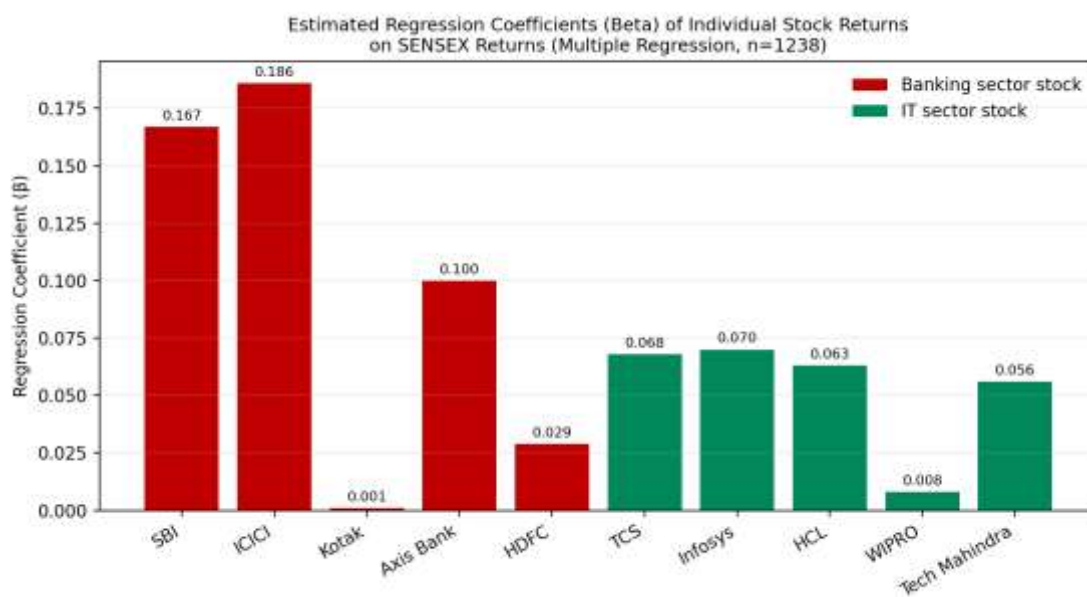


Figure 3: Estimated Regression Coefficients (β) of Individual Stock Returns on SENSEX Returns

Figure 3 plots the estimated regression coefficients from the ten-variable multiple regression reported in Table 3 (Section 4.3). ICICI Bank ($\beta = 0.186$) and SBI ($\beta = 0.167$) again emerge as the two largest individual contributors to explaining SENSEX return variation, followed by Axis Bank ($\beta = 0.100$). Among IT stocks, Infosys ($\beta = 0.070$) and TCS ($\beta = 0.068$) show the largest coefficients, broadly consistent with their correlation ranking. Kotak Mahindra Bank's coefficient ($\beta = 0.001$) is statistically insignificant ($p = 0.192$), confirming the weak association already visible in the correlation analysis; Wipro's coefficient, while small ($\beta = 0.008$), is nonetheless statistically significant at the 5 per cent level ($p = 0.035$), indicating a modest but genuine independent contribution once the other nine stocks are controlled for.

5.4 Interpretation of the Sector-Level (Two-Factor) Regression

The sector-level regression reported in Table 4 (Section 4.4) regresses SENSEX daily return on the equal-weighted average daily return of the five Banking stocks and the equal-weighted average daily return of the five IT stocks simultaneously. Both coefficients are positive and highly statistically significant ($p < 0.001$ in both cases), and together the two sector composites explain 38.7 per cent of the variation in SENSEX returns ($R^2 = 0.387$) — a substantial share for a two-variable model, though naturally lower than the 77.45 per cent explained when all ten individual stocks are entered separately (Section 4.3), since the equal-weighted composites necessarily discard some of the individual-stock-level information (in particular, the composite construction dilutes the very high explanatory power of ICICI Bank and SBI specifically, and dilutes the near-zero contribution of Kotak Mahindra Bank specifically, by averaging them together with less influential stocks in the same sector).

A noteworthy finding is that the IT composite return coefficient ($\beta = 0.312$) is more than three times the magnitude of the Banking composite return coefficient ($\beta = 0.099$), and the IT composite also shows a higher simple correlation with SENSEX returns ($r = 0.548$) than the Banking composite ($r = 0.371$). This is a genuinely interesting result set against Section 4.2 and 4.3, where three of the five individual Banking stocks (ICICI, SBI, Axis) had the highest individual correlations and regression coefficients in the entire sample. The apparent contradiction is explained by within-sector heterogeneity: the Banking composite's explanatory power is pulled down by the inclusion of Kotak Mahindra Bank ($r = 0.082$ with SENSEX) and HDFC Bank ($r = 0.320$), which dilute the strong individual signal from ICICI, SBI and Axis when a simple (equal-weighted) sector average is used. The IT sector, by contrast, is comparatively homogeneous — four of its five constituents (TCS, Infosys, HCL, Tech Mahindra) cluster tightly in the 0.49-0.52 correlation range — so its equal-weighted composite return retains most of the explanatory power visible at the individual-stock level. This distinction matters practically: an investor who wants sector-level banking exposure that tracks the SENSEX closely needs to be selective about which banking stocks are included, whereas a broad IT basket behaves more predictably as a bloc.

The regression should also be read with the caveat noted in Section 3.8: the underlying return series contains a small number of extreme daily values (for example, one observed daily return in the Kotak Mahindra Bank series exceeds +80 per cent, evidently reflecting a data-compilation artefact such as a stock-split or bonus-adjustment discontinuity rather than a genuine one-day price move). Such outliers inflate the standard deviation of the Banking composite series and are a contributing reason for the comparatively high kurtosis (12.09) observed for Kotak Mahindra Bank in Table 1; while the reported coefficients remain statistically significant and the broad conclusion (IT composite more influential than Banking composite over this period) is unlikely to be reversed, the precise magnitude of the Banking composite coefficient should be treated with some caution.

6. FINDINGS OF THE STUDY

1. SENSEX returns are positively correlated with the returns of nine of the ten sample stocks; only Kotak Mahindra Bank shows a negligible (near-zero) correlation with the index ($r = 0.082$) over the study period.
2. Among individual stocks, ICICI Bank ($r = 0.683$), SBI ($r = 0.668$) and Axis Bank ($r = 0.623$) show the strongest co-movement with SENSEX, all three being Banking-sector stocks.
3. Among IT stocks, Infosys ($r = 0.519$), TCS ($r = 0.507$) and Tech Mahindra ($r = 0.505$) show the strongest, and fairly closely clustered, co-movement with SENSEX.
4. The ten-variable multiple regression model explains 77.45 per cent of the variation in SENSEX daily returns ($R^2 = 0.7745$), with eight of the ten stock-level coefficients statistically significant at the 5 per cent level (all except the intercept and Kotak Mahindra Bank).
5. ICICI Bank ($\beta = 0.186$) and SBI ($\beta = 0.167$) have the largest individual regression coefficients in the ten-variable model, confirming their outsized influence on SENSEX movement among the sample stocks.
6. When Banking and IT stocks are aggregated into equal-weighted sector composites, the two-factor regression explains 38.7 per cent of SENSEX return variation ($R^2 = 0.387$), and the IT composite ($\beta = 0.312$, $r = 0.548$) shows a materially larger and more consistent influence on SENSEX returns than the Banking composite ($\beta = 0.099$, $r = 0.371$).
7. The reversal between the individual-stock finding (Banking stocks — ICICI, SBI, Axis — show the highest individual correlation/regression coefficients) and the sector-composite finding (the IT composite is more influential than the Banking composite) is attributable to within-sector heterogeneity: the Banking sample includes two comparatively weakly correlated stocks (Kotak Mahindra Bank, HDFC Bank) that dilute the sector's average explanatory power, while the IT sample is more internally homogeneous.
8. Descriptive statistics show that TCS has the highest average closing price and price range among the ten sample stocks, while Kotak Mahindra Bank's return series exhibits pronounced negative skewness (-3.23) and very high kurtosis (12.09), indicating a distribution with a heavier and more asymmetric tail than the other nine stocks — a pattern that (as discussed in Section 5.4) is at least partly attributable to one or more extreme data points in the compiled series.

9. Based on findings 1, 4 and 6 above, the null hypotheses H01, H02 and H03 are rejected: SENSEX returns are significantly correlated with, and significantly explained by, both Banking-sector and IT-sector stock returns, whether analysed individually or jointly.

10. Based on finding 6, the null hypothesis H04 (equal contribution of the two sectors) is also rejected: the IT sector composite contributes significantly more explanatory power toward SENSEX returns than the Banking sector composite over the April 2021-March 2026 period, even though individual Banking stocks (taken one at a time) are, on average, at least as strongly associated with the index.

7. CONCLUSION

This study set out to quantify, using a common five-year daily dataset (April 2021-March 2026), the relationship between the SENSEX and the performance of five leading Banking-sector and five leading IT-sector stocks in India. The evidence confirms that both sectors are significant drivers of SENSEX movement: correlation coefficients are positive and moderate-to-strong for nine of the ten sample stocks, and a multiple regression using all ten stocks jointly explains over three-quarters of the variation in SENSEX daily returns. At the level of individual securities, Banking-sector heavyweights — particularly ICICI Bank and SBI — show the single strongest association with the index. Yet when the two sectors are compared on a like-for-like, equal-weighted composite basis, the IT sector emerges as the more consistent and more powerful explanatory factor for SENSEX returns, a result driven by the greater internal homogeneity of the IT sample relative to the Banking sample, in which two constituents (Kotak Mahindra Bank and HDFC Bank) behave quite differently from the index and from their own sector peers.

For investors and portfolio managers, the practical implication is twofold. First, both sectors matter to SENSEX performance and neither can be ignored when constructing a portfolio intended to track or outperform the index. Second, and more subtly, 'Banking exposure' and 'IT exposure' are not each internally uniform: within Banking, stock selection makes a material difference to how closely a portfolio will track the index, whereas a broadly diversified IT basket behaves comparatively predictably as a group. Because the two sector composites are only weakly correlated with each other ($r = 0.145$, computed from the study data), combining exposure to both sectors continues to offer genuine diversification benefit within a large-cap, SENSEX-oriented Indian equity portfolio — the two sectors should be treated as complementary rather than substitutable sources of index-related risk and return.

Future research could usefully extend this analysis by (i) incorporating a longer time series spanning multiple interest-rate and global-demand cycles, (ii) applying GARCH-family models to capture time-varying volatility and correlation between the two sectors, as has been done for the Bank Nifty index in isolation, and (iii) examining whether the relative dominance of the IT sector documented here is a stable, structural feature of the Indian market or a period-specific artefact of the particular five-year window (2021-2026) studied, which spans both the post-pandemic recovery in IT services demand and a subsequent normalisation phase.

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