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A Comparative Study on Risk and Return Analysis of Selected Banks Stocks in India

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Abstract:
The major activity of stock markets is to create a medium to exchange existing shares by connecting sellers and buyers with each other and trading bonds, stocks, shares, securities, insurance policies, and mutual fund units of public companies. Since most trading on the two exchanges, the National Stock Exchange (NSE) and the Bombay Stock Exchange (BSE), happens here, such markets are heavily involved in economic growth in India.
The BSE is among the oldest stock exchanges in Asia, established as the Native Stock and Share Brokers Association in 1875. Approximately 5,600 companies were listed on the BSE as of February 28, 2025, and their aggregate market capitalization was ₹393 lakh crore (US$4.5 trillion). The NSE, established in 1992 and starting trading in 1994, had 2,671 listed companies as of December 2024, including 2,084 on the mainboard and 587 on its SME platform, NSE EMERGE. The aggregate market capitalization of NSE-listed companies stood at ₹438.9 lakh crore (US$5.13 trillion) then.
The Bank of Hindustan, which was founded in 1770 and closed between 1829 and 1832, marked the beginning of modern banking in India in the middle of the 18th century. Twelve public sector banks (PSBs), twenty-one private sector banks (PVBs), forty-five foreign banks (FBs), twelve small finance banks (SFBs), six payments banks (PBs), forty-three regional rural banks (RRBs), and two local area banks (LABs) constituted the Indian banking system in March 2024. There were a total of 141 commercial banks, 137 of which were scheduled banks.
This research is concerned with examining the risk and return of ten leading banks that are actively listed on the BSE: HDFC Bank, State Bank of India (SBI), ICICI Bank, Kotak Mahindra Bank, Axis Bank, Bank of Baroda, Punjab National Bank, Union Bank of India, Indian Overseas Bank, and Canara Bank. As of 26th March, 2025, the following banks were among the biggest in India as per market capitalization, which stood at HDFC Bank with ₹13.81 lakh crores, ICICI Bank at ₹9.43 lakh crores, SBI at ₹6.81 lakh crores, Kotak Mahindra Bank at ₹4.26 lakh crores, Axis Bank at ₹3.39 lakh crores, Bank of Baroda at ₹1.13 lakh crores, Punjab National Bank at ₹1.06 lakh crores, Union Bank of India at ₹0.91 lakh crores, Indian Overseas Bank at ₹0.80 lakh crores and Canara Bank at ₹0.79 lakh crores. Here, 'risk' describes the possibility of divergence in actual returns from expected returns, whereas 'return on investment' quantifies the financial worth of an investment. The examination of these dimensions helps investors make sound investment decisions.
Keywords: *Risk & Return, Stock Exchange, Banking Sector, Beta, and Correlation.*

I. Introduction

The Indian share market is amongst the most vibrant and rapidly growing equity markets of the world. It has an important role to play in the economic growth of the nation by channelizing funds to enterprises and providing investment sources for individuals and institutions alike. The two main stock exchanges in India are the Bombay Stock Exchange (BSE), set up in 1875, and the National Stock Exchange (NSE), set up in 1992. Both offer a platform for trading equities, derivatives, debt instruments, and mutual funds.

India's stock market has been witnessing impressive growth over the past few years. The BSE Sensex is currently around 76,000 levels, while the Nifty 50, which is the NSE's top 50 listed companies, has reached over 23,000 points as of early 2025. Contributing to this growth are high corporate earnings, a boom in retail investor participation, and steady FII.

India has also witnessed the emergence of tech-enabled retail investment platforms, which have facilitated easy stock trading for the common man. Organizations such as the Securities and Exchange Board of India (SEBI) provide investor protection and transparency.

Banking Stocks in India

Bank stocks constitute an important part of the Indian stock market, and they are the pillar of the nation's financial structure. Banking stock performance is frequently used as a barometer to measure the general economic health. Banks in India are categorized as public sector banks (PSBs) and private sector banks.

Government-owned public sector banks, such as State Bank of India (SBI) and Bank of Baroda, are dominated by the government and are responsible for implementing fiscal policies. Private sector banks, such as HDFC Bank, ICICI Bank, and Axis Bank, are efficient, technologically advanced, and have excellent customer services.

As of 2025, the Nifty Bank index, which is indicative of the leading banking stocks traded on NSE, is at a historic high due to better asset quality, declining non-performing assets (NPAs), and sound credit growth. HDFC Bank is still the leader in market capitalization, while ICICI Bank has been performing well, winning over the investors with stable earnings and digitalization.

Reserve Bank of India (RBI) has pursued a balanced monetary policy, enabling the banks to handle liquidity and interest rate risks well. With the economy anticipated to expand at more than 6.5% in FY2025, banks are set to reap gains from rising loan demand, particularly in retail, MSME, and infrastructure segments.

Investors look at banking shares as a core component of their portfolio because of their sound fundamentals, consistent dividend pay-out, and potential for long-term growth. But these shares are also sensitive to the movement of interest rates, inflation, and the policies of regulators.

Indian stock market provides a dynamic platform for investment, with the backing of robust regulatory framework and increasing awareness levels among investors. Banking stocks, being part and parcel of economic growth and financial stability, continue to be a major investor focus area both locally and internationally. With India's economy further growing, banking stocks are poised to provide sustainable returns and continue to be at the center of the country's market story.

II. LITERATURE REVIEW

(Patjoshi, 2016) The research targets to assist the investors (actual and prospective) understand the risk return trade off of banking stocks at Bombay stock market. Researchers examines the risk and return of four bank stocks i.e. HDFC BANK, ICICI BANK, AXIS BANK and SBI. The research is grounded on secondary data over the period of 15 years between 2001 and 2015. Different researchers have employed different methods like correlation, regression, descriptive statistics and T test for hypothesis testing. The study suggests that there is no notable difference between Sensex returns and bank stock returns. In the case of sensitivity of selective banking stocks in relation to market return measured with the help of Beta coefficient, they are all defensive stocks, apart from ICICI bank, while ICICI Bank negative beta coefficient viewed as agreement with market return

(C. & Navaneeth, 2017) the researchers make an attempt a comparative study of performance of selected public and private sector bank in Indian capital market. They took daily share price of five selected stocks both private sector and public sectors banks i.e. Axis bank, Canara bank, ICICI bank, PNB, SBI listed in NSE over a period of 3 years from 2010 to 2013. For the analysis of data, they took GARCH model which was developed by Tim Bollerslev. They concluded that overall, the performance of private sector banks is better than the public sector banks. In private sector Axis bank provides better returns and in public sector Punjab national bank provides better returns when compared to other stocks in public and private sector.

(**Naveen**, **2018**) investigated the Risk and Return Analysis of Equity Shares in the Banking Sector and found that while some banks have higher returns, others have higher risk. Regardless, investors always want a combination of low risk and higher returns, and in this case, the beta is helpful in determining where the systematic risk is high.

(Dr.A.Jeyanthi & Dr.D.Divya, 2019) conducted a study on risk and return analysis of selected banking stocks in India. The study examines the risk and return of the top six bank stocks by weightage in the NIFTY Bank Index which indicates that while higher risk securities can lead to increase in returns, the banking sector's volatility requires careful analysis.

(Renuka, Banu, & K., 2019) examined that focuses on maximizing returns by balancing risk in the banking sector, emphasizing the correlation between risk and return in share pricing. The study underscores that higher assumed risk can lead to higher returns, highlighting the importance of understanding this relationship for investment decisions.

III. OBJECTIVES OF THE STUDY

- To study the changes in share prices of selected banks in the stock market.
- To analyse the Risk, Return, standard deviation, and beta in the select bank's stocks

IV. RESEARCH METHODOLOGY

This study focuses on risk and return analysis of the top market capitalisation bank stocks listed on the Bombay Stock Exchange (BSE) within the BSE SENSEX index, this study employs a quantitative and analytical research design. This study is descriptive in nature which attempts to offer empirical insights derived from historical data. The data has been collected from the official website of the Bombay Stock Exchange and the other banks monthly stock price has been taken from reliable financial databases such as investing.com, and Moneycontrol.

V. DATA ANALYSIS

Table 1. Beta calculation of selected banks of India

BANKS	BETA
ICICI BANK	1.252712
HDFC BANK	1.090347
SBI	1.284424
KOTAK MAHINDRA	0.948869
AXIS BANK	1.494247
PNB	1.307659
BANK OF BARODA	1.237689
CANARA BANK	1.504619
UNION BANK	1.11952
INDIAN BANK	1.672309

Interpretation

Beta is a financial metric that measures a stock's volatility relative to the market. A beta above 1 indicates higher sensitivity to market movements, while below 1 suggests more stability.

In this dataset, Indian Bank has the highest beta (1.672), making it highly volatile and responsive to market shifts. Canara Bank and Axis Bank also show high betas above 1.4, reflecting aggressive risk profiles. Conversely, Kotak Mahindra Bank has the lowest beta (0.949), suggesting lower risk and steadier performance. Moderate betas like those of HDFC Bank (1.09) and SBI (1.28) reflect balanced risk-return characteristics suitable for average investors.

Table 2. Correlation analysis of selected banks of India

BANKS	CORRELATION
ICICI BANK	1.138165878
HDFC BANK	1.03882393
SBI	1.16236717
KOTAK MAHINDRA	0.968282953
AXIS BANK	1.221823093
PNB	1.155139401
BANK OF BARODA	1.154614899
CANARA BANK	1.264053067
UNION BANK	1.106280462
INDIAN BANK	1.472129002

Interpretation

Correlation measures how closely a stock's returns move in relation to a market index or benchmark. A higher correlation means the stock tends to move in tandem with the market, while a lower correlation suggests more independent price movements. In the given data, Indian Bank has the highest correlation value (1.472), indicating a strong alignment with overall market trends. Canara Bank (1.264) and Axis Bank (1.222) also show high correlations, suggesting their stock prices are significantly influenced by market fluctuations.

On the other hand, Kotak Mahindra Bank shows the lowest correlation (0.968), implying its returns are less tied to general market movements. This makes it potentially useful for diversification in a portfolio. Other banks like ICICI (1.138), HDFC (1.039), and SBI (1.162) demonstrate moderate correlations, meaning they generally follow the market but with slight independence. Understanding these correlation values helps investors choose stocks based on how much exposure to market volatility they want.

VI. FINDINGS

Key findings from the beta and correlation analysis in bullet points:

- Indian Bank shows the highest beta (1.672) and correlation (1.472), indicating high volatility and strong market dependence.
- Kotak Mahindra Bank has the lowest beta (0.949) and correlation (0.968), making it the most stable and least market-sensitive among the banks.
- Canara Bank (β = 1.505, corr = 1.264) and Axis Bank (β = 1.494, corr = 1.222) are also highly volatile and closely follow market trends.
- HDFC Bank (β = 1.090) and SBI (β = 1.284) demonstrate moderate volatility and correlation, suggesting balanced risk profiles.
- Most banks have beta and correlation values above 1, indicating a general tendency to amplify market movements.
- Investors seeking high returns may consider high-beta banks, while risk-averse investors may prefer low-beta, low-correlation banks like Kotak Mahindra.
- Correlation values suggest that all listed banks generally move in the same direction as the market, but to varying degrees.

VII. SUGGESTION

- Investors with high risk tolerance can consider banks with high beta and correlation values like Indian Bank, Canara Bank, and Axis Bank for potentially higher returns during bullish markets.
- Conservative or risk-averse investors should focus on banks like Kotak Mahindra, which show lower beta and correlation, offering more stability and protection in volatile market conditions.
- A balanced portfolio could include a mix of high and low beta stocks to manage risk while aiming for moderate growth.
- Investors should not rely solely on beta and correlation; other financial ratios and qualitative factors like asset quality, management, and market position must also be considered.
- Regularly review beta and correlation metrics, as they can change over time with market conditions and bank performance.
- Use diversification across sectors, not just within banking, to reduce overall portfolio risk.

VIII. CONCLUSION

The analysis reveals that most Indian bank stocks exhibit beta and correlation values above 1, indicating a strong sensitivity and alignment with overall market movements. Indian Bank, Canara Bank, and Axis Bank are highly volatile and react more aggressively to market fluctuations, making them suitable for aggressive investors. On the other hand, Kotak Mahindra Bank shows the lowest beta and correlation, suggesting greater stability and lower market dependency—ideal for conservative investors. Understanding these metrics helps investors align their portfolio choices with their risk appetite and return expectations. Therefore, a balanced approach, combining both high- and low-beta stocks, may offer an optimal mix of growth and stability.

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