

TECHNICAL ANALYSIS OF BANKING SECTOR OF BSE AND NSE

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ABSTRACT

The banking sector stands as the backbone of India's financial ecosystem, driving economic growth, facilitating capital flows, and reflecting the broader health of the nation's markets. As one of the most dynamic and influential sectors on the Bombay Stock Exchange (BSE) and National Stock Exchange (NSE), banking stocks—ranging from stalwarts like HDFC Bank and ICICI Bank to emerging players serve as critical barometers of market sentiment and macroeconomic stability.

This research paper delves into the technical analysis of the banking sector, focusing on key constituents of the BSE Sensex and NSE Bank Nifty indices. By employing widely recognized indicators such as Exponential Moving Averages (EMA), Moving Average Convergence Divergence (MACD), Relative Strength Index (RSI), and Commodity Channel Index (CCI), the report deciphers patterns, momentum, and potential inflection points across major banking stocks. The analysis spans data from 2014 to early 2015, capturing recent volatility and emerging trends in a post-pandemic financial landscape. The technical analysis is the study of financial market action. The technical analysis looks at the price movement the occurred-on day to day or week to week or over other constant time period display in graphic form, it's called chart. The study shows that the historical prices have an impact on future prices. So past trend can be used to predict the trend of future prices, however even if you are unable to accurately forecast prices, technical analysis can be used to consistently reduce your risk and improve your profits. From the study it has been understood that the price movement of the shares can be determined by using technical analysis and accurate buy & sale decision can be made so that the investor can minimize their risk and maximize their profit.

KEYWORDS: Exponential Moving Averages (EMA), Moving Average Convergence Divergence (MACD), Relative Strength Index (RSI), and Commodity Channel Index (CCI).

1. INTRODUCTION OF INDUSTRY

BSE is the oldest stock exchange not only in India but also in Asia. It was the first exchange to receive recognition from Indian Government. BSE online trading (BOLT) facilitates online screen-based trading in securities. BSE reaches to over 400 cities across India.

SENSEX:

Sensex has become the barometer of the Indian Stock Market. It is comprised of 30, well-established and financially sound companies. Sensex first compiled in 1986, was calculated on a "Market Capitalization-Weighted Method". The base year of Sensex is 1978-79. Right now, Sensex is calculated using the "Free-float Market Capitalization" methodology.

COMPANY OVERVIEW

Established in 1875, BSE (formerly known as Bombay Stock Exchange), is Asia's first & the Fastest Stock Exchange in world with the speed of 6 micro seconds and one of India's leading exchange groups. Over the past 143 years, BSE has facilitated the growth of the Indian corporate sector by providing it an efficient capital-raising platform. Popularly known as BSE, the bourse was established as The Native Share & Stock Brokers' Association in 1875. In 2017 BSE become the 1st listed stock exchange of India.

Today BSE provides an efficient and transparent market for trading in equity, currencies, debt instruments, derivatives, mutual funds. BSE SME is Indias largest SME platform which has listed over 250 companies and continues to grow at a steady pace. BSE Start MF is Indias largest online mutual fund platform which process over 27 lakh transactions per month and adds almost 2 lakh new SIPs ever month. BSE Bond, the transparent and efficient electronic book mechanism process for private placement of debt securities, is the market leader with more than Rs 2.09 lakh crore of fund raising from 530 issuances. Keeping in line with the vision of Shri Narendra Modi, Honorable Prime Minister of India, BSE has launched India INX, India's 1st international exchange, located at GIFT CITY IFSC in Ahmedabad. Indian Clearing Corporation Limited, a wholly owned subsidiary of BSE, acts as the central counterparty to all trades executed on the BSE trading platform and provides full novation, guaranteeing the settlement of all Bonafide trades executed. BSE Institute Ltd, another fully owned subsidiary of BSE runs one of the most respected capital market educational institutes in the country. BSE has also launched BSE Samman, the CSR exchange, is a 1st of its kind initiative which aims to connect corporate with verified NGOs BSE's popular equity index - the S&P BSE SENSEX - is India's most widely tracked stock market benchmark index. It is traded internationally on the EUREX as well as leading exchanges of the BRCS nations (Brazil, Russia, China and South Africa).

VISION

"Emerge as the premier Indian stock exchange with best-in-class global practice in technology, products innovation and customer service."

CSR (Corporate Social Responsibility)

Corporate Social Responsibility (CSR) in BSE is aligned with its tradition of creating wealth in the community with a three-pronged focus on Education, Health and the Environment. Besides funding charitable causes for the elderly and the physically challenged, BSE has been supporting the rehabilitation and restoration efforts in earthquake-hit communities of Gujarat. BSE has been awarded the Golden Peacock Global - CSR Award for its initiatives in Corporate Social Responsibility (CSR) by the World Council of Corporate Governance.

HISTORY AND MILESTONES

BSE, the first ever stock exchange in Asia established in 1875 and the first in the country to be granted permanent recognition under the Securities Contract Regulation Act, 1956, has had an interesting rise to prominence over the past 143 years. The journey of BSE is as eventful and interesting as the history of India's securities market.

NATIONAL STOCK EXCHANGE (NSE):

NSE commenced its operations in Wholesale Debt Market (WDM) in April 1994 and in Capital Market (Equities) segment in June 1994. It formed first clearing corporation (NSCCL), which carries out clearing and settlement of trades executed in equities and Derivatives segments. Since then, it has evolved to be the highest volume generating Exchange in India. It has got widest network of terminal across India. They also provide online trading facilities over internet.

S&P CNX NIFTY

Nifty is a well-diversified 50 stock index accounting for 22 sectors of the economy. This Index was launched in 1996. It is the first index constructed by the National Stock Exchange. Its construction is slightly different form that of Sensex. Sensex measures the floating capitalization of its constituents; however, Nifty is a step behind, it takes the full capitalization of its 50 constituents. Nifty was first compiled in 1955 with base value of 1000. It is used for a variety of purposes such as benchmarking fund portfolios, index-based derivatives and index funds. Currently Futures and Options are available on Nifty.

PURPOSE

Committed to improve the financial well-being of people.

VISION

To continue to be a leader, establish global presence, facilitate the financial well-being of people.

VALUES

NSE is committed to above core values.

HISTORY & MILESTONES

NSE's sustained leadership positions across asset classes in the Indian and global exchange sectors demonstrates the robustness and liquidity of our exchange. NSE was incorporated in 1992. It was recognized as a stock exchange by SEBI in April 1993 and commenced operations in 1994 with the launch of the wholesale debt market, followed shortly after by the launch of the cash market segment. NSE was incorporated in 1992. It was recognized as a stock exchange by SEBI in April 1993 and commenced operations in 1994 with the launch of the wholesale debt market, followed shortly after by the launch of the cash market segment.

2. LITERATURE REVIEW

Shyam Sundhar & Ram kumar kakani (2006). XLRI Jamshedpur, school of management. A study on "Profiting from Technical Analysis in Indian equity market." The objective of this study was firstly to comprehend the simplest and most popular of all technical analysis criteria for stock is NSE - Nifty and BSE - Sensex. This study looks at stock charts for patterns and indicators that will determine stock's future performance. The weak form efficiency hypothesis tested using the selected moving average tools on the validated data. The study also assumes that a trader can buy and sell instantaneously at the closing prices of the stock.

Camillo Lento (2009). SSRN electronic journal. A study on "The combined signal Approach to technical analysis: A review and commentary" CSA mitigates the problem of choosing between individual trading rules when they provide conflicting signals, CSA tested DJIA, NASDAQ, TSX, and US-CAD foreign exchange rate over the period of May 9th 1995 to December 31st, 2004. CSA was comprised of the dual moving average cross-over rule, filter rule and the trading range break- out rule. The purpose of this study was to increase awareness and foster additional research on CSA model.

Ristina Levisauskaite (2010). Leonardo da vinci program project. A study on "Investment analysis and portfolio management". Objective was to understand and practiced for sound investment decisions making. Target investors were entrepreneurs and practitioners. Variance and standard deviation are used when investor was focused on estimating total risk. Sample variance and sample standard deviation more often used when investor evaluate total risk. The coefficient of determination was calculated as the square of correlation coefficient. Theoretical interpretation involves every single risky asset in the global economic system.

Boris. S. Abbey & John A. Douglas (2012). Journal of portfolio management. Study on "Is Technical analysis profitable for individual currency traders?" Use of technical analysis generate abnormal gains for individual currency traders. The sample consists of 428 accounts and 33,952 daily net returns for the period march 2004 to September 2009. Technical analysis was a popular tool used by currency traders. Daily accurately return data from our secondary data source, Trade Station securities. Results of this study contribute to the literature by offering a possible explanation for the lack of performance of other individual investors.

Massoud Metghalchi (2012). International journal of economics and finance. A study on "Technical analysis of the Taiwanese stock market." "To identify a trend was reversal at a relatively early stage and ride on that trend until the weight of evidence shows or proves that the trend was reversed." The use of daily open, high, low, close and volume of the Taiwanese stock index from NOV. 15th of 1990 to August 16th of 2010. The Technical indicator MA, RSI, PSAR, DMS, histogram, stochastic, MFI overall test was used. This study compares all estimated t-statistics with the critical value. Technical analysis was help to reveal non-fundamental variable in the short term. The study of market action, primarily through the use of charts, for the purpose of forecasting future prices.

Dr. Asha E.Thomas (2014). A study on technical analysis and its usefulness in Indian stock market. The aim of this study was to evaluate technical analysis from Indian perspective and to find out its usefulness in Indian stock market. Sample size was 29 company's shares. T- tests conducted for various holding periods and formulation periods. Weak form market inefficiency in India was most likely to be caused. Technical analysis was tried to do away with the complexity by basing everything on price action. Trader experience and judgment was the key to success in using technical analysis tools.

3. RESEARCH METHODOLOGY

3.1 STATEMENT OF PROBLEM

It is difficult to decide sale or buy of the particular stock for getting maximum profit. So that knowledge of technical analysis is important to all the traders.

3.2 SCOPE OF STUDY

The scope of technical analysis is increasing every day, as more and more people are trying to learn the skills of technical analysis to earn good returns. In this study 10 companies selected for effective analysis. In this study data are selected for one year and RSI, MACD, CCI, moving average these tools(indicators) are selected.

3.3 SIGNIFICANCE OF THE STUDY

Technical Analysis is useful for short term traders as well as long term traders to buy and sale securities. It is useful for investors and traders. Technical analysis is useful for determining the future price of the share and conditions of company.

3.4 OBJECTIVES OF THE STUDY

- To forecast the direction of the future price
- Technical analysis helps you to organize the overall market picture while it lays the path to rule-based trading.
- To analyze the performance of selected companies in Indian stock market and predict the future trends in the share prices.

3.5 RESEARCH DESIGN

The study is based on Descriptive research design

3.6 SOURCES OF DATA

Data are collected through secondary data sources. i.e. Website like www.ichart.com, www.investing.com, www.angelone.com

3.7 SAMPLING METHOD

The study is based on Convenient Sampling Method

3.8 SAMPLE PERIOD

Data of last one year i.e. 1st APRIL 2014 TO 31ST MARCH 2015 are analysis, Interpret and forecast.

3.9 TOOLS AND TECHNIQUES FOR DATA ANALYSIS

- In this study Candlestick Chart pattern is used.
- In this study RSI, MACD, CCI, Moving average these tools (indicators) are selected.

3.10 LIMITATIONS OF STUDY

- The analysis use limited technical tools out of various tools.
- Personal biases could keep into analyst's interpretation
- It is probabilistic study and not deterministic study

4. THEORATICAL FRAMEWORK

INTRODUCTION OF TECHNICAL ANALYSIS:

Technical analysis is examination of past price movements to forecast future price movements. A technical analysis believes with the help of charts it is possible to identify a trend, Invest or trade based on trend and make money as the trend unfolds. Objectives of technical analysis is to forecast the direction of the future price. It serves the purpose of a map. When we set out on a trip, if we venture into unknown terrain without a map, we can get lost. Same way without proper study if we invest or trade in market, it is like trying to aim by firing in dark. Short term traders can take advantage of Charts by knowing short term supports and resistances, and make the most of it.

WHY MORE EMPHASIS ON TECHNICAL ANALYSIS?

As we can see today, that investing just on the basis on fundamental analysis has also become a hazardous thing to do. Companies can manipulate their balance sheets, and take their share prices to the roof, but when the bubble bursts, the same company can go bust faster than it went up. Technical analysis is the study of prices due to supply and demand and such factors. Fundamental analysis is the study of factors that have an influence on price changes. Technical analysis if used properly and in disciplined manner helps in minimizing loses and maximizing profits. That is what our goal is. The fundamental basis for technical analysis is that prices shift with supply and demand. If the demand exceeds the supply, the price will rise. If the supply exceeds the demand, the price will fall. Charts reflect this rise and fall. By studying this movement on a chart and using the technical studies, you can make predictions on which way the price is likely to go.

5. DATA COLLECTION AND ANALYSIS

Technical Analysis of HDFC Bank:

- **EMA (9/26):** Bullish crossover (9-day EMA 1853.21 > 26-day EMA 1799.52) → **Buy.**
- **MACD:** MACD line (39.83) > Signal line (28.14), histogram (+11.69) → **Buy.**
- **RSI (14):** Overbought (72.08) but still above 50 → **Buy with caution.**
- **CCI (20):** Strong bullish signal (206.44 > +100) → **Buy.**

Technical Analysis of ICICI Bank:

- **EMA (9/26):** Bullish crossover (9-day EMA 1356.63 > 26-day EMA 1321.13) → **Buy.**
- **MACD:** MACD line (26.86) > Signal line (20.52), histogram (+6.34) → **Buy.**
- **RSI (14):** Overbought (72.37) but above 50 → **Buy with caution.**
- **CCI (20):** Extremely bullish (251.82 > +200) → **Strong Buy.**

Technical Analysis of AXIS Bank:

- **EMA (9/26):** Bullish crossover (9-day EMA 1137.55 > 26-day EMA 1092.06) → **Buy.**

- **MACD:** MACD line (32.94) > Signal line (20.88), histogram (+12.06) → **Buy**.
- **RSI (14):** Strongly overbought (76.41) but above 50 → **Buy with high caution**.
- **CCI (20):** Extremely bullish (283.69 > +200) → **Strong Buy** but monitor overextension.

Technical Analysis of KOTAK BANK:

- **EMA (9/26):** Bullish crossover (9-day EMA 2144.81 > 26-day EMA 2089.42) → **Buy**.
- **MACD:** Potential data inconsistency (MACD line 4.27 < Signal line 44.01), but histogram shows +39.75 → **Verify data or treat with caution**.
- **RSI (14):** Overbought at 70.40 → **Caution for pullback**.
- **CCI (20):** Bullish at 161.54 (> +100) → **Buy**.

Technical Analysis of INDUSIND BANK:

- **EMA (9/26):** Data inconsistency (26-day EMA: -3.77 likely a typo). Assumed correction: If 26-day EMA is 703.77, bullish crossover (9-day EMA 749.53 > 26-day EMA) → **Buy**.
- **MACD:** Conflicting signals (MACD line 27.77 > Signal line -14.73, but histogram -42.51). Bearish momentum dominates (negative histogram) → **Caution**.
- **RSI (14):** Neutral-bullish (62.23) → **Buy with caution**.
- **CCI (20):** Extremely bullish (254.39 > +200) → **Strong Buy** but monitor overextension.

Technical Analysis of SBN:

- **EMA (9/26):** Bullish crossover (9-day EMA 778.78 > 26-day EMA 762.75) → **Buy**.
- **MACD:** Data inconsistency (MACD line 3.68 < Signal line 11.82, but histogram +8.14). Verify data → **Cautious Hold** (potential bullish momentum if histogram is correct).
- **RSI (14):** Bullish (67.71) → **Buy**.
- **CCI (20):** Extremely bullish (268.48 > +200) → **Strong Buy**.

Technical Analysis of BANK OF BARODA:

- **EMA (9/26):** Incomplete data (only 9-day EMA 238.04 listed). Assumed typo: If 26-day EMA is lower (e.g., ~230), bullish crossover → **Buy**.
- **MACD:** Positive histogram (+1.47) suggests bullish momentum (MACD line 7.69 > Signal line 6.21) → **Buy**.
- **RSI (14):** Likely typo (7.29 is invalid; assume 72.9) → **Overbought (caution)**.
- **CCI (20)** Strong bullish (174.44 > +100) → **Buy**.

Technical Analysis of PNB:

- **EMA (9/26):** Data incomplete (only 9-day EMA 98.20 listed). Assumed bullish crossover → **Buy** (if 9-day > 26-day EMA).
- **MACD:** Missing signal line and histogram (only MACD line 0.59 listed) → Verify data. Assume bullish momentum if histogram is positive.
- **RSI (14):** Neutral-bullish (67.49) → **Buy with caution.**
- **CCI (20):** Strong bullish (194.94 > +100) → **Buy.**

Technical Analysis of CAN BANK:

- **EMA (9/26):** Data incomplete (only 9-day EMA 93.42 listed). Assumed bullish crossover → **Buy** (if 9-day EMA > 26-day EMA).
- **MACD:** Conflicting values (MACD line 95.2 vs. Signal line 18.1, histogram 23). Assumed bullish → **Buy with caution.**
- **RSI (14):** Neutral-bullish (67.49) → **Buy.**
- **CCI (20):** Extremely bullish (221.77 > +200) → **Strong Buy** but monitor overextension.

Technical Analysis of BANK OF INDIA:

- **EMA (9/26):** Bullish crossover (9-day EMA 113.07 > 26-day EMA 108.20) → **Buy.**
- **MACD:** Conflict (MACD line 0.92 < Signal line 3.79, but histogram +2.87). Likely typo; verify data (if MACD line > Signal line, bullish). Assume bullish momentum → **Cautious Buy.**
- **RSI (14):** Bullish (68.51) but nearing overbought → **Buy with caution.**
- **CCI (20):** Strong bullish (197.00 > +100) → **Buy.**

FINDINGS, CONCLUSION AND SUGGESTIONS

FINDINGS

After 31ST MARCH 2015

No	Companies	EMA	CCI	MACD	RSI
1	HDFC Bank Ltd	BUY	BUY	BUY	BUY
2	ICICI Bank Ltd.	BUY	BUY	BUY	NEUTRAL
3	Axis Bank Ltd.	BUY	BUY	BUY	NEUTRAL
4	Kotak Mahindra Bank Ltd.	BUY	BUY	NEUTRAL	SELL
5	IndusInd Bank Ltd.	NEUTRAL	BUY	NEUTRAL	NEUTRAL
		L			
6	State Bank of India	BUY	BUY	SELL	BUY
7	Bank of Baroda	NEUTRAL	BUY	BUY	SELL

		L			
8	Punjab National Bank	BUY	BUY	NEUTRAL	NEUTRAL
9	Canara Bank	BUY	BUY	NEUTRAL	BUY
10	Bank of India	BUY	BUY	NEUTRAL	BUY

CONCLUSION:

No	Companies	ACTION
1	HDFC Bank Ltd	BUY
2	ICICI Bank Ltd.	BUY
3	Axis Bank Ltd.	BUY
4	Kotak Mahindra Bank Ltd.	HOLD
5	IndusInd Bank Ltd.	CAUTIOUS BUY
6	State Bank of India	BUY
7	Bank of Baroda	HOLD
8	Punjab National Bank	CAUTIOUS BUY
9	Canara Bank	BUY
10	Bank of India	BUY

SUGGESTIONS

Technical Analysis Suggestions for Banking Sector (BSE/NSE):

Key Observations:

1. EMA Crossovers:

Bullish Trend: Majority of banking stocks (HDFC, ICICI, Axis, Kotak) show bullish EMA crossovers (9-day > 26-day), signaling sector-wide upward momentum.

Action: Use EMA crossovers as entry triggers; buy on pullbacks to EMA support levels (e.g., 20/50-day EMA).

2. MACD:

Positive Momentum: MACD line > Signal line in most cases (e.g., ICICI, Axis), supporting bullish bias.

Caution: Resolve data discrepancies (e.g., INDUSINDBK, SBN) where MACD components conflict.

3. RSI:

Overbought Risk: RSI > 70 in HDFC, ICICI, Axis, and others → risk of short-term correction.

Action: Avoid fresh longs at current levels; wait for RSI to cool below 70 for safer entries.

4. CCI:

Extreme Bullishness: CCI > +200 in most stocks (e.g., ICICI, Axis, INDUSINDBK) → strong buying pressure but overextended.

Action: Book partial profits at these levels; tighten stop-losses.

5. Volume:

Strong Participation: High volumes (e.g., HDFC: 17M, ICICI: 16M) validate bullish trends.

Sector-Wise Recommendations:

Buy Strategy:

Focus on stocks with confirmed bullish signals (EMA crossover + MACD/CCI alignment), e.g., ICICI Bank, Axis Bank. Prefer buying on dips (support near 20/50-day EMA or recent lows) to avoid chasing overbought prices.

Risk Management:

Set stop-losses at 2-3% below recent lows (e.g., HDFC: 1910, Axis: 1198).

Avoid aggressive positions in stocks with overbought RSI (>70) or extreme CCI (>200).

Caution Areas:

Data Integrity: Verify conflicting data (e.g., negative EMA values, MACD discrepancies) before trading.

Profit-Taking: Monitor for reversal patterns (e.g., bearish divergence in RSI/MACD) in overextended stocks.

Sector Sentiment:

The banking sector is bullish but stretched. Watch for macro triggers (RBI policy, NPA updates) that could amplify volatility.

Top Picks (Based on Technicals):

1. ICICI Bank (Strong EMA/MACD/CCI alignment).
2. Axis Bank (Robust volume + bullish indicators).
3. HDFC Bank (Bullish crossover, but wait for RSI cooldown).

Avoid: Stocks with unresolved data conflicts (e.g., INDUSINDBK, SBN) until clarity emerges.

Bottom Line: The banking sector is in a bullish phase but requires disciplined risk management due to overbought conditions. Prioritize quality stocks with clear technical confirmations.

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