STUDY ON FINACIAL DERIVATIVES AND RISK MANAGEMENT

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ABSTRACT

Modern banking operations rely heavily on financial derivatives to handle the multiple risks which banks encounter during their operations. The research investigates financial derivatives along with risk management techniques within Indian banking institutions with special focus on HDFC Bank as a prominent private sector financial institution in India. The derivative instruments which HDFC Bank incorporates for risk management include interest rate swaps and currency forwards and options to minimize market volatility alongside interest rate changes and foreign exchange exposures and credit risk.

HDFC Bank applies derivative products through its risk management structure according to regulatory standards created by the Reserve Bank of India (RBI) as well as international Basel III requirements. The investigation bases its evaluation on HDFC Bank's financial statements and risk disclosure data and annual reports to show how derivatives are implemented and governed as well as their effectiveness.

The study investigates the risk and performance in banks through its financial system practices. The research evaluates both performance measurements of return management and looks for improvement possibilities.

INTRODUCTION

The national savings collection process supports banking institutions to direct funds efficiently into critical investment areas alongside maximizing resource utilization. A country depends on banks to advance its economic growth. Profitability exists in direct opposition to maintaining proper liquidity. The bank demonstrates its ability to meet every financial obligation through liquidity maintenance which guarantees daily operational payments. Liquidity represents the potential of an organization to execute expected duties within an appropriate timeframe. Success measures in business primarily reflect through the ability to earn profit which defines profitability. The incentive factor that drives businesses with the strongest power is the ability to generate profits. A business gains higher profit efficiency when operations and performance become more successful and rewarding. A business concern depends on profit to operate. A concern can fulfill its social responsibilities through the capability this factor provides.

REVIEW OF LITERATURE

Vivek Singla (2024) performed an analysis on Indian bank productivity using comparative methods in his study. Researchers used secondary data while examining the productivity of Indian banks during the time period from 2017 – 2018 to 2022 – 2023. Three financial institutions belonging to the private sector constitute the select group for analysis. The researcher utilized compound annual growth rate as a statistical tool throughout the study. Accounting ratios were also used. The ICICI achieves superior productivity levels concerning individual employee output yet requires enhanced results in employee productivity across its branches.

Vinod (2023) conducted a study which evaluated the operational effectiveness of India's old private banking institutions. The research employs secondary data for the period starting 2017-2018 to 2022-2023. It relies on 12 bank institutions as its sample. The research adopted data envelopment analysis as its statistical instrument. The examined data demonstrated that 25% of old banking institutions displayed continuous efficiency while several banks turned out as least efficient.

In 2022 Philippe Jorion documented that financial risk management advances fundamental financial theory principles (2022). Derivative market expansions in the 1990s encouraged financial institutions to develop new risk-management solutions for improved risk management capabilities. The creation of position-based risk measures like Value at Risk (VAR) has become widespread after their initial development. The risk-measurement methods were later applied to manage diverse types of risk including both credit risk and operational risk. Current financial institutions consider risk management as a fundamental operational necessity.

Saravanan (2022) conducted a study focused on studying small and medium enterprises financing operations within the Syndicate bank regional branch located in Bengaluru. The data collection for this research combines primary with secondary sources. The research gathered data through a questionnaire survey that included 50 respondents as participants. Official loan authorization procedures have been found to be time-consuming according to study findings.

Judith Priya and V Sukithangam (2020) conducted their research titled "A comparative study on performance of Tata consultancy services and infosys for the period 2013-2017 by using Valuation ratios". The research aims to conduct an investment potential analysis of Tata Consultancy Services and Infosys through valuation ratio evaluation. The investigation utilizes secondary datum. The study obtained valuation ratio data from the balance sheet and profit and loss account of both Infosys and Tata Consultancy Services. Several evaluation ratios served to examine the collected information.

OBJECTIVE OF THE STUDY

- This research studies the financial return and risk with reference HDFC Bank.
- This study determines which banking equities on selected banks showcase the best investment opportunity.
- Risk evaluation of selected Indian bank financial securities will be performed using relevant risk assessment methods and financial performance measures.
- The analysis identifies the ideal investment choice through risk-adjusted return analysis.

NEED FOR THE STUDY

- The study of HDFC bank will determine their risk adjusted performance effective decisions.
- Financial markets rely heavily on banks while bank stock equities serve frequently as investment portfolio components.
- The examination of HDFC Bank allows researchers to observe genuine derivative usage in business operations.

SCOPE OF THE STUDY

- The research enables observation of financial derivatives and risk management at HDFC bank.
- The Study will help employees understand the best cost procedures to enhance company performance.
- The research delves into financial derivative instruments used by banks to handle the risk-return and effectiveness in risk reduction alongside return maintenance.

LIMITATIONS OF THE STUDY

- Academic prediction regarding risks remains inaccurate because market fluctuations result from unidentified outside factors that remain unpredictable.
- The research implies restrictions because it uses an incomplete sample set.
- The built-in restrictions within financial statements prove impossible to overcome.

- Financial accounting statements benefit from ratio analysis due to its recognition of these constraints.

RESEARCH METHODOLOGY

A structured system guides the return and risk practices a study on financial derivatives and risk management practices adopts such an approach. The research employs both qualitative and quantitative methods under a case study method for data collection and analysis.

DATA ANALYSIS TOOLS

- Total Returns
- Mean
- Standard Deviation

Total Returns

Any rational investor, before investing his or her investible wealth in the stock, analyses the risk associated with the particular stock. The actual return he receives from a stock may vary from his expected return and the risk is expressed in terms of variability of return.

Mean

Mean is the average value of the series, obtained by adding up the series and dividing by the number of observations. It is the most common measure of central tendency

Standard Deviation

The standard deviation is often used by investors to measure the risk of a stock or a stock portfolio. The basic idea is that the standard deviation is a measure of volatility: the more a stock's returns vary from the stock's average return, the more volatile the stock.

TABLE NO – 1

Relationship to risk and returns analysis

Company	Total Returns	Mean	Standard Deviation
BSE			
Axis Bank LTD	1.838	0.153	0.367
City Union Bank LTD	3.027	0.252	0.38
ICICI Bank LTD	1.793	0.149	0.333
NSE			
HDFC Bank LTD	2.484	0.207	0.227
State Bank of India LTD	0.746	0.062	0.337
Kotak Mahindra Bank LTD	2.566	0.214	0.247

INTERPRETATION

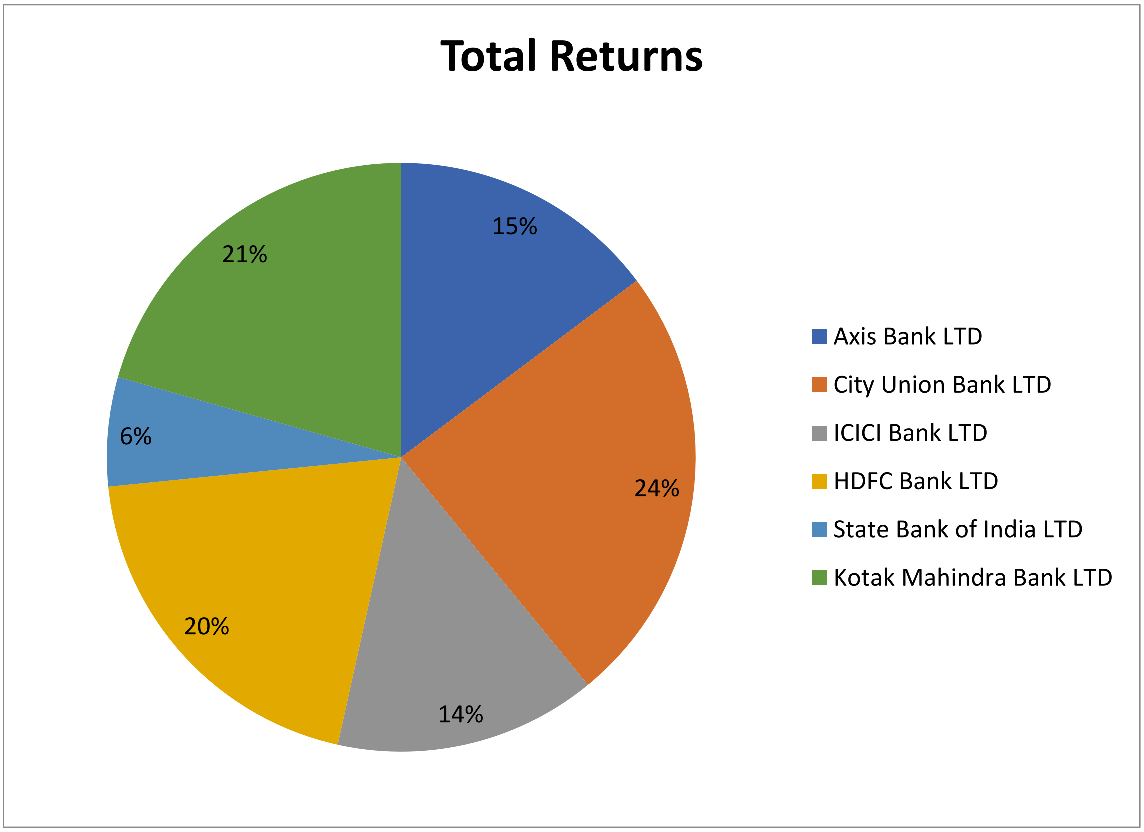
From January 2013 to January 2024, all the stocks studied showed positive average daily returns. Among them, City Union Bank (BSE) and Kotak Mahindra Bank (NSE) delivered the highest returns. However, City Union Bank had a higher beta, which means it was more volatile and carried more risk — but that risk came with better rewards. In contrast, Kotak Mahindra Bank had strong returns with lower risk, making it a safer investment choice.

HDFC Bank (NSE) also stood out as a good option for investors who prefer lower risk and stable returns, thanks to its lower beta and consistent performance. Axis Bank (BSE) showed decent returns but had a very high beta of 1.92, indicating high volatility, so investors should be cautious with this one. While both HDFC and Kotak Mahindra had beta values close to or below 1 — generally seen as less risky — that doesn't necessarily mean low returns. Still, investors should consider both the risk and return before deciding where to invest.

CONCLUSION

As per HDFC Bank to manage financial risk, banks should strengthen their credit scoring and evaluation systems. This helps improve lending practices and assess borrower creditworthiness more effectively. Bankers must carefully evaluate individual borrowers before providing loans to minimize the chances of default and reduce potential losses .Risk and returns analysis are very essential, because it helps to calculate future predictable returns and risk of the stock.

Representing total returns of the banking stocks



REFERENCE

- Ali Mahmoud Abdallah Alrabei (2015), Evaluate the Profitability in Commercial Bank Comparative Study of Indian and Jordanian Banks, Asian Journal of Finance & Accounting, Volume 5 (1), pp. 259 – 273.
- Anil Kumar Soni and AbhayKapre (2005), Performance Evaluation of Regional Rural Banks in India, AbhinavNational Monthly Refereed Journal Of Research In Commerce & Management, Volume 1 (11), pp. 132 - 144
- Avneet Kaur (2014), An Empirical Study on the Performance Evaluation of Public Sector Banks in India, International Journal of Marketing, Financial Services & Management Research, Volume 1 (11), pp. 117 – 131.
- Dhanabhakyam and Kavitha (2014), Financial performance of selected public sector banks in India, Zenith International Journal of Multidisciplinary Research, Volume 2 (1), pp. 255 – 269
- Jasmindeep Kaur and Silony (2013), Performance Review of Commercial Banks in India with special reference to priority sector lending – A Study of post reforms era, Zenith International Journal of Multidisciplinary Research, Volume 1 (1), pp.37-48.
- Kanika and Nancy (2015), Financial Performance Evaluation of RRB's in India, International Journal of Management & Information Technology, Volume 4 (2), pp. 237 – 247.
- Maheshwara Reddy and Prasad (2013), Evaluating Performance of Regional Rural Banks: An Application of CAMEL Model, Researchers World – Journal of Arts, Science & Commerce, Volume 2 (4), pp. 61 – 67
- Mahrooz Amile, Maedeh Sedaghat and Morteza Poorhossien (2015), Performance Evaluation of Banks using Fuzzy AHP and TOPSIS, Case study: State – owned Banks, Partially Private and Private Banks in Iran, Caspian Journal of Applied Sciences Research, Volume 2 (3), pp. 128 – 138.
- R Judith Priya and V Sukithangam (2020), "A comparative study on performance of Tata consultancy services and infosys for the period 2013-2017 by using Valuation ratios", International Journal of Academic Research and Development, Volume 3, Issue 1, pp. 194-198.
- Nafeesathul Thansila Beevi K. M and K P Muraleedharan (2018), "Corporate Reporting Practices and Corporate Governance: A Case Study of Tata Consultancy Services Limited", International Journal of Management Studies, Vol.– V, Issue – 4 (3), pp. 43-59.
- Vinodkumar P Pathade (2017), "Equity research: Fundamental analysis for long term investment", International Journal of Applied Research, Vol 3, Issue 4, pp. 678-682.