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Risk and Return Analysis of Banking Sectors with Reference to Nifty

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ABSTRACT:
This study conducts a focused analysis of the banking sector's performance within the context of the Nifty index, a key benchmark in the Indian stock market. It investigates the return and risk characteristics of investments in the banking sector by examining historical data. The study evaluates returns through stock price changes and dividend yields, while also assessing risk factors like volatility and beta. Findings from this analysis provide essential insights into the banking sector's relative performance, aiding investors and financial professionals in making informed decisions about portfolio allocation and risk management within the Indian financial market.

Keywords: Risk, Return, Mean, Beta, Return on Investment.

INTRODUCTION:
The banking sector is pivotal for economic growth and development, but it faces multifaceted risks in its pursuit of shareholder returns. Evaluating the Risk and Return profiles of banking institutions listed under India's Nifty index is essential for investors, policymakers, and financial analysts. This study aims to quantify the investment risk associated with banks and assess their returns within the Nifty framework, shedding light on the inherent risk-reward trade-off.

Analytical tools, historical stock data, financial statements, and market data will be harnessed to achieve these objectives. Risk metrics such as standard deviation, beta, and VaR will gauge the volatility and downside risk of bank stocks, while return, correlation, and regression analyses will measure their performance against the Nifty index.

The study's implications are significant. Investors can make informed portfolio decisions, policymakers can assess the banking industry's stability, and financial analysts can better grasp the Risk and Return dynamics unique to Nifty-listed banks. However, it's important to note that this research is historical in nature and serves as a valuable resource for future decision-making rather than a precise future predictor. Limitations include data availability and external factors influencing the banking sector's risk and returns.

LITERATURE REVIEW:

1. Sushma KS, Charithra CM, and Dr. Bhavya Vikas (2019) analyzed NSE-listed financial companies, helping investors assess risk and return. Bajaj Finserv showed high returns and volatility, while no significant change was observed before and after demonetization, emphasizing the need for risk assessment and preparation.
2. Dr. E. Rajesh's 2019 study on NSE Nifty bank stocks aimed to analyze their market movements relative to the Nifty 50 index and assess average returns and risk. The study covered January 1, 2018, to December 31, 2018, using statistical tools, revealing that most bank stocks had negative average returns, except for ICICI BANK.
3. In Premachandran's 2016 study, the risk and return of 12 banks in the Bank Nifty and the volatility and return of the Indian banking industry index were analyzed for a year. The findings revealed that, except for HDFC Bank, all sample banks had beta values exceeding one, indicating higher volatility compared to the market.

OBJECTIVE OF THE STUDY:

- To find out the relationship between risk and return of banking sectors with reference to Nifty.
- To analysis the performance of banking stocks with respect to their historical prices.
- To measure and analyse the Risk and Return of banking sectors with reference to Nifty.
- To find volatility of the banking stocks.
- To find the variance and standard deviation (risk) on each banking sector over the period of twelve months.

STATEMENT OF THE PROBLEM:

As a result of the lessons learned from the previous global financial crisis, the banking sector is the foundation of the Indian economy and plays a critical role in any nation's economic growth and stability. We are aware that investing in the stock market is not simple. Since this sector is directly impacted by non-RBI regulations and policies enacted, in addition to conventional considerations, it is subject to significant fluctuation, especially when it comes to the banking industry. This particular study's objective is to undertake a risk and return analysis of Nifty 50 banking institutions.

RESEARCH METHODOLOGY:

Quantitative research is often used in finance and economics to assess and measure various financial variables and their interrelationships. It allows researchers to draw objective conclusions based on numerical evidence and statistical analysis.

SOURCES OF DATA COLLECTION

→ **Primary Data:**

Primary data is the first collected information to collect from the various methods like questionnaire, survey method. Basically, the respondent for the primary data is managers, investors, etc. This information is obtained from the primary sources by the way of informal methods. These are all the data collected by first time.

→ **Secondary Data:**

Secondary data is already collected and published in the newspapers, magazines, websites etc. **This project is basically depending on the secondary data** from the official websites of companies. This report data is completely depending on the secondary data.

SAMPLING METHOD

A Purposive Sampling Method is been used in the study because the banks have been selected purposefully which come under Nifty.

POPULATION & SAMPLING UNIT

Data has been collected on share prices of six banking sectors with reference to Nifty for a period of 12 months i.e., April-2022 to March-2023.

SAMPLE SIZE

There is no sample size taken in this particular study as there is no research done based on individuals feedback.

HYPOTHESIS OF THE STUDY

H0: There is no significant relationship between the risk (measured by standard deviation of returns) and return (measured by average annual returns) of banking sector stocks in the NIFTY index.

H1: There is a significant relationship between the risk and return of banking sector stocks in the NIFTY index.

STATISTICAL TOOLS

This study has been analysed using various tools like Standard Deviation, Variance, Beta, Mean ($\overline{X}$).

- ROI $= \dfrac{\text{(Today's closing price – Yesterday's closing price)}}{\text{Yesterday's closing price}} \times 100$
- Return ($\overline{X}$) $= \dfrac{\Sigma \text{ROI}}{N}$
- $d = (\text{ROI} - \overline{X})$
- Risk $= \sqrt{\dfrac{\Sigma d^2}{N}}$

✓ Where,

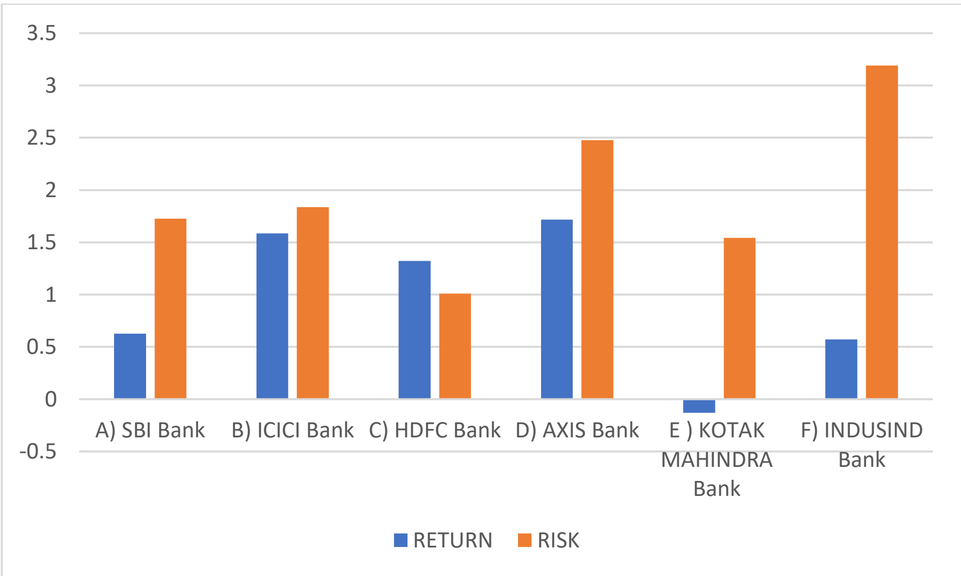
❖ ROI refers to Return on investment

❖ N is number of day / months / years

❖ $\overline{X}$ is the average of total ROI i.e., $\dfrac{\textbf{ROI}}{\textbf{N}}$

Table Showing Calculated Returns And Risks Of Banking Stocks With Reference To Nifty For The Financial Year 2022-2023

BANKS	RETURN ($\bar{X}$)	RISK
A) SBI Bank	0.626	1.726
B) ICICI Bank	1.587	1.837
C) HDFC Bank	1.323	1.011
D) AXIS Bank	1.716	2.477
E) KOTAK MAHINDRA Bank	-0.129	1.542
F) INDUSIND Bank	0.573	3.192



❖ INTERPRETATION

The provided data represents the return and risk values of banking stocks with reference to nifty. SBI Bank demonstrates a moderate return of 0.626 with a relatively higher risk of 1.726. ICICI Bank exhibits a return of 1.587, accompanied by a moderate risk of 1.837. HDFC Bank offers a higher return of 1.323, while its risk is relatively low at 1.011. AXIS Bank presents a return of 1.716 but comes with elevated risk at 2.477. KOTAK MAHINDRA Bank has a negative return (-0.129) and moderate risk of 1.542. INDUSIND Bank provides a lowest return of 0.573, but its risk is notably high at 3.192. Overall HDFC bank demonstrates a higher return than the expected risk compared to all other banks.

❖ FINDINGS

- The average return on investment of SBI for the financial year 2022-2023 is 0.626, while the calculated risk value is 1.726.
- The average return on investment of ICICI for the financial year 2022-2023 is 1.587, while the calculated risk value is 1.837.
- The average return on investment of HDFC bank for the financial year 2022-2023 is 1.323, while the risk is 1.011.
- The average return on investment of AXIS bank for the financial year 2022-2023 is 1.716 while the risk is 2.477 .
- The average return on investment of Kotak Mahindra bank for the financial year 2022-2023 is -0.129 while the risk is 1.542.
- The average return on investment of INDUSIND bank for the financial year 2022-2023 is 0.573 while the risk is 3.192 .

❖ SUGGESTIONS

The present study shows that the risk and return is been analyzed based on the performance at the market of the banking sectors with reference to Nifty. The investors has to study the price behaviour of the stocks. The overall performance of the banking stocks during the period 2022-2023 was mixed, with both positive and negative monthly returns. This suggests a moderate level of volatility in the investment returns of the banking stocks.

➢ The returns from the SBI bank stocks is lower than the risk hence it is suggested that it would be riskier for the investors if invested in SBI bank stocks in the financial year 2022-2023.
➢ The returns from the ICICI bank stocks is lower than the risk hence it is suggested that it would be riskier for the investors if invested in ICICI bank stocks in the financial year 2022-2023.
➢ The returns from the HDFC bank stocks is higher than the risk hence it is suggested that it would be profitable for the investors if invested in HDFC bank stocks in the financial year 2022-2023.
➢ The returns from the AXIS bank stocks is lower than the risk hence it is suggested that it would be riskier for the investors if invested in AXIS bank stocks in the financial year 2022-2023.
➢ The returns from the Kotak Mahindra bank stocks is lower than the risk hence it is suggested that it would be riskier for the investors if invested in Kotak Mahindra bank stocks in the financial year 2022-2023.
➢ The returns from the INDUSIND bank stocks is lower than the risk hence it is suggested that it would be riskier for the investors if invested in INDUSIND bank stocks in the financial year 2022-2023.

❖ CONCLUSION:

- Investment decisions are followed by number of decisions in the process. Stocks are selected on the basis of the risk and return. The expected rate of return is the weighted average of rate of return. Understanding the nature of risk is not adequate unless the investor or analysts are capable of expressing it in some quantitative terms. Expressing the risk of stock in quantitative terms makes it comparable with other stocks. Measurement provides an approximate quantification of risk.
- Risk is the probability that an investment's actual return will be different than expected. This includes the possibility of losing some or all of the original investor. For the purpose of the study six different

banking sectors with reference to Nifty had been considered for which each of their coefficient of variation was analysed.

- While analysing the attractiveness of an investment, the investor should consider not only the returns of the security but also the risk associated with that security. The security can be evaluated on the basis of coefficient of variation which is the risk per unit of return. In order to further reduce the levels of risk, the investor should also create a portfolio to diversify the risk, rather than considering investing in a single company's security. According to the portfolio theory, the portfolio should be a well-diversified portfolio.
- In Banking Sector with reference to Nifty investors can select HDFC stocks as it is more likely to perform well considering risk and return factor because risk associated with stock is less when compared to its return, which is a healthy sign.

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