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A study on risk and return analysis of selected banking securities.

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Abstract: *In today's financial decision making sector, banking is playing a prominent role in the development of economic conditions of any country at large. Finance is not only blood but also backbone of the country for development of the country's wellbeing. Banks are playing vital role for the empowerment of all areas in the market. Banking is playing exceptional role in the market equity, volatility and risk on the returns on the investment in selected five banks to know the banking securities.*
The investors are able to analyze minimum risk and maximum return only through portfolio investment. This study aids to understand the behavioral pattern of the selected data to make best decision through market needs and outflow of credit. This study aims at investigating the risk and returns associated with specifically selected banking system in the securities market. The study shows correlation between the returns of selected banks and nifty 50 indexes. The securities market is a very dynamic in nature where predictions play a pivotal role for the investor to invest for the returns and bearing of risk in the market. The study also helps the investor to examine and compare assessment of various banks along with the market and nifty 50 to identify the company which has more priority in the risk taking ability. This study helps in analyzing the risk of selected banking securities.

Key Words: *Banking Securities, Risk and return relationship, Business risk, Compound Annual growth rate.*

1. INTRODUCTION:

An investment is the employment of fund with an expectation of positive rate of returns. Risk and return play a key role in most individual investor's decision making process. Every investor wants to avoid risk and maximize return. The risk-return relationship is a fundamental concept not only in financial analysis, but in every aspect of life. If decisions are to lead to return maximization, it is necessary that individual or institutions consider the combined influence on expected future return as well as risk/cost. In general, risk and return go hand in hand. If an investor wishes to earn higher returns, then the investor must appreciate that this will only be achieved by accepting a commensurate increase in risk, Risk and return are positively correlated, and an increase in one is accompanied by an increase in the other. Return expresses the amount which an investor actually earned on an investment during a certain period. Return includes the interest, dividend and capital gains, while risk represents the uncertainty associated with a particular task. In financial terms, risk is the chance or probability that a certain investment may or may not deliver the actual/expected returns.

Investing involves risk of loss of principal and it is more concerned on the risk of investment. This total risk measured by standard deviation, can be divided into two parts: Unsystematic risk and Systematic risk. Unsystematic risk is also called as diversifiable risk and Systematic risk may be called as non-diversifiable risk. Unsystematic risk or market risk can be measured by beta. Investment decisions, therefore involve a trade-off between risk and return, which is considered to be central to the investment decision making. The risk and return trade-off says that the potential return rises with an increase in risk. It is important for an investor to decide on a balance between the desire for a lowest possible risk and highest possible risk. Combination of securities with different risk-return characteristics will constitute the portfolio of the investor.

2. OVERVIEW OF TOP FIVE SELECTED BANKS OF NIFTY 50 SECTORS.

Banks play an important role in building the economy as well changes the lives of many individuals. In India banking sector reforms are lifeline of economic activity for both rural and urban areas. So, any changes in stock price of banks will be definitely affect the investment pattern of investor and also affects the economy. Indian banking industry, the backbone of the country's economy has always played a positive and key role in prevention of economic disaster in the country. Risk is a concept that denotes a potential negative impact to an asset or some characteristic of value that may arise from some present process or future event. It has achieved enormous appreciation for its strength, particularly in the wake of some of the worldwide economic disasters. There are 5 Banking Stocks in bench mark NIFTY 50 Moreover, according to experts; the revival of Indian Economy is not possible without the participation of banking sector.

TOP FIVE SELECTED BANKS OF NIFTY 50 SECTORS.
1. SBI
2. CANARA BANK
3. HDFC BANK
4. AXIS BANK
5. ICICI BANK

1. **STATE BANK OF INDIA (SBI):** State Bank of India (SBI) is an Indian multinational public sector bank and financial services statutory body headquartered in Mumbai, Maharashtra. SBI is the 43rd largest bank in the world and ranked 221st in the Fortune Global 500 list of the world's biggest corporations of 2020, being the only Indian bank on the list. It is a public sector bank and the largest bank in India with a 23% market share by assets and a 25% share of the total loan and deposits market it is also the fifth largest employer in India with nearly 250,000 employees.
Functions of SBI BANK
1. Maintaining the currency
2. Government's bank
3. Bank's banker
4. Acts as a clearinghouse
5. Maintaining the currency

2. **CANARA BANK**: Canara Bank is the third largest nationalized bank in India. It is under the ownership of the Ministry of Finance, Government of India. It is headquartered in Bangalore. Established in 1906 at Mangalore by Ammembal Subba Rao Pai, the bank also has offices in London, Hong Kong, Dubai and New York.
Functions of CANARA BANK
1. Personal Banking.
2. Corporate Banking.
3. NRI Banking. Canbank remit money scheme.
4. Loans & Advances.
5. Car Loans

3. **HDFC BANK**: HDFC Bank Limited is an Indian banking and financial services company headquartered in Mumbai. It is India's largest private sector bank by assets and world's 10th largest bank by market capitalization as of April 2021. It is the third largest company by market capitalization of $122.50 billion on the Indian stock exchanges. It is also the fifteenth largest employer in India with nearly 150,000 employees.

4. **AXIS BANK**: Axis Bank Limited, formerly known as UTI Bank (1993–2007), is an Indian banking and financial services company headquartered in Mumbai, Maharashtra. It sells financial services to large and mid-size companies, SMEs and retail businesses.
Functions of AXIS BANK
1. Inland Letter of Credit. Inland LC issuance to facilitate purchase of goods.
2. Inland Bill Discounting. Discounting Inland Bills for immediate release of funds against
3. Trade receivables.
4. Bills for Collection

5. **ICICI BANK**: ICICI Bank (Industrial Credit and Investment Corporation of India) is an Indian multinational banking and financial company headquartered in Mumbai, Maharashtra with its registered office in Vadodara, Gujarat. As of 2018, ICICI Bank is the second largest bank in India in terms of assets and market capitalization. It offers a wide range of banking products and financial services for corporate and retail customers through a variety

of delivery channels and specialized subsidiaries in the areas of investment banking, life, non-life insurance, venture capital and asset management. The bank currently has a network of 4867 branches and 14367 ATMs across India and has a presence in 17 countries including India.

3. LITERATURE REVIEW:

- Gautami and Kalyan (2018) the research was conducted of risk and return analyses to provide ideas for the investors in the stock market. Due to swift growth in the Indian economy the cement sector has been improving a lot in recent years. They have selected few socks from the NIFTY and conducted the risk and return analysis. The research exposed that the other related industries performance also influences the performance of the cement stack. The investigation was conducted under market index model for evaluating the performance of the stock. The selected companies in the present study have shown lot of profits and increased the wealth of investor; however, fluctuations are a common phenomenon in share market.
- **Raghavan RS (2000)** the paper commented on the risk perceptions and the risk measure parameters. He orated that risk measures are related to the return measurements. While asks can only be contained cannot be eliminated altogether. there is no doubt that some risks have to be taken to get adequate returns. Returns can be increased or made more rapidly by taking more financial and operating risks. But the environmental risks characteristically do not increase returns but serve at constraints on return and risk decisions. He concluded that the process of holding the levels of risks within the desirable levels must be practiced in the daily operations.
- **Md Shahidul Islam, Murshedul Arifin & Fatema Tuz Zohora (2017),** Factors Affecting Share Price of Cement Industry A Study on Listed Cement Companies of DSE". The study analysed the share price movement of the factor for a specific time period. The factors are mainly categorized in three broad categories such as dividend, company, country. Therefore, the factors included. Dividend Announcement Date & Pay out Amount, Disclosure of News, and Sharp Movement of Market Index. After thorough analysis the study revealed that the most influential factors contributing to the price movement of the listed cement companies are sharp movement of market index as well as the disclosure of news whereas dividend did not affect that much surprisingly. It was also found that the theoretical perspectives regarding the stock market are often surpassed by different stock market volatility variables due to the inefficiency of the existing capital market.

4. STATEMENT OF THE PROBLEM:

One finds it challenging to take decision on investment. This is primarily, because investments are risky in nature and investors have to consider several factors before investing in investment avenues. Therefore, the study aims to compare stocks of various companies from banking sector Proper analysis of risk and the expected return important to become an efficient investor Keeping this point in mind dissertation titled risk and return analysis of has been chosen to analyse the 5 different companies in the banking sector. The share price and market price for 36 consecutive months. This study is conducted to find out how the expected return is calculated from an investment and risk associated with that investment by measuring Beta and standard deviation.

5. NEED FOR THE STUDY

Banking sector plays a vital role in the development of the economy, investing in banking securities is very common among investors, but the banking sector securities tend to be volatile in nature, so If the Market value of the banking securities drops, the asset shrinks. In this present situation, risk analysis of select banking securities in India is felt highly relevant. Proper analysis of risk and return is very important to become an efficient investor. Hence, the study aims to conduct risk and return analysis of select banking securities.

6. METHOD: Research Methodology The study is based on secondary data. The data have been collected from secondary sources such as websites like Investopedia, NIFTY and Moneycontrol.com, Journals, newspapers, books, etc., The collection of share prices of select companies for a period of three years. The study of Risk-Return analysis for a period of three years (2019-2022)

STATSTICAL TOOLS USED FOR ANALYSIS:
1. Rate of Return = Closing Price-Opening price *100 Opening price
2. AVERAGE RETURN = (Total Return /N)
3. STANDARD DEVIATION (Risk)

4. VARIANCE
5. Co-Variance
6. Beta
7. Alpha
8. Correlation
9. CAGR

7. DATA ANALYSIS AND INTERPRETATION :

CAGR Calculation (Compound Annual Growth Rate)

The CAGR or compound annual growth rate is the average rate at which an investment grows over time assuming that it was compounded (re-invested) annually (periodically).

CAGR = $(\boldsymbol{al\ value}\ /\boldsymbol{starting\ vaue})\ \mathbf{1}\ /\boldsymbol{n} - 1$

State Bank Of India

Calculations based on the data collected for 36 months

Co-variance	**56.3196357**
Beta	**1.384224881**
Alpha	**0.667975116**
Correlation	**0.685350547**
CAGR	**0.018422597**

Analysis	**Stock return**	**Market return**
Average	**2.725769391**	**1.486604022**
Standard deviation	**12.88310304**	**6.378617981**
Variance	**165.9743439**	**40.68676735**

INTERPRETATION:

From the above table and graph, we can analyze that a time changes in market return leads to 1.3842 change in the stock return. The stock slowly moves to market index. The stock is also considered to be riskier because the beta is more than 1. The beta value of 1.3842 indicates that one-unit changes in nifty index will cause a 0.0184 change in the SBI BANK. This shows that stock is more volatile compared to nifty index. CAGR value 0.0184 of SBI BANK for 3 years period is indicating that overall performance of the stock is poor.

Canara Bank

Calculations based on the data collected for 36 months

Analysis	**Stock return**	**Market return**
Average	**1.172549284**	**1.486604022**
Standard deviation	**14.8371601**	**6.378617981**
Variance	**220.1413198**	**40.68676735**

Co-variance	**63.27902908**
Beta	**1.55527296**
Alpha	**-1.139525754**
Correlation	**0.668624723**
CAGR	**0.000213265**

INTERPRETATION:

From the above table and graph, we can analyze that a time changes in market return leads to 1.5552 change in the stock return. The stock slowly moves to market index. The stock is also considered to be riskier because the beta is more than 1. The beta value of 1.5552 indicates that one-unit changes in nifty index will cause a 1.5552 change in the CANARA BANK. This shows that stock is more volatile compared to nifty index. CAGR value 0.0002 of SBI BANK for 3 years period is indicating that overall performance of the stock is poor.

HDFC

Calculations based on the data collected for 36 months

Analysis	**Stock return**	**Market return**
Average	**1.076565136**	**1.486604022**
Standard deviation	**8.285531243**	**6.378617981**
Variance	**68.65002798**	**40.68676735**

Co-variance	**46.15538291**
Beta	**1.134407718**
Alpha	**-0.609849941**
Correlation	**0.873324022**
CAGR	**0.007043495**

INTERPRETATION:
From the above table and graph, we can analyze that a time changes in market return leads to 1.1344 change in the stock return. The stock slowly moves to market index. The stock is also considered to be riskier because the beta is more than 1. The beta value of 1.1344 indicates that one-unit changes in nifty index will cause a 1.1334 change in the HDFC BANK. This shows that stock is more volatile compared to nifty index. CAGR value 0.0070 of HDFC BANK for 3 years period is indicating that overall performance of the stock is poor.

AXIS bank

Calculations based on the data collected for 36 months

Analysis	**Stock return**	**Market return**
Average	**1.076506339**	**1.486604022**
Standard deviation	**11.82399437**	**6.378617981**
Variance	**139.8068428**	**40.68676735**

Co-variance	**64.827658**
Beta	**1.593335186**
Alpha	**-1.292152156**
Correlation	**0.859546795**
CAGR	**0.002438948**

INTERPRETATION:
From the above table and graph, we can analyze that a time changes in market return leads to 1.5933 change in the stock return. The stock slowly moves to market index. The stock is also considered to be riskier because the beta is more than 1. The beta value of 1.5933 indicates that one-unit changes in nifty index will cause a 1.5933change in the AXIS BANK. This shows that stock is more volatile compared to nifty index. CAGR value 0.0024 of AXIS BANK for 3 years period is indicating that overall performance of the stock is poor.

ICICI Bank

Co-variance	**55.25305757**
Beta	**1.358010507**
Alpha	**0.572002552**
Correlation	**0.828435871**
CAGR	**0.019416439**

Calculations based on the data collected for 36 months

Analysis	**Stock return**	**Market return**
Average	**2.590896434**	**1.486604022**
Standard deviation	**10.45612647**	**6.378617981**
Variance	**109.3305808**	**40.68676735**

INTERPRETATION:
From the above table and graph, we can analyze that a time changes in market return leads to 1.3580 change in the stock return. The stock slowly moves to market index. The stock is also considered to be riskier because the beta is more than 1. The beta value of 1.3580 indicates that one-unit changes in nifty index will cause a 1.3580 change in the AXIS BANK. This shows that stock is more volatile compared to nifty index. CAGR value 0.0194 of AXIS BANK for 3 years period is indicating that overall performance of the stock is poor.

RISK AND RETURN ANALYSIS OF 5 BANKING SECURITIES

Sl. no	Banks List	Average		Standard deviation		Variance	
		Stock return	Market return	Stock return	Market return	Stock return	Market return
1	SBI Bank	2.725769391	1.486604022	12.88310304	6.378617981	165.9743439	40.68676735
2	CANARA Bank	1.172549284	1.486604022	14.8371601	6.378617981	220.1413198	40.68676735

3	HDFC Bank	1.076565136	1.486604022	8.285531243	6.378617981	68.65002798	40.68676735
4	AXIS Bank	1.076506339	1.486604022	11.82399437	6.378617981	139.8068428	40.68676735
5	ICICI	2.590826434	1.486604022	10.45612647	6.378617981	139.8068428	40.68676735

INTERPRETATION: From the above table, we can analyze that the average, standard deviation and variance of AXIS BANK is more compared to other sectors companies (i.e., the average stock return is 2.72576 and market return is 1.4866, standard deviation of stock return is 12.8831 and market return is 6.3786 and variance of stock return is 165.9743 and market return is 40.6867)

8. FINDINGS: Markets are characterized by wide price fluctuation and heavy trading. They often result from an imbalance of trade orders is one direction, wide price fluctuations are a daily occurrence on the world's stock market as investors react to economic business and political events. Markets watches see high volatility as a sign of investor nervousness which, in the counter-initiative world of market, is of course bullish. Investors can make investment decisions with the help of the current study on the market return, stock return, average, standard deviation, covariance, beta, alpha, correlation, and CAGR applied to selected business scripts. Investors who desire high return and are willing to take on risk can consider investing in ICICI bank, while those who want less risk are advised to do so in HDFC.

9. CONCLUSION :

In this study we conclude that some of the banks have higher returns and some banks have high risk. The investor always needs to find a combination of higher return with low risk. The Beta is useful to judge Systematic Risk. Thus, this study helps the investor to arrive at a conclusion and also provide information about the performance of various banking securities in the market in terms of return and risk. ICICI Bank Overall is a good Investment for investors from the bank taken for the study as it has given higher return, the investor who wants less risk can invest in HDFC Bank.

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