## A STUDY OF STOCKS PERFORMANCE OF BFSI SECTOR IN INDIA

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### **ABSTRACT**

Indian companies provide product mix of various financial products or services and are termed as Banking, Financial services, and Insurance (BFSI). BFSI sector in India is valued at Rs. 81 trillion and is likely to become fifth largest in the world by year 2020 and third largest by year 2025. The Indian BFSI sector has been one of the fastest-growing sectors in recent years, attracting a significant amount of investment opportunities for the investors and is playing a very important role in economic development. The paper aims to evaluate the performance of BFSI companies in the Indian stock market over the past five years, with a focus on identifying the best investment opportunities for investors to achieve high returns with low risk. Using exploratory and descriptive statistics, the paper analyses annual returns of the three BFSI selected companies to examine the relationship between their returns and the returns of the BSE Index. The findings of the study will help investors make informed investment decisions and suggest the best-performing BFSI company in the Indian stock market.

Keywords: BFSI, Stock Performance, Risk & Return.

Introduction

The financial system is a complex network of institutions, markets, and intermediaries that work together to facilitate the flow of money and credit throughout the economy. At its core, the financial system is designed to efficiently allocate capital from those who have it to those who need it, whether for investment purposes or to fund everyday transactions. Financial system plays a very vital role in the country's economic development. It creates a link between savings and investment for wealth and creation and facilitates the expansion of financial markets by helping in financial deepening and broadening. The financial system accelerates the volume of savings by providing various financial instrument options and effective mobilization of funds.

The financial system is the backbone of the BFSI (Banking, Financial Services, and Insurance) sector, and both are closely interrelated. The financial system comprises a network of institutions, markets, and intermediaries that facilitate the flow of funds between savers and borrowers. In contrast, the BFSI sector provides financial products and services to individuals, businesses, and governments, using the financial system to operate. The importance of the financial system to the BFSI sector lies in its ability to mobilize savings and allocate capital to productive investments, which fuels economic growth and development. The financial system's effectiveness in channelling savings towards profitable investments and managing risks is critical for the stability and growth of the BFSI sector.

### **Review of Literature**

Dr. Ramakrishnan (2011) holds the BFSI as the key for the inclusive growth of the nation. He analysed critically at the current best practices of BFSI and suggests innovative ways with total involvement of all stakeholders to build an India.

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Such as in the area of customer service cherished principles are transparency, reasonableness, truth in selling, confidentiality, and assistance when needed.

Raj. S. Dhankar and Kunjana Malik (2015) focuses on the performance of one of the top sectors of private equity investment in India, the banking and financial services (BFSI) sector. The majority of PE investments in the BSFI sector, were studied using a logistic regression approach to examine the effect of PE on total assets, return on assets, return on capital employed, growth in profit after tax, asset growth, ratio of debt to total assets, and ratio of equity to total assets.

Dr. Amit Kumar Singh (2018) analysed seven IPOs in Indian markets in 2018-19, three have been from the BFSI sector including the vastly-oversubscribed IPO of HDFC Asset Management Co. Ltd. IPOs' pre and post listing performances have been evaluated based on certain accounting measures that impact operating performance. As per the results, the key accounting parameters showed improvement in the performance of the BFSI in the post listing period.

Dr. Kannamani Ramasamy (2020) discusses analysis in BFSI sector, due to COVID-19. In this paper, he discusses various factors such as lockdown approach, moratorium, different impacts in banking, financial services, and insurance sector. Further, we have given some recommendations to mitigate the situation so that the financial services can continue with the less negative impact which will help for better services to the customer and minimal revenue loss to the financial organisations.

Sonia Lobo and Ganesh Bhat (2021) studied the risk and return patterns of Indian financial Services sector securities to help individual investors make informed investment decisions and understand the role of this sector in the Indian economy. The study has brought to light that India Infoline Finance Ltd (IIFL Finance) has provided the highest monthly returns with a high beta value. Further, the tested hypothesis reveals that there exists a significant difference in the monthly returns of the S&P BSE Finance Index and JSW Holdings.

### **Objectives of the Study**

- To analyse the performance of BFSI stocks returns in the composition of BSE SENSEX.
- To compare the performance of annual and quarterly returns of BFSI with SENSEX returns.
- To replicate the findings of analysis

### **Research Methodology**

### **Sampling Technique**

The present research is exploratory with descriptive statistics based on the quarterly returns of the stock market index and 3 companies of the BFSI Industry.



HDFC stands for Housing Development Finance Corporation Limited. It is a leading financial services company in India, headquartered in Mumbai. HDFC was founded in 1977 with the objective of providing long-term finance to individuals for the purchase or construction of homes. Over the years, HDFC has diversified its portfolio and offers a wide range of financial products and services, including home loans, loan against property, personal loans, business loans, insurance, mutual funds, and more. HDFC has a strong presence in the Indian financial market and has won several awards and accolades for its performance and customer service.



ICICI Bank is one of the largest private sector banks in India. It was established in 1994 and is headquartered in Mumbai, Maharashtra. The bank offers a wide range of financial products and services to its customers including retail banking, corporate banking, investment banking, insurance, and asset management. ICICI Bank has a strong network of branches and ATMs across India and also offers online and mobile banking services to its customers. The bank has been at the forefront of adopting innovative technologies to enhance its customer experience and has won several awards for its digital banking services.



Bajaj FinServ Limited is a financial services company based in India. It is a part of the Bajaj Group, which is one of the largest conglomerates in India. Bajaj FinServ offers a wide range of financial products and services to both retail and corporate customers.

The company was established in April 2007, after the demerger of the financial services business of Bajaj Auto Limited. Bajaj FinServ has three core businesses, which include lending, insurance, and wealth management. It offers personal loans, home loans, business loans, and other types of loans to customers. Bajaj FinServ also offers general insurance and life insurance products to customers

# **Data Collection: Secondary Data**

The source of data for the project is mainly secondary data collected from the websites, and documents in printed forms like annual reports, books, journals, Government reports, websites, etc.

#### Period of Study

Five years of data are collected for the calculation of  $\beta$ , returns, and risk of the stocks i.e., from 1 April 2017 to 1 March 2022. Stock prices are used for calculating returns and risks connected with the shares.

#### **Sample Selection**

There are several companies in the BFSI Sector in India. This study focuses on 3 BFSI companies listed under BSE out of 9 BFSI companies in SENSEX. They are HDFC ,HDFC BANK , SBI , AXIS BANK, INDUSIND BANK , ICICI BANK , KOTAK , BAJAJ FINSERV and BAJAJ FINANCE . The three select BFSI companies are the HDFC, ICICI Bank and Bajaj FinServ.

### **Tools Used for Analysis**

- Return = (P1 P0)/P0
- **Mean =** (sum of data values) / (number of data values)
- Standard Deviation =  $\sqrt{(\sum (Xi X)^2 / (n-1))}$
- Beta = Covariance / Variance

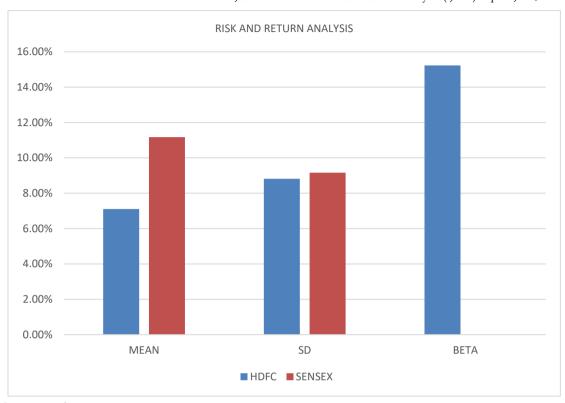
### **Data Analysis and Interpretation**

This chapter provides an analysis of the performance of the BFSI stocks in the composition of BSE SENSEX, to examine the performance of SENSEX returns in BSE, to compare the performance of BFSI returns with SENSEX returns and to replicate the findings. The study aimed to identify the best performing stocks among the nine companies. The analysis considered statistical tools like mean, standard deviation, and Beta to analyse the data.

Table 1: Annual Return Analysis of HDFC with BSE for April 2018 to March 2023

FINANCIAL YEAR	HDFC	SENSEX
2018-2019	22.51%	14.38%
2019-2020	6.01%	15.75%
2020-2021	1.10%	21.99%
2021-2022	1.93%	4.44%
2022-2023	4.01%	-0.74%
TOTAL	7.11%	11.17%

2018-2023	HDFC	SENSEX
MEAN -Return	7.11%	11.17%
SD -Risk	8.82%	9.16%
BETA	0.15	

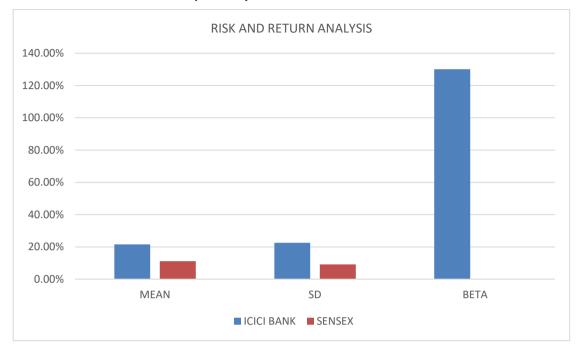


The first table compares the annual returns of HDFC and the SENSEX for the five financial years from 2018-2019 to 2022-2023. The table shows that HDFC has provided an average return of 7.11%, while the SENSEX has returned 11.17% on average. The returns of HDFC have been positive each year, but relatively low compared to the SENSEX, especially in the last two years where the SENSEX has seen negative returns. The second table provides additional information about the performance of HDFC and the SENSEX over the entire period of 2018-2023. The table shows that the average return for HDFC during this period was 7.11%, with a standard deviation (SD) of 8.82%. The average return for the SENSEX was 11.17%, with a SD of 9.16%. The table also shows the beta value of HDFC, which is 0.15. Beta is a measure of a stock's volatility in relation to the market, with a value less than 1 indicating that the stock is less volatile than the market.

Overall, the data suggests that while HDFC has delivered positive returns each year, the returns have been relatively low compared to the stock market index. The beta value of HDFC indicates that it is less volatile than the market, which could be beneficial for investors who are risk-averse. However, investors should carefully consider their risk tolerance, investment goals, and diversification before making any investment decisions

Table 2: Annual Return Analysis of ICICI BANK with BSE for April 2018 to March 2023:

Financial Year	ICICI Bank	Sensex
2018-2019	49.65%	14.38%
2019-2020	-0.73%	15.75%
2020-2021	38.42%	21.99%
2021-2022	20.36%	4.44%
2022-2023	-0.11%	-0.74%
Total	21.52%	11.17%
2018-2023	ICICI Bank	SENSEX
MEAN-Return	21.52%	11.17%
SD-Risk	22.59%	9.16%
BETA	1.30	



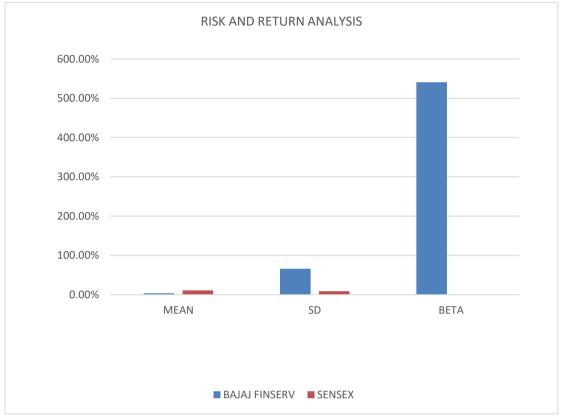
The given data compares the performance of ICICI Bank and the SENSEX over the past five financial years, from 2018-2019 to 2022-2023. During this period, ICICI Bank has provided an average return of 21.52%, while the SENSEX has returned 11.17% on average. The returns of ICICI Bank have been highly volatile, with negative returns in only one year (2019-2020) and positive returns in all other years.

The second table provides additional information about the performance of ICICI Bank and the SENSEX over the entire period of 2018-2023. The table shows that the average return for ICICI Bank during this period was 21.52%, with a standard deviation (SD) of 22.59%. The average return for the SENSEX was 11.17%, with a SD of 9.16%. The table also shows the beta value of ICICI Bank, which is 1.30. Beta is a measure of a stock's volatility in relation to the market, with a value greater than 1 indicating that the stock is more volatile than the market.

Overall, the data suggests that ICICI Bank has provided higher returns than the stock market index during the period, but with higher volatility as well. The beta value of ICICI Bank indicates that it is more volatile than the market, which may not be suitable for risk-averse investors. However, investors with a higher risk tolerance may consider ICICI Bank as a potential investment option. As with any investment decision, it is important to consider other factors such as diversification, investment goals, and risk tolerance before making any investment decisions.

Table 3: Annual Return Analysis of BAJAJ FINSERV with BSE for April 2018 to March 2023:

Financial Year	Bajaj Finserv	Sensex
2018-2019	44.86%	14.38%
2019-2020	-5.16%	15.75%
2020-2021	84.07%	21.99%
2021-2022	-90.55%	4.44%
2022-2023	-14.66%	-0.74%
Total	3.71%	11.17%
2018-2023	BAJAJ FINSERV	SENSEX
MEAN -Return	3.71%	11.17%
SD-Risk	66.05%	9.16%
BETA	5.41	



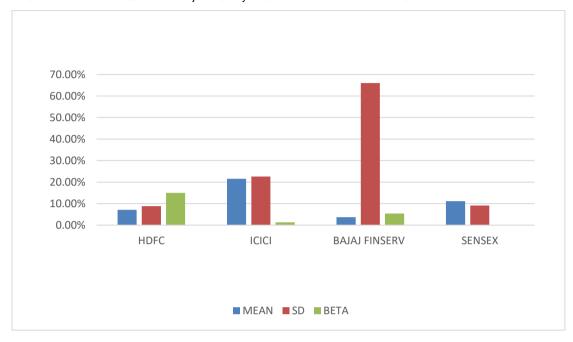
The given data compares the performance of Bajaj Finserv and the SENSEX over the past five financial years, from 2018-2019 to 2022-2023. During this period, Bajaj Finserv has provided an average return of 3.71%, while the SENSEX has returned 11.17% on average. The returns of Bajaj Finserv have been highly volatile, with negative returns in two out of five years, including a steep decline of 90.55% in 2021-2022.

The second table provides additional information about the performance of Bajaj Finserv and the SENSEX over the entire period of 2018-2023. The table shows that the average return for Bajaj Finserv during this period was 3.71%, with a high standard deviation (SD) of 66.05%. In comparison, the SENSEX provided an average return of 11.17%, with a SD of 9.16%. The beta value of Bajaj Finserv is 5.41, which is extremely high. This indicates that the stock is very volatile and can experience large swings in price in relation to the market.

Overall, the data suggests that Bajaj Finserv has underperformed the stock market index during the period and experienced significant volatility. The steep decline of 90.55% in 2021-2022 contributed to the low average return and high volatility of the stock. The high beta value indicates that Bajaj Finserv is very risky and may not be suitable for most investors. As with any investment decision, it is important to carefully consider investment goals, risk tolerance, and diversification before making any investment decisions.

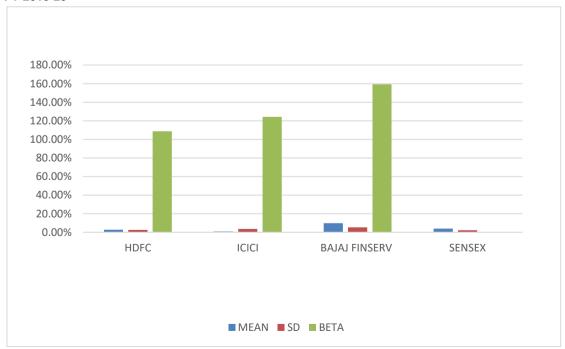
Table 4: A Comparison of HDFC, ICICI Bank and BAJAJ FINSERV on yearly and quarterly basis Yearly returns of HDFC, ICICI Bank and BAJAJ FINSERV VS SENSEX during FY 2018-23

2018-2023	MEAN	SD	BETA
HDFC	7.11%	8.82%	0.15
ICICI	21.52%	22.59%	1.30%
BAJAJ FINSERV	3.71%	66.05%	5.41%
SENSEX	11.17%	9.16%	



2018-2023	MEAN	SD	BETA
HDFC	2.74%	2.62%	1.09
ICICI	0.83%	3.68%	1.24
BAJAJ FINSERV	9.73%	5.31%	1.59
SENSEX	3.94%	2.19%	

Quarterly returns of HDFC, ICICI Bank and BAJAJ FINSERV FINSERV VS SENSEX during FY 2018-23



In terms of yearly returns:

- **HDFC:** HDFC has shown an average yearly return of 7.11%, which is lower than the average return of the SENSEX (11.17%). However, HDFC's standard deviation of 8.82% indicates higher volatility in its returns compared to the SENSEX. The low beta value of 0.15 suggests that HDFC's returns have been less sensitive to market movements.
- ICICI Bank: ICICI Bank has outperformed the SENSEX in terms of average yearly returns, with a mean of 21.52% compared to the SENSEX's 11.17%. However, ICICI Bank's standard deviation of 22.59% indicates higher volatility in its returns. The beta value of 1.30 suggests that ICICI Bank's returns have been more sensitive to market fluctuations.
- Bajaj Finserv: Bajaj Finserv has shown lower average yearly returns of 3.71% compared to the SENSEX. Additionally, its standard deviation of 66.05% signifies significantly higher volatility in its returns. The high beta value of 5.41 indicates that Bajaj Finserv's returns have been highly responsive to market movements.

Turning to quarterly returns:

- HDFC: On a quarterly basis, HDFC has an average return of 2.74%, which is lower than the SENSEX's average quarterly return of 3.94%. The standard deviation for HDFC's quarterly returns is 2.62%, suggesting relatively lower volatility compared to the SENSEX. The beta value of 1.09 indicates moderate sensitivity to market fluctuations.
- ICICI Bank: ICICI Bank's average quarterly return stands at 0.83%, lower than the SENSEX's average return of 3.94%. However, ICICI Bank exhibits a higher standard deviation of 3.68%, indicating higher volatility in its quarterly returns. The beta value of 1.24 suggests moderate sensitivity to market movements.
- **Bajaj Finserv:** Bajaj Finserv has the highest average quarterly return among the three, with 9.73%, surpassing the SENSEX's average quarterly return. However, it also has a higher standard deviation of 5.31%, indicating higher volatility. The beta value of 1.59 suggests moderate sensitivity to market fluctuations.

In summary, ICICI Bank has shown higher average returns than HDFC and Bajaj Finserv, both in yearly and quarterly periods. However, it has also exhibited higher volatility. HDFC has shown relatively stable performance with lower returns, while Bajaj Finserv has demonstrated higher volatility and lower returns.

# Inferentialstatisitics with Application of Statistical Tool

**Ho:** There is no significant difference between the means of returns of three different BFSI companies

H1: There is a significant difference between the means of returns of three different BFSI companies

Groups	Count	Sum	Average	
Group 1	5	35.56	7.112	77.73312
Group 2	5	107.59	21.518	510.293
Group 3	5	86.3	17.26	318.6914

ANOVA						
Source of Variation	SS	df	MS	F	P-value	F crit
Between Groups	547.7422	2	273.8711	0.90614	0.430026	3.885294
Within Groups	3626.87	12	302.2391			
Total	4174.612	14				

In the above analysis applying one way ANOVA statistical tool, it is concluded that the alternative hypothesis is rejected and the null hypothesis is accepted since test statistic pf p > than 0.05.

## **Findings**

 HDFC, while delivering positive returns each year, has performed relatively poorly compared to the SENSEX. The average return of HDFC for the five-year period of 2018-2023 was 7.11%, with a SD of 8.82%, while the SENSEX delivered an average return of 11.17%, with a SD of 9.16%. The beta value of HDFC was 0.15, indicating that the stock is less volatile than the market.

- ICICI Bank has outperformed the SENSEX in terms of average returns over the past five financial years, but with higher volatility as evidenced by a higher standard deviation and beta value. While the returns of ICICI Bank have been positive in all but one year, investors with lower risk tolerance may want to consider other investment options.
- Bajaj Finserv has significantly underperformed the SENSEX index over the past five financial years, with an average return of only 3.71% compared to the SENSEX's average return of 11.17%. The stock has also been highly volatile, experiencing negative returns in two out of five years and a steep decline of 90.55% in 2021-2022. The beta value of Bajaj Finserv is very high at 5.41, indicating that it is very volatile and may not be suitable for most investors.
- ICICI Bank has demonstrated higher average yearly returns (21.52%) compared to both HDFC (7.11%) and Bajaj Finserv (3.71%), outperforming the SENSEX (11.17%) as well. However, ICICI Bank has exhibited higher volatility in its returns, indicating greater sensitivity to market fluctuations. HDFC, on the other hand, has shown relatively stable performance with lower returns. Bajaj Finserv has displayed the highest average quarterly return (9.73%) among the three, surpassing the SENSEX's average quarterly return (3.94%), but it also exhibits higher volatility.

### Suggestions

Based on the data, investors with a low risk tolerance may want to consider HDFC as a potentially stable investment option with lower risks and returns. However, it is important to carefully evaluate personal investment objectives and diversification strategy before making any investment decisions.

For investors with a higher risk tolerance, ICICI Bank may be a potential investment opportunity with higher potential returns but also higher risks. However, it is important to carefully assess personal risk tolerance and investment goals before making any decisions.

Bajaj Finserv has significantly underperformed the SENSEX over the past five years and has a very high risk and lower returns compared to other investments. It may not be suitable for most investors, and it is important to carefully assess personal investment goals and risk tolerance before considering this option.

Based on the data, consider diversifying the portfolio by including ICICI Bank due to its higher average returns. However, carefully manage the higher volatility of Bajaj Finserv and monitor its performance closely. Additionally, regularly review your investments, stay informed about market trends, and consult with a financial advisor to make informed decisions aligned with your financial goals and risk tolerance.

### Limitations of the Study

- The study is limited to five years only
- Stock prices can be influenced by dynamic external factors too apart from internal factors.
- Evaluating stock performance involves analysing various data points, which can be subjective and open to interpretation.
- Stock prices can be volatile in the short term, and evaluating performance over a short period
  may not necessarily provide a complete picture of a company's long-term growth potential.

#### Conclusion

In conclusion, the data presented in the tables highlight the importance of carefully evaluating investment options before making any decisions. While HDFC may be a stable investment option for risk-averse investors, ICICI Bank may be more suitable for those with higher risk tolerance. Bajaj Finserv has underperformed the SENSEX and may not be a suitable investment option for most investors due to its high risk and lower returns. It is important to use the SENSEX as a benchmark for evaluating the performance of other investments and to have a well-diversified portfolio that aligns with personal investment goals and risk tolerance.

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