



# A STUDY ON SYSTEMATIC RISK, UNSYSTEMATIC RISK AND RETURN UNDER SELECTED PUBLIC BANKS

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**Abstract:** The main objective of the study is to give investors a basic idea of investing into the mutual funds and encourage them to invest in those areas where they can maximize the return on their capital. The research provided an interesting insight into awareness about the mutual funds, risk taking abilities of investors and investment options preferred etc. The Indian Capital has been increasing tremendously during the last few years. With reforms of economy, reforms of investing policy, reforms of public sector and reforms of financial sector, the economy has been opened up and many developments have been taking place in the Indian money market and Capital market. In order to help the small investors, mutual fund industry has come to occupy an important place. This study helps us to understand how the companies diversify themselves in different sectors and in different companies to maximize the returns and to minimize the risks involved in it.

**Key words:** Risk, Returns, Investor behavior.

**INTRODUCTION :** Returns are the gains or losses from a security in a particular period and are usually quoted as a percentage. Risk is chance or possibility of suffering loss due to future uncertainty. Risk is classes into 2 main categories i.e **Systematic** :- Which cannot be diversifiable, some of them are Market risk, Interest rate, Purchase power, Exchanges rate. **Unsystematic** :- Which can be diversifiable like Business risks like management efficiency, labors problem, change in consumer, technology changes and financial risk. The profit or loss which the Investors have on their investment is a return. The total income generated by an investment avenues made as a percentage of amounts. The return may be in the form of interest or dividend is income or capital gain.

Total return(%)= Interest or dividend + (Selling price - Buying price) / Buying price \* 100.

**NEED FOR THE STUDY:** The need for the study is to help the investors to decide whether the risk is minimum to invest in a security and to know the level of risk before the investment which can contribute in decision making.

### OBJECTIVES OF THE STUDY:

- To analysis the fluctuating risk and return of private and public banks.
- To compare the risk and return of private and public bank.

**SCOPE AND PERIOD OF THE STUDY:** The scope of the study is confined to HDFC Bank, Axis Bank, Bank of India and Punjab national bank for the period of 3 years i.e 2019, 2020, 2021.

### RESEARCH METHODOLOGY:

Source of Data collection

1. Primary Data
2. Secondary Data

### TOOLS AND TECHNIQUES OF THE STUDY:

#### TECHNIQUES

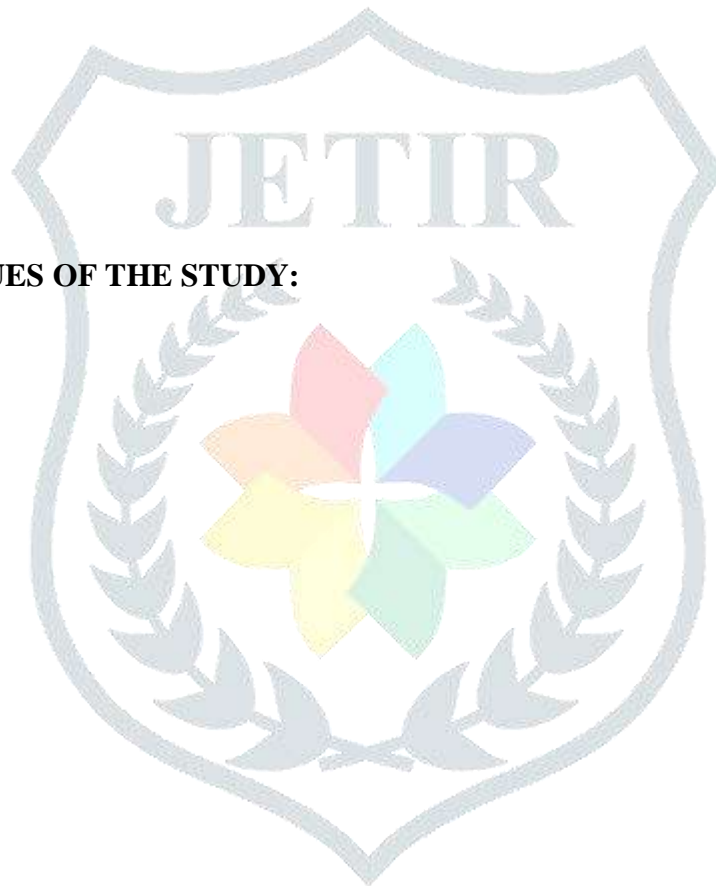
- Mean deviation
- Variance
- Correlation
- Covariance
- Beta

#### TECHNIQUES

- Tables
- Graphs
- Percentage

### LIMITATIONS OF THE STUDY:

- The time period of the project is limited for 3 financial years i.e.2019, 2020, 2021.
- The study of project is limited to the selected two public and two private banks.
- The selected banks are HDFC, Bank of India, Axis, PNB.



**STANDARD DEVIATION OF HDFC BANK FOR THE PERIOD OF 3 YEARS (2019-2021):**

Year	Return	Avg. return (R̄)	d= (R-R̄)	d <sup>2</sup> (in Rupees)
2021	41.8089	6.4321	35.3768	1,251.5179
2020	-26.0726	-4.0111	-22.0616	486.7141
2019	21.9028	3.3696	18.5332	343.4795
			<b>Total</b>	<b>∑d<sup>2</sup> =2081.7115</b>

**Interpretation:**The above table shows that the risk is associated with price movement of HDFC Bank for the financial years i.e. 2019 to 2021 is 32.26229% and the variance of three years is Rs.1040.8557. The average returns are high in years of 2019 and 2021 and it has positive values i.e. 6.4321% and 3.3696%. In the year 2020 it has low return as compared to previous years and it has negative value i.e. -4.0111%. C Bank is low and returns are high. So, there exist low risk and positive returns.

**STANDARD DEVIATION OF BANK OF INDIA FOR THE PERIOD OF 3 YEARS (2019-2021):**

Year	Return	Avg. return (R̄)	d= (R-R̄)	d <sup>2</sup> (in Rupees)
2021	101.2760	15.5809	85.695	7,343.6330
2020	-103.7660	-15.964	-87.802	7,709.19120
2019	8.6107	1.3247	7.286	53.0857
			<b>Total</b>	<b>∑d<sup>2</sup> = 15105.909</b>

**Interpretation:** The above table shows that the risk associated with price movement of bank of India for the financial years i.e. 2019 to 2021 is 886.90773% and the variance of three years is Rs.7,552.9545. The average returns are high in years of 2019 and 2021 and it has positive values i.e. 15.5809% and 1.3247%. In the year 2021 it has low return as compared to previous years and it has value i.e. -15.964%. As per the calculation the overall risk associated with HDFC Bank is low and returns are high. So, there exist low risk and positive return.

**STANDARD DEVIATION OF AXIS BANK OF FOR THE PERIOD OF 3 YEARS (2019-2021):**

Year	Return	Avg. Return (R̄)	d= (R-R̄)	d <sup>2</sup> (in Rupees)
2021	61.5430	9.4681	52.0749	2,711.795
2020	-56.8392	-8.7444	-48.0948	2,313.1097
2019	44.8100	6.8938	37.9162	1,437.6382
			<b>Total</b>	<b>∑d<sup>2</sup>=6462.542</b>

**Interpretation:** The above table shows that the risk associated with price movement of axis Bank for the financial years i.e. 2019 to 2021 is 56.844% of the three years is Rs.3,231.271. The average returns are high in years of 2019 and 2021 and it has positive values i.e. 9.4681% and 6.8938%. In the year 2021, it has low return as to years and it has negative value i.e. 8.7444%. As per the calculations the over all risk associated with axis Bank is low and returns are high. so, there exist low risk and positive returns.

**STANDARD DEVIATION OF PUNJAB NATIONAL BANK OF FOR THE PERIOD OF 3 YEARS (2019-2021):**

Year	Return	Avg. Return (R̄)	d= (R-R̄)	d <sup>2</sup> (in Rupees)
2021	19.19357	2.95285	16.2407	263.76033
2020	-101.11651	-15.55638	-85.56013	7320.5307
2019	7.83881	1.20597	6.6329	43.9953
			<b>Total</b>	<b>∑d<sup>2</sup> = 7628.286</b>

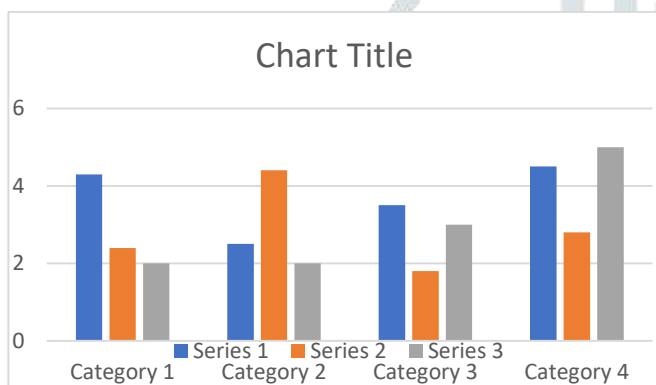
**Interpretation:** The above table shows that the risk associated with price movement of Punjab national Bank for the financial years i.e. 2019-2021 is 61.7587% of three years is RS 3,814.143. The average returns are high in years of 2019 and 2021 and it has positive values i.e. 2.95285% and 1.20597%. In the year 2021 it has low

return as compared to previous years and it has negative value i.e.—15.55638%.As per the calculation the overall risk associated with axis Bank is low and returns are high. so, there exist low risk and positive returns.

**COMPARISION OF STANDARD DEVIATION FOR THE THREE YEARS (2018-2021)**

Bank Name	Standard deviation (in rupees)
HDFC	32.2622
Bank of India	86.9077
Axis	56.8442
PNB	61.7587

**Graph 3.1**



**Interpretation:** Based on the above tabular ,Bank of India having high risk i.e, 86.9077%. If it is compared to other Banks(HDFC, Axis, PNB). The low risk is in HDFC if it is compared to Axis and PNB i.e, 32.2622%. The Axis bank and PNB bank has moderate value i.e, 56.8442% and 61.7587%.

**CALCULATION OF BETA FOR FOUR CORRELATED BANKS FOR THE THREE YEARS (2019-2021):**

BETA=covariance/variance

Banks	Covariance	Variance	Covariance/variance =Beta
HDFC Bank and Bank of India	1701.2326	(1040.8557+7552.9545) =8593.809	(1701.2326/8593.809) =0.19796

HDFC Bank and PNB Bank	368.9709	$(1040.8557+3814.143)$ =4854.998	$(368.97709/4854.99)$ =0.075997
Axis and Bank of India	2987.1583	$(3231.271+7552.9545)$ =10784.225	$(2987.158+10784.225)$ =0.1096222
Axis and PNB	663.2543	$(3231.27+3814.143)$ =7045.414	$(663.2543/7045.414)$ =0.09413

**INTERPRETATION:** As per calculation of beta all the values are less than 1 which means low risk in the banking sector, we have got beta value of HDFC & bank of India as 0.19796, HDFC & PNB as 0.075997, Axis and Bank of India as 0.1096222, Axis and PNB as 0.09413

**FINDINGS:**

- As per the calculations, the outcome of the average returns for the years(2018-2021) is negative value and two positive values such as 6.4321 (2021), -4.011( 2020) & 3.3696 (2019).
- From the above returns, the positive return are in the financial years (2018-2019) & (2020-2021).
- The risk associated for the financial year 2019-2020 is -4.011.
- As per the calculations, the outcome of the average returns for the years(2018-2021) is negative value and two positive values such as 15.5809 (2021), -15.964( 2020) & 1.3247 (2019).
- From the above returns, the positive return are in the financial years (2018-2019) & (2020-2021).
- The risk associated for the financial year 2019-2020 is -15.964.
- As per the calculations, the outcome of the average returns for the years(2018-2021) is negative value and two positive values such as 9.4681 (2021), -8.7444( 2020) & 6.8938(2019).
- From the above returns, the positive return are in the financial years (2018-2019) & (2020-2021).
- The risk associated for the financial year 2019-2020 is -8.7444.

- As per the calculations, the outcome of the average returns for the years(2018-2021) is negative value and two positive values such as 2.9528 (2021), -15.5563( 2020) & 1.20597(2019).
- From the above returns, the positive return are in the financial years (2018-2019) & (2020-2021).
- The risk associated for the financial year 2019-2020 is -15.5563.

### SUGGESTIONS:

1. The Investor s who want returns with low risk can prefer HDFC for investment as beta value is less than 1 .
2. The Investor who want high risk with positive return can invest in Bank of India as beta value is more than other comparative banks.
3. The investor who want High risk with high returns can invest in Bank of India as the beta value is 0.197.
4. The study reveals that the selected banks have low risk, if the Investor wants to invest with low risk to get expected return they can invest in these banks.

**CONCLUSION:** The investors need positive return on their investment but they also consider risk level on their investment. The beta values HDFC and PNB have low risk in investment compared to other Axis and Bank of India as beta value is low compared to Axis and Bank of India so the it is better to invest in HDFC and PNB. The investor who want to take higher risk can choose Bank of India as beta value is high then HDFC and PNB.

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