

### A COMPARATIVE ANALYSIS OF EQUITY STOCKS AT SELECT BANKS IN INDIA

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### Abstract

Since 1990 till date, Indian stock market has returned about 17% to investors on an average in terms of increase in share prices or capital appreciation annually. Besides that on an average, stocks have paid 1.5 % dividend annually. Dividend is a percentage of the face value of a share that a company returns to its shareholders from its annual profits. Comparing the most other forms of investments investing in equity shares offers the highest rate of returns if invested over a long duration. Banks are the major part of any economic system. They provide a strong base to Indian economy as well. Even in the share markets, the performance of banks shares is of great importance. Thus, the performance of the share market, the rise and the fall of market is greatly affected by the performance of the banking sector shares and this study revolves around all factors, their understanding and a theoretical and technical analysis.

### Key Words: Banking Sector, Equity Analysis, Technical Analysis, Fundamental Analysis, Beta.

### **1.0. Introduction**

1.1. Banking Sector: As per the Reserve Bank of India (RBI), India's banking sector is sufficiently capitalized and wellregulated. The financial and economic conditions in the country are far superior to any other country in the world.

Indian banking industry is expected to witness better growth prospects in 2015 as a sense of optimism stems from the Government's measures towards revitalizing the industrial growth in the country. In addition, RBI's new measures may go a long way in helping the restructuring of the domestic banking industry.

The Indian banking system consists of 26 public sector banks, 25 private sector banks, 43 foreign banks, 56 regional rural banks, 1,589 urban cooperative banks and 93,550 rural cooperative banks, in addition to cooperative credit institutions. Public-sector banks control nearly 80 percent of the market, thereby leaving comparatively much smaller shares for its private peers.Indian banks are increasingly focusing on adopting integrated approach to risk management. Banks have already embraced the international banking supervision accord of Basel II. According to RBI, majority of the banks already meet capital requirements of Basel III, which has a deadline of March 31, 2019. Most of the banks have put in place the framework for asset-liability match, credit and derivatives risk management.

Rising incomes are expected to enhance the need for banking services in rural areas and therefore drive the growth of the sector; programmes like MNREGA have helped in increasing rural income aided by the recent Jan Dhan Yojana. The Reserve Bank of India (RBI) has relaxed its branch licensing policy, thereby allowing banks (which meet certain financial parameters) to set-up new branches in tier-2 to tier-6 centers, without prior approval from RBI. It has emphasized the need to focus on spreading the reach of banking services to the un-banked population of India.

## Equity

Equity is the interest of investors in the business firm. The investors can own equity shares in a firm in the form of common stock or preferred stock. On a company's balance sheet equity is represented by common stock, preferred stock, paid in capital and retained earnings. The equity can be calculated by subtracting total liabilities from total assets. Equity Analysis: Equity or stock analysis is a term that refers to the evaluation of particular trading instrument in the investment sector or market as a whole. There are two types of equity analyses.

- 1. Fundamental Analysis
- 2. Technical Analysis

#### **Fundamental Analysis**

Fundamental Analysis is the analysis of different forces that affect the health of the economy in the industry groups and companies. The fundamental analysis main goal is to drive forecast and profit from future price movements and it may involve examination of financial data, management, business concept and competition. For the national economy fundamental analysis might focus on economic data to assess the present and future growth of the economy to forecast future stock prices, future value, and stocks value. The fundamental analysis look into capitalize on perceived prices, concentrates on data from sources including financial records, economic records, company assets and market shares.



Technical Analysis refers to the study of market generated data like prices & volume to determine the future direction of prices movements. Technical analysis mainly seeks to predict the short term price travels. The focus of technical analysis is mainly on the internal market data, i.e. prices & volume data. It appeals mainly to short term traders. It is the oldest approach to equity investment dating back to the late 19th century. Financial Ratios from the statements of an organization provide useful information on the performance of the company. Technical analysis helps to predict trend of the share prices. Financial ratio analysis is a tool of financial statement, it simplifies the financial statements. Ratio Analysis explains relationship between past and present information.

### Beta

Beta is used in the finance as a measurement tool of investment portfolio risk. Beta is calculated as the covariance of the portfolio returns of the company with benchmark returns divided by the variance of the benchmark returns. A beta of 1.5 means that for every 1% change in the value of the benchmark and the portfolio's value changes by 1.5%.

When =1 the scrip has same instability as compared to index. This level of risk is suitable for moderate investors. When >1 the scrip is more instability as compared to market suitable for aggressive investors. When <1 the scrip is less instability as compared to market and suitable for defensive investors.

Beta of stocks plays vital role in scrip selection in Portfolio management. Portfolio can be created in many ways as sector wise, diversified in various sector, beta wise scrip portfolio.

### **1.2. Need for the Study**

The shareholders are the owners of the company they have to pay regular interest and principal at the end. Stock/shares are playing a major role in acquiring capital to the business in return investors are paid dividends to the shares they won. The more shares you own the more dividends you receive. The role of equity analysis is to provide information to the market. An efficient market relies on information a lack of information creates in efficiencies that results in stocks being misrepresented. This study fills information gaps so that each individual investor not needs to analyse every stock thereby making the markets more efficient. The study is need to the performance of stocks through analysis in order to know the trend of a share, which helps in deciding whether to invest or not to invest in the security. The research studies provided that investments in some shares with a longer tenure of investment have yielded far superior returns than any other investment. However this does not mean all equity investments would guarantee similar high returns. Equities are high risk investments. One needs to study them carefully before investing.

#### **1.3.** Scope of the Study

The study is mainly limited to the Equity Analysis of banks SBI, HDFC, and ICICI with the help of tools and risk and relationship involved in share prices of the banks tested. Further has covered five years time period. The study is helping to identify volatility of selected banks.

### 1.4. Objectives of the Study

- 1. To analyse the performance of the stocks using financial ratios.
- 2. To analyse equity stocks using Fundamental and Technical analysis selected banks.
- 3. To find risk involved in equity stocks in selected banks.

## 1.5. Research Methodology

The present study is based on secondary data. The secondary data was collected form books, journals, and company websites. The entire secondary data were collected form official websites of Nifty. The period of the study is five years 2011 to 2015. The tools used for analysis means, covariance, beta, ratios, and trend analysis. To test the hypothesis the statistical tools was used such as chi-square and correlation analysed by using the software's of MS-excel and SPSS.

#### 2.0. Review of Literature

Grewal S.S & Navjot Grewall(1984) revealed some basic investment rules they warned the investors not to buy unlisted shares, as stock exchanges do not permit trading in unlisted shares. Another rule that they specify is not to buy inactive shares and the third rule according to them is not buy shares in closely held companies because these shares tend to do less active than the widely held ones since they have few number of share holders.

Hanumantha Rao. P, Subhendu Dutta (2014) observed that the last 5-6 years have been very volatile for not only the Indian economy, but also for the entire world economy. Lots of investors have lost their money as the stock prices have fallen flat all



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over the world during this period. The banking sector has always been one of the important sectors for investment. In the time of uncertainty, when some are arguing that the economies are in the process of recovery, and while others are opining that the world is set for another recession soon, the present article attempted to study the fundamentals of the banking sector in India. Their article considered the variables like net operating margin (OPM), net profit margin (NPM), return on equity (RoE), earnings per share (EPS), price earnings ratio (PER), dividends per share (DPS), and dividend payout ratio (DPR) for a period of 6 years from 2006-07 to 2011-12 for three major banks in India - SBI, ICICI Bank, and HDFC Bank. The paper also compared the fundamentals of SBI, ICICI Bank, and HDFC Bank.

Shalini Shukla (2015) conducted a study on performance of the banking industry in India on the bases of financial parameters. The study is conducted on 46 commercial banks public and private banks sectors were in included on the size, growth, profitability and soundness and suggested eleven financial performance indicators. The findings highlighted that public and private sector banks were not very much different in terms of size and growth parameters.

T. Naryanaswamy & A.P. Muthulakshmi (2014) examined the relative efficiency of all the private sector banks in India form 2008 to 2013 data envelopment analysis methodology. Axis Bank, Kotak Mahindra Bank, and ICICI Bank were relatively efficient in terms of technical efficiency, pure technical efficiency, and scale efficiency. The average (overall) technical inefficiency score during the study period was found to be 6%. In terms of pure technical efficiency, apart from the above three banks, HDFC Bank and National Bank were also relatively efficient. The average (overall) pure technical inefficiency score during the study period was found to be 5%. Positive correlation ranging from 0.7 to 0.95 was observed between return on assets and different types of efficiencies during the study period (except for the year 2008-09). Negative correlation ranging from -0.3 to 0.5 was observed between non - performing assets ratio and different types of efficiencies during the study period (except for the year 2008-09).

R. Thamaraiselvi, Anupama (2008) studied in their paper that the equity market at present is booming, and with the Bull Run in our market and with FII's pouring money into our market with Industrial expansion and Retail participants increasing, everything seems to be set right for an "EQUITY BOOM" in India. So an individual who wants to earn superior return with substantial amount of risk has to necessarily participate in equity market to get superior returns in the short span of time. Therefore this project is all about guiding those investors who would like to invest in NIFTY 50 with some useful insights about the Banking sector in the Indian market and some company specific information which would help them in selecting their stock and also it would help them in identifying the timing of the purchase, so that one can improve his odd of making money. Hence, the study is an attempt to analyze, the stock price movements based on the fundamental and technical approach in the banking sector over a period of three years and indicate the impact of various factors that affects the stock price.

S.P.Kothari and Jay Shanken and Sloan (1995) shows that beta significantly explains cross sectional variation in average returns, but that size also has incremental explanatory power. The findings shown that statistically significant, the incremental benefit of size given beta is surprisingly small economically.

## 3.0. Data Analysis and Interpretation

#### 3.1. Fundamental Analysis

**Price-Earnings Ratio** (**PER**): The PER depends on the market's perception of the risk and future growth in earnings. A company with a low PER indicates that the market perceives it as higher risk or lower growth or both as compared to a company with a higher PER. The PER of a listed company's share is the result of the collective perception of the market as to how risky the company is and what its earnings growth prospects are in relation to that of other companies. Investors use the PER to compare their own perception of the risk and growth of a company against the market's collective perception of the risk and growth as reflected in the current PER. If the investor feels that his perception is superior to that of the market, he can make the decision to buy or sell accordingly.

Price-	earnings ratio =	Earnings Per	Share
	Та	ble1	
Years	SBI	HDFC	ICICI
2011	194.25	75.37	214.62
2012	121.81	24.04	170.49
2013	93.28	20.32	144.92
2014	117.29	19.89	138.81
2015	14.97	21.38	31.40
	e: Annual Repo		_



### Interpretation

From the table, it is observed that the Price earnings ratio of all three banks decreased in the five years. The ratio of SBI is 14.97 in 2015, which is lowest of the three banks. It is 194.25 in 2011 and it decreased steeply to 121.81in 2012 and reached 14.97 in 2015 after fluctuating. PE ratio of HDFC is at 75.37 in 2011, but it has decreased considerably in 2012 to 24.04. After some fluctuation, it reached 21.38 in 2015. ICICI bank has highest ratio of 214.62 in 2011 and from 2012 it followed decreasing trend till 2014 and in 2015, it reached to 31.4, which is lower than remaining years. Ratios of SBI and ICICI have a steep decrease in the year 2015, when compared to HDFC bank as the HDFC bank's ratio remained stable from 2012.

**Earnings per Share (EPS):** It is used to know the fraction of total earnings per each share that is outstanding. This gives the Net profit earned by each share of the company. If EPS is higher, it means that profit per share is higher. It indicates profitability of the company.

Earnings per Share = <u>
No.of Equity Shares</u>

#### Table 2: EPS – Earnings per Share of SBI, ICICI and HDFC Bank

	Years	SBI	HDFC	ICICI
	2011	11.61	18.18	4.47
	2012	17.45	24.16	5.61
	2013	20.62	31.79	7.22
	2014	14.58	40.87	8.49
Ī	2015	17.55	49.61	9.64
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Source: Annual Reports of Banks SBI, HDFC&ICICI

#### Interpretation

The Earnings per share of the three banks are on rising trend. Ratio of SBI is at 11.61 in 2011. It has increased to 20.62 in the year 2013, reached 14.58 in 2014 and again increased slightly in 2015. The ratio of HDFC has increased consistently from 18.18 in 2011 to 49.61 in 2015. HDFC has highest ratio of 49.61 in 2015, when compared with other two banks. ICICI bank has ratio of 4.47 in 2011, which is lowest in five years. From 2012, it steadily increased and reached to 9.64 in 2015. ICICI bank has lower EPS when compared to the other two banks.

**Return on Net Worth:** Return on Net Worth (RoNW) is the amount of net income returned as a percentage of shareholders equity. Return on equity measures a corporation's profitability by revealing how much profit a company generates with the money shareholders have invested. It is also called as Return on Equity (ROE).

Return on Net Worth is expressed as a percentage and calculated as:

	Return on Net Worth = $\frac{Net Income}{Net Income}$						
		Return on Net	worth =	rth			
1	able 3: Retur	n on Net Wort	h of SBI, HDFC	and ICICI: (in %)			
	Years	SBI	HDFC	ICICI			
	2011	11.34	15.83	9.35			
	2012	13.95	17.62	10.70			
	2013	14.26	19.05	12.48			
	2014	9.20	20.16	13.40			
	2015	10.20	17.26	13.89			
	Source:	Annual Reports	of Banks SBI,HI	DFC&ICICI			

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Interpretation

The RoNW of SBI in 2011 is 11.34. It has increased to 14.26 in 2013, but has decreases to 9.20 in 2014 and reached 10.20 in 2015. The RoNW of HDFC has increased from 15.83 in 2011 to 20.16 in 2014, and slightly decreased to 17.26 in 2015. The RoNW of ICICI bank is 9.35 in 2011. From 2012, it has steadily increased to 13.89 in 2015. It has an increasing trend.

**Total Assets to Debt Ratio:** This ratio measures the extent of the coverage of long-term debts by assets. It is calculated by dividing Total assets with Long-term debt. The higher ratio indicates that assets have been mainly financed by owner's funds and the long-term loans are adequately covered by assets. It is observed that in that case, the ratio is the reciprocal of the debt to capital employed ratio. Significance: This ratio primarily indicates the rate of external funds in financing the assets and the extent of coverage of their debts are covered by assets.



Tal	Table 4: Total Assets to Debt Ratio of SBI, HDFC and ICICI Bank							
	Years	SBI	HDFC	ICICI				
	2011	1.16	1.24	1.21				
	2012	1.140	1.25	1.20				
	2013	1.141	1.22	1.23				
	2014	1.136	1.21	1.22				
	2015	1.15	1.19	1.21				
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Total Assets to Debt Ratio =  $\frac{Total Assets}{Total Debt}$ 

Source: Annual Reports of Banks SBI, HDFC&ICICI

#### Interpretation

The ratio of SBI is 1.16 in 2011. It has reached lowest of 1.136 in 2014 after minor fl fluctuated and increased slightly to 1.15 in 2015. The Ratio of HDFC reached a maximum of 1.25 in 2014 and from then it followed a decreasing trend. It has reached 1.19 in 2015 which is lowest in the five years. (i.e. from2011-15. The ratio of ICICI bank increased is 1.21 in 2011. It decreased slightly to 1.20 in 2012 and reached to maximum of 1.23 in 2013. It reached to 1.21 in 2015. The ratio of HDFC and ICICI are higher than that of SBI.

#### **Proprietary Ratio**

The proprietary ratio is also known as the equity ratio. The propriation of shareholders equity to total assets and such provides rough estimates the amount of capitalization currently used to support a business. If the ratio is high this indicates that a company has sufficient amount of equity to support the functions of the business, and probability has room in its financial structure to take on additional debt if necessary. A low ratio indicates that the business may be making use of too much debt or trade payables, rather than equity to support operations.

	Proprietary Ratio = ShareHolders Funds							
Table 5	Table 5: Proprietary Ratio of SBI, HDFC Bank and ICICI Bank							
	Years	SBI	HDFC	ICICI				
	2011	5.31	9.15	13.56				
	2012	6.28	8.86	12.75				
	2013	6.31	9.05	12.43				
	2014	6.60	8.84	12.31				
	2015	6.27	10.50	12.45				

Source: Annual Reports of Banks SBI, HDFC&ICICI

#### Interpretation

Ratio of SBI slightly increased from 5.31to 6.28 in 2012, and after minor fluctuations it reached to 6.27 in 2015(from 5.31 in 2011). Ratio of HDFC is 9.15 in 2011has slight fluctuations 2011 to 2014 and it has increased to 10.50 in 2015, which is 1.35% higher than that of 2011. The ratio of ICICI is at 13.56 in 2011which is the highest, but it has decreased from 2012, and reached 12.45 in 2015 after instability. The proprietary ratio of ICICI is higher than the other two banks and SBI has lowest proprietary ratio of all the three banks.

#### **3.2.** Technical Analysis

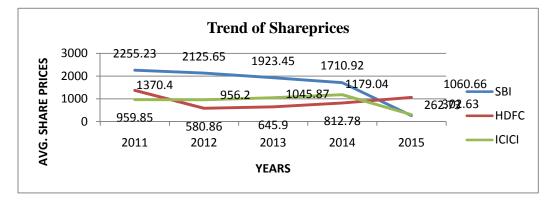
Technical Analysis of SBI, HDFC, ICICI Banks

#### 3.2.1. Trend Analysis

The average share prices for the year are considered for analyzing the trend. The past trend for the share prices of the three stocks is as follows:

Table: 6 Average Share Prices of SBI, HDFC and ICICI Bank						
Year	SBI	HDFC	ICICI			
2011	2255.23	1370.40	959.85			
2012	2125.65	580.86	956.20			
2013	1923.45	645.90	1045.87			
2014	1710.92	812.78	1179.04			
2015	262.73	1060.66	302.63			





## Interpretation

The Average price of SBI is highest in 2011 at Rs.2255.23. It has continued to decline in the remaining years. It has steeply decreased in 2015 to 262.73. The price (Avg.) of HDFC is at 1370.4 in 2011. It has steeply declined in 2012 to 580.86. It has consistently increased from 2013 to 1060.66 in 2015. It is higher than SBI and ICICI in 2015. The price of ICICI has increased from 959.85 in 2011 to 1179.04 in 2014. It steeply declined to 302.63 in 2015.

## 3.3. Beta Calculation for SBI, HDFC and ICICI Stocks

Following formulas are used in the calculation of beta:

Formula for Beta is: Beta 
$$(\beta) = \frac{\text{covariance}(\mathbf{r}_{a}, \mathbf{r}_{b})}{\text{variance}(\mathbf{r}_{b})}$$
  
Where, covariance  $(\mathbf{r}_{a}, \mathbf{r}_{b}) = \frac{\Sigma(\mathbf{x} - \overline{\mathbf{x}})(\mathbf{y} - \overline{\mathbf{y}})}{N}$ 

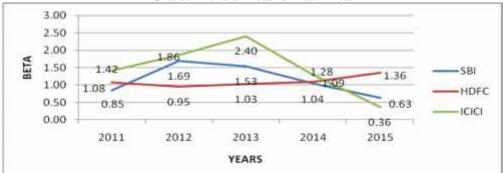
ariance 
$$(r_b) = \frac{\sum (X - X)}{N}$$

V

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Table: 7 Beta (Yearly) for Three Stocks					
Year	SBI	HDFC	ICICI		
2011	0.85	1.08	1.42		
2012	1.69	0.95	1.86		
2013	1.53	1.03	2.40		
2014	1.04	1.09	1.28		
2015	0.63	1.36	0.36		

#### **Chart: Trend of Beta for Each Year**



#### Interpretation

The beta of SBI is at 0.84 which is lower than other stocks in 2011. It steeply increased to 1.69 in 2012 and followed a declining trend in remaining years. It reached 0.63 in 2015. HDFC has a beta of 1.08 in 2011. It has minor fluctuations in the years 2012 to 2014 and in 2015; it reached 1.36, which is highest of the three stocks. The beta of ICICI is 1.42 in 2011, which is higher than other stocks. It increased to 1.86 in 2012 and reached maximum of 2.40 in 2013. In 2014 and 2015, it steeply decreased and reached a lowest beta 0.36 in 2015. In 2015, HDFC bank has highest beta and ICICI has lowest beta.



# 4.0. Hypothesis Testing

Ho1: There is no correlation between the average share prices of SBI, HDFC and ICICI

Correlations						
		SBI	HDFC	ICICI		
	Pearson Correlation	1	$1.000^{**}$	$1.000^{**}$		
SBI	Sig. (2-tailed)		.000	.000		
	Ν	5	5	5		
	Pearson Correlation	$1.000^{**}$	1	$1.000^{**}$		
HDFC	Sig. (2-tailed)	.000		.000		
	Ν	5	5	5		
ICICI	Pearson Correlation	$1.000^{**}$	$1.000^{**}$	1		
	Sig. (2-tailed)	.000	.000			
	N	5	5	5		
**. Correla	ation is significant at the 0.0	1 level (2-taile	d).			

The above table revealed that the correlation of the average share prices between the SBI, HDFC and ICICI Bank at the significance level (2-tailed) of 0.01 the person correlation significant value is 0.00, it is concluded that person correlation value less than the 0.05. Hence there is no correlation between the average share prices of SBI, HDFC and ICICI Bank. Ho2: There is no significant mean difference between the years and average share prices of SBI, HDFC and ICICI

ANOVA						
Source of Variation	SS	df	MS	F	P-value	F crit
Rows	1583990	4	395997.5	1.672252	0.248239	3.837853
Columns	1946628	2	973314	4.110192	0.059172	4.45897
Error	1894440	8	236805			
Total	5425058	14				

The above table revealed that the mean analysis of variance of average share prices the variance between the Banks F Value is 1.67 and the critical value is 3.84 hence there is significant difference between the average share prices of years. The mean analysis of variance of average share prices the variance between the Banks F Value is 4.11 and the critical value is 4.46 hence there is significant difference between the average share prices of SBI, HDFC and ICICI.

Ho3: Ho1: There is no correlation between the beta values of SBI, HDFC and ICICI

Correlations						
		SBI_b	HDFC_b	ICICI_b		
SBI_b	Pearson Correlation	1	848	.866		
	Sig. (2-tailed)		.069	.058		
	Ν	5	5	5		
	Pearson Correlation	848	1	876		
HDFC_b	Sig. (2-tailed)	.069		.052		
	Ν	5	5	5		
ICICI_b	Pearson Correlation	.866	876	1		
	Sig. (2-tailed)	.058	.052			
	Ν	5	5	5		

The above table revealed that the correlation of beta values between the SBI, HDFC and ICICI at the significance level (2-tailed) of 0.01 the person correlation significant value is 0.069, 0.058 and 0.052. It is concluded that person correlation value greater than the 0.05. Hence there is a correlation between the average share prices of SBI, HDFC and ICICI Bank. It shows that the correlation between SBI and HDFC Bank there is a negative correlation, SBI and ICICI Bank there is a positive correlation.

Ho4: There is no significant mean difference between the years and beta values of SBI, HDFC and ICICI



	ANOVA							
Source of Variation	SS	df	MS	F	P-value	F crit		
Rows	1.418573	4	0.354643	1.60028	0.264545	3.837853		
Columns	0.38836	2	0.19418	0.876211	0.452804	4.45897		
Error	1.772907	8	0.221613					
Total	3.57984	14						

The above table revealed that the mean analysis of variance of average share prices the variance between the Banks F Value is 1.6 and the critical value is 3.84 hence there is significant difference between the average share prices of years. The mean analysis of variance of average share prices the variance between the Banks F Value is 0.876 and the critical value is 4.46 hence there is significant difference between the average share prices of SBI, HDFC and ICICI.

## 5.0. Findings

# **Financial Analysis**

PE ratio of all banks decreased in 2015. There was higher fluctuation of SBI and ICICI bank, but HDFC bank has consistent ratio from 2012 to 2015. The sudden change in PE ratio of SBI and ICICI is Due to the stock split from Face value of Rs. 10 of both banks to lower denomination i.e., Rs. 2 per share in 2014. Overall highest ratio in 2015 is of ICICI Bank at 31.40 and lowest is of SBI. ICICI is better in this respect.

EPS of SBI declined in 2014, but it has increased in 2015. EPS of remaining two banks, HDFC and ICICI have positive trend. HDFC has highest EPS in all the years. It shows that profitability of HDFC is higher when compared to other banks.

Return on Net Worth is stable for ICICI and It is in an increasing trend. Ratio of SBI has decreased in 2014 and that of HDFC has decreased in 2015.

Total assets to debt ratio of SBI has lowest ratio in all years and it slightly decreased in 2015. HDFC and ICICI have similar levels and ICICI has highest ratio in 2015. All three banks have sufficient assets to cover the debt.

Proprietary ratio of SBI is lower than other two banks. Ratio of ICICI is higher than SBI and HDFC bank. Ratio of HDFC bank has slightly increased in 2015. It shows that ICICI bank has more assets funded with owners' or share holders funds. It has more capacity to bear the additional debt if necessary.

## The Trend of Share Prices

The trend of share prices, of SBI and ICICI is in a declining trend. The price of HDFC also declined in 2012, but steadily increased till 2015.

The price of SBI suddenly declined to Rs.262.73 in 2015. This is due to the stock split announced by SBI in November 2014. Similar decrease of ICICI to Rs.302.63 is due to stock split announced in December 2014.

So, it can be concluded that HDFC has higher price than SBI and ICICI, as it has not undergone split of equity shares. Thus, it is recommended to invest in SBI and ICICI as they are available at lower prices.

## Year Wise Beta from 2011 to 2015 Indicates the Following

HDFC has slightly more beta above 1, except in 2012. ICICI has highest beta from 2011 to 2014 and reached the lowest in the year 2015. HDFC has steady increase of beta and it has reached its highest in the year 2015 to 1.35. So it can be concluded that investment in the shares of ICICI is recommended for risk-averse investors.

### Correlation of the Average Share Prices between the SBI, HDFC and ICICI Bank

The correlation of the average share prices between the SBI, HDFC and ICICI Bank at the significance level (2-tailed) of 0.01 the person correlation significant value is 0.00, it is concluded that person correlation value less than the 0.05. Hence there is no correlation between the average share prices of SBI, HDFC and ICICI Bank.

## Correlation of Beta Values between the SBI, HDFC and ICICI Bank

The correlation of beta values between the SBI, HDFC and ICICI at the significance level (2-tailed) of 0.01 the person correlation significant value is 0.069, 0.058 and 0.052. It is concluded that person correlation value greater than the 0.05.



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Hence there is a correlation between the average share prices of SBI, HDFC and ICICI Bank. It shows that the correlation between SBI and HDFC Bank there is a negative correlation, SBI and ICICI Bank there is a positive correlation. HDFC and ICICI Bank there is a positive correlation.

## Analysis of Variance of Average Share Prices of the Banks

The mean analysis of variance of average share prices of the Banks F Value is 1.67 and the critical value is 3.84 hence there is significant difference between the average share prices of years. The mean analysis of variance of average share prices the variance between the Banks F Value is 4.11 and the critical value is 4.46 hence there is significant difference between the average share prices of SBI, HDFC and ICICI.

### Analysis of Variance of Beta Value of the Banks

The mean analysis of variance of beta the variance between the Banks F Value is 1.6 and the critical value is 3.84 hence there is significant difference between the average share prices of years. The mean analysis of variance of average share prices the variance between the Banks F Value is 0.876 and the critical value is 4.46 hence there is significant difference between the average share prices of SBI, HDFC and ICICI.

#### 6.0. Suggestions

The investors should understand the past performance of the companies before investing in the shares of those companies. Both the Fundamental analysis and Technical analysis should be used to study the stocks.

Investors should understand the limitations of the techniques used in both Fundamental as well as technical analysis.

#### References

- 1. P.Hanumantha Rao & Subhendu Dutta (2014) "Fundamental Analysis of the Banking Sector in India", *Indian Journal of Finance*.
- 2. Shalini Shukla (2015) "Performance of the Indian Banking Industry: A Comparison of Public and Private Sector Banks"-Indian Journal of finance.
- 3. T. Narayanaswamy, A. P. Muthulakshmi (2014) "Efficiency of Private Sector Banks in India" Indian Journal of Finance.
- 4. S.P. Kothari & Jay Shanken (1998)"Beta and Book-to-Market: Is the Glass Half Full or Half Empty" *Sloan School of Management*.
- 5. R. Thamaraiselvi, Anupama (2008) an Analytical Study on Equity Research of Stocks in Banking Sector, *Indian Journal of Finance*.
- 6. Dr. Rima Shah, Volume 4, Issue 6(June, 2015) "Investment perception regarding Indian Financial markets". *Abhinav International Monthly Refereed Journal of Research in Management & Technology.*