



# Investment Decision in Stock Market: An Application of Technical and Fundamental Analysis (A Study of Selected Industries)

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## I. INTRODUCTION

The current changing scenario of the overall economy, prices of the goods (inflation rate) is increased. Reserve Bank of India reduces the normal rate of return, therefore people not ready to invest their money in bank. Stock market is the only place where investors are ready to invest their money. Many investors invest their money in stock market on a random basis and their aim is to maximize return and to minimize risk. But many a times they suffer a big lose. Fundamental Analysis as well as Technical Analysis are the techniques which helps investors in a decision making process-what to buy and sell and when to buy and sell. The article mainly focuses on Fundamental Analysis and Technical Analysis (A Study of Selected Industries)". It takes the help of these factors-returns, risk, liquidity, Volatility and Safety. One should invest in the best suitable and less risky schemes or scrip. In the analysis of ten different scripts, the returns are calculated. On the basis of this, the best alternative for investment is suggested. This article can help all types of investors in taking investment decisions and can increase their productivity.

## II. OBJECTIVES

The main objectives of the article are:

- To highlights how to minimize investors risk and maximize returns in up and down market.
- To identify what to buy or sell and when to buy or sell.
- To conduct a company stock valuation and predict its probable price evolution
- To determine various financial ratios and make investment decision.

## III. SCOPE OF THE STUDY

The study is restricted to the two different industries for analysis i.e. Banking industry & Steel industry. In each industry five companies are selected on a random basis. In banking industries State Bank of India, Punjab National Bank, Bank of Baroda, ICICI Bank Ltd., Dena Bank were selected. In steel industry Tata steel, Jindal steel, Bhushan steel, Steel of Authority of India, Ispat steel were selected for the study purpose.

## IV. METHODOLOGY OF THE STUDY

The study is purely based on secondary data. The secondary data collected from various secondary sources such as newspapers, internet sites, magazines and companies financial report. The scripts are analyzed with the help of 5 day moving average, 20 day moving average, 30 day moving average and various financial ratios.

### i. Moving Averages:

Moving average means average of the share prices of a specific period. In order to calculate, as an example, the 5 day (here the period is 5 and measured in days) moving average, first found out the daily closing price of the particular scripts and then take the sum of last 5 days closing price and divided by 5.

5 Days MA =  $\frac{\text{Sum of last 5 days closing price of a particular script}}{5}$

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Same methods use for the 20 day moving average and 30 day moving average.

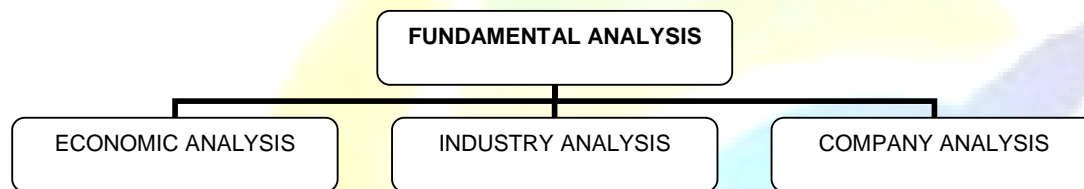
**ii. Financial Ratios:**

Ratio analysis is predominately used by proponents of fundamental analysis. There are many ratios that can be calculated from the financial statements:

Earning Per Share	Net Profit Margin
Cash Earning Per Share	Debt – Equity Ratio
Book Value	Current Ratio
Operating Profit Margin	Quick Ratio
Gross Profit Margin	Dividend Payout Ratio

**V. FUNDAMENTAL ANALYSIS**

Fundamental analysis of a business involves analyzing its financial statements and health of its management. It focuses on the overall state of the economy, interest rates, production, earnings, and management. Fundamental analysis is performed on historical and present data, but with the goal of making financial forecasts. Fundamental analysis considers basis three steps:



For the fundamental analysis, only company analysis selected for the study purpose. In company analysis, only financial ratios were used to analyzed whether the company is fundamentally strong or not for the investment.

**Table 5.1**  
**Banking Industry**  
**Each Year Various Financial Ratios of the Banking Companies**

Sr. No.	RATIOS	COMPANIES NAME														
		STATE BANK OF INDIA			PUNJAB NATIONAL BANK			BANK OF BARODA			ICICI BANK LTD.			DENA BANK		
		2009	2008	2007	2009	2008	2007	2009	2008	2007	2009	2008	2007	2009	2008	2007
1	EPS (Rs.)	143.67	106.56	86.29	98.03	64.98	48.84	61.14	39.41	28.18	33.78	37.37	34.59	14.74	12.54	7.03
2	CEPS (Rs.)	155.59	117.53	97.73	104.09	70.38	55.02	67.47	45.78	33.51	39.87	42.56	40.64	15.67	13.57	8.14
3	Book Value (Rs)	41.28	776.48	594.69	41.28	341.98	321.65	352.57	303.18	237.46	445.2	417.64	270.4	67.95	54.62	43.24
4	OPM (%)	19.5	19.29	17.72	21.8	21.74	19.41	18.2	15.94	16.17	14.13	14.45	13.33	9.13	6.93	3.24
5	GPM (%)	18.48	18.09	16.35	20.93	20.67	17.8	16.81	14.17	14.14	12.36	12.99	11.41	8.4	5.92	1.8
6	NPM (%)	12.03	11.65	10.12	13.76	12.68	12.53	12.86	10.38	10.22	9.74	10.51	10.81	10.95	11.61	8.3
7	Debt / Equity	12.81	10.96	13.91	15.96	15.44	13.79	14.99	13.77	14.44	4.42	5.27	9.5	22.09	21.67	22.33
8	Current Ratio	0.34	0.53	0.42	0.27	0.29	0.39	0.27	0.34	0.61	0.78	0.72	0.61	0.26	0.35	0.35
9	Quick Ratio	5.74	6.15	6.52	9.75	9.4	11.1	9.62	9.65	11.29	5.94	6.42	6.04	10.89	10.96	11.53
10	Dividend payout	22.9	22.64	18.98	23.86	23.4	30.71	17.22	23.75	24.59	36.6	33.12	33.89	9.52	9.32	13.31

Table 5.1 highlights various financial ratios of the banking companies operate in the banking industry.

- EPS ratio of various banking companies increased year by year. From April 2007 to March 2009 SBI EPS ratio increased 66.50%. PNB, BOB and Dena bank EPS ratio also increased 200.72%, 216.96%, 109.67% respectively. Only from April 2008 to March 2009 ICICI bank’s EPS ratio decreased -9.61%.
- Table 5.1 also shows that CEPS ratio of various bank were increased. From April 2007 to March 2009 SBI CEPS ratio increased 59.20%. PNB, BOB and Dena bank CEPS ratio also increased 89.19%, 101.34%, 92.51% respectively. It is a very good situation for the banks. Only from April 2008 to March 2009 ICICI bank’s EPS ratio decreased -2.39%.
- OPM ratio was also increased year by year. From April 2007 to March 2009 SBI OPM ratio increased 1.78%, PNB, BOB, ICICI bank and Dena bank OPM ratio also increased 2.39%, 2.03%, 0.8%, 5.89% respectively. It shows that financial positions of the banks are very good.
- Table 5.1 also highlights that GPM ratio of various banks were increased. From April 2007 to March 2009 SBI GPM ratio increased 2.13%. PNB, BOB, ICICI bank and Dena bank GPM ratio also increased 3.13%, 2.67%, 0.95%, 6.6% respectively.
- NPM ratio was also increased year by year. From April 2007 to March 2009 SBI NPM ratio increased 1.91%. PNB, BOB and Dena bank NPM ratio also increased 1.23%, 2.64% and 2.65% respectively. Only ICICI bank NPM ratio decreased 1.05%
- Table 5.1 also shows that Current ratio and Quick ratio decreased year by year.



**Table 5.2**  
**Steel Industry**  
**Each Year Various Financial Ratios of the Steel Companies**

NO.	RATIOS	COMPANIES NAME														
		TATA STEEL			JSW STEEL LTD.			BHUSHAN STEEL LTD.			SAIL			ISPAT STEEL LTD.		
		2009	2008	2007	2009	2008	2007	2009	2008	2007	2009	2008	2007	2009	2008	2007
1	EPS (Rs.)	69.7	63.85	72.24	22.96	90.84	77.09	99.2	99.77	73.76	14.95	18.25	15.02	-5.63	0.28	-0.07
2	CEPS (Rs.)	83.02	75.27	86.85	67.21	127.58	114.12	154.39	149.54	122.95	18.37	21.42	18.26	5.6	5.5	5.03
3	Book Value (Rs.)	345	296.65	236.82	410.07	349.99	310.92	367	290	285.96	20	18	41.6	14.68	14.96	15.31
4	OPM (%)	37.68	41.94	39.61	20.42	29.46	32.79	21.93	19.98	16.4	20.41	28.19	28.09	15.11	15.18	21.23
5	GPM (%)	33.69	37.7	34.91	14.51	23.43	26.99	17.22	14.92	10.94	17.48	25.1	24.56	2.87	7.55	12.95
6	NPM (%)	21.09	23.43	23.53	3.23	14.92	14.98	8.42	10.09	8.14	13.4	18.16	17.38	-7.27	0.41	-0.12
7	Debt/Equity	1.34	1.08	0.69	1.51	1.06	0.84	3.98	3.52	2.67	0.26	0.13	0.24	10.22	12.25	14.87
8	Current Ratio	0.97	3.92	1.77	0.52	0.58	0.76	1.67	1.66	1.87	1.82	1.73	1.59	1.26	1.25	1.58
9	Quick Ratio	0.57	3.52	1.37	0.28	0.27	0.43	0.91	0.88	1.07	1.24	1.23	1.01	0.52	0.53	0.8
10	Dividend payout	27.15	29.39	26.15	6.24	18.32	18.86	2.94	2.93	3.96	20.32	23.71	23.83	----	----	----

Table 5.2 highlights various financial ratios of the steel companies operate in the steel industry.

- EPS ratio of Bhushan steel ltd. increased year by year. From April 2007 to March 2009 EPS ratio increased 34.49%. From April 2007 to March 2009 Tata steel, JSW steel, SAIL EPS ratio decreased by 3.64%, 70.21% and 5.79% respectively.
- Table 5.2 also shows that CEPS ratio of Bhushan steel ltd. and Ispat steel increased year by year. From April 2007 to March 2009 CEPS ratio increased 25.57% and 11.33 respectively. From April 2007 to March 2009 Tata steel, JSW steel, SAIL CEPS ratio decreased by 3.64%, 70.21% and 5.79% respectively.
- Book value of steel companies increased year by year. It is very good for the steel companies. From April 2007 to March 2009 Book value of Tata steel, JSW steel and Bhushan steel increased 45.68%, 31.89%, 28.34% respectively.
- OPM ratio of Bhushan steel ltd. increased year by year. From April 2007 to March 2009 OPM ratio increased 5.53%. From April 2007 to March 2009 Tata steel, JSW steel, SAIL and Ispat steel OPM ratio decreased 1.93%, 12.37%, 7.68% and 6.12% respectively.
- Table 5.2 also highlights that GPM ratio of Bhushan steel ltd. increased year by year. From April 2007 to March 2009 OPM ratio increased 6.28%. From April 2007 to March 2009 Tata steel, JSW steel, SAIL and Ispat steel GPM ratio decreased 1.22%, 12.48%, 7.68% and 6.12% respectively.
- NPM ratio Bhushan steel ltd. increased year by year. From April 2007 to March 2009 EPS ratio increased 0.28%. From April 2007 to March 2009 Tata steel, JSW steel, SAIL NPM ratio decreased 2.44%, 11.75%, 3.98% respectively.
- Table 5.2 also shows that Current ratio and Quick ratio decreased year by year.

## VI. TECHNICAL ANALYSIS

“Technical analysis is the study of market action primarily through the use of charts and for the purpose of forecasting future price trends.”

Note: MARKET ACTION = PRICE + VOLUME

"It refers to the study of the action of the market itself as opposed to the study of the goods in which the market deals. Technical Analysis is the science of recording, usually in graphic form, the actual history of trading (price changes, volume of transactions, etc.) in a certain stock or in "the Averages" and then deducing from that pictured history the probable future trend."

For the Technical Analysis, first found out the last three years daily OPENING, HIGH, LOW AND CLOSING price of a particular script. Then, on the basis of these prices found out the 5 day moving average, 20 day moving average and 30 day moving average. From these averages any one can check the trend of share price- last 30 days the share price was continuously increased or decreased. Then, found out each year TOP and BOTTOM share price and found out DIFFERENCE between top and bottom share price. These differences give better idea about the investment decision and return.

**Table 6.1**  
**Banking Industry**  
**Each Year Top, Bottom and Difference between Top and Bottom of Various Banking Companies**  
**(Amount in Rs.)**

	COMPANIES NAME														
	STATE BANK OF INDIA			PUNJAB NATIONAL BANK			BANK OF BARODA			ICICI BANK LTD.			DENA BANK		
	2009	2008	2007	2009	2008	2007	2009	2008	2007	2009	2008	2007	2009	2008	2007
TOP	1935	2475.3	1379	751	721	700	455	501	465	807	1465	1348	63.5	99.55	94.5
BOTTOM	911	845	684	286.2	332	400	180.5	188.3	188.5	252.75	282.2	412	27.1	24.4	28.5
DIFF.	1024	1630.3	695	464.8	389	300	274.5	312.7	276.5	554.25	1182.8	936	36.4	75.15	56
GROWTH	112.40%	192.93%	101.60%	162.40%	117.17%	75%	152.08%	166.04%	146.68%	219.29%	419.35%	227.18%	134.31%	307.99%	196.49%

**Table 6.2**  
**Steel Industry**  
**Each Year Top, Bottom and Difference between Top and Bottom of Various Steel Companies**  
**(Amount In Rs.)**

	COMPANIES NAME														
	TATA STEEL			JSW STEEL LTD.			BHUSHAN STEEL			SAIL			ISPAT STEEL		
	2009	2008	2007	2009	2008	2007	2009	2008	2007	2009	2008	2007	2009	2008	2007
TOP	496.4	952	1048	762.15	1365.8	1389	1105	1730	1655	186	288.7	292.5	28.45	84.65	87.4
BOTTOM	148.65	146.35	399	163.65	170.4	381	260.05	290	369	70	55.25	82.7	9.3	9	10.61
DIFF.	347.75	805.65	649	598.5	1195.4	1008	844.95	1440	1286	116	233.5	209.8	19.15	75.65	76.79
GROWTH	233.94%	550.50%	162.66%	365.72%	701.53%	264.57%	324.92%	496.51%	348.51%	165.71%	422.62%	253.69%	205.91%	840.56%	723.75%

Table 6.1 shows last three years top and bottom share price and difference between top and bottom of various banking companies.

- In the year 2007, the top share price of State Bank of India was Rs. 1379 and bottom price was Rs. 684 and, difference between top and bottom was Rs. 695. In year 2008 and 2009 top share price was Rs. 2475.3 and 1935, and bottom price was Rs. 845 and 911 respectively and difference between top and bottom was Rs. 1630.3 and 1024 respectively. It indicates that if investors are able to catch the equity at a bottom price Rs. 684 in 2007 and hold it for any year can enjoy more than 100% return.
- Table 6.1 also highlights that in the year 2007, the top share price of Punjab National Bank was Rs. 700 and bottom price was Rs. 400 and, difference between top and bottom was Rs. 300. In year 2008 and 2009 top share price was Rs. 721 and 751 and bottom price was Rs. 332 and 286.2 respectively and difference between top and bottom was Rs. 389 and 464.8 respectively. It indicates that a careful investors can enjoy 70% of return every year. If investors are ready to hold the securities at least for three year can enjoy more than 150% return.
- In the year 2007, the top share prices of Bank of Baroda, ICICI Bank and Dena Bank were Rs. 465, 1348 and 94.5 and bottom prices were Rs. 188.5, 412 and 28.5 and, difference between top and bottom were Rs. 276.5, 936 and 56 respectively. In year 2008 and 2009 share prices of Bank of Baroda, ICICI Bank and Dena Bank were increased. It indicates that investors are holding the securities at least for one year can enjoy more than 120% return.

Table 6.2 shows last three years top and bottom share price and difference between top and bottom of various steel companies.

- In the year 2007, the top share price of Tata steel was Rs. 1048 and bottom price was Rs. 399 and, difference between top and bottom was Rs. 649. In year 2008 and 2009 top share price was 952 and 496.4 and bottom price was Rs. 146.35 and 148.65 respectively and difference between top and bottom was Rs. 805.65 and 347.75 respectively. It indicates that if investors are able to catch the equity at a bottom price Rs. 399 in 2007 and hold it for any year can enjoy more than 160% return.
- Table 6.2 also highlights that in the year 2007, the top share price of JSW steel was Rs. 1655 and bottom price was Rs. 381 and, difference between top and bottom was Rs. 1008. In year 2008 and 2009 top share price was Rs. 1365.8 and 762.15 and bottom price was Rs. 170.4 and 163.65 respectively and difference between top and bottom was Rs. 1195.4 and 598.5 respectively. It indicates that a careful investors can enjoy 260% of return every year. If investors are ready to hold the securities at least for three year can enjoy more than 100% return.
- In the year 2007, the top share prices of Bhushan steel, SAIL and Ispat steel were Rs. 1655, 292.5 and 87.4 and bottom prices were Rs. 369, 82.7 and 10.61 and, difference between top and bottom were Rs. 1286, 209.8 and 76.79 respectively. In year 2008 and 2009 share prices of Bhushan steel, SAIL and Ispat steel increased. It indicates that investors are holding the securities at least for one year can enjoy more than 150% return.



## VII. CONCLUSION

- From the study, it is observed that compare to the steel industry, banking industry was more stable and safer. If investors hold the Banking Industry's security at least for one year, they can enjoy more than 75% return and also hold it for three years; they can get more than 100% return.
- It was observed that banking industry is less risky than steel industry for the investment because the growth of various banks was stable and the growth was not more fluctuating. Researcher's selected scripts in banking industry for the study purpose, SBI and ICICI bank gives more return than the other scripts. Fundamentally these two companies are very strong.
- If investors are new for the investment, it is advisable that invest their money in banking industry.
- In Steel Industry, it is observed that fundamentally the Bhushan steel ltd. is very strong. If investors hold the steel Industry's security at least for one year, they can enjoy more than 150% return and also hold it for three years; they can get more than 300% return.
- It was observed from the study that steel industry is than the banking industry because difference between top and bottom was very high means price fluctuation is more in steel industry.
- In steel industry, JSW Steel Ltd. is the only script which gives investors maximum return and Bhushan Steel and Tata Steel which give maximum return to the investors.

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