

Equity Decision: Fundamental & Technical Analysis of Certain IT Firms with the Reference of Behaviour Finance

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Abstract

Every individual wishes to have a decent return over investment from their hard-earned money which is sacrificed otherwise used for consumption. So this analytical study presented the equity decision of certain IT firms in India based on the fundamental & technical analysis with the reference of behaviour of the investors. The data are collected from secondary sources like the BSE & NSE official website to achieve the objective of this study. After the economic and industry analysis based on the index production method, this study targeted some IT firms and then firms specific factors analysis done to complete the fundamental analysis and derived the intrinsic value. The intrinsic value calculated via using the multiple regression analysis and it is the real value of share that helps the investors in taking buying and selling decision. The technical analysis presented to know the movement of the price trend. The fundamental & Technical analysis don't present the complete scenario to take the investment or equity decisions, furthermore factor that are impacting the behaviours of the investor also impacting the investors investment decisions. So this study presented the behavioural aspects of the investors. This study concluded that IT sector is now days better for the purpose of investment with 4.7% CAGR and 9% risk as compared to pharmaceuticals and furniture with 25.1% and 25.4% risk respectively and people giving to much weightage to IT sector because in the present scenario India is facing the technological revolution. Moreover It will be better to invest in Infosys and it would be better to not invest in tech Mahindra.

Keywords: Security Analysis, Fundamental Analysis, Economic Analysis, Industry Analysis, Company Analysis, Technical Analysis.

Introduction

India is a Developing country where most of its population are inclined towards saving and that saving is distributed mainly among the traditional form of available investment avenues. But, the problem arises is that the return on all these type of investment is almost equal to that of inflation in the economy and not more than that. Hence, the saver of funds is always in search of those instruments which can provide them better returns with the minimum level of risk. And that instrument is mainly known by the name of Equity in the market, which provides better returns as compared with other instruments along with the ownership rights in a company. But, the problem arises of how to identify those equities that can provide better returns with the minimum or constant level of risk.

In this world of increasing disparities of income, wealth, differences in the standard of living, lucrative wants and desires, unhealthy status comparison, increasing goods and number of services attracting the people to spend. But the limited saving cannot be spent on such attractive wants. So, there is a need to invest such limited savings in the areas where it can generate more returns. As return over equity is more so, it is a lucrative investment to invest in equity market, but at the same time it involves a high degree of risk. This is that type of market which is full of uncertainties and surprises, which can be the only reason behind fulfilment of all wants and desires or behind cutting down the necessary expenditures even.

Now a day's numbers of people are interested to invest in the stock market in order to get good returns. But, this is not the only face of stock market. Stock market is considered the barometer of economy, which is very much sensitive to any new whether real or fake news that directly affects the stock

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market and people concerned with it and result in change of behaviour. People in the stock market are always like to invest in equities because of its excess returns compared with that of preference, debt and fixed deposits. But, is it really easy to earn out of equity as in case of other instruments where returns are certain irrespective of the risks. So, in order to minimise this risk and maximise the return, investors are required to carry out pre study of the stock market on the basis of fundamental as well as technical factor analysis and also study the psychological need and behaviour of investors.

It does not mean that fundamental and technical analysis can help the investors to beat the market rather they are the only means to understand the market. Stock market is that place which is majorly affected by the economic, industry, company specific and the most important by expectations of the market and people. So, a better knowledge of this fundamental and technical analysis is relevant in analysing the securities and helps the investors in taking optimum decision but the behaviour of investors while applying the fundamental and technical analysis impact the investment decisions.

As per Smith "Psychology of an investor basically deals with three strands of psychology: (1) rational or cognitive behavioural psychology, (2) emotional and preferences and (3) social psychology. The rational or cognitive behavioural psychology describe the mental state thinking and learning of investor, Emotional responses deals with psychology on how wisely an investor apply his/ her emotions while making decision and social psychology relates to investor's consideration on the society's welfare encouragement."

So, this analytical study presented the equity decision of certain IT firms in India based on the fundamental & technical analysis with the reference of behaviour of the investors. The data are collected from the secondary sources like BSE & NSE official website to achieve the objective of this study. After the economic and industry analysis based on the index production method, this study targeted some IT firms and then firms specific factors analysis done to complete the fundamental analysis and derived the intrinsic value. The intrinsic value calculated via using the multiple regression analysis and it is the real value of share that helps the investors in taking buying and selling decision. The technical analysis presented to know the movement of the price trend. The fundamental & Technical analysis don't presented the complete scenario to take the investment or equity decisions, furthermore factor that are impacting the behaviours of the investor also impacting the investors investment decisions. So this study presented the behaviours aspects of the investors and help to the investor to make the efficient portfolio.

Review of Literature

There are various studies have been done related to fundamental and technical analysis and behavioural finance are as below:

Martin (2018)

This study presented that "financial risk tolerance is a key variable in consumers' investment decision making" and it is a suitable level of risk is usually necessary for consumers to meet their financial goals. However, consumers are often too risk averse in their investment decisions; research is needed to better account for how financial risk tolerance operates and can be improved. In this study, the theory of mental accounting is used to offer new insights into the antecedents of financial risk tolerance. Using this theory, current assets

are found to be positively associated with financial risk tolerance. Higher levels of subjective financial knowledge and future orientation strengthen this relationship. When consumers' belief in future income growth is low, their perceived current debts are negatively related to financial risk tolerance, though this effect is abated when future income is anticipated to grow significantly. Implications for theory and practice resulting from these findings are discussed.

**Sutantio & Wiguna
(2017)**

stated in the study "Stakeholder is a very important factor for project success. As part of an external and the most influential project stakeholder, investor as a market agent, with embedded needs, preferences and behavior might become critical project risks and should be identified and managed properly as a key project objective. This paper investigated previous studies to examine and to understand the mechanisms of investor's economic behavior as the risk factor and its impact for the development of residential project. Traditional financial theory in the past decades generally emphasizes the rational model in investor's decision-making without involving emotional aspect of behavior. Recently many scientists proposed the theory of behavioral finance which combines insight from psychology and sociology into finance and investment with the market fundamental perspective. Based on the review, study concluded that behavioral finance can be considered as an alternative concept in assessing residential project risk especially in economic volatility

Mahapatra (2017)

the author carried out the equity research in the automobile sector and found that it will be profitable to hold the shares of Tata motors for long time as compared to Ashok Leyland Limited, on the basis of tools used for fundamental and technical analysis of the automobile industry.

**Krishnaprabha &
Vijaykumar (2015)**

Conducted study stated that "in order to analyse the risk and return associated with banking and automobile sector as they provide less return in high risk, and for this purpose they made a comparative study of risk and return of selected company stocks and find out the standard deviation and variances of the stock and concluded long term investors were able to take advantages of the market as it is less volatile as compared to market as well as its prices and also long term investors are able to predict about when the shares will raise."

**Maharaja &
Saravanakumar (2015)**

The study analysed the share price movements of banks in India and concluded that "fundamental analysis is always the proper method of arriving the results of co. or industry over its financial performance. And, if the co. is fundamentally strong it will provide the investors good return in the future

Roy (2013)

The study stated that "the capital market instruments forces investors to depend strongly on fundamental factors in their investment decision, which relates to overall economy, company and the industry specific. And the performance of security depends upon the performance of company itself and selection of an investment should always starts with the fundamental analysis."

**Sultana &
Pardhasaradhi (2012)**

study concluded "that investment decisions are very much critical for financial security and most of the equity investors do not have sufficient knowledge of basic economic concept, so, study identified factors other than knowledge, that could influence investment decision, these are, individual eccentric, wealth maximisation, risk minimisation, brand perception, social responsibility, financial expectation, accounting information, govt. & media, economic expectation, and advocate recommendation factor."

**Zafar , Maqbool, &
Chobey(2014)**

Conducted study on construction business in order to know which co. is better in growth, performance and how customers get to know about the better co. for growth, and used analysis tools like EPS, operating profit margin, net profit margin, debt equity ratio, return on assets, price earnings ratio, DPS, dividend pay-out ratio etc.in order to help the investors in their future investments.

**Research
Methodology**

This is an analytical study that focus over the equity decision making and based on the secondary sources of data, which are taken from the official sites of Bombay Stock exchange and National Stock Exchange. This is the study that cover top 5 companies of IT sector and data for a period of 10 years starting from 2007 to 2017 for the purpose of analysing their intrinsic value.

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IT sector has been taken for study, as this is the rapidly growing sector of the economy and attracts a number of people to invest. This study covers the economic, industry and company related factors and these are taken as independent variables and prices of securities taken as dependent variable whose movement depend upon the movement of fundamental factors and a relationship has been established between these independent and dependent variables and real or intrinsic value of shares are identified for taking buy and sell decisions.

Research Design

The study is empirical in nature and based on the analytical study. It studies the impact of fundamental analysis and behaviour of investor on the investment decisions.

Nature of Study

Data Collection

The study is based on a secondary source of data. The major source of secondary data collection:

1. Official sites of Bombay Stock Exchange and National Stock Exchange
2. Articles
3. Various journals, data available on the internet, newspaper etc.

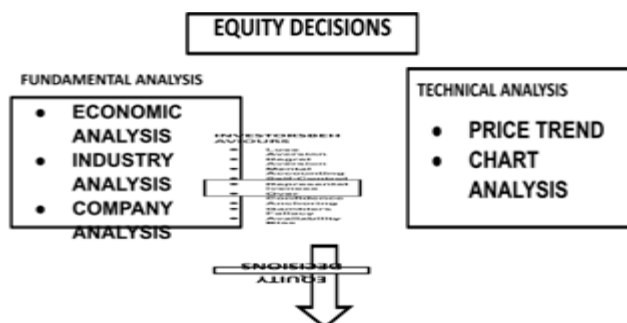
Scope

The study focus on the top 5 firms of the IT industry (on the basis of market share) for study of the analysis of impact of fundamental analysis and behaviour of investor on the investment decisions.

Targeted Time Zone of Study

Basically this study targets a time zone which starts from 2007 to 2017

Research Model



Data Analysis And Interpretation

Smith said that “Security Analysis involves the projection of dividend, earning flows, and forecast of share price in the future and intrinsic value of a security based on the forecast of earning or dividend.”

Fundamental Analysis

Marks said that “Is concerned with identifying the intrinsic worth and risk-return analysis of security depending upon the variability of return, covariance, and safety of funds and projection of future returns.”

Economic Analysis

This is a type of analysis under which different economic factors are considered in order to know their impact on the share price of a company. Or, it refers to the study of those economic factors which affect the performance of a company. The performance of a company depends much on the performance of the economy. The main object of economic analysis is to predict and forecast the economy. Economic forecasting is just answering of the following questions-

- What will be expected performance of the economy in future?
- How can it be measured?

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For the purpose of analysis quantitative factors are taken into consideration, because of their ease in data collection and classification rather than to analyze the qualitative components within this short span of time.

Tata Consultancy
Services

Table: 1.1 (Intrinsic value of TCS based on Economic Factors)

Year	Stock Prices	Intrinsic Vaues
2007	607.45	634.39
2008	399	310.76
2009	265.14	423.72
2010	768.67	620.45
2011	1165.73	1167.16
2012	1150.86	1434.86
2013	1551.56	1625.98
2014	2100.4	2076.47
2015	2553.95	2602.06
2016	2520.3	2647.46

Source: (Calculated & Compiled from the study)

From table 4.1 it is clear that the stock price was undervalued during 2007, 2009, 2011, 2013, 2015 and 2017 while, it was overvalued in 2008, 2010, 2012, 2014, and 2016 as the market moves as per investors' expectations. So, it can be expected from the above trend that the prices of 2018 will be undervalued and it will be better to buy the shares at that time.

INFOSYS

Table: 1.2 (Intrinsic value of Infosys based on Economic Factors)

Year	Stock Prices	Intrinsic Value
2007	504.66	492.69
2008	359.98	492.69
2009	330.98	471.42
2010	653.99	499.74
2011	810.33	726.76
2012	716.58	731.68
2013	722.34	749.16
2014	820.7	967.68
2015	1109.17	1102.89
2016	1218.3	1137.82

Source: (Calculated & Compiled from the study)

From the table 4.2 of Infosys share price, it is visible that starting from 2007 the share price was overvalued, it went undervalued during 2008, 2009, then again it went overvalued during 2010, 2011 with a big gap in its share price and its intrinsic value, then again it was undervalued during 2012,

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2013, 2014 and it was overvalued during 2015, 2016 and it can be estimated from its price trend that for the next coming years its prices may be undervalued and it will be profitable to take the buy decision.

WIPRO

Table: 1.3 (Intrinsic value of Wipro based on Economic Factors)

Year	Stock Prices	Intrinsic Value
2007	147.48	160.14
2008	113.92	93.57
2009	64.83	115.37
2010	186.38	137.41
2011	211	193.37
2012	193.38	206.15
2013	192.08	214.61
2014	271.6	265.63
2015	314.43	297.12
2016	282.12	293.84

Source: (Calculated & Compiled from the study)

The table 4.3 shows that the share prices of Wipro in initials i.e. during 2007 was undervalued, then it was overvalued in 2008 and this process continues but from the trend of share price it can be estimated that for the year 2017-2018 it may be undervalued and afterward it will rise, So, it will be beneficial to take buy decision.

Hindustan
Consultancy Limited

Table: 1.4 (Intrinsic value of HCL based on Economic Factors)

YEAR	STOCK PRICES	INTRINSIC VALUE
2007	144.58	174.47
2008	125.65	64.69
2009	50.63	111.69
2010	177.82	128.42
2011	237.13	226.04
2012	239.76	332.63
2013	394.43	407.55
2014	689.98	579.55
2015	980.4	953.35
2016	814.1	876.08

Source: (Calculated & Compiled from the study)

The table 4.4 shows increasing share prices, in the end of 2007 these prices was undervalued, then in 2008 it was overvalued, in 2009 it was again undervalued, then again in 2010 it was overvalued and still in 2011, then

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again it was undervalued during 2012 and 2013, overvalued in 2014 and 2015, undervalued in 2016 and from this movement it can easily be exhibited that it may be overvalued in 2018, so, it will be better not to take purchase decision and take sale decision if the investors are in possession of shares of HCL

TECH MAHINDRA LIMITED

Table: 1.5 (Intrinsic value of Tech Mahindra based on Economic Factors)

Year	Stock Prices	Intrinsic Value
2007	352.53	369.27
2008	174.21	133.92
2009	65.49	122.27
2010	210.74	160.18
2011	167.03	148.65
2012	178.04	253.40
2013	261.72	267.73
2014	443.5	383.75
2015	622.21	606.27
2016	469.3	499.32

Source:(Calculated & Compiled from the study)

Table 4.5 clearly shows that the prices moves in sequential manner and depend upon the demand and supply situations, the prices was undervalued during 2007, 2012, 2013 then overvalued for 2008,2009, 2014,2015. During 2014 the prices was 443.5 and then there was a sharp increase in its prices to 622.21 during 2015 and again sharp decline during 2016. But as per the trend, it will be better to ignore tech Mahindra for a shorter period of time, so that continuity in the price and trend can be examined easily.

Discussion

The behaviour of investors has a great impact on their investment decisions, the behaviour of investors also impact the application of fundamental and technical analysis. After the analysis it is clearly understand that the behaviour finance not completely distinct from the fundamental and technical analysis. While implementing the fundamental and technical analysis, behavioural finance play the significant role in every step.

Behaviour finance means the how investor perceived the information about the security and applies it for the investment decisions. Sometimes investor over confidence about their financial knowledge and resulting the wrong implementation of fundamental and technical analysis, similarly there many more factor that create the problem while implementing the fundamental and technical analysis. So behaviour finance and the both fundamental and technical analysis are complementary to each other for investment decisions

Conclusions

After analysing the intrinsic value based on the economic factors, it is found that the stock of TCS and Wipro are undervalued, while that of other are overvalued. Tech Mahindra shares shows a sharp decline and it is estimated that it will be overvalued for limited time to come.

After analysing the industry trend, we have found that electrical sector has a high compound. Annual growth rate of 6.4%as compared with others, but it involves high risk as well and also there is no much lucrative growth in mining. So, it will be better to invest in manufacturing sector.

In manufacturing, pharmaceutical and furniture industry shows high growth rate but it will be risky to invest in them, so, IT sector is now a days better for

the purpose of investment with 4.7% CAGR and 9% risk as compared to pharmaceuticals and furniture with 25.1% and 25.4% risk respectively. After analysing the company financial statement, it can be said that it will be better to invest in Infosys and it would be better not to invest in tech Mahindra. Whereas TCS and HCL can be proven as a good option.

Recommendation

Future research can be done in this field by using different modelling techniques for the purpose of analysis like panel data analysis; ARIMA modelling etc. in order identify the best investment option.

Note

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