

**A STUDY ON STOCK SELECTION WITH SPECIAL REFERENCE TO BOOK VALUE,  
EARNING PER SHARE AND MARKET PRICE**

**S.Mahalakshmi\***

*\*II Year MBA Student, School of Management, SASTRA University, Thanjavur, South India*

**ABSTRACT**

Stock market is a vital part in the Indian economy. The stock market plays an essential role in the growth of the industry and commerce of the country that ultimately affects the economy of the country to a boundless extent. The government, industry and even the central banks of the country follows consistently and updates the happenings of the stock market. The stock market is central from both the industry's point of view as well as the investor's point of view. Although many factors influencing, specific variables such as earning per share and book value have an impact with market price. The study is based of 30 companies from BSE Sensex over a period of 5 years from March 2011 to March 2015. This paper reveals the influencing factors which affects the movement of stock price. Factors such as EPS, Book value and Market price have chosen to compare the performance of stock selection for investment.

**KEYWORDS:** Earning per shares, Market value of shares, Book value, Stock selection

**INTRODUCTION**

Capital market plays a vital role for a development of an economy. Individual can divert their savings into different types of investment. Conservative investors will prefer bank deposit and gold. They are more concerned about safety and liquidity.

Moderately risk taking investor will prefer to invest their savings in stock market. The greatest problem with share is uncertainty of return. Sometimes even the capital may be completely lost. Prudent investor will make both technical and fundamental analysis before forming his portfolio.

In any securities market is it primary or secondary the price of shares is influenced by a number of factors. Market price simply means that price at investors are ready to buy or sell the share on particular company. In sharp words it's the equilibrium price at which trading of the share is taking place in the ongoing market. Many approaches are there to predict the market prices of shares. In this study, the most popular parameters like Book value, Earning per share and Market

Price are used. This study focus on all the parameters and also shows which parameter is the most effective for forecasting the market value of shares for selecting a stock for investment. All sectors have different correlation to these parameters for stock bid.

### **STATEMENT OF THE PROBLEM**

For the past one year global economy is subject to wide fluctuations. In our country volatility both in BSE Sensex and NSE Index is witnessed. Global and political factors also contribute for the fluctuation to the Indian stock market. New policy initiative has taken by government of India and the foreign institutional investors are having huge impact in the Indian stock market. Earnings per share provide their information about the growth of the company. At the same time past earnings can't be taken as a base for projecting the future price movements. Book value is generally considered only by conservative investors. Since stock market is subject to wide fluctuation both earning per share and book value should considered.

### **OBJECTIVES OF THE RESEARCH**

Though there are number of tools available for selecting the stock. Ordinary investors will always consider earning per share and book value of the share as basic criteria for selecting the stocks. The ultimate objective of the investor is to maximize his return on investment. For this purpose, the correlation analysis of market price with earning per share and book value will be highly useful to selecting the stock.

### **HYPOTHESES:**

The hypotheses for this research are,

H1: There is a significant relationship between Market price and Earning per share.

H2: There is a significant relationship between Market price and Book Value.

### **LIMITATION OF THE STUDY**

The study is based on secondary data only. The secondary data is collected from the BSE Sensex for the period of March 2011 to March 2015. Companies which are included in the sensex in the year 2015 alone are considered for analysis for the period of 5 years, commencing from 2011.

### **RESEARCH METHODOLOGY**

The data has been gathered from BSE Sensex. The study is quite comprehensive to make generalization based on analysis of those variables. The data consist of 30 listed companies' from

BSE stock exchange. Period of analysis for data collected is 5 years (i.e. from 31<sup>st</sup> March, 2011 to 31<sup>st</sup> March, 2015). The data were analyzed with correlation, regression and descriptive analysis. Charts and tables are also prepared.

## **REVIEW LITERATURE**

**(Asst. Prof Ajay Shukla, 2014)** reveals that the correlation between all for four variables with price can say that it's the market stock price of FMCG sector is the one that highly trails as per all above indicators of fundamental analysis.

**(Muhammad Zulqarnain JATOI, 2014)** results indicates that the understanding of share prices in broadening the base of market values of share, which may support in creating a better investment culture in country that translates economy into a robust economy.

**(Sharma, 2011)** said that earnings per share is the strongest determinant of the market value in a helpful track. So investors take care of earnings per shares variables in to account before investing in any company.

**(Tuli Nishi and Mittal, 2001)** accomplished that earnings per share were found to be important in determining the share price.

**(Dr. Pushpa Bhatt, 2012)** concluded that EPS impacts the market value of an equity share in Indian context based on data of first 50 companies in the list of India's most valuable companies as per the Business Today Survey of 2010 over a period of 5 years.

**(E. Bennet, 2011)** reveals that the stock selection process is considered very important in Behavioural finance. And it aims at identifying the factors, influencing the stock selection decision including demographic factors.

**(Das, 2012)** studied that the factors influencing the stock selection decision by qualitative methodology to investigate small investor's behavior in stock market.

**(Sachithanantham.V, 2007)** studied the relationship between capital market reforms and amount of money invested by the investors. It was found that educative reforms and attractive reforms were statistically significant but they had negative influence over money invested by investors at the Capital Market.

**(Mehta & Turan, 2005)** studied the share prices of listed firms in BSE and concluded that market capitalization, market price to book value and P/E ratio influences the market prices of shares.

(Moghaddam & Shoghi, 2012) examined that the Market Value Added estimated in model has more correlation with earning per share than Refined Economic Value Added.

(MacKinnon, 2010) pointed out that the stock performance cannot be predicted all the time. Hence one must do their research before investing real money into a company stock.

(Grimm, 2012) reveals that fundamental security analysis can be experienced in a manner consistent with traditional Austrian views and is suitable as a common stock selection method.

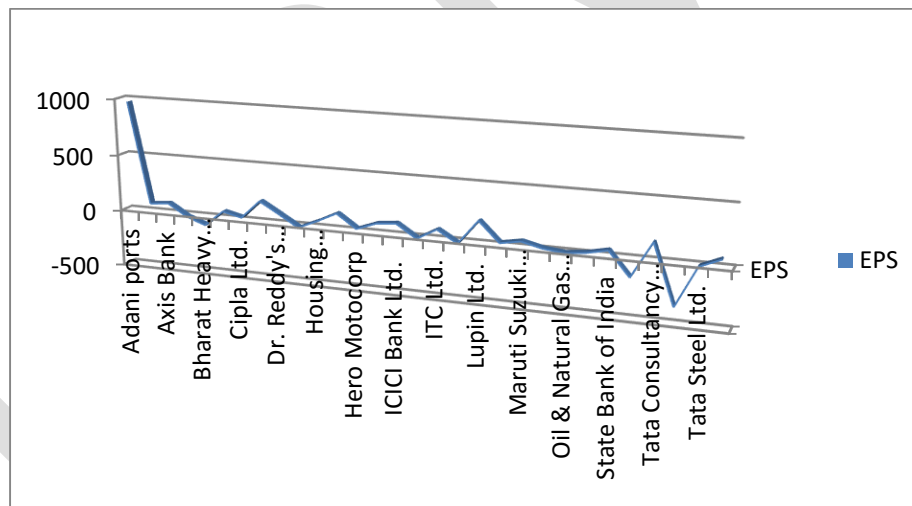
(Leila Zamani, 2014) said that the methodology based on Data Envelopment Analysis for portfolio selection, decision making units which can be stocks or other financial assets.

(Swaaminathan, 2015) examined that the factors EPS, book value, P/E ratio and dividend yield are influencing towards the market price of the share.

## DATA ANALYSIS & INTERPRETATION

For the common analysis, researcher used Rs. 10 as a Face value for all the companies throughout 5 years for this study.

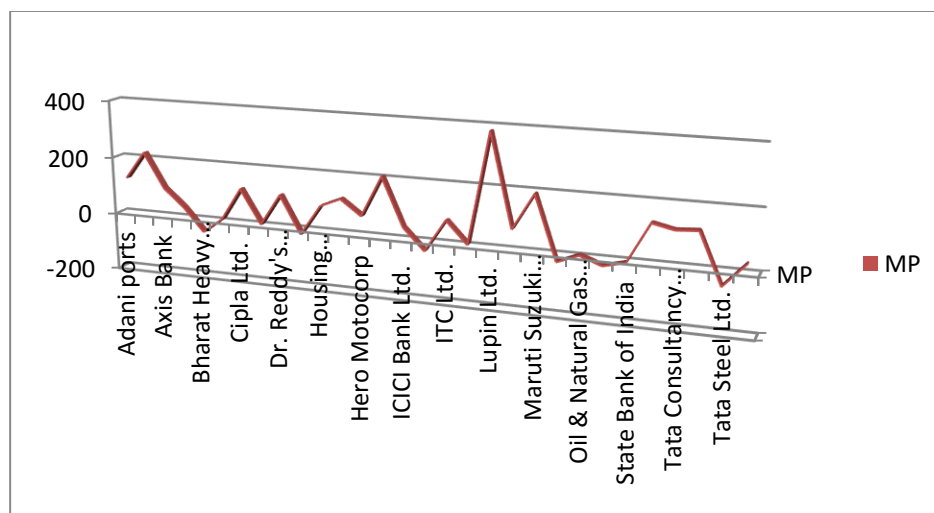
**Chart No: 1 Percentage of Changes in the Earning per share (Base 2011)**



(Source: <http://www.bseindia.com>)

The above chart, that nearly 10 companies are having 50-100 percentage increase in Earning per share for the period of March 2015 compared to March 2011 and 9 companies are having negative returns and 6 companies are showing a return of more than 100 percentage and 5 companies are having a return of below 50 percent.

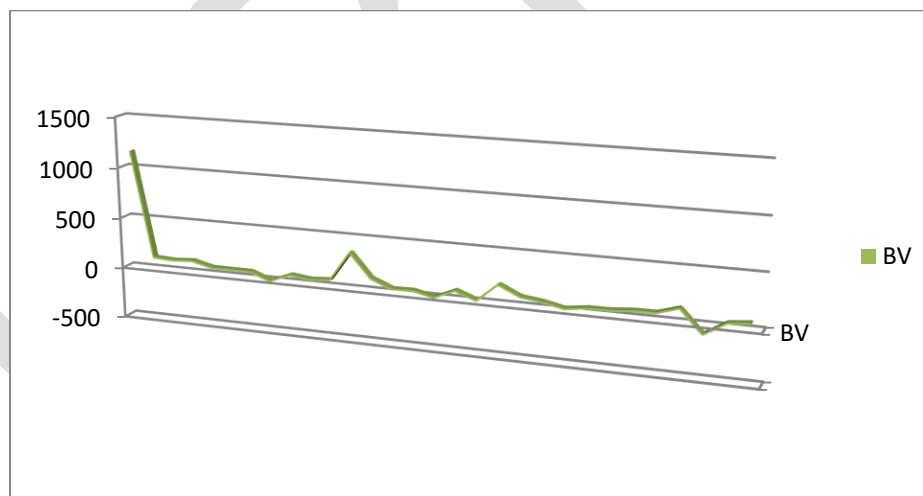
**Chart No: 2 Percentage of Changes in the Market Price (Base 2011)**



(Source: <http://www.bseindia.com>)

The above table reveal that in the year 2015 more than 11 companies market price have doubled compared with 2011, for 5 companies 50-100 percent changes are noticed and for 7 companies less than 50 percentage are witnessed. Further, for 7 company's market price are fallen in 2015 compared to 2011.

**Chart No: 3 Percentage of Changes in the Book Value (Base 2011)**



(Source: <http://www.bseindia.com>)

The above table we can conclude that book value per share has doubled for 8 companies; 50-100 percent change notice for 12 companies and less than 50 percentages are witnessed for 7 companies. In the case of 3 companies book value per share in the year 2015 is less than that of 2011.

**Descriptive statistics**

We have the following descriptive statistics regarding the variables of the present study.

**Table No: 1 Descriptive statistics of Earning per share**

<b>YEAR (MARCH)</b>	<b>N</b>	<b>MEAN</b>	<b>MEDIAN</b>	<b>STD. DEVIATION</b>
2010 – 2011	30	113.76	85.56	109.75
2011 – 2012	30	133.68	97.58	142.17
2012 – 2013	30	145.07	109.35	149.42
2013 – 2014	30	156.60	116.99	192.62
2014 – 2015	30	158.49	115.75	200.33

From the above table, it gives details of arithmetic mean, median and standard deviation of earnings per share of 30 BSE Sensex companies of all the 5 years from 2011 to 2015 under study. EPS mean has been lowest in the year 2010 - 11 and it has picked up in the year 2011 - 2015.

**Table No: 2 Descriptive statistics of Market price**

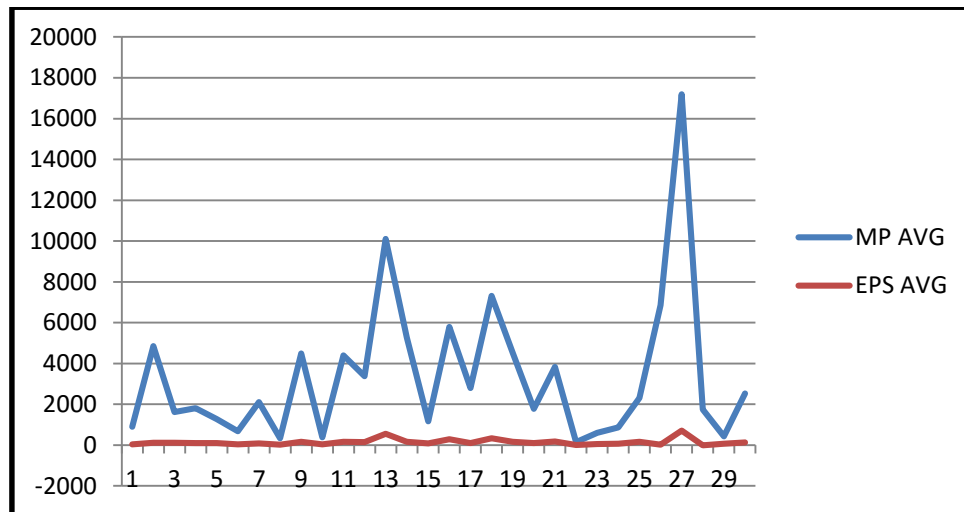
<b>YEAR (MARCH)</b>	<b>N</b>	<b>MEAN</b>	<b>MEDIAN</b>	<b>STD. DEVIATION</b>
2010 – 2011	30	2663.95	1937.68	2682.99
2011 – 2012	30	2729.43	1886.45	2802.99
2012 – 2013	30	3045.91	1985.75	3283.31
2013 – 2014	30	3627.67	2035.03	4210.41
2014 – 2015	30	4837.53	2970.50	5277.80

The above table gives the details of arithmetic mean, median and standard deviation of Market Price of the BSE Sensex companies. The table shows variance that as mean market price has increased constantly from the year March 2011 to March 2015. Descriptive statistics shows the positive relationship between Earning per Share and Market Price.

**AVERAGE AND STANDARD DEVIATION:**

The average values of Earning per share and Market price from 2011 to 2015 are represented in the chart given below:

**Chart No: 4 Graphical representations between Mean Market Price and EPS**



From the above chart, it explains about the company performance of earnings per share and market price for the average period of five years. There is a possibility for EPS and Market Price of Tata Consultancy Services Ltd to increase or decrease in upcoming years.

#### **Average Ranks of Eps, Book value and Market price**

**Table No: 3 Average rank analysis**

Rank	EPS	Market price	Book Value
1	Tata Consultancy Services Ltd	Tata Consultancy Services Ltd	Larsen & Toubro Ltd
2	Hero Motocorp	Hero Motocorp	Tata Consultancy Services Ltd
3	Larsen & Toubro Ltd	Larsen & Toubro Ltd	HDFC Bank Ltd

From the above table, regarding the Eps, book value and market price rank analysis Tata Consultancy Services Ltd and Larsen & Toubro Ltd are maintaining the top position. Hence in stock selection preference must be given to above three stocks.

#### **REGRESSION:**

The regression analysis shows there is a significant impact of independent variable Earnings per share on dependent variable Market Value of shares MVS.

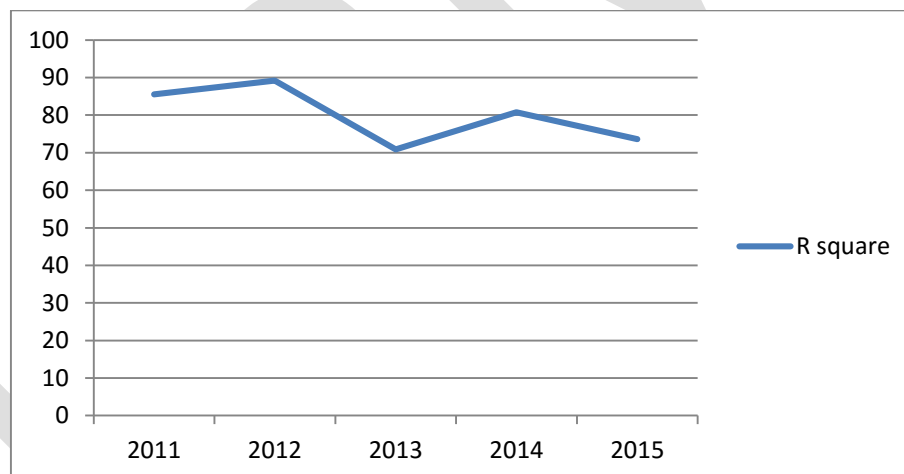
**Table No: 4 Regression analyses between market value and Eps**

YEAR (MARCH)	Std. Error of estimate	R <sup>2</sup>	p – values
2010 - 2011	1039.62	85.5	0.000
2011 - 2012	935.26	89.2	0.000
2012 - 2013	1802.35	70.9	0.000
2013 - 2014	1878.01	80.8	0.000
2014 - 2015	2758.15	73.6	0.000

AM of R<sup>2</sup> = 80%

Following is the summary of the regression analysis carried out every year from the year 2010-11 to 2014-2015. The R<sup>2</sup> ranges of 70.9% at the lowest level to 89.2% at the highest level for all the 5 years, the regressions are significant. The arithmetic mean works out to 80%.

**Chart No: 5 Line graph showing Average Mean values for 5 years**



Further the R<sup>2</sup> differs from year to year. This suggests that the role of EPS in determination of market value differs from year to year. As we have already noted EPS is the only one accounting variable affecting the market value of equity share. There are many other variables, which are also found to affect the equity values. Hence the explanatory power of EPS differs from year to year.



**Table No: 5 Fluctuation of Market Price and EPS regression coefficient**

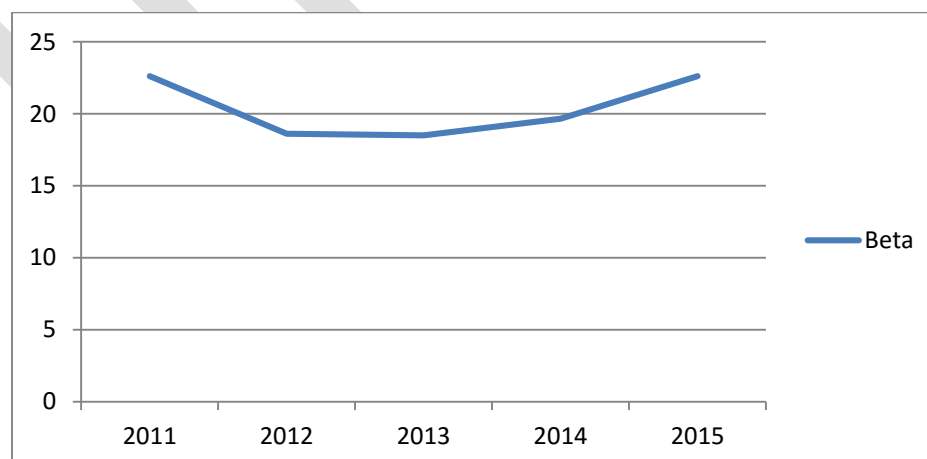
<b>YEAR</b>		<b>Std. Error</b>	<b>t - values</b>	<b>p – values</b>
<b>(MARCH)</b>	<b>Beta</b>	<b>of beta</b>		
2010 – 2011	22.61	1.76	12.85	0.000
2011 – 2012	18.62	1.22	15.25	0.000
2012 – 2013	18.50	2.24	8.26	0.000
2013 – 2014	19.65	1.81	10.85	0.000
2014 – 2015	22.61	2.56	8.84	0.000

In this table we have the details regarding the regression coefficients beta in all the years from 2010–11 to 2014-2015. We find that the regression coefficients in all the 5 years are significant at 5% level.

Beta gives the rate of change of the dependent variable (i.e.) market price of equity per unit change in EPS. Thus, if EPS of a company increases or decreases by Rs.1 the market price of an equity increases or decreases by an average of Rs. 22.61 in 2010-2011. But this measure suddenly falls up to Rs. 19.65 in the next year's i.e. 2011-2014, then increases marginally to Rs.22.61 in the year 2014-2015.

A line graph of the beta values over the 5 years that has been studied. The below chart depicts the beta of Earning Per Share and market price trend value of the regression coefficients.

**Chart No: 6 Line graph showing Beta values for 5 years**



The above chart shows that the beta value of regression coefficient decrease in the year 2011-2012 and is constant from the year 2012 to 2014. Then there is rapid increase in the year 2015.

### **CORRELATION BETWEEN MARKET PRICE AND BOOK VALUE, EPS**

As per general statistical theories a correlation value greater than or equal to +0.50 shows strong positive correlation. So the strong indicators that follow price for each year are as tabulated below for market price, earning per share and book value.

**Table No: 6 Correlation coefficient between Market price and EPS**

<b>YEAR (MARCH)</b>	<b>Correlation Coefficient EPS &amp; Market Price</b>	<b>Positive Correlation (Pearson)</b>	<b>Pearson Correlation Value</b>	<b>Strength of Correlation</b>	<b>Significant (Two-tailed)</b>
2011	EPS & MP	1	.925	Strong	.000
2012	EPS & MP	1	.945	Strong	.000
2013	EPS & MP	1	.842	Strong	.000
2014	EPS & MP	1	.899	Strong	.000
2015	EPS & MP	1	.858	Strong	.000

This table describes the correlation co-efficient between market price and EPS of the study. The correlation coefficients are all significant at 5% level (0.000). The Pearson Correlation indicates the strong value for the market price and Eps. This indicates that there could be a positive relationship between EPS and market value of an equity share.

**Table No: 7 Correlation coefficient between Market price and Book value**

<b>YEAR (MARCH)</b>	<b>Correlation coefficient of EPS &amp; Market Price</b>	<b>Positive Correlation (Pearson)</b>	<b>Pearson Correlation Value</b>	<b>Strength of Correlation</b>	<b>Significant (Two-tailed)</b>
2011	EPS & MP	1	.593	Moderate	.000
2012	EPS & MP	1	.641	Moderate	.000
2013	EPS & MP	1	.604	Moderate	.000
2014	EPS & MP	1	.655	Moderate	.000
2015	EPS & MP	1	.635	Moderate	.000

This table describes the correlation co-efficient between market price and book value of the study. The correlation coefficients are all significant at 5% level (0.000). The Pearson Correlation indicates the strong and moderate value for the market price and book value. This indicates that there could be a positive relationship between book value and market value of an equity share.

### **FINDINGS, RECOMMENDATIONS & CONCLUSION**

From the descriptive statistics, the arithmetic mean, median and standard deviation of earnings per share and market price of equity share are measured. It shows that there is constant increase from the period 2011 - 2015. For earning per share, book value and market price both average mean and standard deviation are measured. It prevailed that 3 companies are same in the rank when compared with other companies. In Regression analysis, for the earning per share and market price are significant and the EPS can explain on an average about 80% of variation in market value of equity. Beta gives the rate of change of the dependent variable (i.e.) market price of equity per unit change in EPS. If EPS of a company increases or decreases by Rs.1 the market price of equity increases or decreases accordingly. Correlation indicates that there is a strong positive relationship between EPS and market value of an equity share. And there is a moderate positive relationship between book value and market value of an equity share.

On the basis of the findings, the following recommendations and conclusion can be made:

The earnings per share impact the market price in the Indian market. The study needs to be extended to longer time period to be able to express the exact statistical relationship between EPS and market price. It helps investors to take decision for stock bid.

The research through light on the fact that EPS impacts the market value of the share and have a positive and significance relationship between EPS and Market prices. Hence investors can form better result and make intellectual and rational investment decision based on these variables while making investment for stock selection. Though, book value is also having relationship with the market price. The Eps relationship with market price is highly significant. Stock selection on the basis of Earning per share and considering other economic factors will produce tangible result and investor can maximize his wealth.

**REFERENCES**

1. Asst. Prof Ajay Shukla, P. M. (2014). A Study to Analysis Sectorial Correlation Between Book Value, DPS, EPS, P/E and Market Price of Selected Companies Listed on BSE, India. *Indian Journal of Applied Reasearch* , 4 (3).
2. Das, S. K. (2012). "Small Investor's behavior on stock ssecision: a case of guwahati stock Exchange". *I* (2).
3. Dr. Pushpa Bhatt, S. J. (2012). Impact of Earnings per share on Market Value of an equity share: An Empirical study in Indian Capital Market. *Journal of Finance, Accounting and Management* , 3(2).
4. E. Bennet, D. M. (2011). Investors' Attitude on Stock Selection Decision. *International Journal of Management & Business Studies* , 1 (2).
5. Grimm, R. C. (2012). Fundamental Analysis as a Traditional Austrian Approach to Common Stock Selection. *The Quarterly Journal of Austrian Economics* , 15 (5), 221-236.
6. Leila Zamani, R. B. (2014). Portfolio Selection using Data Envelopment Analysis (DEA): A Case of Select Indian Investment Companies. *International Journal of Current research and Academic Review* , 2 (4).
7. MacKinnon, A. (2010). The Valuation of Common Shares Using Fundamental Analysis.
8. Moghaddam, A. G., & Shoghi, H. (2012). A Study of Refined Economic Value Added Explanatory Power Associated with MVA &EPS in Tehran Stock Exchange. *Interdisciplinary Journal of Contemporary Research In Business* , 3 (9).
9. Muhammad Zulqarnain JATOI, G. S. (2014). A Regressionnal Impact of Earning per Share on Market Value of Share: A Case Study Cement Industry of Pakistan. *International Journal of Academic Research in Accounting, Finance and Management Sciences* , 4.
10. Sachithanantham.V, S. J. (2007). "Investors Perception towards Capital Market Reforms in India". *Smart Journal of Business Management Studies* , 3.
11. Sharma, D. S. (2011). *International Refereed Research Journal* , II (4), 51.

\*\*\*\*\*