



A study on fundamental value drivers of stock returns: Evidence from Indian market

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Abstract

Market prices of the shares mirror the performance of the company. Today, wealth made by the company is more vital than the profit it makes or the dividend it pays to the shareholders. The goal of this exploration is to think about the relationship that exists between the fundamental share value and market prices of the shares. The hypothesis of the examination is that, there is noteworthy connection between EVA, MVA, ROCE and offer prices. EVA is the most important measure, which is better reflected in the market prices of the shares when contrasted with other conventional measures of performance, MVA is the present estimation of a progression of EVA esteems, lastly ROCE is the rate of return a business is making on the aggregate capital utilized in the business. This is tried on 20 organizations of the share trading system for a time of 5 years starting from FY 2011-2012 to FY 2015-2016. Analysis is finished utilizing the Regression tool. From the analysis, it is discovered that EVA, MVA & ROCE has no huge association with the Market prices and furthermore isn't a noteworthy affecting element among the performance measurements.

Keywords: economic value added, market value added, return on capital employed, share price, investment decision

1. Introduction

Creation of investor's value is the center of each business. This is normal since shareholders claim the company and as rational investors they expect great long haul yield on their venture. Usually utilized bookkeeping measures are EPS (Earnings per Share), ROI (Return on Investment), NPR (Net Profit Ratio) and so on. Aside from this, value based measurements of performance assessment like EVA (Economic Value Added), MVA (Market Value Added), CVA (Cash Value Added) and CFROI (Cash Flow Return on Investment) have appeared. These new performance measurements look to gauge the occasional performance regarding change in value.

1.1 Economic Value Added (EVA)

Maximizing value implies amplifying long haul yield on shareholders' venture. (Monetary Value Added): A measure of a company's financial performance in light of the residual wealth computed by deducting the cost of capital from its working profit (balanced for charges on a cash basis). (Additionally alluded to as "financial profit".)

The equation for figuring EVA is as per the following:

$$EVA = NOPAT - (Capital * Cost of Capital)$$

1.2 Market Value Added (MVA)

An estimation that finds the distinction between the market value of an association and the capital contributed by financial investors (the two bondholders and shareholders). It is the

aggregate of every single capital claim held against the company in addition to the market estimation of debt and equity.

Calculated as:

$$MVA = \text{Company's market value} - \text{Invested Capital}$$

1.3 Return on Capital Employed (ROCE)

It is a ratio that indicates the efficiency and profitability of a company's capital investments.

Calculated as:

$$\frac{EBIT}{(TA - CL)}$$

ROCE should always be higher than the rate at which the company borrows; otherwise, any increase in borrowing will reduce shareholders' earnings.

2. Review of Literature

Lehn and Makhija (1996) verified association between MVA and EVA using market information of 618 U.S. organizations. The information comprises of 241 U.S. companies and cover years 1987, 1988, 1992 and 1993. The specialists first discover that the two measures relate decidedly with stock returns and that the relationship is somewhat superior to with customary performance measures like return on resources (ROA), return on value (ROE) and return on deals (ROS). Lehn and Makhija infer that their outcomes propose EVA and

MVA to be successful performance measures that contain data about the nature of strategic choices and fill in as signs of strategic change.

Dodd and Chen (1996) study about the relationship between stock returns and distinctive profitability measures. The examination depended on 566 U.S. organizations from 1983-1992. In the investigation, ROA clarified stock returns best with R squared of 24.5%. The R squared for different measurements are: EVA 20.2%, leftover wage 19.4% and EPS, ROE around 5-7%. The researchers inferred that organizations receiving EVA might as adopt simple residual income concept, while residual income correlates with share prices almost as well as its adjusted version called EVA.

Nikhil Chandra Shil (2015) has tried to clarify hypothetical establishment of EVA with its theoretical foundation, definition, approaches to make it custom fitted, modifications required, scope and some other related issues. The methodology utilized is a kind of theoretical mining of logics coming about a well ordered process required for EVA usage. He presumed that as corporate house intends to move from conventional to value-based performance measures, EVA would yield great outcome and the paper may wind up noticeably accommodating to them to comprehend the methodology.

3. Research Gap and Motivation for the study

The research gap in the case of this study is that, all the studies conducted earlier focussed mainly on the relationship between Economic Value Added and Share prices. So I have taken other variables too into consideration for better understanding of the case. The other variables I have taken into consideration are Return on Capital Employed and Market Value Added. I have also found out the most significant of the performance metrics among these variables. Using one performance metric to measure the performance of a firm is pointless. So this is why I have used these three performance metrics which are most important indicators to a firm's performance as these indicate the wealth, efficiency and returns in the most appropriate manner and hence this is my motivation to do this study.

4. Methodology

Study type

The study type is analytical, quantitative and historical. Analytical as facts and existing information is used for the analysis. Quantitative as EVA & MVA is measured, and the variables are expressed in measurable terms. Historical as the historical information is used for analysis and interpretation.

Study population

Population includes all the domestic companies.

Sampling frame

Sampling frame includes all those organizations that are listed in the stock Exchange i.e. banking & automobile sector

Sampling technique

Simple Random sampling is used as only particular units are selected from the sampling frame. Such a selection is done as these units represent the population in a better way. The

organizations listed in the stock exchange were considered since the market prices can be obtained.

Sample Profile

Sample includes 20 organizations in the Stock market, for a period of 5 years starting from FY 2011-2012 to 2015-2016

Data gathering procedure and instrumentation

Data type: Secondary data

- Historical share prices of the sample companies.
- Index values of BSE Sensex
- Financial data of the sample companies.

Data Source

Historical share prices of the selected organizations have been taken from BSE India site and moneycontrol.com. Financial statements of the selected organizations have been taken from the annual reports.

Hypothesis

H_0 : There is no significant relationship between EVA and Stock prices.

H_0 : There is no significant relationship between MVA and Share prices.

H_0 : There is no significant relationship between ROCE and Share prices

H_1 : There is significant relationship between EVA and Stock prices.

H_1 : There is significant relationship between MVA and Share prices.

H_1 : There is significant relationship between ROCE and Share prices.

5. Testing of Hypothesis

The hypothesis is tested utilizing various regression and F statistic. Regression is the way toward anticipating one variable from another by statistical means utilizing past information. F statistic is utilized to test the importance of the regression overall. If $F_{cal} < F_{tab}$, at that point the null hypothesis is accepted.

Multiple Regression

$$Y = a + b_1x_1 + b_2x_2 + b_3x_3$$

Where,

- Y is the dependant variable – market price of shares
- a is the constant
- xi are the independent variables – performance metrics like NOCE,
- MVA and EVA
- bi are the coefficient of the independent variables

6. Empirical Evidences

The study was conducted on 20 Indian companies from two major industries i.e. banking industry and Automobile industry. 10 companies from each have been selected for the purpose of the study. After the analysis on these companies it was found out that there exists no significant relationship between Economic Value Added, Market Value Added, Return on Capital Employed and share prices i.e. the null hypothesis is accepted.

Two Companies out of the 20 companies selected are Ashok Leyland and Eicher Motors.

Table 1: Ashok Leyland

Period	Share price	EVA	MVA	ROCE (%)
2011 – 2012	42.325	275.79	289.94	22
2012 – 2013	25.975	319.78	363.36	22.04
2013 – 2014	22.225	400.75	461.53	24.18
2014 – 2015	34.375	509.02	570.71	27.77
2015 – 2016	69.525	629.43	705.72	34.73

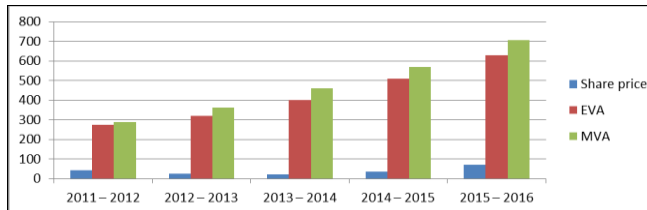


Fig 1

Interpretation: - The above graph clearly shows that Share Price, EVA & MVA have an increasing trend i.e. from 2011-12 to 2015-16 except for share price which decrease in 2012-13 & 2014-2015. The share price during 2015-2016 shows a very high growth rate.

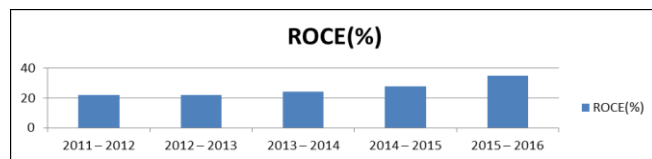


Fig 2

Interpretation: - The above graph clearly shows that ROCE have shown an increasing trend from 2011-12 to 2015-16 i.e. from 22% to 34.43%.

Table 2: Eicher Motors

Period	Share price	EVA	MVA	ROCE (%)
2011 – 2012	1358.2	79.62	82.71	27.31
2012 – 2013	2192.5	92.60	153.87	55.69
2013 – 2014	3955.85	172.27	81.73	25.63
2014 – 2015	10049.25	91.50	94.34	18.80
2015 – 2016	15579.875	105.63	108.90	37.37

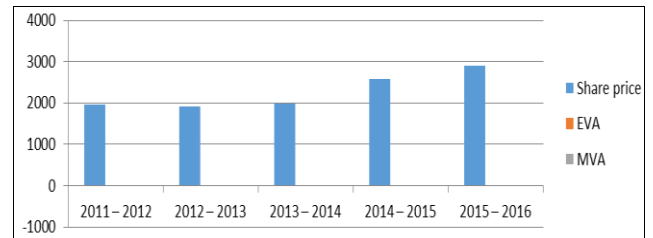


Fig 2

Interpretation: - The above graph clearly shows that Share Price, EVA & MVA have increased in the 1st coming year but in 2011-12 have decreased except for EVA. In 2015-16 all have increased in comparison to previous year. The above graph clearly shows that Share Price, EVA & MVA previous year.

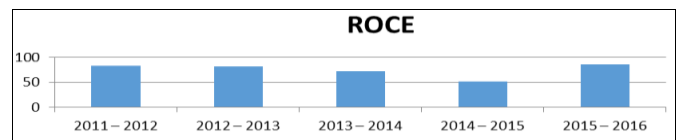


Fig 4

Interpretation:- In the year 2011-12 ROCE has increased by more than 100% but for 2011-12 & 2012-13 have decreased from 55.69% to 25.63% & 18.80% respectively. And in the year 2015-16 ROCE is 37.37%.

Table 3: Showing Multiple R, R square, a, B1, B2, T1, T2, P1, P2, & F

Company	Multiple R	R Square	a	B1	B2	T1	P1	T2	P2	F
Ashokleyland	0.824728	0.6802	4.075	-0.035	0.096	-0.06	0.959	0.205	0.871	1.063
Eicher Motors	0.96113	0.9238	-163.4	0.083	0.176	0.348	0.787	0.849	0.552	167.7

Table 4: Showing Multiple R, R square, a, b, t, p, f, observation

Company	Multiple R	R Square	a	b	t	p	f	Observation
Ashok Leyland	0.7892002	0.62284	-37.03	2.836	1.817	0.211	3.303	4
Eicher Motors	0.6147258	0.37789	225.8	1.502	1.102	0.385	1.215	4

Ashok Leyland

- Since the Multiple R is more than 50% for EVA, MVA & ROCE, It shows that there is a highly positively Correlation between EVA, MVA & ROCE with respect to Share Price.
- Since the Value of R square is 68% approximately for EVA & MVA, it shows that Share Price is affected by EVA & MVA by 68% and remaining 32% by some other factor. Similarly for ROCE R square is 62% approximately, it shows that Share Price is affected by ROCE by 62% and remaining 38% by some other factor.

- Since value of P1, P2 & P are greater than 5% level of significance; therefore it shows that there is no significant relationship between EVA & Share Price, MVA & Share Price and ROCE & Share Price. Therefore, Null Hypothesis is accepted. Alternative Hypothesis is rejected.

Eicher Motors

- Since the Multiple R is more than 50% for EVA, MVA & ROCE, It shows that there is a highly positively Correlation between EVA, MVA & ROCE with respect to

Share Price.

- Since the Value of R square is 92% approximately for EVA & MVA, it shows that Share Price is affected by EVA & MVA by 92% and remaining 8% by some other factor. Similarly for ROCE R square is 38% approximately, it shows that Share Price is affected by ROCE by 38% and remaining 62% by some other factor.
- Since value of P1, P2 & P are greater than 5% of level of significance; therefore it shows that there is no significant relationship between EVA & Share Price, MVA & Share Price and ROCE & Share Price.

Therefore, Null Hypothesis is accepted.

Alternative Hypothesis is rejected.

7. Conclusions and Discussions

Taking investment decisions involves considering various factors. After the conduct of the study it was understood that investment decisions cannot be made solely based upon Economic Value Added, Market Value Added and Return on Capital Employed. Various other factors exist apart from these three insignificant factors. It was also concluded that out of the three performance metrics analyzed here, Economic Value Added is the most significant one. There is a no significant relationship between Economic Value Added, Market Value Added, Return on Capital Employed with respect to Share Price. Investors cannot take all investment decisions on the basis of Economic Value Added, Market Value Added, and Return on Capital Employed.

8. References

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