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   RESULTS & DISCUSSION

   FINDINGS

   RECOMMENDATIONS/SUGGESTIONS

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JOURNAL AND OTHER ARTICLES
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COMPARATIVE PERFORMANCE EVALUATION OF SELECTED AUTOMOBILE COMPANIES IN INDIA USING EVA AND MVA MEASURES

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ABSTRACT

Maximizing shareholders value has become one of the new corporate practices in recent years. The Companies, which have given less preference to shareholders curiosity, are now giving the utmost preference to it. Shareholder's wealth is measured in terms of returns they receive on their investment. It can either be in forms of dividends or in the form of capital appreciation or both. Capital appreciation depends on the changes in the market value of the stocks. The market value of stocks depends upon number of factors varying from company specific to market specific. Financial information is used by various stakeholders to evaluate company's current performance and to forecast the future as well. In the present study two distinctive approaches i.e., Economic Value Added and Market Value Added have been used to measure the existing financial condition and forecasting the future performance of selected automobile companies in India. The study clearly concluded that the performance of Maruti Suzuki India Ltd. and Mahindra & Mahindra Ltd. found satisfactory with consistent returns to the shareholders.

KEYWORDS

Economic Value Added, Market Value Added, Mean, Standard Deviation, Co-efficient of Variation, NOPAT, Weighted average cost of capital.

1. INTRODUCTION

The increasing intensity of global business competition has led companies to use different types of performance evaluation tools for examining their financial situation. Generally, performance evaluation of the companies is conducted within the context of financial statement analysis. As the financial performance has a broad concept, including economic growth, return, and productivity, using the value added measures like EVA and MVA in the performance assessment can be appropriate for companies and their counterparts. For several years, numerous studies in the literatures have revealed the benefits of the EVA and MVA measures. Using them, all the stakeholders would be able to summarize and analyze related quantitative information to obtain momentous data for appraising the firm's operation, investigating its situation in the automobile sector, and making financial decisions.

Financial evaluations encourage companies to attain a higher level of performance by showing current financial position of a company in relation to other companies and creating a competitive environment. Such evaluations are also helpful in improving weaknesses which is done through recognition of the strengths of performed activities. To this end, the present study has made an attempt to evaluate corporate performance through data analysis and has examined the performance of a group of automobile companies. To do so, the means of financial performance for a five year period including: Market Value Added and Economic Value Added are employed in the study. The companies were further ranked on the basis of Mean EVA and MVA to assess their overall performance.

INDIAN AUTOMOBILE INDUSTRY

History of Indian automobile industry reveals that it has grown with leaps and bounds since 1898, a time when a car had touched the Indian streets for the first time.

The automotive sector in India, comprising of the automobile and auto component sub sectors, is one of the key segments of the economy having extensive forward and backward linkages with other key segments of the economy. It contributes about 4% to India's Gross Domestic Product (GDP) and 5% to India's industrial production. The well-developed Indian automotive industry competently fulfills this catalytic role by producing a wide variety of vehicles like passenger cars, light, medium and heavy commercial vehicles, multi-utility vehicles such as jeeps, scooters, motorcycles, mopeds, three wheelers, tractors etc.

Rothschild, a UK-based global financial advisory firm, predicts that India would become the third largest auto industry by volumes by 2015. The Indian automobile industry today boasts of being the second largest two wheeler manufacturer in the world, the largest three wheeler market, the second largest tractor manufacturer in the world, the fourth largest car market and fifth largest commercial vehicle manufacturer in the world.

The government of India has recognized the automotive industry as a focus industry for Foreign Direct Investment (FDI) given its importance from an employment generation perspective. To accelerate and sustain growth in the automotive sector, the "Automotive Mission Plan: 2006-2016" has been made in order to make India a global automotive hub. The Plan, aims at doubling the contribution of automotive sector to GDP by taking the turnover to USD 145 billion and providing employment to 25 million people by 2016.

Foreign Direct Investment (FDI) up to 100% is allowed under automatic route in the automotive sector.

Government to introduce new fuel mileage standards and labeling for new cars beginning 2015, giving manufacturer's time to introduce and invest in new technology. The cumulative production for financial year April 2011 to March 2012 registered a growth of 13.83% per cent over April 2010 to March 2011, manufacturing 20.3 million vehicles during the period. While Passenger vehicle segment grew at 4.72% during April 2011 to March 2012, overall commercial vehicle segment registered an expansion of 19.83% per cent year-on-year (y-o-y). (http://www.cgiguangzhou.gov.in/business/business_details/9).

The industry exported 2.9 million units showing a growth of 25.44% in April 2011 to March 2012.

As per the 2011-12 data released by the Society of Indian Automobile Manufacturers (SIAM), domestic vehicle market is dominated by two-wheelers segment with 76.9% of the pie. Passenger vehicles, commercial vehicles and three-wheelers account for 15.3%, 4.5% and 4.3% of the market, respectively.

Hero Motor Corp rules the two-wheeler market with 56% of the share. Maruti Suzuki holds its leader position in passenger vehicle segment with 38% of the pie, while Hyundai follows with 15% of the share.

For passenger vehicle segment, the share of the entry-compact segment (that consists of cars like the Tata Nano, Maruti Alto, Ford Figo, Maruti WagonR, Hyundai's Santro, i10 and Eon and GM's Beat) stood at 47% in 2011, while premium compacts (like Maruti Swift, Hyundai i20 and VW Polo) maintained their share of 11%. Sports-utility vehicle (SUV) segment registered the fastest growth rate (32%) to capture over 18% of the market share, while Sedans had 19% of the pie.

According to the estimate of Society of Indian Automobile Manufacturers that by 2015 annual vehicle sales will increase to 5 million and more than 9 million by 2020. By 2050 with approximately 611 million vehicles, India will be having largest number of cars in the world.

With increasing export and domestic market, Indian automobile industry is riding high on success. But success has to solve many existing complexities and challenges which are hampering its growth to a great extent. The present study includes measures to analyze and examine the relative performance of selected Indian automobile companies and to investigate their risk and returns factors, their market position, their collective impact on profitability and to come up with the best and worst performing company by ranking them according to their achieved performance.

SELECTED AUTOMOBILE COMPANIES IN INDIA

1. MARUTI SUZUKI INDIA LIMITED: Maruti Suzuki India Limited formerly known as Maruti Udyog Limited is an automobile manufacturer in India. It is a subsidiary of Japanese automobile and motorcycle manufacturer Suzuki. It has a distinction of country's largest car manufacturing company and command the car industry market with a market share of over 80%. To capitalize growing demand world giant automobile manufacturers have entered Indian market with confidence and posing threat to a market leader Maruti Suzuki.

2. TATA MOTORS LIMITED: Tata Motors Limited (formerly TELCO) is an Indian multinational automotive manufacturing company and a subsidiary of the Tata Group. Its products include passenger cars, trucks, vans, coaches, buses, construction equipment and military vehicles. It is the world's 17th-largest motor vehicle manufacturing company, fourth-largest truck manufacturer, and second-largest bus manufacturer by volume.

3. MAHINDRA & MAHINDRA LIMITED (M&M): is an Indian multinational automobile manufacturing corporation headquartered in Mumbai, Maharashtra, India. It is one of the largest vehicle manufacturers by production in India and the largest seller of tractors across the world. It is a part of Mahindra Group, an Indian conglomerate. It has been ranked as the 10th most trusted brand in India, by The Brand Trust Report, India Study 2014. Its major competitors in the Indian market include Maruti Suzuki, Tata Motors, Ashok Leyland, Toyota, Hyundai, and others.

4. FORCE MOTORS LIMITED: The company was formerly called Bajaj Tempo Limited which is a Firodia Enterprise Company established in 1958. Force Motors Limited is totally vertically integrated automobile company, which is expertise in design, development and manufacture of the full spectrum of automotive components and aggregate & vehicles. Force Motors manufactures a range of vehicles including Small Commercial Vehicles (SCV), Light Commercial Vehicles (LCV), Multi Utility Vehicles (MUV), Sports Utility Vehicles (SUV), Heavy Commercial Vehicles (HCV) and Agricultural Tractors.

2. LITERATURE REVIEW

Historically, many studies have been carried out to compare the financial characteristics of automobile sector and different groups of organizations. Most notable are, Mecimore (1968); in his study by using descriptive statistical measures observes cross-sectional non-normality and positive skewness for twenty ratios in a sample of randomly selected forty-four Fortune-500 firms, Deakin (1976); in his study using chi-square rejected the normality of eleven ratios. He stated that there are less extreme deviations from normality after applying square root and logarithmic transformations; he also observed that normality was not supported as it should be, Bougen and Drury (1980); in their study recommended non normality based on cross section of 700 UK firms, Chen and Shimerda (1981); in their study stated that there are 41 different financial ratios which were earlier used sufficiently in studies and observed that it is difficult to select ratio with the approximate and absolute factors loading as the representative financial ratio for the observed factors, Schmidgall (1989); in his study clearly stated that financial ratios are the most meaningful information in financial statements to automobile executives and managers, Virtanen and Yli-Olli (1989); in their study examined the temporal behavior of financial ratio distributions and found that business cycle affects the cross sectional financial ratio distributions, Tippett (1990); in his study examined models financial ratio in terms of stochastic processes and found that in general inference normality will be the exception rather than the rule, Andrew and Schmidgall (1993); in their study classified financial ratios into five categories "liquidity ratios, solvency ratios, activity ratios, profitability ratios, and operating ratios". They observed that financial ratios themselves do not provide valuable information about a firm's performance, Andrew (1993); in his study conducted on automobile industry examined the leverage ratio of companies and suggested a value-maximizing capital structure, *Dr. Sugan C. Jain (2002)*; in his study examined the performance of automobile industry. He applied composite index approach to analyze the operational efficiency and profitability and suggested to strengthening the soundness, profitability, working capital and in the performance of fixed assets, Harrision (2003; in his study argued that financial ratio analyses are very useful. During his study he found that financial ratios analysis are also effective in automobile industry, it helps governing body to determine effective and efficient strategies and identify the weak areas which need attention, Ben McClure (2004); revealed that each industry is different in terms of its customer base, market share among firms, industry wide growth, competition, regulation and business cycles, Dr S.M.Tariq Zafar (2009); in his study covered and examined automobile industry and concluded that industry is in upward swing and will grow with decent pace and recommended that fundamental of industry have to be truly adjudicated in order to consolidate investors sentiment for long run.

Maximizing shareholders value has become the new corporate practice in recent years. The Companies, which have given lesser preference to shareholders curiosity, are now giving the utmost preference to it. Shareholder's wealth is measured in terms of returns they receive on their investment. It can either be in form of dividends or in the form of capital appreciation or both. Capital appreciation depends on the changes in the market value of the stocks. The market value of stocks depends upon number of factors varying from company specific to market specific.

The empirical studies highlighted that there is no single accounting measure which explains the variability in the shareholders wealth (Chen and Dodd, 1997; Rogerson, 1997). Any financial measures used in assessing firm's performance must be highly correlated with shareholders wealth and on the other hand should not be subjected to randomness inherent in it. Traditional performance measures such as NOPAT, EPS, ROI, ROE etc. have been criticized due to their lacking ability to incorporate full cost of capital thereby accounting income is not a consistent predictor of firm value and cannot be used for measuring corporate performance. Value based management system has gained popularity in academic literature in last two decades. One such innovation in the field of internal and external performance measurement is EVA.

Pioneered and advocated by US based business consultant Stern Stewart and company state that EVA can be used instead of earnings or cash from operations as measures of both internal and external performance. "Abandon earnings per share", "Earnings, earnings per share, and earnings growth are misleading measures of corporate performance" and "The best practical periodic performance measure is EVA" (Stewart 1991). Further to support his hypothesis that EVA is a better performance measures than other performance measures Stewart (1994) cites in-house research indicating that "EVA stands well out from the crowd as the single best measures of value creation on continuous basis".

Pal and Sura (2007); reviewed 25 empirical studies published in various journals related to relationship of EVA and stock returns. They have only reviewed the results of the studies and have not considered other issues prevalent in EVA research such as EVA-MVA relationship, EVA and discounting techniques, other residual income based techniques, EVA implementation and EVA and managerial performance and control.

Proponents of EVA claim that EVA is highly correlated with stock returns. EVA derives stock prices (Stewart, 1995; Medeiros, 2005) better than other accounting based performance indicators. Lefkowitz (1999); analyzed the US companies and results of the study supported Stern- Stewart hypothesis, i.e., EVA is better correlated with stock returns as compared to traditional performance measures. They found that EVA is reasonably reliable guide to understand the firm's value. Machuga (2002); in their study highlighted that EVA can be used to enhance future earnings predictions. Stewart (1991); examined the relationship between EVA and MVA of US companies and found a stronger correlation between EVA and MVA. Kramer and Pushner (1997); studied the strength of relationship between EVA and MVA. They found that MVA and NOPAT were positive on average but the average EVA over the period was negative. EVA unlike other earnings measures is systematically linked to the market value and it is powerful tool for understanding the investor expectations (O' Byrne, 1996; Finegan, 1991). Ghanbari and More (2007); analyzed the relationship between EVA and MVA of automobile industry in India and results indicate that there are strong evidences to support Stern-Stewart's claim.

There are some studies which claim that traditional measures have better correlation with MVA. Fernandez (2001); examined the correlation between EVA and MVA of 582 American companies for the period 1983-97. It was shown that for 296 firms in the sample the changes in the NOPAT had higher correlation with changes in MVA than the EVA, while for 210 sample firms the correlation between EVA and MVA was negative. Wet (2005); conducted a study on EVA–MVA relationship of 89 Industrial firms of South Africa and found that EVA did not show the strongest correlation with MVA. As evident from the literature, EVA has been the topic of interest for researchers. Majority of the studies relate to EVA & stock returns and its comparison with traditional measure of corporate performance. Thepresent study has been conducted to examine the performance of selected automobile companies during 2010 to 2014.

3. OBJECTIVE OF THE STUDY

The main objective of the study is to evaluate the performance of the selected automobile companies in India by applying EVA and MVA measures. After judicious evaluation of EVA and MVA performance parameter, companies are ranked according to their performance.

4. METHODOLOGY

The study has been conducted with special reference to four most preferred and trusted Indian private sector company i.e., Maruti Suzuki India Limited, Mahindra & Mahindra Limited, Tata Motors Limited and Force Motors Limited. The study period is of five year duration i.e., March 2010 to March 2014 and the secondary data for analysis have been collected from published reports, magazines, annual reports and website of the companies. The following two measures have been used to evaluate the performance of selected automobile companies for the period under study.

CALCULATION OF EVA AND MVA

EVA=NOPAT-COCE
COCE=W1.Kd+W2.Ke
Kd=cost of debt
Kd=I(1-t)
t=tax rate
I=interest rate
Ke=cost of equity= dividend/Po +g
Po=price of share
g= Ke x Retention ratio(b)
b= EPS-DPS/EPS
MVA is calculated as below:
MVA= (Closing share price x No of outstanding share)-Net Worth

5. ANALYSIS AND INTREPRETATION

TABLE 1: EVA OF FOUR COMPANIES FOR FIVE YEARS (Rs. in Crore)

Year	Maruti Suzuki India Ltd.	Mahindra & Mahindra Ltd.	Tata Motors Ltd.	Force Motors Ltd.
2010	2472.73	2063.05	1383.09	49.27
2011	2268.79	2688.06	872.14	51.07
2012	1605.72	2754.88	404.79	801.14
2013	2263.80	3214.16	-653.49	8.42
2014	2671.56	3546.66	-590.61	72.06
Mean	2256.52	2853.36	283.19	196.39
SD	400.87	564.02	896.15	338.85
Variance	160693.55	318118.56	803084.82	114819.32
CV (%)	17.75	19.77	316.45	172.54

Table 1 states the EVA of selected automobile companies during the period of study.

MARUTI SUZUKI INDIA LIMITED

The EVA of Maruti Suzuki Ltd is high (Rs 2671.56 crore) in the year 2014. The calculated Mean EVA is Rs 2256.52 crore and the Co-efficient of Variation (CV) is 17.75 per cent shows consistent EVA of the company. Overall the company performance is satisfactory with positive EVA during the study period.

MAHINDRA & MAHINDRA LIMITED

The EVA of Mahindra & Mahindra is high (Rs. 3546.66 crore) in the year2014 and low (Rs 2063.05 crore) in the year 2010. The calculated Mean EVA is (Rs 2853.36 crore) high in all during the study period. The CV is 19.77 per cent shows consistent EVA over the study period.

TATA MOTORS LIMITED

Except in the year 2013 and 2014, the EVA of Tata Motors is positive during the study period. The calculated Mean EVA is (Rs 283.19 crore) positive. The Co-efficient of Variation (CV) is 316.15 per cent shows inconsistent EVA of the company. The company performance is satisfactory with positive EVA.

FORCE MOTORS LIMITED

The EVA of Force Motors is high (Rs 801.14 crore) in the year 2012 and low (Rs 8.42 crore) in the year 2013. The calculated Mean EVA is 196.39 crore. The high Co-efficient of Variation shows inconsistent EVA of the company.

TABLE 2: MVA OF FOUR COMPANIES FOR FIVE YEARS (Rs. in Crore)

Year	Maruti Suzuki India Limited	Mahindra & Mahindra Limited	Tata Motors Limited	Force Motors Limited
2010	24018.6	-4923.2	17752.37	-107.93
2011	25453.15	-3652.19	20455.78	-4.91
2012	18528.4	-4839.09	181830.31	-210.44
2013	387718.7	-4819.37	184426.71	-312.61
2014	461292.72	-1093.41	188041.97	-608.02
Mean	183402.31	-3865.45	118501.4296	-248.78
SD	221643.17	1636.05	90768.8	231.25
Variance	49125694808	2676659.60	8238975053	53476.56
CV (%)	1.21	-0.42	0.76	-0.92

Table 2 shows the Market Value Added (MVA) of selected automobile companies for the year March 2010 to March 2014.

MARUTI SUZUKI INDIA LIMITED

The MVA of Maruti Suzuki Ltd is highest (Rs. 461292.72 crore) in the year 2014 and lowest (Rs. 24018.6 crore) in the year 2010. The calculated Mean MVA is Rs 183402.31 crore and the co-efficient of variation (CV) is 1.21 per cent. The company performance is satisfactory and the CV shows consistent MVA of the company.

MAHINDRA & MAHINDRA LIMITED

The MVA of Mahindra & Mahindra is negative during the study period. The calculated Mean MVA is (-3865.45 crore) negative along with negative CV. The company performance is not satisfactory with negative MVA.

TATA MOTORS LIMITED

The MVA of Tata Motors is lowest (Rs. 17752.93 crore) in the year 2010 which has been increased to 188041.97 crore in the year 2014. The calculated Mean MVA of the company is Rs 118501.43 crore and the Co-efficient of Variation (CV) is .77 per cent shows consistent MVA of the company during the study period.

FORCE MOTORS LIMITED

The MVA of Force Motors is negative from the year 2010 to 2014. The calculated Mean MVA (Rs -248.78 crore) is negative. Overall performance of the company is not satisfactory.

TABLE 3: RANKING OF COMPANIES BASED ON EVA AND MVA WITH RESPECT TO MEAN

Company Name	Rank based on EVA	Rank based on MVA	Average Rank	Final rank based on Mean
Maruti Suzuki India Ltd.	2	1	1.5	1
Mahindra & Mahindra Ltd.	1	4	2.5	2
Tata Motors Ltd.	3	2	2.5	3
Force Motors Ltd.	4	3	3.5	4

Table 3 shows the calculated ranks of selected automobile companies for the study period based on Mean EVA and MVA. Maruti Suzuki India Ltd. is at 1st rank, Mahindra & Mahindra Ltd. is at 2nd rank and Tata Motors Ltd. at 3rd rank based on the mean EVA and MVA. The ranking procedure indicates that Maruti Suzuki India Ltd. showing satisfactory performance during the period of study followed by Mahindra and Mahindra Ltd. and Tata Motors Ltd.

TABLE 4: RANKING OF COMPANIES BASED ON EVA AND MVA WITH RESPECT TO CV

Company Name	Rank of EVA	Rank of MVA	Average Rank	Final rank based on CV
Maruti Suzuki India Ltd.	1	2	1.5	1
Mahindra & Mahindra Ltd.	2	3	2.5	2
Tata Motors Ltd.	4	1	2.5	3
Force Motors Ltd.	3	4	3.5	4

Table 4 shows the calculated ranks of selected automobile companies for the study period based on CV of EVA and MVA. With CV of EVA and MVA, Maruti Suzuki Ltd. is at 1st rank, Mahindra and Mahindra is at 2nd rank and Tata Motors Ltd. is at 3rd rank. The ranking procedure shows that Maruti Suzuki Ltd is consistent during the period of study followed by Mahindra and Mahindra Ltd. and Tata Motors Ltd.

6. CONCLUSION

From the data analyzed under study related to four selected automobile companies in India using EVA and MVA measures, it is clearly found that EVA of Mahindra and Mahindra and Maruti Suzuki Ltd is satisfactory with consistent returns whereas Tata Motors Ltd. and Force Motors Ltd. showing inconsistent returns during the study period. The Mean EVA reveals that, Mahindra and Mahindra is at 1st rank, Maruti Suzuki Ltd is at 2nd rank and Tata Motors is at 3rd rank.

Based on MVA, Maruti Suzuki India Ltd. and Tata Motors Ltd. showing satisfactory returns whereas Mahindra and Mahindra and Force Motors showing negative MVA. The Mean MVA reveals that Maruti Suzuki is at 1st rank and Tata Motors is at 2nd rank.

Based on Mean EVA and MVA, Maruti Suzuki is at 1st rank, Mahindra & Mahindra Ltd is at 2nd rank and Tata Motors is at 3rd rank. The ranking procedures concluded that Maruti Suzuki Ltd. is consistent in the study period followed by Mahindra and Mahindra and Tata Motors Ltd. Lastly, it is observed during the study period, that the EVA and MVA measures showing Maruti Suzuki Ltd. and Mahindra & Mahindra Ltd. having satisfactory performance with consistent returns to the shareholders. The two measures are having relative significance to examine the performance of the companies.

REFERENCES

1. Anand, M., Garg, A. and Arora, A. (1999), Economic value added: business performance measure of shareholder value. Management Accountant, 34(5), 351-356.
2. Anderson, A. M., Bey, R. P. & Weaver, S.C. (2004), Economic Value Added adjustments: much to do about nothing. [Online] Available: www.lehigh.edu /~incbeug/Attachments/Anderson%20EVA%204-7-05.pdf.
3. Anil. K, Sharma and Kumar, Satish (2010), Economic Value Added, Literature Review and Relevant issues. International Journal of Economics and Finance, Vol. 2 No.2, 200-220.
4. Bao, B. H. & Bao, D. H. (1998), Usefulness of value Added and Abnormal Economic Earnings: An Empirical examination. Journal of Business Finance and Accounting, 25(1-2), 251-265.
5. Biddle, G. C., Bowen, M. R. & Wallace, J.S. (1999), Evidence on EVA. Journal of Applied Corporate Finance, 12(2), 69-79.
6. Biddle, G.C., Bowen, M. R. & Wallace, J.S. (1997), Does EVA beat Earnings? - Evidence on Associations with Stock Returns and Firm Values. Journal of Accounting and Economics, 24(3), 301-336.
7. Brabazon, T., & Sweeney, B. (1998), Economic value added-really adding something new., Accountancy Ireland, 30(3), 14-15.
8. Brewer, P. C., Chandra, G., & Hock, C. A. (1999), Economic Value Added (EVA): Its Uses and Limitations. SAM Advanced Management Journal, 64, 4-10.
9. Chen, S. & Dodd, J. L. (1997), Economic Value Added (EVA): An Empirical Examination of a New Corporate Performance Measure. Journal of Managerial Issues, 9(3), 318-333.
10. Desai, A. M. & Ferri, F. (2006), Understanding Economic Value Added. [Online] Available: http://harvardbusinessonline.hbsp.harvard.edu/b02/ en/comman/item_detail.jhtml?id=206016.
11. Evans, J. and Evans, R. (2002), An examination of economic value added and executive compensation. [Online] Available: http://ssrn.com/abstract=313974.
12. Fatemi, A., Desai, A. S. & Katz, J. P. (2003), Wealth creation and managerial pay: MVA and EVA as Determinants of executive compensation. Global Finance Journal, 14(2), 159-179.
13. Ferguson, R., Rentzler, J. & Yu, S. (2006), Trading Strategy on EVA and MVA: are they reliable indicators of future stock performance?. The Journal of Investing, 15(4), 88-94.
14. Fernandez, P. (2003), EVA, economic profit and cash value added do not measure shareholder value creation, Journal of Applied Finance, 9(3), 74-94.
15. Finegan, Y. P. (1991), Maximizing Shareholder value at the private company. Journal of Applied Corporate Finance, 4(1), 30-45.
16. Garvey, G. T. and Milbourn, T. T. (2000), EVA versus earnings: Does it matter which is more highly correlated with stock returns?, Journal of Accounting Research, 209-245.
17. Ghanbari, M. A. and More, V. S. (2007), The Relationship between Economic Value Added and Market Value Added: An empirical analysis in Indian Automobile Industry. The ICFAI Journal of Accounting Research,6(3), 7-22.
18. Griffith, M. J. (2004), True Value of EVA. Journal of Applied Finance, 14(2), 25-29.
19. Hall, J. H. and Brummer, M.L. (1999), The Relationship between the Market Value of a company and internal performance measurements. [Online] Available: http://ssrn.com/abstract=141189
20. http://info.shine.com/company/maruti-suzuki-india-ltd/3784. (Online) (Accessed on 2 December, 2014).
21. http://www.cgiguangzhou.gov.in/business/business_details (online accessed on 2nd December, 2014
22. http://www.moneycontrol.com/india/stockpricequote/autocarsjeeps/marutisuzukiindia (online) (accessed on 2 December, 2014).
23. http://yourbusiness.azcentral.com/market-value-added-vs-economic-value-added (online) (accessed on 20 November 2014).
24. Ismail, A. (2006), Is EVA associated with stock return than accounting earnings? The UK evidence. International Journal of Managerial Finance, 2(4), 343-353.
25. Ismail, I. (2008), Performance of public-listed companies in Malaysia: using EVA. [Online] Available: www.griffith.edu.au/school/gbs/afe/symposium/ 2008/Ismail.pdf.
26. Jambulingam, T. (2002), Economic value added (EVA) as a measure of firm performance: An application to the pharmaceutical industry. Review of Quantitative Finance and Accounting, 18(1), 59-73.
27. Lefkowitz, S.D. (1999), The Correlation between EVA and MVA of companies. MBA Dissertation, California State University.

28. Lehn, K. and Makhija, A. K. (1997), EVA, accounting profits, and CEO turnover: an empirical examination 1985-1994. Journal of Applied Corporate Finance, 10 (2), 90-96.
29. Lin, C. and Zhilin, Q. (2008), Empirical Study of Integrated EVA Performance Measurement in China. Canadian Social Science, 4(2), 41-48.
30. Lovata, L. M. and Costigan, M. L. (2002), Empirical analysis of adopters of economic value added. , Management Accounting Research, 13,215-228.
31. M, Rajesh and T Narayana Reddy (2012), An Empirical Study on EVA and MVA, International Journal of Marketing, Financial Services and Management Research, Vol.1 No.3. PP 87-97.
32. Machuga, S., Pfeiffer, J. and Verma, K. (2002), Economic Value Added, Future Accounting Earnings, and Financial Analysts' Earnings Per Share Forecasts. Review of Quantitative Finance and Accounting, 18(1), 59-73.
33. Malhotra, M. (2001), Relevance of EVA to measuring corporate success. Journal of Accounting & Finance, XV (1).
34. Malik, M. (2004), EVA and traditional performance measures some empirical evidence. The Indian Journal of Commerce, 57(2), 32-38.
35. Malmi, T. and Ikaheimo (2003), Value Based Management practices- some evidence from the field. Management Accounting Research, 14, 235-254.
36. O'Byrne, S.F. (1996), EVA and Market Value. Journal of Applied Corporate Finance, 9(1), 116-125.
37. Pandey, I.M. (2005), What drives shareholders value?. Unpublished Working paper at Indian Institute of Management, Ahmadabad, India.
38. Phillips, D. (2007), The Value of Economic Reality: Applying Economic Value Added. [Online] Available: http://digitalcommons.liberty.edu/cgi/viewcontent.cgi?article=1008&context=honors.
39. Rakshit, D. (2006), EVA based performance measurement: A case study of Dabur India limited. Vidyasagar University Journal of Commerce, 11, 40-59.
40. Ramana, V. D. (2004), Market Value Added and Economic Value Added: Some Empirical Evidences. [Online] Available: http://ssrn.com/abstract=871404.
41. Singh, K. P. and Garg, M. C. (2004), Disclosure of EVA in Indian corporate. The Indian Journal of Commerce, 57(2), 39-49.
42. Stern, J.M, Stewart, G.B. and Chew, D.H., (1991), The EVA Financial Management System. Journal of Applied Corporate Finance, 8(2), 32-46.
43. Stewart, G.B. (1994), EVA: Fact and Fantasy. Journal of Applied Corporate Finance, 7(2), 71-84.
44. Tham, J. (2001), The unbearable lightness of EVA in valuation. [Online] Available: http://ssrn.com/abstract=267193.
45. Weaver, S.C. (2001), Measuring EVA: a survey of the practices of EVA proponents. Journal of Applied Finance, 11(1), 50-60.

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