

VALUE CREATION IN SELECT MANUFACTURING COMPANIES LISTED IN BSE 100 INDEX

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Abstract: *Creating Wealth is the main objective of any business. A firm that is successful in value creation never meets capital shortage. Such a firm can have the potential to generate internal; funds apart from attracting fresh capital from the market. Every company needs an executive with leadership skills for consistent value creation. Most of the companies are trying to achieve value creation with the help of out of date financial management system. Often, the incorrect financial focus, cash strategies, operating goals, and valuation processes are emphasized. Balance sheets provide the results of accounting rules but do not focus on value creation-related information. These problems need different approaches for analyzing the financial performance of the company. A sound financial decision becomes necessary to achieve the organisation goal of maximizing shareholders' wealth. Shareholder's wealth is measured by the returns they receive on their investment. Value creation helps profitable and sustainable growth of the company. In this backdrop, the present study has been undertaken. Adopting purposive sampling method, 42 manufacturing companies, included in the list of companies of BSE 100 Index, have been chosen for the study. Shareholder Value Added, Economic Value Added and Market Value Added are used to know the value creation of the sample companies. Data collected have analysed through descriptive statistical tools and Multiple Regression.*

Keywords: *Shareholder Value Added, Economic Value Added, Market Value Added, Value Creation, Shareholders.*

1.1 INTRODUCTION

Shareholders are the real owners of a firm. Some firms may have a small number of shareholders, some firms may have thousands of shareholders. They play a significant role in aspects like finance, operations, governance and control of a company. They regulate the functioning of a company indirectly through stock market. The shareholders of a firm are always expecting more dividends from the earnings of the company. Any public company must give appropriate complete and timely information to the shareholders. Senior executives and Board of Directors are answerable to the shareholders. They have to decide who should be the gearstick of a firm. Institutional shareholders may openly call on company management to consider strategic options, such as selling off the company or merging it with another company.

Shareholders' wealth is calculated on the basis of the profits they earned by a firm. The income can either be in the form of dividends or in the form of capital appreciation or both. Capital appreciation in turn depends on the subsequent changes in the market value of the shares. Market value of a share is influenced by a number of factors, which can be company specific, industry specific or macroeconomic in nature.

In order to help the corporate to generate wealth to the shareholders, value-based management systems have been developed. Shareholders look forward to management to create value for their stakeholders greater than the costs of

resources stimulated, together with the cost of using capital. If the shareholders are not receiving fair return from the company, they may withdraw their capital and invest in some other stocks. Without value creation process, the company may not be able to get additional capital, since it will be restricted by a share price that stands at a discount to the underlying value of its assets and by higher interest rates on debt or bank loans demanded by creditors. Change in the wealth on annual basis is called wealth creation. A firm has to take up investments with positive and net present values. The value creation is measured on accounts-based information and the wealth creation is measured on the basis of stock market information. Some Indian companies swallow capital, and most of it goes down the tubes. Not surprisingly, managements are pleased to treat equity as free money but not many are aware of as what to do and what not to do. In fact, in such a situation, shareholder value is only accidental rather than the outcome of genuine effort by professional management of corporate.

For successful shareholder value creation, a firm must have high quality proficient management coupled with good corporate governance. Nevertheless, the concept of good corporate governance is here to stay in this country and shareholders and financial institutions flock to the corporate, as observed by Tejpavan Gadhok, Country Manager, India, for Stern Stewart and Company. According to him, "Indian companies on the whole have a poor average in wealth creation." Over 400 companies globally implement the

Economic Value Added (EVA) program, but it is still relatively a new modern technique for corporate performance measurement in India.

1.2 Review of Literature:

Chakraborty [1] stated that the shareholders' value creation as a philosophy and as a goal was increasing in importance day by day. A company had to evolve as a value creating organization, a performance developer on which it can build shareholders' value on a sustainable basis. It must meet the specific financial targets to meet the expectation of the shareholders. Shareholders' value creation is not only a necessity but also has become the ultimate identity of current scenario. **Dimitris Kyriazis and Christos Anastassis [2]** studied the relative explanatory power of the Economic Value Added (EVA) model with respect to stock returns and firms' market values and compared them to established accounting variables, in the context of a small European developing market, namely the Athens Stock Exchange, in its first market-wide application of the EVA measure. Relative information content tests revealed that net and operating income appeared to have more value than EVA. Additionally, incremental information tests suggest that EVA unique components added only marginally to the information content of accounting profit. **Karam Pal and Ashok Kumar [3]** used Granger causality test to answer the question which parameter like Return on Capital Employed, Net Operating profit after tax, Earning per share, Labour productivity, Capital productivity, Market Value Added, Economic Value Added closely related with the market price of security. The study concluded that the Return on Capital Employed influenced Market price in only five cases, Earning Per Share in six cases and Net Operating Profit cause Market Price in five cases. The study revealed that the Economic Value Added to predict the Market Price of a security although there were many other factors which also influenced the market price of a security. **Ramachandra Reddy and Yuvaraja Reddy [4]** made an attempt to calculate MVA for 10 cement companies in India to examine the effect of selected variables on MVA. The researcher used Multiple Regression technique for fulfilling the objective. The study concluded that no factor influenced Market Value Added and Earning Per Share and that the profitability of the selected companies could not be increased unless the improved problems like modernization, cost reduction, control taxes and the like were solved. **Ashok Kumar and Karambal [5]** stated that "Shareholder value creation is based on the principle of the survival of the fittest of economics. As our economy, approaching towards complete liberalization and government control, is gradually going away, and hence companies are bound to take decisions purely on commercial basis to safeguard the interest of their shareholders. **Mohanty [6]** clearly recommended that "the shareholders investment in equities should first focus on the value of the company rather than the share price consistency. Profitability and sustainability are the key drivers to the valuation of growth. What makes growth valuable is its power to compound returns over a period of time. Mid-cap stocks have the propensity to create

wealth faster than the heavy weight blue chips but the surety of wealth creation is greater for large cap stocks. **Maja Ilic [7]** has made an attempt to show the practical examples of the extent to which traditional assessment of a company's success may differ from the business viewed from the perspective of Economic Value Added. The study observed that Economic Value Added could lead to significant improvements and developments in companies. Through additional reports, shareholders would be better informed, which would contribute to attracting new investors and subsequently the reduction of additional debt. **Arabsalehi and Mahmoodi [8]** investigated the explanatory power of four value-based measures including Economic Value Added (EVA), Refined Economic Value Added (REVA), Market Value Added (MVA) and Shareholder Value Added (SVA) and compared it with five accounting based measures including Earning Per Share (EPS), Return On Equity (ROE), Return On Assets (ROA), Cash flow from operations and Return on sales in explaining stock returns. The study concludes that the value-based measures add only marginal information content beyond accounting measures. **Daiva Burksaitiene [9]** made an analytical study on measurement of value creation namely Economic Value Added and Net Present Value. He has analysed EVA and Discounted Cash Flow techniques that are used to measure value creation. He concludes that both NPV and EVA are related to shareholder value and the use of both these approaches may be effective tools, to create value for investors. These two approaches show that value is created only if a company can earn in excess of investor required returns when measured by the cost of capital. **Pratapsingh Chauhan [10]** has examined the shareholders' value creation in the Indian petroleum industry. He has analysed the performance of the company with the help of EVA, MVA, Net Operating Profit After Tax (NOPAT), Profit After Tax (PAT), Market capitalization and Earning Per Share (EPS). The study revealed that the EVA has significant correlation with Operating Profit (OP), NOPAT, EPS, Market Capitalization and MVA figures of firms belonging to Private and Public sectors. The correlation between EVA and OP for public and private sector petroleum firms has been high and positive. **Ritesh Jayantibhai Patel, Mitesh Patel [11]** have examined the Impact of Economic Value Added (EVA) on Share Price: A Study of Indian Private Sector Banks. The study concludes that in the year 2010, ICICI bank had the maximum NOPAT. The value of EVA ranged from 14.1 per cent to 91.14 per cent during 2010. Only Kotak Mahindra bank had positive correlation between EVA and Kotak Mahindra Bank share price. **Erik Stern [12]** examined the question of why EVA is the best measurement tool for creating shareholder value. He concludes that the EVA correlates better with stock price than with any other measure by 50 percent, compared with up to 30 percent for other metrics. Most of the existing research concentrates on Economic Value Added and Market Value Added only. In this study, the researcher has taken Shareholder Value Added also with Economic Value Added and Market Value Added for analysing the value creation of select manufacturing companies listed in BSE 100 Index. Moreover, the

researcher has taken continuously listed companies without exclusion during the study period and company wise analysis has been made. These criteria have led to reach the most accurate results.

1.3 STATEMENT OF THE PROBLEM

Shareholder value creation is becoming the new corporate strategy in India. It is measured by the returns they have received. The shareholders require at least minimum rate of return on their investment depending on the risk in the investment. A company may earn better profit than its competitor but it may not meet the shareholders' minimum expectations. The reason is that the monetary performance of a business organization is measured from the shareholders' point of view. Value added represents the value created by an enterprise during a specific period. Companies cannot run and grow, if they fail to create value to their shareholders. On the whole, the value creation becomes the widely accepted goal for every organization. There are a number of value-based measures. Shareholder Value Added is one of the value based performance measures and helps to find out the value that accrues to the shareholders. It focuses mainly on the operating performance of the company combines income statement and balance sheet data to determine the excess returns available to all shareholders. Economic Value Added and Market Value Added also has emerged as most popular and efficient tools to measure the performance of a company. EVA examines whether the economic profit is enough to cover the cost of capital. It is the most efficient tool to overcome the limitations of traditional financial measures. Stern Stewart and Co developed this tool to measure overall financial measure that encourages the companies to concentrate on creation of shareholder value. Market Value Added is a measure of shareholders' wealth. MVA is the difference between the current total market value of a company and its invested capital. It is not a performance metric like EVA but it is a wealth metric, measuring the level of value of a company has accumulated over time. A company can be included in BSE 100 Index only when it has traded for more than 95 percent of the days in the past three months. The companies in BSE 100 Index may earn better profit though the value creation of those companies is questionable. By keeping this in mind, this study has made an attempt to

analyze the value creation of select manufacturing companies listed in BSE 100 Index.

1.4 RESEARCH QUESTIONS:

Based on the statement of the problem, the following researchable questions are raised:

1. Do the selected companies listed in BSE 100 Index maximize the value to their shareholders?
2. Do the selected companies listed in BSE 100 Index create economic profit and wealth to their shareholders?
3. Do the capital influence productivity and economic variables (Wholesale Price Index, GDP and Money supply) on value creation of the select companies listed in BSE 100 Index?

1.5 OBJECTIVES OF THE STUDY

Based on the questions raised, the following objectives were developed.

1. To analyse the Shareholder Value Added, Economic Value Added and Market Value Added of select manufacturing companies included in BSE 100 Index.
2. To examine the impact of economic variables (Wholesale Price Index, Gross Domestic Product and Money Supply) on value based measures of select manufacturing companies included in BSE 100 Index.

1.6 METHODOLOGY

1.6.1 DATA USED

Data needed for the study have been collected from CMIE Prowess database.

1.6.2 PERIOD OF STUDY

The period of study covers a ten-years period from 2002-03 to 2011-12

1.6.3 SAMPLING DESIGN

The sample companies have been drawn from the list of companies included in BSE 100 Index. During the study period from 2002-03 to 2011-12, 64 companies were listed continuously in BSE 100 Index without any exclusion. Out of 64 companies, 42 companies belonged to the manufacturing sector and 22 companies to the service sector. The list of the 42 companies is as follows:

List of Sample Companies

S.No	Company Name	Industry Name	Scrip code in BSE
1	United Phosphorous Limited	Agriculture	512070
2	ABB Limited	Capital Goods	500002
3	Bharat Heavy Electricals Limited	Capital Goods	500103
4	Larsen & Toubro Limited	Capital Goods	500510
5	Siemens Limited	Capital Goods	500550
6	Tata Chemicals Limited	Diversified	500770
7	Dabur India Limited	FMCG	500096
8	Hindustan Unilever Limited	FMCG	500696
9	ITC Limited	FMCG	500875
10	Nestle India Limited	FMCG	500790

11	Tata Tea Limited	FMCG	500800
12	United Spirtis	FMCG	532432
13	Cipla Limited	Health Care	500087
14	Dr Reddy's Laboratories Limited	Health Care	500124
15	Ranbaxy Laboratories	Health Care	500359
16	Sun Pharmaceuticals Inds Limited	Health Care	524715
17	ACC Limited	Housing Related	500410
18	Ambuja Cements Limited	Housing Related	500425
19	Coal India Limited	Metal and Products Mining	533278
20	National Aluminium Co Limited	Metal and Products Mining	532234
21	Hindalco Industries Limited	Metal and Products Mining	500440
22	Jindal Steel and Power Limited	Metal and Products Mining	532286
23	SAIL	Metal and Products Mining	500113
24	Tata Steel Limited	Metal and Products Mining	500470
25	Bharat Petroleum Corpn Limited	Oil and Gas	500547
26	Gail (India) Limited	Oil and Gas	532155
27	Hindustan Petroleum Corp Limited	Oil and Gas	500104
28	Indian Oil Corp Limited	Oil and Gas	530965
29	ONGC Limited	Oil and Gas	500312
30	Reliance Industries Limited	Oil and Gas	500325
31	NTPC Limited	Power	532555
32	Reliance Infrastructure Limited	Power	500390
33	Tata Power Co Limited	Power	500400
34	Asian Paints Limited	Petro chemical	500820
35	Grasim Industries Limited	Textile	500300
36	Ashok Leyland Limited	Transport Equipment	500477
37	Bharat Forge Limited	Transport Equipment	500493
38	Cummins India Limited	Transport Equipment	500480
39	Hero Honda Motors Limited	Transport Equipment	500182
40	Mahindra and Mahindra Limited	Transport Equipment	500520
41	Maruti Suzuki India Limited	Transport Equipment	532500
42	Tata Motors Limited	Transport Equipment	500570

1.7. TOOLS FOR ANALYSIS

Mean, Standard Deviation and Coefficient of variation to know central tendency and homogeneity of the data. LGR was used to know the growth rate of SVA, EVA and MVA. The SVA, EVA and MVA was to know the value creation in the select manufacturing companies. Multivariate technique has been used for this study to know the impact of select economic variables on value-based measures.

1.7.1. Formulas Used:

Shareholder Value Added: $SVA = NOPAT - \text{Cost of Capital}$

Economic Value Added: $EVA = NOPAT - (WACC * \text{Invested Capital})$

Market Value Added = Market Value of the firm - Capital Invested.

1.7.2. Regression Models Used:

$$1) Y_i (SVA) = \alpha + \beta_1 \text{ GDP} + \beta_2 \text{ WPI} + \beta_3 \text{ MONEYSUPPLY} + \varepsilon$$

$$2) Y_i (EVA) = \alpha + \beta_1 \text{ GDP} + \beta_2 \text{ WPI} + \beta_3 \text{ MONEYSUPPLY} + \varepsilon$$

$$3) Y_i (MVA) = \alpha + \beta_1 \text{ GDP} + \beta_2 \text{ WPI} + \beta_3 \text{ MONEYSUPPLY} + \varepsilon$$

1.8. Variables Used:

Wholesale Price Index, Gross Domestic Product and Money Supply were used for this study.

1.9. LIMITATIONS OF THE STUDY

1. The researcher has not taken the service sector companies listed in BSE 100 Index during the study period.
2. The required data for the study were collected from the CMIE PROWESS database. Hence the trustworthiness of the data depends on the accurateness of the data available in the CMIE PROWESS data base.

1.10. SUMMARY RESULTS OF SVA, EVA AND MVA OF SELECT COMPANIES

Table 1

S. No	Company Name	Ind	2002-03	2003-04	2004-05	2005-06	2006-07	2007-08	2008-09	2009-10	2010-11	2011-12	Total
1	United Phosphorous Ltd	Agri											
	SVA		-47.54	-30.9	-217.98	18.4	13.38	98.39	82.95	50.91	51.12	121.82	140.55
	EVA		-24.78	-26.78	-16.27	-45.88	14.53	21.87	95.55	36.08	82.31	101.82	239.45
	MVA		-133.625	11.56	1321.44	-475.12	3353.06	3435.18	-959.73	3702.64	3551.02	1159.74	14967.17
2	ABB Limited	CG											
	SVA		54.49	134.77	-50.45	140.39	165.82	330.32	466.59	508.73	266.91	-30.14	1987.43
	EVA		53.24	202.09	-484.3	95.06	-59.73	266.55	259.34	74.46	-966.3	-59.01	-616.6
	MVA		602.77	2330.94	3497.21	7449.12	14823.21	5212.26	7982.87	14139.67	14364.68	9943.25	80347.98
3	Bharat Heavy Electricals Ltd	CG											
	SVA		-71.31	-103.82	110.41	387.39	1555.72	1892.77	2695.24	2991.89	4123.2	5858.49	19439.98
	EVA		460.7	436.954	650.042	951.926	1676.62	2004.15	2829.17	3090.1	3914.75	5581.65	21599.05
	MVA		34404.97	42237.29	188432.4	339289.6	562484.9	1265013	666869.7	1177754	1137572	628449.2	6042510
4	Larsen & Toubro Ltd	CG											
	SVA		-2753.96	-381.2	-884.4	-499.18	-731.44	-1420.37	-3082.59	-2435.56	-3214.94	-5451.18	-20854.8
	EVA		116.069	877.603	803.273	628.236	316.466	1411.97	1498.37	-695.46	-2797.1	-7288.7	-5125.31
	MVA		52142.78	12154.59	24351.99	48759.1	78638.68	237005.8	82449.5	188561.6	226304.1	106007.9	1056380
5	Siemens Ltd	CG											
	SVA		-284.28	-247.28	-624.86	-577.78	-1101.72	-492.51	-1477.18	-5528.29	731.88	836.08	-8765.94
	EVA		86.6893	140	-41.682	235.744	333.509	581.411	561.855	1005.41	812.418	832.415	4552.771
	MVA		10250.13	35579.05	43423.82	119184.2	190722	318722	96334.72	195947.6	276602.7	218481.5	1505253
6		Div											
	SVA		114.25	183.34	213.85	335.84	346.75	436.15	943.18	446.56	428.84	402.81	3851.57
	EVA		57.14	141.63	177.09	324.94	329.49	410.21	934.39	387.25	349.47	318.21	3435.82
	MVA		-14.28	4551.31	-1378.15	-2051.82	1283.29	21278.63	1145.3	2721.51	8565.2	-235.65	35871.34
7	Dabur India Ltd	FMCG											
	SVA		57.55	109.45	-120.15	132.17	130.02	224.55	260.88	340.49	366.88	461.62	1963.46
	EVA		61.66	83.76	70.2	145.22	170.13	246.71	301.04	357.9	386.78	458.13	2288.53
	MVA		638.78	2003.49	2352.21	5642.65	7953.47	9431.65	6712.77	12871.52	7842.23	16009.21	71464.98
8	Hindustan Unilever Ltd	FMCG											
	SVA		1606.21	1942.59	1671.81	1186.94	1360	1824.49	1902.82	2472.4	2160.81	2200.49	18328.56
	EVA		1617.85	2001.81	1371.46	1129.72	1062.89	1812.87	1910.07	2439.12	2138.97	2034.33	17527.08
	MVA		37642.07	42483.63	29357.66	41269.95	45266.03	45135.92	54219.38	56496.43	66180.51	85707.76	503767.3
9	ITC Ltd	FMCG											
	SVA		2697.63	2265.61	2059.59	1570.06	1308.1	3102.75	3228.02	3976.13	4879.12	6080.62	31167.63
	EVA		2346.02	1563.48	877.057	1495.65	854.738	3039.53	3122.56	3614.29	4103.78	6073.11	27099.21
	MVA		161848	240706.9	321083.6	529712.4	658533.4	789021.4	643787.7	946330.5	1339133	1563050	7193216

10	Nestle India Ltd		FMCG											
		SVA		259.78	270.5	209.71	403.04	366.94	516.68	630.17	785.59	796.01	1063.42	5301.84
		EVA		262.046	241.606	294.616	405.572	390.017	524.729	646.722	791.551	939.585	1028.58	5535.025
		MVA		50381.17	66352.66	56189.84	90176.87	109269.9	144307.5	139915.1	245281.9	365752.6	402029.1	1669667
11	Tata Tea Ltd		FMCG											
		SVA		63.79	129.6	-93.48	163.96	241.34	297.41	132.18	357.16	118.98	288.5	1699.44
		EVA		67.3632	178.888	-320.34	151.193	50.5321	262.99	46.671	220.345	-135.03	272.707	806.3292
		MVA		10490.95	10672.78	7201.71	9982.565	10128.52	11033.81	13401.79	14063.09	17021.72	23,012.65	127020.6
12	United Spiritis		FMCG											
		SVA		10.73	72.7	-334.26	-3.8	369.43	293.25	246.16	328.21	284.78	325.7	1592.9
		EVA		13.0599	34.3661	-199.23	14.6844	385.925	299.601	199.465	321.092	200.293	323.183	1604.44
		MVA		2163.96	3478.7	6151.92	24989.65	80969.93	196645.6	86738.24	156856.7	181983.6	62610.63	802600.9
13	Cipla Ltd		HC											
		SVA		201.02	284.24	105.7	393.35	551.02	652.97	680.31	746.84	979.16	953.57	5548.18
		EVA		200.88	306.09	41.96	392.33	556.38	637.11	628.82	708.55	574.02	903.01	4962.15
		MVA		4469.58	6734.98	428.01	11551.43	5065.56	13165.37	10231.29	20150.35	23743.83	18573.75	114127.2
14	Dr Reddy's Laboratories Ltd		HC											
		SVA		43.48	177.8	306.37	377.15	222.12	57.79	182.14	233.05	524.45	838.39	2962.74
		EVA		59.3426	212.862	317.059	366.295	148.159	34.2191	81.3289	-27.357	343.653	820.617	2370.178
		MVA		70502.01	68110.75	108910.1	65300.49	73926.37	134062.6	121770.9	76466.89	190640.1	278871.2	1188575
15	Ranbaxy Laboratories		HC											
		SVA		836.48	338.39	201.31	338.15	607.64	-1062.87	543.99	1089.7	-3074.94	-162.34	-344.49
		EVA		912.905	552.109	-24.493	332.168	423.629	-1085.6	484.81	938.164	-3570.2	-221.39	-1242.92
		MVA		109682	203084.9	231860.9	132274.5	142799.8	155291.5	102267.6	213740.5	248645.2	167884.2	1707546
16	Sun Pharmaceuticals Inds Ltd		HC											
		SVA		219.75	373.1	310.06	1484.41	1720.14	1390.9	1204.24	1246.27	1198.98	1293.45	10441.3
		EVA		216.936	398.561	6.05268	1478.51	1628.16	1368.01	1155.09	1170.75	1120.82	1094.2	9653.077
		MVA		28066.15	54663.16	101871.5	125769.9	185008.4	244334.3	217874	308193.4	498293.4	510471.7	2274562
17	ACC Ltd		HR											
		SVA		121.66	148.02	-53.69	355.58	476.24	1213.24	1388.27	1055.82	1515.39	1093.52	7314.05
		EVA		130.18	97.2	-4.96	346.71	453.42	1155.13	1142.52	-374.38	997.16	807.65	4767.63
		MVA		289.81	1624.45	3205.91	6431.22	16822.11	15273.03	4507.73	10941.87	13610.45	2126390	2199114
18	Ambuja Cements Ltd		HR											
		SVA		10373.97	8622.71	12778.23	14409.82	15585.09	16675.3	16100.18	16729.71	18850.42	25111.26	155236.7
		EVA		10521.4	8763.63	12473.2	14392.7	15458.7	16692.1	16096.6	16727.7	18816.7	25106.7	155067.2
		MVA		24252.48	47092.15	70988.42	106549.5	213038.9	223304.6	105398.2	157382.9	217982	244917.3	1410924
S. No	Company Name	Ind	2002-03	2003-04	2004-05	2005-06	2006-07	2007-08	2008-09	2009-10	2010-11	2011-12	Total	
19	Coal India Ltd	M and PM												
		SVA		428.94	502.19	-137.88	293.83	213.53	544.37	1053.92	686.01	912.75	1042.55	5540.21
		EVA		428.99	512.26	-219.74	312.34	291.72	627.93	1053.24	646.24	867.51	1021.08	5560.57

		MVA		5379.95	17291.08	25661.28	54722.94	115520	46326.5	26628.79	47886.48	49099.61	33282.59	421818.2
20	National Aluminium Co Ltd	M and PM												
		SVA		518.94	159.5	1077.65	1551.57	2335.88	1622.79	1258.49	797.32	1027.67	845.85	11195.66
		EVA		566.92	759.616	1100.84	1548.8	2291.38	1602.76	976.613	735.28	967.576	829.608	11399.4
		MVA		137392.4	679353.8	632512.4	1188037	929507.1	2687850	498057.7	1081067	2548912	1281552	11664261
21	Hindalco Industries Ltd	M and PM												
		SVA		605.84	700.38	559.12	568.01	789.82	1316.14	1634.74	2523.93	2757.34	2217.84	13673.16
		EVA		597.637	873.45	-234.11	494.805	70.2573	1012.49	885.398	796.985	-1438.4	1807.18	4886.718
		MVA		1673.42	9646.08	9492.22	12652.61	11507.55	12256.9	-10366.9	9277.61	28846.12	4073.6	89080.21
22	Jindal Steel and Power Ltd	M and PM												
		SVA		135.49	325.89	387.62	559.27	652.73	1221.7	1514.72	1443.27	1963.6	2097.01	10301.3
		EVA		144.945	307.247	509.88	566.998	661.188	1219.96	1501.3	1431.02	1915.19	2089.65	10369.37
		MVA		5062.909	9490.64	13793.51	23900.93	34214.3	235496.3	12873.69	64484.71	65424.27	40943.62	505706.9
23	SAIL	M and PM												
		SVA		7524.56	6805.73	6745.1	6191.66	6164.73	4893.85	4005.64	3538.25	2509.25	-308.32	48070.45
		EVA		7535.33	6814.71	6752.03	6200.3	6169.14	4897.41	4005.11	3538.61	2510.07	-306.06	48139.65
		MVA		3690.49	20563.18	25249.6	22012.16	36329.38	116909.7	31337.25	98729.26	74695.67	32813.62	462353.3
24	Tata Steel Ltd	M and PM												
		SVA		1003.47	1760.07	3368.45	3490.92	4173.52	4673.08	5179.89	5018.08	6820.33	6686.23	42174.04
		EVA		1007.07	1815.84	2948.77	3401.31	3709.03	4608.97	3987.7	3139.79	3221.12	6220.65	34084.24
		MVA		54552.91	161740.3	210979.5	206490.7	273951	679030	116100	503084.7	604826.5	275382.7	3086162
25	Bharat Petroleum Corpn Ltd	O&G												
		SVA		825.21	881.67	1052	1676.11	885.79	276.41	1777.57	1542.33	671.76	1527.8	11116.65
		EVA		781.6	709.44	1211.48	1029.54	856.97	28.15	1411.03	1270.76	392.97	1068.68	8785.62
		MVA		-1340.58	5476.91	5228.61	2758.58	-7343.49	-2159.7	-13107	-10406.8	-11464.5	-15694.7	-48027.7
26	Gail (India) Ltd	O&G												
		SVA		1178.63	1634.99	1864.3	1549.72	2304.4	2374.79	2595.1	2798.97	3134.76	3556.9	22992.56
		EVA		1184.77	1638.66	1868.79	1553.55	2096.18	2106.52	1749.21	-23388	-36534	-35847	-83544.4
		MVA		57349.41	218116.6	193334.6	220746.1	214052.3	451547.5	247110.4	512621.9	636604.6	476852.7	3228362
27	Hindustan Petroleum Corp Ltd	O&G												
		SVA		775.95	1560.73	1800.49	1264.54	355.36	1557.34	1509.61	547.41	1256.46	1529.05	12156.94
		EVA		770.953	1667.67	1484.51	1200.09	-76.459	1485.25	1284.1	283.067	814.222	1489.83	10430.23
		MVA		116282.3	207968.3	302623.3	531591.2	761679.4	5199181	294882.9	227202.6	230368.5	143153.4	8014960
28	Indian Oil Corp Ltd	O&G												
		SVA		2878.01	6137.32	6901.7	4877.59	4864.33	7436.52	6937.76	2922.93	7399.35	3943.93	54299.44
		EVA		2881.06	6153.15	6862.69	4865.69	4798.84	7424.52	6915.24	2881.67	7312.64	3931.3	54054.79
		MVA		184869.1	532950.2	598580.4	648963	524199.1	945549	506510.4	741918.1	830751.1	612543.4	6126862

29	ONGC Ltd	O&G											
		SVA	10391.53	8673.59	12858.14	14399.55	15578.86	16663.17	16071.3	16695.85	18837.57	25117.87	155287.4
		EVA	10492.3	8933.75	11984.9	14302.8	14999.1	16546	15898.1	16423.6	18353.8	24933.4	152896.7
		MVA	494807.7	1135609	1164584	1670508	1855239	2638838	1422940	2512878	5527522	1084772	19507727
30	Reliance Industries Ltd	O&G											
		SVA	3236.98	4128.26	5059.21	7558.78	9021.1	11929.25	19434.99	15277.95	16183	20025.35	111854.9
		EVA	3134.72	5080.66	3941.9	7199.79	7092.09	11474	18580.7	13452.2	11577.8	19592.7	101156.6
		MVA	85928.38	803521.7	251553.2	296498	167611	78293.29	797344.6	219747.9	258738.5	61296	3020563
31	NTPC Ltd	Pow											
		SVA	3600.91	5296.01	5583.26	5796.88	6794.61	7398.38	8171.6	8682.93	9011.14	9212.65	69548.37
		EVA	3596.42	7084.9	-3745.6	5162.41	4813.65	7066.64	7504.4	7557.35	7097.09	9043.88	55212.09
		MVA	678754.5	858443.3	1103889	2042498	1476341	1928197	1640064	1309420	1277657	1168307	13483602
32	Reliance Infrastructure Ltd	Pow											
		SVA	295.19	169.93	154.57	500.33	582.64	793.37	1004.66	1104.21	987.56	1987.1	7579.56
		EVA	301.578	431.686	88.7103	481.27	350.962	625.337	439.146	161.136	-1639.3	1777.49	3050.026
		MVA	29602.38	86665.29	96637.66	127178.9	116287.4	495290.1	118883.1	270879.2	212625.7	76763.5	1630845
33	Tata Power Co Ltd	Pow											
		SVA	500.97	565.12	288.26	530.04	542.98	683.35	840.89	890.06	848.92	1157.33	6847.92
		EVA	501.201	824.592	-943.11	436.916	181.597	587.345	602.547	402.747	-348.41	1025.78	3304.205
		MVA	19653.36	59391.31	73786.09	82821.82	107223	316360.7	160232	320145.5	316150.6	197257.9	1653055
34	Asian Paints Ltd	PC											
		SVA	1083.37	1114.56	1010.03	1199.3	1980.54	4020.02	6222.42	7440.78	8884.62	7162.69	40118.33
		EVA	-8.74	304.26	-585.64	1022.07	1583.47	3924.33	6080.65	7613.01	8323.31	7386.44	35677.16
		MVA	2608.05	14549.09	35132.49	58619.67	109571.4	176418.3	118965.3	35603.52	100746.2	88441.2	740689.2
35	Grasim Industries Ltd	Tex											
		SVA	24.49	86.26	-186.22	17.47	-15.21	37.63	24.81	7.87	-32.06	43.45	8.49
		EVA	26.8423	284.677	-1290.5	-86.902	-509.83	-49.59	-213.85	-635.37	-1601.9	-108.04	-4149.43
		MVA	27102.92	89491.45	118237.8	124054.2	251402.1	330661.4	107040.4	220806	207670.9	223129	1699631
36	Ashok Leyland Ltd	TE											
		SVA	83.06	112.24	186.13	269.24	323.46	360.37	462.44	182.1	418.85	625.87	3023.76
		EVA	44.89	97.06	163.18	262.19	308.18	343.22	421.33	156.55	364.48	560.11	2757.19
		MVA	10601.62	33737.51	1712.35	2598.31	-6663.76	-6354.82	-11305.2	-6711.56	-4802.53	-10276.9	2571.02
37	Bharat Forge Ltd	TE											
		SVA	71.82	167.4	-60.64	186.62	172.53	256.98	72.93	55.3	229.07	353.05	1505.06
		EVA	79.0796	304.053	-836.81	112.624	-162.01	199.097	-62.321	-260.37	-729.85	267.244	-1052.26
		MVA	5933.35	27373.1	39469.55	83145.41	76447.88	74771.51	14049.16	54270.03	81272.24	51706.39	508475.6
38	Cummins India Ltd	TE											
		SVA	546.99	638.67	222.93	411.06	211.42	225.76	147.69	94.7	20.05	84.77	2604.04

		EVA	590.087	622.371	338.419	426.014	247.21	230.828	156.882	64.9935	-52.557	81.4977	2743.744
		MVA	12134.86	39431.43	52148.86	54844.61	110165.8	144171.2	47831.55	97384	91970.23	138476.5	788597
39	Hero Honda Motors Ltd	TE											
		SVA	826.14	1209.32	1816.84	1790.92	2043.45	3327.75	2577.4	3704.97	2805.71	3520.53	23623.03
		EVA	836.211	1373.02	877.99	1719.69	1756.33	3262.74	2355.96	3275.28	1989.66	3447.94	20933.83
		MVA	53002.19	88064.63	112014.9	169609.5	150257.9	136745.2	157399.7	338827.9	391470.6	376490.4	1973922
40	Mahindra and Mahindra Ltd	TE											
		SVA	35.23	164.51	112.6	486.32	784.24	1010.24	957.21	1879.9	2571.51	2858	10859.76
		EVA	94.9578	263.875	-168.43	449.443	560.919	978.201	846.589	1501.14	661.481	2667.92	7896.089
		MVA	12212.06	44022.54	61977.66	117843.4	213382	201576.4	69143.2	299414.3	218978.9	190861.4	1429452
41	Maruti Suzuki India Ltd	TE											
		SVA	99.16	192.03	322.7	834.87	1123.03	1549.08	1702.94	1175.37	2408.13	1625.23	11032.54
		EVA	103.624	378.956	-380.22	752.626	585.636	1402.25	1497.36	374.352	1175.38	1486.77	7417.723
		MVA	12971.13	43456.39	61650.85	117461.3	212210.3	200610.8	71756.31	298635.8	223197.5	195024.5	1437016
42	Tata Motors Ltd	TE											
		SVA	-103.33	299.62	539.78	875.55	1414.06	1866.02	1931.22	2091.97	1409.66	1154.34	11478.89
		EVA	-57.131	641.74	-369.26	1168.74	1226.91	1821.31	1533.83	919.722	-1523.7	906.595	6310.753
		MVA	50408.59	156605.1	179846.2	247999	344488.4	281199	68791.52	429920.7	806419.1	92745.85	2658465

Larsen and Toubro Ltd, Siemens Ltd, Ranbaxy Laboratories Ltd, ACC Ltd, National Aluminium Ltd, Asian Paints Ltd and Tata Motors Ltd have decreasing trend of SVA during the period of study. ABB Ltd, Tata Chemicals Ltd, Tata Tea Ltd, Cipla Ltd SAIL have inconsistent growth in SVA. All other companies have created Shareholder value in positive manner.

ABB Ltd, Larsen and Toubro Ltd, Ranbaxy laboratories Ltd, ACC Ltd, National Aluminium Ltd, Gail India Ltd and Asian Paints Ltd has decreasing trend of EVA during the study period. Tata Chemicals Ltd, Tata Tea Ltd, Hindustan Industries Ltd and SAIL have inconsistent growth of EVA. All other companies have positive EVA during the study period.

National Aluminium Ltd, Bharat Petroleum Corpn Ltd, Grasim Industries Ltd have negative growth of MVA during the study period. Cipla Ltd, SAIL, GAIL India Ltd, Hindustan Petroleum Corpn Ltd, Reliance Industries Ltd, Reliance Infrastructure Ltd, Tata Power Ltd, Asian Paints

Ltd, Hero Honda Motors Ltd and Mahindra and Mahindra Ltd has positive growth of MVA except the last year of the study period. All other companies has positive growth of MVA.

All the companies have created positive value creation during the study period except Siemens Ltd and Ranbaxy Laboratories Ltd. During the study period, ABB Ltd, Larsen and Toubro Ltd, Ranbaxy laboratories Ltd, Gail India Ltd, Grasim Industries Ltd and Bharat Forge Ltd have not created Economic Profit. All the sample companies have created wealth to their shareholders except Bharat Petroleum Corporation Ltd.

1.11. IMPACT OF SELECT ECONOMIC VARIABLES ON VALUE BASED MEASURES

H_0 : The economic variables does not influence the value creation of select manufacturing companies listed in BSE 100 Index.

H_1 : The economic variable influence the value creation of manufacturing companies listed in BSE 100 Index.

Table 2- An Analysis of Impact of Wholesale Price Index, Gross Domestic Product and Money Supply on SVA of sample companies - Multiple Regression Results

S.No.	Company Name	Industry Name	R	R Square	Adjusted R Square	Durbin Watson	F	Sig.	Hypothesis Accepted/ Rejected
1.	United Phosphorous Ltd	Agri.	.721 ^a	.520	.280	2.286	2.168	.193 ^b	Accepted
2.	ABB Limited	CG	.965 ^a	.931	.896	2.370	26.922	.001 ^b	Rejected
3.	Bharat Heavy Electricals Ltd	CG	.992 ^a	.984	.975	1.946	119.390	.000 ^b	Rejected
4.	Larsen & Toubro Ltd	CG	.827 ^a	.684	.526	2.191	4.330	.060 ^b	Accepted
5.	Siemens Ltd	CG	.733 ^a	.538	.307	3.076	2.327	.174 ^b	Accepted
6.	Tata Chemicals Ltd	Div.	.934 ^a	.872	.808	2.332	13.659	.004 ^b	Rejected
7.	Dabur India Ltd	FMCG	.940 ^a	.884	.826	2.467	15.238	.003 ^b	Rejected
8.	Hindustan Unilever Ltd	FMCG	.930 ^a	.864	.796	2.601	12.732	.005 ^b	Rejected
9.	ITC Ltd	FMCG	.988 ^a	.976	.964	2.987	80.739	.000 ^b	Rejected
10.	Nestle India Ltd	FMCG	.385 ^a	.148	-.278	2.842	.348	.792 ^b	Accepted
11.	Tata Tea Ltd	FMCG	.939 ^a	.882	.823	1.940	14.963	.003 ^b	Rejected
12.	United Spirtis	FMCG	.691 ^a	.478	.217	2.570	1.831	.242 ^b	Accepted
13.	Cipla Ltd	HC	.886 ^a	.785	.677	3.150	7.296	.020 ^b	Rejected
14.	Dr Reddy's Laboratories Ltd	HC	.878 ^a	.770	.655	2.938	143.21245	2.010	Accepted
15.	Ranbaxy Laboratories	HC	.993 ^a	.987	.980	2.010	149.972	.000 ^b	Rejected
16.	Sun Pharmaceuticals Inds Ltd	HC	.890 ^a	.793	.689	2.699	7.644	.018 ^b	Rejected
17.	ACC ltd	Hou.Rel	.905 ^a	.820	.729	2.187	9.086	.012 ^b	Rejected
18.	Ambuja Cements Ltd	Hou.Rel	.936 ^a	.876	.814	2.905	14.137	.004 ^b	Rejected
19.	Coal India Ltd	Mand PM	.857 ^a	.735	.602	1.975	5.547	.036 ^b	Rejected
20.	National Aluminium Co Ltd	Mand PM	.954 ^a	.910	.864	1.770	20.131	.002 ^b	Rejected
21.	Hindalco Industries ltd	Mand PM	.983 ^a	.966	.949	3.006	57.070	.000 ^b	Rejected
22.	Jindal Steel and Power Ltd	Mand PM	.602 ^a	.363	.044	2.504	1.138	.406 ^b	Accepted
23.	SAIL	Mand PM	.734 ^a	.538	.307	1.818	2.331	.174 ^b	Accepted
24.	Tata Steel Ltd	Mand PM	.961 ^a	.923	.884	2.120	23.887	.001 ^b	Rejected
25.	Bharat Petroleum Corpn Ltd	O & G	.925 ^a	.856	.784	1.715	11.900	.006 ^b	Rejected
26.	Gail (India) Ltd	O & G	.524 ^a	.275	-.088	3.038	465.12458	1.773	Accepted

27.	Hindustan Petroleum Corp Ltd	O & G	.707 ^a	.499	.249	1.773	1.994	.216 ^b	Accepted
28.	Indian Oil Corp Ltd	O & G	.922 ^a	.849	.774	2.466	11.279	.007 ^b	Rejected
29.	ONGC Ltd	O & G	.970 ^a	.941	.912	2.263	32.016	.000 ^b	Rejected
30.	Reliance Industries Ltd	O & G	.833 ^a	.694	.540	2.559	4.529	.055 ^b	Rejected
31.	NTPC Ltd	Pow	.662 ^a	.438	.157	1.571	1.560	.294 ^b	Accepted
32.	Reliance Infrastructure Ltd	Pow	.986 ^a	.972	.959	2.117	70.578	.000 ^b	Rejected
33.	Tata Power Co Ltd	Pow	.987 ^a	.975	.963	2.795	78.355	.000 ^b	Rejected
34.	Asian Paints Ltd	Petro chem	.986 ^a	.973	.959	2.326	71.443	.000 ^b	Rejected
35.	Grasim Industries Ltd	Text	.974 ^a	.948	.923	2.482	36.749	.000 ^b	Rejected
36.	Ashok Leyland Ltd	TE	.491 ^a	.241	-.139	2.308	.634	.620 ^b	Accepted
37.	Bharat Forge Ltd	TE	.979 ^a	.959	.938	2.832	46.468	.000 ^b	Rejected
38.	Cummins India Ltd	TE	.394 ^a	.155	-.267	2.279	.368	.779 ^b	Accepted
39.	Hero Honda Motors Ltd	TE	.434 ^a	.189	-.217	2.803	.465	.717 ^b	Accepted
40.	Mahindra and Mahindra Ltd	TE	.971 ^a	.942	.914	2.285	32.693	.000 ^b	Rejected
41.	Maruti Suzuki India Ltd	TE	.980 ^a	.961	.942	1.988	49.374	.000 ^b	Rejected
42.	Tata Motors Ltd	TE	.982 ^a	.964	.946	2.430	53.142	.000 ^b	Rejected

a. Dependent Variable: SVA; b. Predictors (Constant) GDP, WPI, Money Supply; Level of Sig. 5%

The Table 2 has shown the correlation coefficient of ABB ltd, Bhraat Heavy Electricals Ltd, Dabur India Ltd, Hindustan Unilever Ltd, ITC Ltd, Cipla Ltd, Dr. Reddy's Laboratories Ltd, ACC Ltd, Hindal co Industries Ltd, Jindal Steel and Power Ltd, SAIL, Tata Steel Ltd, Gail India ltd, ONGC Ltd, Reliance Industries Ltd, NTPC Ltd, Reliance Infrastructure Ltd, Tata Power Co Ltd, Ashok Leyland ltd and Tata Motors Ltd shown strong positive relationship. Grasim Industries, Hindustan Petroleum corporations, Bharat Petroleum, National Aluminium have moderate

correlation between the variables. Bharat Heavy Electricals Ltd, Hindustan Unilever Ltd, Nestle India Ltd, Ambuja Cements Ltd, Hindalco Industries ltd, Jindal Steel and Power Ltd, SAIL, Tata Steel Ltd, Gail India Ltd, ONGC, Reliance Industries Ltd, NTPC, Asian Paints Ltd have positive auto correlation between the variables. Out of 42 Companies, 28 company's statistical significance value is less than 0.05 at 5% sig level. So Null hypothesis is Rejected and 14 companies have accepted the Null hypothesis.

Table 3. An Analysis of Impact of Wholesale Price Index, Gross Domestic Product and Money Supply on EVA of sample companies - Multiple Regression Results

S.No.	Company Name	Industry Name	R	R Square	Adjusted R Square	Durbin Watson	F	Sig.	Hypothesis Accepted/ Rejected
1.	United Phosphorous Ltd	Agri.	.921 ^a	.848	.772	2.317	11.158	.007 ^b	Rejected
2.	ABB Limited	CG	.442 ^a	.195	-.207	2.671	.486	.704 ^b	Accepted
3.	Bharat Heavy Electricals Ltd	CG	.992 ^a	.983	.975	2.080	116.758	.000 ^b	Rejected
4.	Larsen & Toubro Ltd	CG	.958 ^a	.917	.876	2.546	22.188	.001 ^b	Rejected
5.	Siemens Ltd	CG	.975 ^a	.950	.926	2.514	38.307	.000 ^b	Rejected

6.	Tata Chemicals Ltd	Div.	.934 ^a	.873	.810	2.362	13.770	.004 ^b	Rejected
7.	Dabur India Ltd	FMCG	.996 ^a	.992	.988	2.807	247.390	.000 ^b	Rejected
8.	Hindustan Unilever Ltd	FMCG	.883 ^a	.780	.671	1.810	7.111	.021 ^b	Rejected
9.	ITC Ltd	FMCG	.937 ^a	.879	.818	2.098	14.471	.004 ^b	Rejected
10.	Nestle India Ltd	FMCG	.995 ^a	.991	.986	2.424	212.445	.000 ^b	Rejected
11.	Tata Tea Ltd	FMCG	.348 ^a	.121	-.318	2.854	.276	.841 ^b	Accepted
12.	United Spirtis	FMCG	.696 ^a	.484	.226	1.761	1.874	.235 ^b	Accepted
13.	Cipla Ltd	HC	.873 ^a	.762	.643	2.237	6.409	.027 ^b	Rejected
14.	Dr Reddy's Laboratories Ltd	HC	.932 ^a	.868	.803	2.133	13.193	.005 ^b	Rejected
15.	Ranbaxy Laboratories	HC	.536 ^a	.287	-.069	3.000	.807	.534 ^b	Accepted
16.	Sun Pharmaceuticals Inds Ltd	HC	.630 ^a	.397	.095	1.890	1.315	.354 ^b	Accepted
17.	ACC Ltd	Hou.Rel	.562 ^a	.316	-.026	2.418	.923	.485 ^b	Accepted
18.	Ambuja Cements Ltd	Hou.Rel	.970 ^a	.940	.910	2.180	31.320	.000 ^b	Rejected
19.	Coal India Ltd	Mand PM	.802 ^a	.643	.465	2.505	3.603	.085 ^b	Accepted
20.	National Aluminium Co Ltd	Mand PM	.637 ^a	.406	.109	1.580	1.368	.339 ^b	Accepted
21.	Hindalco Industries Ltd	Mand PM	.078 ^a	.006	-.491	2.706	.012	.998 ^b	Accepted
22.	Jindal Steel and Power Ltd	Mand PM	.987 ^a	.974	.962	2.688	76.131	.000 ^b	Rejected
23.	SAIL	Mand PM	.986 ^a	.973	.959	2.324	71.756	.000 ^b	Rejected
24.	Tata Steel Ltd	Mand PM	.904 ^a	.817	.726	2.499	8.934	.012 ^b	Rejected
25.	Bharat Petroleum Corpn Ltd	O & G	.440 ^a	.194	-.210	2.209	.480	.708 ^b	Accepted
26.	Gail (India) Ltd	O & G	.956 ^a	.914	.872	1.653	21.360	.001 ^b	Rejected
27.	Hindustan Petroleum Corp Ltd	O & G	.351 ^a	.123	-.315	2.377	.281	.838 ^b	Accepted
28.	Indian Oil Corp Ltd	O & G	.432 ^a	.187	-.220	2.798	.460	.721 ^b	Accepted
29.	ONGC Ltd	O & G	.967 ^a	.936	.903	2.178	29.087	.001 ^b	Rejected
30.	Reliance Industries Ltd	O & G	.921 ^a	.848	.772	2.198	11.151	.007 ^b	Rejected
31.	NTPC Ltd	Pow	.686 ^a	.470	.205	2.920	1.774	.252 ^b	Accepted
32.	Reliance Infrastructure Ltd	Pow	.374 ^a	.140	-.290	2.743	.325	.808 ^b	Accepted
33.	Tata Power Co Ltd	Pow	.260 ^a	.068	-.398	2.673	.146	.929 ^b	Accepted
34.	Asian Paints Ltd	Petro chem	.997 ^a	.995	.992	3.413	373.164	.000 ^b	Rejected
35.	Grasim Industries Ltd	Text	.325 ^a	.105	-.342	2.627	.236	.869 ^b	Accepted
36.	Ashok Leyland Ltd	TE	.938 ^a	.880	.820	1.935	14.621	.004 ^b	Rejected
37.	Bharat Forge Ltd	TE	.180 ^a	.032	-.451	2.663	.067	.976 ^b	Accepted

38.	Cummins India Ltd	TE	.933 ^a	.870	.805	2.778	13.413	.005 ^b	Rejected
39.	Hero Honda Motors Ltd	TE	.800 ^a	.640	.461	2.814	3.563	.087 ^b	Accepted
40.	Mahindra and Mahindra Ltd	TE	.850 ^a	.723	.584	2.960	5.208	.042 ^b	Rejected
41.	Maruti Suzuki India Ltd	TE	.726 ^a	.527	.290	2.458	2.228	.186 ^b	Accepted
42.	Tata Motors Ltd	TE	.482 ^a	.233	-.151	2.625	.607	.634 ^b	Accepted

a. Dependent Variable: EVA; b. Predictors (Constant) GDP, WPI, Money Supply; Level of Sig. 5%

The table 3 has shown that the United phosphorus Ltd, ABB Ltd, Larsen and Toubro Ltd, Siemens Ltd, Tata Chemicals Ltd, Hindustan Unilever Ltd, ITC Ltd, Nestle India Ltd, Dr Reddy's laboratories Ltd, Ambuja Cements Ltd, Jindal Steel and Power Ltd, SAIL, Tata Steel Ltd, Gain India Ltd, ONGC Ltd, Reliance Industries Ltd, Asian Paints Ltd, Ashok Leyland Ltd and Cummins India Ltd have Strong positive correlation between the variables. Hindustan Petroleum, Indian Oil Corporation, Hindalco Industries Ltd,

Grasim Textile Ltd and Bharat Forge Ltd have moderate but positive correlation between the variables. Durbin Watson Test shows the positive auto correlation between the variables of United Spirits, Sun Pharmaceuticals Ltd, National Aluminium corporation, Gail India Ltd and Ashok Leyland. Out of 42 Companies, 23 companies have rejected the Null Hypothesis and 19 companies have accepted the Null Hypothesis.

Table 4. An Analysis of Impact of Wholesale Price Index, Gross Domestic Product and Money Supply on MVA of sample companies - Multiple Regression Results

S.No.	Company Name	Industry Name	R	R Square	Adjusted R Square	Durbin Watson	F	Sig.	Hypothesis Accepted/ Rejected
1.	United Phosphorous Ltd	Agri.	.463 ^a	.215	-.178	2.370	.547	.668 ^b	Accepted
2.	ABB Limited	CG	.751 ^a	.563	.345	2.048	2.580	.149 ^b	Accepted
3.	Bharat Heavy Electricals Ltd	CG	.804 ^a	.647	.470	2.160	3.665	.082 ^b	Rejected
4.	Larsen & Toubro Ltd	CG	.759 ^a	.575	.363	2.167	2.711	.138 ^b	Accepted
5.	Siemens Ltd	CG	.705 ^a	.497	.246	1.880	1.979	.219 ^b	Accepted
6.	Tata Chemicals Ltd	Div.	.324 ^a	.105	-.342	2.190	.235	.869 ^b	Accepted
7.	Dabur India Ltd	FMCG	.877 ^a	.769	.654	2.968	6.662	.024 ^b	Rejected
8.	Hindustan Unilever Ltd	FMCG	.952 ^a	.905	.858	2.745	19.142	.002 ^b	Rejected
9.	ITC Ltd	FMCG	.988 ^a	.977	.965	1.824	83.229	.000 ^b	Rejected
10.	Nestle India Ltd	FMCG	.993 ^a	.987	.980	2.414	147.214	.000 ^b	Rejected
11.	Tata Tea Ltd	FMCG	.943 ^a	.889	.834	2.483	16.031	.003 ^b	Rejected
12.	United Spirtis	FMCG	.756 ^a	.571	.357	2.089	2.667	.142 ^b	Accepted
13.	Cipla Ltd	HC	.924 ^a	.854	.781	2.869	11.668	.006 ^b	Rejected
14.	Dr Reddy's Laboratories Ltd	HC	.939 ^a	.881	.822	2.046	14.812	.004 ^b	Rejected
15.	Ranbaxy Laboratories	HC	.385 ^a	.149	-.277	1.905	.349	.792 ^b	Accepted
16.	Sun Pharmaceuticals Inds Ltd	HC	.986 ^a	.972	.959	2.531	70.448	.000 ^b	Rejected

17.	ACC ltd	Hou.Rel	.858 ^a	.736	.605	2.488	5.589	.036 ^b	Rejected
18.	Ambuja Cements Ltd	Hou.Rel	.814 ^a	.663	.494	1.676	3.928	.073 ^b	Accepted
19.	Coal India Ltd	Mand PM	.465 ^a	.216	-.175	1.869	.553	.665 ^b	Accepted
20.	National Aluminium Co Ltd	Mand PM	.528 ^a	.279	-.081	2.443	.774	.549 ^b	Accepted
21.	Hindalco Industries Ltd	Mand PM	.422 ^a	.178	-.233	2.117	.433	.737 ^b	Accepted
22.	Jindal Steel and Power Ltd	Mand PM	.283 ^a	.080	-.380	2.193	.173	.911 ^b	Accepted
23.	SAIL	Mand PM	.632 ^a	.400	.100	2.380	1.333	.349 ^b	Accepted
24.	Tata Steel Ltd	Mand PM	.579 ^a	.335	.003	2.269	1.009	.451 ^b	Accepted
25.	Bharat Petroleum Corpn Ltd	O & G	.903 ^a	.816	.723	2.365	8.846	.013 ^b	Rejected
26.	Gail (India) Ltd	O & G	.882 ^a	.777	.666	2.350	6.986	.022 ^b	Rejected
27.	Hindustan Petroleum Corp Ltd	O & G	.061 ^a	.004	-.494	2.101	.007	.999 ^b	Accepted
28.	Indian Oil Corp Ltd	O & G	.519 ^a	.269	-.097	2.520	.736	.568 ^b	Accepted
29.	ONGC Ltd	O & G	.576 ^a	.331	-.003	2.543	.992	.458 ^b	Accepted
30.	Reliance Industries Ltd	O & G	.592 ^a	.351	.026	2.453	1.080	.426 ^b	Accepted
31.	NTPC Ltd	Pow	.628 ^a	.394	.091	2.618	1.301	.357 ^b	Accepted
32.	Reliance Infrastructure Ltd	Pow	.417 ^a	.174	-.239	2.381	.422	.744 ^b	Accepted
33.	Tata Power Co Ltd	Pow	.839 ^a	.704	.556	2.403	4.764	.050 ^b	Rejected
34.	Asian Paints Ltd	Petro chem	.642 ^a	.413	.119	1.777	1.405	.330 ^b	Accepted
35.	Grasim Industries Ltd	Text	.566 ^a	.320	-.019	2.050	.943	.477 ^b	Accepted
36.	Ashok Leyland Ltd	TE	.780 ^a	.609	.413	2.653	3.110	.110 ^b	Accepted
37.	Bharat Forge Ltd	TE	.442 ^a	.196	-.207	1.925	.486	.704 ^b	Accepted
38.	Cummins India Ltd	TE	.714 ^a	.510	.264	2.135	2.079	.205 ^b	Accepted
39.	Hero Honda Motors Ltd	TE	.940 ^a	.884	.827	1.526	15.304	.003 ^b	Rejected
40.	Mahindra and Mahindra Ltd	TE	.710 ^a	.504	.256	2.136	2.031	.211 ^b	Accepted
41.	Maruti Suzuki India Ltd	TE	.724 ^a	.524	.285	2.124	2.198	.189 ^b	Accepted
42.	Tata Motors Ltd	TE	.486 ^a	.236	-.146	2.189	.619	.628 ^b	Accepted

a. Dependent Variable: MVA; b. Predictors (Constant) GDP, WPI, Money Supply; Level of Sig. 5%

The Table 4 has presented the results of Multiple Regression analysis of influence of economic variables on value based measures of the select companies. Hindustan Unilever Ltd, ITC Ltd, Nestle India Ltd, Tata Tea Ltd, Cipla Ltd, Dr

Reddy's laboratories Ltd, Sun Pharmaceuticals Ltd, Bharat Petroleum Corporation Ltd, Hero Honda Motors Ltd has strong positive correlation between the variables. Durbin Watson test shows the positive auto correlation between the

variables of Asian Paints Ltd, Bharat Forge Ltd, Ambuja Cements Ltd, Coal India Ltd, Siemens Ltd and ITC Ltd. Out of 42 companies only 15 companies have Rejected the Null Hypothesis and 27 Companies have Accepted the Null Hypothesis.

1.12. SUGGESTIONS TO IMPROVE VALUE CREATION:

1. The sample companies with inconsistent growth must reduce the cost of capital, invest more in opportunities that earn more productivity of these companies needs to be increased.
2. Make capital from existing operations by increasing efficiency of capital by fast up the working capital and speed up the cycling time is also one of the ways to improve the Value creation.
3. Adopting Value-based measures is very costly and time consuming process one. It needs continuous commitment of the Board of Directors and senior management to use these measures. It will also require some training and extensive communication effort directed to everyone in the company.
4. The value-based management system covers all managerial decisions like strategic planning, allocation of capital, pricing acquisitions and setting annual goals. The focus is needed for continuous improvement of value based measures. Only then can make the right decisions for the benefit of the shareholders.

1.13. CONCLUSION:

Shareholder value is based on the principle of the survival of the fittest. Complete implementation of value based measures is not possible, in an economy wherein business decisions are influenced by socio economic factors. The Indian corporate are bound to take decisions purely on commercial basis to safe guard the interests of their shareholders. The concept of Shareholder value creation and EVA are well-known concepts to India.

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