



## INTERNATIONAL JOURNAL OF RESEARCH IN COMMERCE AND MANAGEMENT

### CONTENTS

Sr. No.	Article / Paper	Page No.
1.	<b>STRATEGIC MARKETING PRACTICES ON THE PERFORMANCE OF FIRMS IN NIGERIAN OIL AND GAS INDUSTRY</b> <i>DR. S. T. AKINYELE</i>	6
2.	<b>HUMAN RESOURCE SYSTEMS AND ORGANIZATIONAL EFFECTIVENESS: THE CASE OF INDIAN RURAL BANKING</b> <i>PROF. NEELU ROHMETRA &amp; DR. JAYA BHASIN</i>	33
3.	<b>A COMPARATIVE STUDY ON THE PRICE MOVEMENTS BETWEEN GOLD AND CRUDE OIL BETWEEN 2006 AND 2007</b> <i>PROF. (DR.) A. OLIVER BRIGHT &amp; KARTHIK</i>	55
4.	<b>RELATIONSHIP BETWEEN FII, SENSEX AND MARKET CAPITALISATION</b> <i>GAYATHRI DEVI. R &amp; PROF. (DR.) MALABIKA DEO</i>	97
5.	<b>A NOVEL INDEPENDENT COMPONENT ANALYSIS APPROACH FOR BANKRUPTCY PREDICTION USING NEURO-FUZZY NETWORKS</b> <i>NIDHI ARORA &amp; PROF. (DR.) SANJAY K. VIJ</i>	104
6.	<b>CHALLENGES FOR IFRS IMPLIMENTATIONS IN INDIA - AN ACCOUNTING REVOLUTION</b> <i>PROF. (DR.) ATUL BANSAL &amp; DR. SHWETA BANSAL</i>	113
7.	<b>EMPLOYEE INVOLVEMENT – A TOOL FOR ORGANIZATIONAL EXCELLENCE</b> <i>DR. SMITHA SAMBRANI</i>	128
8.	<b>PREFERENTIAL TRADING AGREEMENTS: THE CASE FOR ASEAN+4 AS A POTENTIAL TRADE BLOC</b> <i>DR. VIRENDER PAL, NARESH KUMAR &amp; BALJJIT SINGH</i>	136
9.	<b>A STUDY OF LIQUIDITY, PROFITABILITY AND RISK ANALYSIS OF CEMENT INDUSTRY IN INDIA</b> <i>MS. RAJNI SOFAT</i>	142
10.	<b>BASE RATE: THE NEW BENCHMARK RATE</b> <i>PROF. REKHA DHIAYA, PROF. HARPREET SINGH &amp; PROF. ANMOL SOI</i>	162
11.	<b>A STUDY OF FACTORS AFFECTING TRAINING DECISIONS OF EMPLOYEES IN SERVICE INDUSTRY: A STUDY WITH REFERENCE TO SELECTED SERVICE INDUSTRY IN NCR</b> <i>VIJIT CHATURVEDI</i>	171
12.	<b>DATA MINING BASED ASSOCIATION RULES &amp; RFM ANALYSIS IN INDIAN RETAIL SECTOR: AN EMPIRICAL INVESTIGATION</b> <i>Dr. ANSHUL SHARMA, Prof. (Dr.) M. K. KULSHRESHTHA &amp; Prof. (Dr.) ASHOK AGRWAL</i>	186
13.	<b>FACTORS AFFECTING INDIA'S BALANCE OF PAYMENT (BOP) AFTER LIBERALIZATION (1991)</b> <i>DEBASISH MAULIK</i>	204
14.	<b>INCOME INEQUALITY AND PROGRESSIVE INCOME TAXATION IN CHINA AND INDIA</b> <i>DR. SUNIL GUPTA, DR. VIJITA AGGARWAL &amp; DR. ALKA MITTAL</i>	215
15.	<b>CHALLENGES FACED BY WOMEN ENTREPRENEURS IN A DEVELOPING ECONOMY</b> <i>DR. SHEFALI VERMA THAKRAL</i>	221
16.	<b>MARKET VALUE ADDED: A STUDY IN THE SELECT INDIAN SOFTWARE COMPANIES</b> <i>DR. D. KAMALAVENI &amp; DR. S. KALAISELVI</i>	227
	<b>REQUEST FOR FEEDBACK</b>	245

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## MARKET VALUE ADDED: A STUDY IN THE SELECT INDIAN SOFTWARE COMPANIES

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### **ABSTRACT**

*The software industry has a strong future regardless of whether its products are as a service, or as a component or in packaged form. The software industry is going through a rapid and significant transition. India's domination in the IT and software sector and its growing reputation as one of the world's best outsourcing destinations have created good basis for future prospects. Wealth creation is a desire to be rich, desire to have control over the aspects that affect financial life, a desire to command respect with the control of money power. Globalization, outsourcing and world flattening advances in technology continue to rock the software industry in ways that will significantly alter the way that technologists do business. A SWOT analysis of the Indian software industry may reveal strategies for continued predominance of the Indian software industry. The Information Technology (IT) sector is doing remarkably well and is registering high growth rates for the past few years. The software industry, which is a part of the IT industry has been the major driver of the IT industry and has been responsible for the phenomenal growth achieved by the IT industry. The exports are pioneering the software industry. Maximizing shareholder value is becoming the new corporate standard in India. The corporates, which gave low preference to the shareholder inquisitiveness are now bestowing the utmost inclination to it. In order to help the corporates to generate value to the shareholders, value-based management systems have been developed. If a business enterprise is determined to maximize the economic value of the shareholders claim to the assets, then it is quite beyond price to all those who are patronized stakeholders. Creating value is the core principle on which the economic system is based. No enterprise survives or glows if it fails to generate wealth for the stakeholders. In the context of an impressive performance by the IT sector and realizing the significance of MVA, the researcher has made an attempt to study the Market Value Added performance in the Indian software industry.*

**KEY WORDS**

Value Based Management (VBM), Economic Value Added (EVA), Return on Operating Invested Capital (ROIC), Total Market Value (TMV), Total Invested Capital (TCI), Earning Before Interest and Taxes (EBIT).

**INTRODUCTION**

The software industry has a strong future regardless of whether its products are as a service, or as a component or in packaged form. The software industry is going through a rapid and significant transition. India's domination in the IT and software sector and its growing reputation as one of the world's best outsourcing destinations have created good basis for future prospects. Wealth creation is a desire to be rich, desire to have control over the aspects that affect financial life, a desire to command respect with the control of money power. Wealth creation includes the decision making processes of a business unit whether the unit grows organically or through acquisition. Wealth creation is not material, it is spiritual by nature with the ability to produce or manifest material wealth. Globalization, outsourcing and world flattening advances in technology continue to rock the software industry in ways that will significantly alter the way that technologists do business.

Wealth creation is considered imperative for equitable distribution of the same. This creation and distribution process will go towards alleviating the plight of the downtrodden. The IT / ITES industry has set this process of wealth creation in motion. Wealth creation is the key to financial freedom and building one's wealth requires the right information, planning and making skilful investment choices. The key to creating wealth is adding value. All financial success, especially business success, is based on adding value. It is based on the old saying, "find a need and fill it". Adding value is the way that all fortunes are made.

Inflationary pressures, higher perceived business risk and market imperfections are the main reason for the higher cost of capital. (PricewaterhouseCoopers 1999). While macro-economic conditions and market imperfections are beyond the control, Indian software companies could try to enhance their business focus, improve investor perception, diversify to reduce revenue volatility, and ensure that they comply with strict reporting norms that encourage corporate transparency as well as increase their investor base. A SWOT analysis of the Indian software industry may reveal strategies for continued predominance of the Indian software industry.

**VALUE BASED MANAGEMENT**

Value Based Management (VBM) has been referred to as the "fastest and hottest ticket" to shareholder wealth. Incorporating such techniques as Economic Value Added (EVA), Return on Operating Invested Capital (ROIC), and Market Value Added (MVA), VBM is a complete financial management and incentive compensation system that guides decision-making at every level. Adopting companies use VBM as a guide in financial planning, monitoring and controlling operations. Shareholder value creation is represented by the difference between the market value of the firm's equity and the equity capital invested by shareholders. Former reflects the value imputed by financial market on the equity of the firm and latter reflects the actual amount of money contributed by equity share holders by way of capital and retained earnings.

## MARKET VALUE ADDED

The market value of a business at a point in time is an approximation of the fair value of the business entire debt and equity capitalization. This can be arrived at by taking the number of shares and multiplying by the share price and adding the book value of long and short term loans net of any cash deposits. Market value at a point in time is equal to the total capital employed plus or minus the net present value of all future economic profits. Therefore, market value is maximized by maximizing the present value of future economic profits. In order to measure shareholder's wealth Stewart invented the term Market Value Added. MVA is defined as excess of market value of a company over its invested capital. MVA is a cumulative measure of the value created by management in excess of the capital invested by shareholders. According to Ehrbar and Hamel (1997), "...there is one measure, Market Value Added (MVA), that captures all the dynamics of corporate performance"

MVA is the value added by the management to the equity capital and debt entrusted to it by the company's share holders. MVA is a market-generated number calculated by subtracting the capital invested in a firm (C) from the sum (V) of the total market value of the firm's equity and the book value of its debt:  $MVA_t = V_t - C_t$ . While this measure of value depends on a book value of capital which is subject to inflation influences, it may provide a useful market indication of present and future value creation by representing the difference between the capital invested and the present value of the cash flows expected from that capital. It is an accomplishment of a firm with a high level of MVA just to maintain that level, as this requires the satisfaction of both present and future earning expectations.

Market Value Added is identical by meaning with the market-to-book-ratio. The difference is only that MVA is an absolute measure and market-to-book-ratio is a relative measure. If MVA is positive means the market-to-book-ratio is more than one. Negative MVA means market-to-book-ratio less than one. According to Stewart, Market Value Added tells us how much value company has added to or subtracted from, its shareholders investment. Successful companies add their MVA and thus increase the value of capital invested in the company. Whether a company succeeds in creating MVA (increasing shareholders value) or not, depends on its rate of return. If a company's rate of return exceeds its cost of capital, the company will sell on the stock markets with premium compared to the original capital (has positive MVA). On the other hand, companies that have rate of return smaller than their cost of capital sell with discount compared to the original capital invested in company. The company's positive or negative MVA entirely depends on the level of rate of return compared to cost of capital. This applies to EVA also. Hence, positive EVA implies positive MVA and vice versa. Market value Added is equal to present value of all future EVAs. Increasing EVA of a company increases its Market Value Added.

## MVA – THE BASIC PREMISE

The basic premise of the method is that, from a shareholders perspective, the extra value created by the use of capital is one of the major measures of success for a company's management. When shareholder buy stock, they are hiring a company to create value for them. If a company does that, it is successful and the measure of its success is determined by subtracting the total amount of money invested from the total market value of the company. The Total Market Value (TMV) of a company is the value of its stock and debt. Total invested capital (IC) includes all stock and debt offerings, retained earnings, bank loans and certain investments in future earnings like R & D. TMV minus IC equals MVA. The greater the difference, the more a company's management has succeeded.

The basic problem with using this system is that it doesn't rely on a true market value but on a subjective market value. True market value is pretty hard to figure because it is more than what something actually sells for, on a given day.

MVA is the perfect measure of the company's ability to create wealth, which can be calculated only at the level of the entire company and is as volatile as any market index. To determine whether management has created or destroyed value, the market value of the firm's capital (both equity and debt capital) may be compared to the capital invested by shareholders and lenders (the capital employed in the firm). The difference between the market value of capital and capital employed is called Market Value Added (MVA).

MVA describes the value added to a particular share over its book value. It enlightens how much value a shareholder has added to his wealth, which he has invested in the share. Accordingly, a company with an objective of enhancing the shareholders wealth should attempt to capitalize on its MVA. MVA is derived by deducting the book value of the firm from its market capitalization. The book value of the firm is equity share capital plus reserves and surplus, minus any revaluation reserve and miscellaneous expenses. Market Value of the firm can be arrived at by dividing Earnings Before Interest and Taxes (EBIT) by overall cost of capital.

#### COMPUTATION

MVA = Market Value of Capital – Capital Employed.

MVA can also be computed with the following formula

MVA = Market Value of the firm – Book Value of the firm

$$\text{Market Value of the firm} = \frac{\text{EBIT}}{K_0}$$

Where EBIT = Earnings Before Interest and Taxes

$K_0$  = Weighted Average cost of Capital (WACC)

Book Value of the firm = Equity share capital + Revaluation reserves + Miscellaneous Expenses.

#### PROPERTIES OF MVA

The importance of MVA stems from the following properties;

- MVA increases when the firm undertakes positive NPV projects.
- NPV = Present value of cash inflows from the project – Capital employed in the project.
- Maximising MVA is consistent with maximizing shareholder value.

### **EVA AND MARKET VALUE ADDED**

- The relationship between EVA and Market Value Added is more complicated than the one between EVA and Firm Value.
- The market value of a firm reflects not only the expected EVA of Assets in Place but also the Expected EVA from Future Projects.
- To the extent that the actual Economic Value Added is smaller than the expected EVA, the market value can decrease even though the EVA is higher.

### **ROLE OF MVA IN EFFICIENT CAPITAL ALLOCATION**

Market Value Added (MVA) is one of the external indicators which gives the utmost satisfaction to the investors. Investors always desire an increase in the share prices. The most reliable measure of management's long term success in adding value is known as "Market Value Added". MVA is the difference between company's current market value and the amount of capital that shareholders have committed to the firm throughout its existence, including earnings that have been retained in the business. MVA is the best external performance indicator as it indicates the market assessment of the effectiveness with which companies' managers have used the scarce resources under their control. Market value added refers to the value added to the shareholders wealth by the firm.

### **NEED FOR THE STUDY**

The Information Technology (IT) sector is doing remarkably well and is registering high growth rates for the past few years. The software industry, which is a part of the IT industry has been the major driver of the IT industry and has been responsible for the phenomenal growth achieved by the IT industry. The exports are pioneering the software industry. Maximizing shareholder value is becoming the new corporate standard in India. The corporates, which gave low preference to the shareholder inquisitiveness are now bestowing the utmost inclination to it. In order to help the corporates to generate value to the shareholders, value-based management systems have been developed. If a business enterprise is determined to maximize the economic value of the shareholders claim to the assets, then it is quite beyond price to all those who are patronized stakeholders.

Creating value is the core principle on which the economic system is based. No enterprise survives or glows if it fails to generate wealth for the stakeholders. In the context of an impressive performance by the IT sector and realizing the significance of MVA, the researcher has made an attempt to study the Market Value Added performance in the Indian software industry.

### **RESEARCH OBJECTIVES**

Value Added indicates the Net wealth created by the production of goods or services during a specified period in the corporate. An enterprise may exist without making profit but cannot survive without adding value. Indian markets are awakening to the reality that several companies are using capital incompetently and destroying value. Companies that add value to their enterprise often rank high when

it comes to Market capitalization. International markets also look at economic value when it comes to sizing up of a company. The main goal of the business enterprises is to protect and maximize the interest of shareholders by maximizing the overall goal of the business units. The main objective of the study is to compute MVA and to assess the relationship between MVA and select financial variables.

## RESEARCH METHODOLOGY

### SAMPLE SELECTION

The data used in this study relate to those software companies listed in the Bombay Stock Exchange (BSE) for which the data are available in the Capitaline database. The analysis is confined to the BSE listed Indian software companies only. This is due to the fact that BSE has the second largest number of domestic quoted companies on any stock exchange in the world after New York Stock Exchange (NYSE) and has more quoted companies than either the London or the Tokyo stock Exchange. Capitaline database contained data relating to 465 BSE listed software companies. Stratified sampling technique was used and hence the total population was sub-divided into three standard sub-groups namely Large (Turnover greater than Rs.900 Crores), Small-Medium (Turnover less than Rs.900 Crores) and Converts (diversified companies), in such a way that each strata was more homogeneous than the total population. Accordingly, it was found that there were 10 Large, 407 Small-Medium and 48 Converts. For selection of sample companies in each stratum, companies for which data were available for minimum of eight years were identified. The researcher selected all those companies from each stratum which fulfilled the above condition. Thus the final sample consisted of 102 software companies as detailed in the following table:

### Composition of Sample Companies

No. of Years for which data were available	Sub Groups			Total
	Large	Small-Medium	Converts	
8	2	14	7	23
9	-	23	3	26
10	5	42	6	53
<b>Total No. of Sample Companies</b>	<b>7</b>	<b>79</b>	<b>16</b>	<b>102</b>

Further it could be observed that the total sample of 102 software companies fall into following trading groups in BSE: 16 'A' group companies, 5 'Z' group companies, 8 'S' group companies, 28 'T' group companies, 17 'B1' group companies, 22 'B2' group companies and 6 'TS' group companies.

### PERIOD OF THE STUDY

The data collected for the study pertains to a period of ten years from 1996-97 to 2005-06.

## SOURCES OF DATA

The study is based on the secondary data collected from the Capitaline and EBSCO databases. The data for the sample companies as obtained from Capitaline are supplemented with the information from various financial dailies, business magazines, reports, websites etc. Information regarding bank interest rates has been collected from 'The Indian Banker' (IBA Bulletin).

## SELECTION OF VARIABLES

In the present study, a number of key financial variables have been identified for the purpose of analysis and they are: EVA, MVA, Turnover, NOPAT, ROS, ROTA, ROCE, EPS, Market Price and SVA. Computation of these variables has been made for a period of ten years.

## MVA ANALYSIS

MVA is one of the external indicators which gives the utmost satisfaction to the investors. From the investors perspective, increase of the share price is always desirable. The most reliable measure of a management's long term success in adding value is known as "Market Value Added". MVA is the best internal performance indicator as it indicates the market assessment of the effectiveness with which companies managers have used the scarce resources under their control. Hence, it turns out to be very significant and important to analyze and identify the internal indicators that relate well with MVA.

It is evinced from Table 1.1 that among the biggies, in the last five out of the ten years of the study period, MVA has registered a positive trend. There have been some fluctuations during the first five years of the study period. It is observed from the figures of small-medium group of companies that a majority of 73 companies (92.47%) during the year 1998-99 have registered negative MVA. It tinkles that the book value of shares of these companies has been dominating over the market value.

Among the 16 converts companies selected for the study, 14 companies have registered a negative MVA during 1997-98, 1998-99, 2002-03 and 2003-04. The overall analysis implies that in most of the years of the study, wealth destruction has been found mainly in case of small-medium and converts group of companies. Further, it can be concluded that large group of companies show favourable wealth creation compared to the other two groups. MVA based Frequency Distribution of Sample Companies has been displayed for first five years and last five years in Table No.1.2 (a) and (b) respectively.

## REGRESSION ANALYSIS

Multiple Regression Analysis has been carried out to explore the extent of relationship existed among dependent and independent variables incase of selected companies, and also to find out whether a particular independent variable emerges as the most explanatory variable. MVA is taken as the dependent variable and Market Price, ROS, ROCE, SVA, ROTA, EPS, Turnover and NOPAT are taken as the independent variables. The results witness the positive auto correlation as per the result of Durbin Waston model as depicted in Table No.1.3

It is evident from Table No.1.3 that the value of correlation co-efficients are coming down and that of the adjusted R-Square are going uptill the 5<sup>th</sup> model is reached wherein the estimated standard error is also minimum. This shows that Market Price, ROS, ROCE and SVA are the best determinants of MVA. The 6<sup>th</sup> and 7<sup>th</sup> models of regression disclose that both the coefficients of correlation and adjusted R-square have revealed the downward trend in their values. The Durbin-Watson model testifies the positive auto-correlation in the variables as the value is below two.

Table No.1.4 presents the results of ANOVA analysis. The F-statistics shows that the value of the residual is minimum in the 5<sup>th</sup> model. Table No. 1.5 is used to find the most explanatory independent variable or set of variables of MVA.

Tested with t-statistics, the Table No.1.5 brings out that ROCE is found significant if tested at 14.4 percent level whereas SVA and Market Price are observed quite significant even at 1 percent level of significance. The overall conclusion of Table No.1.3 to 1.5 throws light on three most important variables i.e., Market Price, ROCE and SVA where in ROCE stands third and Market Price is the best one.

## CONCLUSION

An attempt has been made in this study to find out the whole sample wise and sub-group wise trends in the independent variables that affect MVA.

**MVA Analysis** shows that in most of the years under study, wealth reduction has been observed mainly in the case of small-medium and converts group of companies. Favourable wealth creation climate is noticed in case of large group of companies.

**Multiple Regression analysis** using backward method has been adopted in order to explore the extent of relationship between dependent and independent variables. The Durbin-Watson model exhibits positive auto-correlation among the variables. Three most important variables namely, Market Price, ROCE and SVA remained after the least predictors got eliminated. ROCE stands third and Market Price as per the overall analysis stands in high merit. This implies that wealth creation is strongly influenced by the market forces.

Finally it can be concluded that MVA, the best indicator of wealth is influenced by exogenous factors apart from the Market Price.

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Table No. 1.1

## Market Value Added of the select Indian Software Companies

(1996-97 to 2005-06)

Groups	Name of the Company	2005-06	2004-05	2003-04	2002-03	2001-02	2000-01	1999-00	1998-99	1997-98	1996-97	Average
Large	DIGITALEQP	NA	NA	695.79	0.61	266.56	-203.17	-87.64	41.19	-163.1	122.53	84.10
	HP	124.33	219.97	1184.88	120.18	1978.74	-614.24	-228.23	114.9	-631.86	197.52	246.62
	I-FLEX	471.98	470.3	1656.65	72.3	3546.1	-895.17	-642.52	-233.57	NA	NA	555.76
	INFOSYS	6103.41	5507.72	11290.97	1299.01	2356.93	-4731.03	-1977.45	95.6	-573.16	89.31	1946.13
	SATYAM	2750.38	1809.33	4769.71	405.32	1379.25	-4128.83	-2835.4	240.76	-1148.03	124.12	336.66
	TECHM	398.83	131.52	732.81	210.83	573.31	-568.3	-375.77	43.06	-249.39	43.94	94.08
	WIPRO	4497.94	3718.36	7801.46	1030.85	3159.84	-3866.12	-1722.61	-450.72	-2460.95	461.04	1216.91
Small Medium	ABACUS	NA	NA	-4.48	-5.11	-5.61	-8.06	-8.25	-7.96	-12.85	-11.57	-7.99
	ABMANO	-7.46	-7.97	-2.68	-8.64	10.97	-19.01	-39.52	-9.38	6.82	NA	-8.54
	ACESOFT	-20.32	-18.3	-13.09	-18.49	1.32	-32.89	-27.81	-11.42	-21.76	-6.67	-16.94
	ADVENT	-11.41	-11.69	-24.81	-23.69	-25.02	-23.99	NA	-22.84	-16.14	-18.57	-19.80
	AFTEK LTD	71.11	114.09	257.85	-192.45	1528.17	-270.23	-160.8	-27.76	-37.8	-13	126.92
	ASIANCE	0.62	-7.32	-4.97	-7.06	-20.26	-10.11	-2.57	-5.81	NA	-8.18	-7.30
	AVANTELQ	-16.19	-14.75	-17.22	-18.78	-38.05	-63.48	-55.58	-11.12	NA	NA	-29.40
	AZTECH	20.35	14.49	-2.33	-33.86	284.16	-207.87	-48.19	-18.12	-14.95	NA	-0.70
	B2BSOFT	-6.36	-6.72	-17.17	-12.33	-27.67	9.63	11.79	-6.34	-7.84	0.72	-6.23
	BLUESTINFO	-37.89	-19.99	133.67	-11.11	292.17	-74.63	-83.06	-90.17	NA	NA	13.62
	BRELS	NA	-21.37	-17.48	-21.42	-21.06	-28.6	-49.51	-35.3	-84.1	-11.84	-32.30
	CALISOF	-51.7	-50.34	-47.14	-50.44	19.16	-69.86	-53.19	-33.1	-45.42	-19.74	-40.18
	CGVAK	-16.21	-16.32	-15.21	-15.84	6.3	-42.83	-21.81	-12.35	NA	NA	-16.78
	CONTECH	-8.1	-72.24	-30.17	-51.74	-24.42	-13.88	0.12	-133.68	-129.26	-117.48	-58.09
	CRANES	697.82	272.85	355.71	43.76	124.77	-26.45	-23.77	-16.86	-18.63	-14.75	139.45
	CRESSAN	33.4	24.75	-0.56	-8.72	-17.83	-11.94	-10.8	-10.8	NA	NA	-0.31
	CSSOFT	-16.3	-15.82	-10.72	-15.5	-60	-24.73	-21.98	NA	-27.78	NA	-24.10
CYBERTE	-11.4	-17.31	-62.03	-71	-340.87	-120.31	-430.64	-42.07	-285.58	18.42	-136.28	

DATASOFT	-0.97	-7.18	-6.84	-10.97	-22.12	-5.28	-15.63	-10.5	-10.43	-10.61	-10.05
DYNACON	3.5	3	9.67	2.44	-7.52	24.34	24.74	-177.69	-165.88	-166.02	-44.94
ESERVE	NA	NA	705.83	167.47	200.64	172.43	129.79	4.75	9.94	30.62	177.68
EUROSOFT	NA	-16.83	-16.79	-16.83	-3.79	-22.94	-38.27	-37.78	-50.41	0.56	-22.56
EZCOM	-10.61	-10.05	-12.27	-10.65	-9.94	-9.41	-5.92	-9.95	-9.72	-9.53	-9.81
FINTECH	119.88	5.44	97.38	-4.89	-239.32	-65.82	-10.32	-16.16	-21.64	-28.71	-16.42
FRONTINF	-90.52	NA	-66.75	NA	-90.78	25.97	17.19	-2.83	-2.06	-4.29	-26.76
GENESYS	-50.14	-54.19	-26.09	-22.43	20.09	1419.9	3411.96	-4.89	-9.62	-11.36	467.32
GEOMETRIC	23.91	-35.11	-23.14	-117.28	284.83	-144.26	-226.16	-60.13	-62.21	-14.98	-37.45
GOLDTECH	-11.15	-6.39	29.06	-1.75	-127.67	341.78	304.7	-6.08	60.84	31.78	61.51
GTL	NA	NA	-10262.74	-323	601.94	688.52	456.86	-492.7	206.94	682.36	-1055.23
HEXAWERE	NA	303.88	349.75	-13.15	34.57	-216.34	-1953.45	-6.9	818.83	2235.47	172.52
HINDTMT	-10.29	19.34	399.15	-47	2329.84	-350.2	-139.83	-49.52	-201.81	3.12	195.28
INFDS	-9.96	-2.25	-4.41	-2.29	-3.87	-19.48	NA	-7.18	-17.9	NA	-8.42
INFOTECENT	-57.67	-43.46	10.64	-51.74	322.26	-247.69	-168.27	-18.39	-48.57	-2.69	-30.56
INSOE	-4.62	-5.91	-5.75	-6.16	-11.45	-4.51	-7.65	-9.1	-8.88	-10.27	-7.43
INTELVIS	-13.34	-10.64	-8.82	-12.09	-11.12	-12.83	-7.88	-2.48	NA	-10	-9.91
INTRAINF	NA	-10.04	-10	-10.03	-9.21	-10	-10	-10	-10	-10	-9.92
ITMICRO	NA	NA	40.27	7.03	78.58	-220.89	-10.85	-8.99	-1.59	-9.95	-15.80
JETKINGQ	-1.89	-5.37	-12.52	-26.18	4.81	36.17	-3.01	-5.08	-5.4	-2.72	-2.12
JINDONL	NA	NA	-2.48	-1.8	-18.14	8.64	-1.35	-11.2	-3.79	-8.74	-4.86
KASHYAP	-1.29	-10.84	-2.49	-1.82	-18.04	7.28	-1.83	-11.22	-4.44	NA	-4.97
KEDIN	NA	-3.4	-8.59	-5.58	-0.36	-5.64	-5.48	-10	-10	-10	-6.56
KLG	-39.01	-99.76	-75.34	-98.29	-43.03	NA	-129.15	-97.44	-47.97	-21.78	-72.42
KPITCUMM	87.11	57.27	98.26	-35.07	-9.59	759.98	-297.46	-28.44	99.51	-6.49	72.51
LEENEE	-12.16	14.04	-5.46	-16.55	NA	NA	118.19	-7.06	-12.12	-11.46	7.49
MARRSOF	-1.69	-11.76	3.71	-19.96	71.82	NA	-192.36	-27.77	-155.87	10.85	-35.89
MAGNUM	NA	-13.1	-12.73	-13.1	-7.73	-8.27	-20.49	-11.37	-3	-11.23	-11.22
MANGASOF	-11.24	-11.04	-12.44	-11.93	-11.71	-11.85	-9.79	-10.01	-10.18	-12.74	-11.29
MASTEK	47.44	1.41	11.27	-35.37	824.6	-139.35	-270.49	-82.1	-128.92	48.87	27.74

MELSTAR	-7.28	-37.27	5.08	-17.79	5.45	-303.74	-1903.61	-4.6	12.65	-11.54	-226.27
MICROTECH	-82.33	-58.13	-60.87	-76.6	379	-84.28	-58.62	-56.64	-4.63	-9.99	-11.31
MIDPOINT	-2.42	-3.12	-3.48	-3.41	-7.27	-2.39	-4.23	-6.1	-4.02	-12.5	-4.89
MINDTEK	-12.54	-16.62	-25.9	-24.09	-5.21	-71.78	2.17	-5.82	-14.8	-17.05	-19.16
MPHASIS	111.97	25.79	568.56	-471.28	1538.26	-607.66	-65.55	-22.8	-259.62	0.87	81.85
NCCFIN	1.61	2.05	18.46	2.88	-7.98	-10.08	-17.27	-5.38	10.37	7.01	0.17
NUCLEUSSOFT	21.3	0.7	9.47	-59.5	160.2	-162.96	-51.87	-40.75	-40.89	-37.57	-20.19
ODYSSEY	-3.89	-4.08	-24.37	-7.82	-107.52	-16.2	-2.29	-5.17	-3.81	-9.93	-18.51

ONWARD	-32.11	-32.39	-7.96	-36.18	22.2	-188.82	-141.64	-17.92	-194.37	-23.56	-65.28
ORIENTINFO	-55.92	-46.51	-28.57	-90.25	-573.06	-194.51	-108.29	-14.93	-42.61	-3.96	-115.86
OTCO	NA	-18.14	-16.45	-14.34	-12.26	-19.48	-15.59	-11.55	-11.55	-10.86	-14.47
PALSOFT	NA	2.01	1.84	2.16	-13.47	-8.63	-10.86	-9.75	-13.88	-63.77	-12.71
PENTASOFTTE	-10.04	2.4	50.11	-138.93	876.84	-1929.54	-1185.06	-50.94	3442.92	13.03	107.08
PIOTECH	-9.47	-9.49	-9.49	-9.65	-10.09	-10.13	-21.1	-10.59	-15	-11.25	-11.63
PSI	18.8	6.58	-113.14	-108.88	-198.69	NA	-430.89	5.46	259.14	12.16	-61.05
RAMINFO	-191.02	-252.57	-405.38	-319.02	-362.87	-403.85	-454.08	-10	NA	NA	-299.85
RAMCOSYS	-49.21	-69.18	-113.47	-80.49	-96.48	-39.21	29.03	-8.15	-0.86	-7.97	-43.60
ROLTA	210.29	268.5	843.56	199.39	NA	-1463.59	-1006.68	109.86	-621.16	179.52	-142.26
SANRASOF	-9.03	NA	-0.41	-9.39	-30.35	-9.93	-10.4	-11	-44.92	-6.94	-14.71
SILVERLINE	118.95	-27.4	456.03	356.04	1278.85	-548.87	-312.65	38.52	-718.96	73.41	71.39
SINDUVA	NA	-1	-2.71	-2.71	-2.71	-0.86	-1	-1.54	-10.14	-10.14	-3.65
SOFTSOL	-50.66	-61.04	-55.54	-48.53	19.09	-601.43	-359.1	-86.94	-313.46	-4.36	-156.20
SONATA	6.82	26.27	78.58	11.22	553.75	-188.2	-179.54	-21.25	-915.69	-5.48	-63.35
SVAMSOFT	NA	-8.9	-92.98	-13.86	-13.79	-14.85	-21.06	-14.19	-18.72	-12.31	-23.41
TELEDATA	275.91	155.81	15.05	NA	263.76	-40.95	-61.97	-22.84	-61.49	-12.65	56.74
TERASOFT	11.89	1.92	9.8	-10.34	-2.45	-18.5	-11.05	-11.85	-12.67	-11.25	-5.45
TWINSOFT	-12.31	-28.31	-23.03	-23.87	-26.92	25.48	72.47	6.3	25.55	-5.67	0.97
VIRTUALS	NA	2.72	-82.17	-28.12	-44.76	-16.09	-13.9	-24.57	-6.38	-8.32	-24.62
VISUALSOFT	-89.26	-55.69	184.34	-50.74	697.5	-413.71	-290.8	-13.39	-33.81	-8.35	-7.39

	VJIL	-30.59	-29.92	-21.39	-29.72	-12.65	-62.8	-50.85	-12.09	-43.96	-8.15	-30.21
	ZENSAR	0.88	45.58	82.06	-20.82	407.34	-108.35	-18.47	-8.41	253.19	63.61	69.66
Convert	CHOKSHIN	-5.02	-5.53	-6.15	-6.18	-6.43	-26.99	-6.82	-9.46	-15.4	-11.43	-9.94
	CORCOMP	NA	94.01	80.33	72.39	17.45	100.71	NA	-10.5	-10.5	-10.5	41.67
	DANLAW	-82.07	-84.77	-89.78	-92.66	-132.15	-127.07	-102.43	-10.11	NA	NA	-90.13
	ENCORE	-1852.97	-34.21	-31.58	-16.34	-103.71	-46.22	-70.77	-10.2	-10	NA	-241.78
	ICSAIND	-3.63	-7.62	-7.68	-10.43	-8.91	-16.68	-11.4	-8.68	-7.63	-11.46	-9.41
	IECSOF	-75.91	-28.93	-150.84	-48.25	-0.97	35.97	12.89	-4.9	-4.34	-7.75	-27.30
	INFOTREK	-12.31	-12.66	-11.12	-2.46	-0.69	-4.2	-10.57	-10.93	-13.8	-7.84	-8.66
	LCCINFO	-7.56	-48.67	-103.52	-42.23	-33.58	-579.36	-763.12	-11.51	NA	NA	-198.69
	MASCONGLO	67.83	105.31	-23.48	-378.47	385.45	NA	-734	-42.27	-18.3	NA	-70.88
	MILLENCY	NA	NA	-9.77	-9.84	-10.36	-10.67	-8.09	-9.53	-9.2	-10.32	-9.72
	NETVISTA	NA	-103.04	18.94	1.86	58.21	NA	1744.27	-7.81	-7.94	-10.01	211.81
	OMEGAIN	NA	-17.65	-25.13	-70.26	-28.16	-24.64	45.8	-8.29	-9.68	-9.87	-16.43
	SRGINFO	NA	-794.36	-39.93	-16.15	-17.39	NA	-746.79	236.7	-1265.88	5.8	-329.75
	SYNLOG	-16.89	-23.47	-24.18	-15.47	5.1	-67.3	-29.64	1.66	-26.44	3.93	-19.27
TRILLENT	NA	NA	-6.23	-4.83	-14.48	-17.71	-9	-861.77	-11.8	-7.92	-93.37	
VAKRANG	-38.75	-51.34	-46.08	-62.66	-51.81	-45.01	-90.18	-17.65	-20.41	-113.03	-53.69	

Table No. 1.2 (a)

MVA Based Frequency Distribution of Sample Companies

(1996-97 to 2000-01)

MVA	No. of Companies									
	2000-01	%	1999-00	%	1998-99	%	1997-98	%	1996-97	%
Negative	81	79.41	84	82.35	89	87.25	80	78.43	62	60.78
Upto Rs.1000 Cr	20	19.61	16	15.69	13	12.75	21	20.59	39	38.24
Rs.1000 to Rs.2000 Cr	1	0.98	1	0.98	0	0.00	0	0.00	0	0.00

Rs.2000 to Rs.5000 Cr	0	0.00	1	0.98	0	0.00	1	0.98	1	0.98
Above Rs.5000 Cr	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
	<b>102</b>	<b>100.00</b>								

Table No.1.2 (b)

MVA Based Frequency Distribution of Sample Companies

(2001-02 to 2005-06)

MVA	No. of Companies									
	2005-06	%	2004-05	%	2003-04	%	2002-03	%	2001-02	%
Negative	52	50.98	61	59.80	66	64.71	82	80.39	58	56.86
Upto Rs.1000 Cr	47	46.08	38	37.25	31	30.39	18	17.65	35	34.31
Rs.1000 to Rs.2000 Cr	0	0.00	1	0.98	2	1.96	2	1.96	5	4.90
Rs.2000 to Rs.5000 Cr	2	1.96	1	0.98	1	0.98	0	0.00	4	3.92
Above Rs.5000 Cr	1	0.98	1	0.98	2	1.96	0	0.00	0	0.00
	<b>102</b>	<b>100.00</b>	<b>102</b>	<b>100.00</b>	<b>102</b>	<b>100.00</b>	<b>102</b>	<b>100.00</b>	<b>102</b>	<b>100.00</b>

Table No. 1.3

MVA and other independent variables (Average): Durbin – Watson

Analysis for the Whole Sample - Model Summary (h)

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.868(a)	.754	.732	143.460	1.832
2	.868(b)	.754	.735	142.701	
3	.868(c)	.753	.737	142.118	

4	.866(d)	.750	.737	142.334	
5	.865(e)	.748	.738	142.083	
6	.863(f)	.745	.737	142.117	
7	.861(g)	.741	.736	142.506	

- a. Predictors: (Constant), Market Price, ROS, ROCE, SVA, ROTA, EPS, Turnover, NOPAT
- b. Predictors: (Constant), Market Price, ROS, ROCE, SVA, EPS, Turnover, NOPAT
- c. Predictors: (Constant), Market Price, ROS, ROCE, SVA, Turnover, NOPAT
- d. Predictors: (Constant), Market Price, ROS, ROCE, SVA, NOPAT
- e. Predictors: (Constant), Market Price, ROS, ROCE, SVA
- f. Predictors: (Constant), Market Price, ROCE, SVA
- g. Predictors: (Constant), Market Price, SVA
- h. Dependent Variable: MVA

**Table No.1.4**

**MVA and other independent variables (Average): ANOVA (h)**

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	5853995.135	8	731749.392	35.555	.000(a)
	Residual	1914002.319	93	20580.670		
	Total	7767997.454	101			
2	Regression	5853817.773	7	836259.682	41.066	.000(b)
	Residual	1914179.681	94	20363.614		
	Total	7767997.454	101			
3	Regression	5849235.610	6	974872.602	48.267	.000(c)
	Residual	1918761.844	95	20197.493		

	Total	7767997.454	101			
4	Regression	5823136.889	5	1164627.378	57.487	.000(d)
	Residual	1944860.565	96	20258.964		
	Total	7767997.454	101			
5	Regression	5809797.703	4	1452449.426	71.948	.000(e)
	Residual	1958199.751	97	20187.626		
	Total	7767997.454	101			
6	Regression	5788666.468	3	1929555.489	95.536	.000(f)
	Residual	1979330.986	98	20197.255		
	Total	7767997.454	101			
7	Regression	5757510.548	2	2878755.274	141.755	.000(g)
	Residual	2010486.906	99	20307.949		
	Total	7767997.454	101			

a. Predictors: (Constant), Market Price, ROS, ROCE, SVA, ROTA, EPS, Turnover, NOPAT

b. Predictors: (Constant), Market Price, ROS, ROCE, SVA, EPS, Turnover, NOPAT

c. Predictors: (Constant), Market Price, ROS, ROCE, SVA, Turnover, NOPAT

d. Predictors: (Constant), Market Price, ROS, ROCE, SVA, NOPAT

e. Predictors: (Constant), Market Price, ROS, ROCE, SVA

f. Predictors: (Constant), Market Price, ROCE, SVA

g. Predictors: (Constant), Market Price, SVA

h. Dependent Variable: MVA

**Table No.1.5**

**MVA and other independent variables (Average): Coefficients (a)**

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	-30.305	19.348		-1.566	.121
	Turnover	-.126	.118	-.236	-1.065	.290
	SVA	.217	.040	.566	5.483	.000
	EPS	-1.060	2.553	-.044	-.415	.679
	ROCE	-.648	.708	-.077	-.915	.362
	NOPAT	.728	.561	.355	1.299	.197
	ROS	5.410	4.734	.073	1.143	.256
	ROTA	-11.620	125.171	-.010	-.093	.926
	Market Price	.156	.074	.274	2.107	.038
2	(Constant)	-30.370	19.233		-1.579	.118
	Turnover	-.129	.111	-.242	-1.160	.249
	SVA	.217	.039	.566	5.512	.000
	EPS	-1.138	2.399	-.047	-.474	.636
	ROCE	-.696	.480	-.083	-1.452	.150
	NOPAT	.747	.519	.364	1.440	.153
	ROS	5.192	4.093	.070	1.269	.208
	Market Price	.156	.073	.273	2.122	.036
	3	(Constant)	-34.434	17.149		-2.008
Turnover		-.126	.111	-.236	-1.137	.259
SVA		.217	.039	.567	5.551	.000
ROCE		-.752	.463	-.089	-1.624	.108
NOPAT		.710	.511	.346	1.390	.168

	ROS	4.924	4.037	.066	1.220	.226
	Market Price	.140	.065	.245	2.149	.034
4	(Constant)	-41.412	16.038		-2.582	.011
	SVA	.201	.036	.524	5.517	.000
	ROCE	-.712	.462	-.084	-1.540	.127
	NOPAT	.205	.253	.100	.811	.419
	ROS	4.427	4.020	.059	1.101	.273
	Market Price	.178	.056	.313	3.205	.002
5	(Constant)	-43.110	15.872		-2.716	.008
	SVA	.219	.029	.571	7.638	.000
	ROCE	-.678	.460	-.080	-1.475	.144
	ROS	4.082	3.990	.055	1.023	.309
	Market Price	.207	.043	.363	4.810	.000
6	(Constant)	-47.586	15.261		-3.118	.002
	SVA	.218	.029	.570	7.628	.000
	ROCE	-.549	.442	-.065	-1.242	.217
	Market Price	.210	.043	.368	4.882	.000
7	(Constant)	-45.853	15.239		-3.009	.003
	SVA	.217	.029	.566	7.557	.000
	Market Price	.203	.043	.356	4.751	.000

a. Dependent Variable: MVA

## **REQUEST FOR FEEDBACK**

**Esteemed & Most Respected Reader,**

At the very outset, International Journal of Research in Commerce and Management (IJRCM) appreciates your efforts in showing interest in our present issue under your kind perusal.

I would like to take this opportunity to request to your good self to supply your critical comments & suggestions about the material published in this issue as well as on the journal as a whole, on our E-mails i.e. **info@ijrcm.org.in** or **infoijrcm@gmail.com** for further improvements in the interest of research.

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Hoping an appropriate consideration.

With sincere regards

Thanking you profoundly

**Academically yours**

Sd/-

**Editor**