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EDITORIAL

I am happy to issue Indian Journal of Accounting for June 2013. The members are requested to see the details of our next conference at Vishakhapattnam. The papers published in the journal are as under :

- Prof. B. Ramesh & Prabhakar Rane have made analysis of shareholder value creation through buyback of equity. The study concludes that the stock buybacks enhance the earnings per share and thereby create value for the shareholders.
- Dr. Jawahar Lal & Dr. Sunil Kumar have given Empirical analysis of impact of M&A on corporate financial performance.
- Dr. Ravi K. Jain, Dr. Anupam Jain & Mrs. Vinita Jain have hilighted Carbon Credit Accounting in new perspective.
- Dr. Shiv Prasad & Dr. Veena Kumari have given an empirical study on financial health of India Tourism Development Corporation through "Z" score analysis.
- Prof. Pratapsinh Chauhan & Asso. Prof. Varsha Virani have given an empirical study of Indian pharmaceutical Industry on Shareholder value creation and measurement.
- Dr. Shurveer S. Bhanawat has nicely presented prediction model for determination of shareholders' wealth.
- Dr. Debdas Ganguly has discuss controlling manufacturing cost of a product by statistical cost control technique.
- Dr. N. K. Sharma & Mrs. Lakshmi T. have made very interesting empirical study on strategic HRM-an impact of organizational capabilities on community performance.
- Dr. Vinay K. Srivastava has given new insight in adoption of international financial reporting standards in India.
- Dr. Shailesh N. Ransariya has made a study of Indian Pharmaceutical Industry in respect of relationship between capital structure & profitability.
- Ravi Kant Modi & Rishabh Srivastava have given a critical evaluation of E-Accounting.

I request all life members to write any complain about the journal with their Life Membership Number and Branch by email to **chiefeditor@gmail.com**.

June, 2013
Ahmedabad

Prof. Harish S. Oza
Chief Editor

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PRESIDENT SPEAKS

Dear Colleagues,

The Indian economy is among the fastest growing economies of the world and the Indian manpower is emerging as the most sought after in terms of skill and competencies . Our industry has been vibrant in contributing to the nations economy and we have an excellent service sector. In spite of this, the nation is facing a severe crisis in terms of corruption and black money that has hindered the growth of this great nation. Industry led scams and corporate practices that have maligned the industry have been a severe blow for us. All this obviously lead us to believe in professional Accounting and inner accountability. Accounting promotes transparency and supports responsibility .There is a need for professionalism in accounting and we need to invest in accounting research so as to promote accountability to not just the shareholders but to the entire stakeholders. This makes accounting a profession that needs fundamentals built upon the pillars of ethics and transparency.

The Indian Accounting Association(IAA) is an association which seeks to build an interface among academicians, professional and practitioners from various universities, business, industry and government. The main function of IAA is to promote and disseminate the knowledge of accounting and the related subjects in India and abroad. Further, it aims to undertake and encourage research in the field of accounting. Ever since its inception, the IAA has served as an important forum for raising the status of accounting both as a branch of knowledge as an important tool for managerial decision making.

The association was founded by academicians and professionals in accounting on March 17, 1969, and was inaugurated on February 14, 1970 by the Accountant General of Uttar Pradesh. It is a member organization of International Association of Accounting Education and Research (IAAER). It is also held in high esteem by American Accounting Association (AAA). At present, IAA has a network of 35 branches in India with more than 3000 life members, and a Research Foundation as an affiliate at Kolkata. It also brings out a biannual research journal 'Indian Journal of Accounting' in the months of June & December to give wider publicity to research findings the field of Accounting and Finance. The Association also gives IAA Young Research Award and IAA fellowship. The Association offers Life Membership and Annual Membership for Individuals and Institutions through its chapters across India.

IAA has grown all the way and has come to stay as a vibrant organization that promotes true learning and policy making in accounting. The validity of this organization is that it believes in quality that promotes value. We continuously strive to create useful knowledge and disseminate the same to the users so as to support valid use of accounting information. I sincerely thank all our well wishers from the academics as well as the profession and the industry for their help

and support in the making of IAA. My hearty compliments to all the branches across the country. I earnestly pray and hope that all our members will work as a team towards the cause of IAA. Let me believe that Accounting would promote accountability, transparency and fairness as a discipline and IAA foster the same as an organized body.

The Indian Journal of Accounting is a mouth piece of academicians, researchers and professionals in Accounting and Finance. It helps in sharing and transmitting valuable information and in the creation of true knowledge. This journal would enrich the ever changing wealth of information in accounting.

I wish all the readers the very best in their academic endeavors and a rewarding reading experience

Yours sincerely

(Prof. K. Sasikumar)
President, Indian Accounting Association
University of Kerala, Thiruvananthapuram

INDIAN JOURNAL OF ACCOUNTING

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SHAREHOLDER VALUE CREATION THROUGH BUYBACK OF EQUITY -AN EARNINGS PER SHARE MEASUREMENT ANALYSIS*

Prof. B. Ramesh **

Mr. Prabhakar Rane ***

ABSTRACT

"Stock buybacks reduce by nature the number of outstanding shares. The decrease in the number of the outstanding shares increases the earnings per share. Thus, each remaining outstanding share represents a slightly higher percentage of the company to the shareholder. The sample of the paper consists of 32 buyback programs announced by 27 Indian companies and 5 multinational companies belonging to 21 industries during the period 2005-2010. The paper finds that 78% of the buyback programs have registered an enhancement in the earnings per share while the earnings per share of the remaining 22% decreased. The outcome of the paper agrees with the findings of the research work done in the past. Therefore, the study concludes that the stock buybacks enhance the earnings per share and thereby create value for the shareholders."

INTRODUCTION

Shareholder value creation in the borderless world has become a major concern of the companies. The companies may enhance the wealth of their shareholders by employing the financial strategies like merger and acquisition, buyback of equity or stock split depending upon financial condition, cash position and stability of the stock price. However, there are a very few studies conducted on shareholder value creation by employing these strategies. Moreover, there is not much work done on for creating value for shareholders by enhancing the earnings per share through buyback of equity. Therefore, the present paper entitled

* *The paper presented in the 35th All India Accounting Conference and International Seminar on Accounting Education and Research on January 5-6, 2013 at Rajkot.*

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'Shareholder Value Creation through Buyback of Equity—An Earnings per Share Measurement Analysis' makes an attempt to explore the evidences on whether buyback of equity improves the earnings per share to enhance the value of the shareholders.

BUYBACK AND SHAREHOLDER VALUE

Buyback of shares may create the value for the shareholders by the following four means,

Abnormal Returns : Stock buybacks generally signal undervaluation of stock. As a result, the market reacts positively to the buyback announcements. This results in the abnormal returns for the shareholders.

Earnings per Share : Buyback by their very nature reduce the number of outstanding shares. With fewer outstanding shares after a buyback, the earnings per share of the remaining shares increases. Thus, each remaining outstanding share represents a slightly higher percentage of the company to the shareholders.

Fair Price : Very often, shares are traded below the intrinsic value. But the company knows better about its stock than the market. Therefore, in the short run, the buyback price is considered as the fair market price at which unhappy shareholders can quit the company with a handsome profit i.e., wealth to the tendering shareholders.

Stable Market Price : The buyback of share ensures sustained stability in the stock price as it creates demand for stock through reduced supply to the extent of the shares bought back i.e., wealth to the existing shareholders.

REVIEW OF LITERATURE

The literature on shareholder value creation through buyback of shares is very limited. Some of the known are cited below,

- Vermaelen (1981) and Dann, Masulis and Mayers (1991) show that initial market reaction is positively related to subsequent increases in earnings per share following the share buyback.
- Solomon (1989) opined that the companies acquire their own shares to improve earnings per share by reducing the number of shares outstanding..
- Pinches (1990), Dyckman,Dukes and Davis (1995), Skousen, Stice and Stice (1995), Willson and Rohel and Bragg (1995) and Keeso and Weygandt (1998) said that share buybacks by their very nature decrease the total number of outstanding shares and as a result the earning per share of the remaining shares increases after the buyback.
- A.K.Mishra (2005) analyzed 25 buyback programs i.e., 18 tender offers and 7 open market operations from 20 listed companies during the period 1999 to 2001. He found

that 44% of the buyback programs have registered enhancement in the earnings per share.

OBJECTIVES AND METHODOLOGY

The main objective of the paper is to ascertain the impact of buybacks on shareholder value creation. An Earnings per Share measurement analysis has been carried out to achieve the objective of the paper. The data on the buyback programs announced by listed companies from 2005 to 2010 have been collected from SEBI website, Buyback archives of BSE and other publications. The sources listed 90 buyback programs during the aforesaid period. Of these, the paper consists of 32 sample buyback programs announced by 27 Indian companies and 5 MNC's belonging 21 industries. The sample buyback programs have been selected on the basis of the ranking of the company based on the market capitalization by Compendium of Top 500 Companies in India published by Capital Market in 2009. In the case of multiple buybacks, only initial buyback has been considered and subsequent buybacks have been ignored. The earnings per share of the sample companies (before and after buyback of shares) have been collected from the financial reports of the companies.

ANALYSIS & INTERPRETATION OF DATA

The following table exhibits the earnings per share before and after stock buybacks from 2005 to 2010,

Earnings per Share Before and After Buyback
2005-2010

Buyback Companies	Type of Comp.	Industry	Date of of BB	EPS before BB	EPS after BB	% change
Polaris Software Lab. Ltd	Indian	Software	03/05/05	5.20	1.18	-77.31
GlaxoSmithKline Pharma Ltd	MNC	Pharma	09/05/05	35.01	55.35	58.10
Berger Paints(India) Ltd	Indian	Paints	13/05/05	2.42	3.25	34.30
Indiabulls Financial Services Ltd	Indian	Finance	09/12/05	1.77	4.38	147.46
SRF Ltd	Indian	Textile	03/07/06	15.57	41.07	163.78
ICI (India) Ltd	MNC	Paints	18/07/06	11.43	105.13	819.78
Hindustan Unilever Ltd	MNC	Personal Care	03/10/07	7.57	7.21	-4.76
GTL Ltd	Indian	Telecom	25/10/07	4.88	12.32	152.46

Madras Cements Ltd	Indian	Cement	29/02/08	251.18	336.24	33.86
Great Offshore Ltd	Indian	Shipping	07/05/08	47.98	52.16	8.71
Patni Computer Systems Ltd	Indian	Software	10/07/08	27.28	29.87	9.49
Gateway Distriparks Ltd	Indian	Miscellaneous	11/08/08	5.91	8.10	37.06
Gujarat Flurochemicals Ltd	Indian	Chemical	21/08/08	27.08	30.35	12.08
Rain Commodities Ltd	Indian	Cement	25/09/08	9.12	11.37	24.67
DLF Ltd	Indian	Construction	17/10/08	14.42	8.95	-37.93
Monnet Espat & Energy Ltd.	Indian	Steel	21/11/08	33.76	44.19	30.89
Ipca Laboratories Ltd	Indian	Pharma	26/11/08	54.89	34.63	-36.91
Supreme Industries Ltd	Indian	Plastic	02/12/08	17.15	36.29	111.60
EID Parry(India) Ltd	Indian	Sugar	03/12/08	13.41	78.59	486.06
India Infoline Ltd	Indian	Finance	08/12/08	21.52	3.26	-84.85
Bosch Ltd	MNC	Auto Ancillary	10/12/08	185.83	193.71	4.24
Nava Bharat Ventures Ltd	Indian	Diversified	29/12/08	39.44	58.46	48.23
Jindal Polyfilms Ltd	Indian	Packaging	31/12/08	46.84	48.66	3.89
Icar Motors Ltd	Indian	Automobile	06/02/09	17.38	29.64	70.54
Reliance Infrastructure Ltd	Indian	Power	25/02/09	44.97	49.27	9.56
Godrej Industries Ltd	Indian	Chemical	25/05/09	0.58	2.55	339.66
Deccan Chronicles Holdings Ltd	Indian	Entertainment	03/08/09	5.72	10.77	88.29
Geodesic Ltd	Indian	Software	19/05/10	23.38	30.66	31.14
Binani Cement Ltd	Indian	Cement	21/06/10	14.40	0.91	-93.68
Panacea Biotech Ltd	Indian	Pharma	07/07/10	12.00	21.35	77.92
CRISIL Ltd	MNC	Miscellaneous	22/10/10	22.25	28.51	28.13
Piramal HealthCare Ltd	Indian	Pharma	10/12/10	21.46	6.60	-69.25

Source : Company websites, SEBI website and Compendium of Top 500 Companies in India

From the above table, it is clear that out of 32 buyback companies, 25 companies i.e., 78% have registered an enhancement in the earnings per share while the remaining 7 companies i.e., 22% have recorded a decrease in the earnings per share. However, on the basis of the type of companies, out of 5 MNC's and 27 Indian companies, only

one MNC and six Indian companies have reported a net decrease in their earnings per share.

The earnings per share of Indiabulls Financial Services Ltd. (147.46%), SRF Ltd. (163.78%), ICI (India) Ltd. (819.78%), GTL Ltd. (152.46%), Supreme Industries Ltd. (111.60%), EID Parry (India) Ltd. (486.06%) and Godrej Industries Ltd. (339.66%) increased by more than 100%. But the earnings per equity share of Polaris Software Lab Ltd. (77.31%), India Infoline Ltd. (84.85%), Binani Cement Ltd. (93.68%) and Piramal Healthcare Ltd. (69.25%) declined within a range of 50% to 100%.

The result of the study agrees with Solomon (1989), Pinches (1990) and others and A.K.Mishra (2005). However, the study records that 78% of the buyback programs have registered an enhancement in the earnings per share as against 44% reported by the study conducted by A.K.Mishra.

SUMMARY AND CONCLUSION

Stock buybacks reduce the number of outstanding shares. The decrease in the number of the outstanding shares increases the earnings per share. Thus, each remaining outstanding share represents a slightly higher percentage of the company to the shareholder. The study finds that out of 32 buyback programs, 78% of the programs have registered an enhancement in the earnings per share while 22% have recorded a decrease. Therefore, the study concludes that buyback of equity shares enhances the earnings per share and thereby creates value for the shareholders. However, further research can be carried out for a larger period with more number of companies and shareholder value creation by subsequent buybacks in the case of multiple stock buybacks.

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IMPACT OF M&A ON CORPORATE FINANCIAL PERFORMANCE : EMPIRICAL ANALYSIS

Dr. Jawahar Lal *
Dr. Sunil Kumar **

ABSTRACT

To increase the shareholders wealth, it is necessary for companies that they increase profits levels by increasing revenue or decreasing cost. But at the same time companies may carry risk of producing large homogenous goods/ services which may lead to risks of obsolescence and high inventory cost. Mergers and acquisitions (M&A) as a corporate restructuring strategy gives an opportunity to companies to become low-cost providers and increase its market share. The increasing trend of M&A number has attracted the researcher to explore and investigate various concerned issues like, motivations of M&A and its impact on corporate financial performance.

Key Words : Corporate Restructuring, Mergers and Acquisitions, Total Assets Turnover, Operating Cash Flows, Shareholders' Wealth

INTRODUCTION

The need of corporate restructuring may arise when the existing business no longer remains efficient to fulfil expectations of the company viz., profitability, market share and increase in the wealth of shareholders. Mergers and acquisitions (M&A), as financial restructuring, are helpful in diversification and to regain financial returns (Palepu, et.al., 2004). Due to various positive inducements, the trend of M&A have been increasing with varying levels of intensity of business restructuring since the end of World War II in the international corporate sector. In India, the pace of M&A got accelerated in late 1980's when the process of liberalization took place and more focus given to industrial sector, for example, favourable liberated economic policy (Ramu, 2010) and lifting-off monopolistic restrictive trade practices.

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The future growth of business and market power are the vital motivations of M&A (Foster, 1986). But the growth could sustain for long-time only if it is a real growth. The real growth means increase in the productive value of output and assets free from inflation (Henderson, et. al., 1984), and increased rate of return to the stockholders (Robert and Terence, 1975). The real growth, in M&A, is the acquisition of assets that increase the economic efficiency and competitive position of the company and thereby increase the rate of return to the stockholders (Henderson, 1984).

LITERATURE REIVEW

The research on M&A may be categories on the basis of motivational aspects, financial and strategic aspects. The strategic aspect of M&A emphasizing acquirer company's control, post M&A strategies and governance aspects. Some of the important studies have been covered under literature review. The wave of M&A is increasing with rapid pace across the world and also in India (J. Ratner, 2000). A simple reason of such increase is that the combined company, after merger, is more profitable than two separate companies (Kaur, 2002), (Arora, 2003) due to external expansion (Kelly, 1968). On the contrary, Hogarty (1970) suggests that mergers have a neutral impact on the profitability. Increase in size of assets is another motivation of M&A (Banga and Gupta, 2012) which helps the company to reduce its operational cost through high assets turnover ratio by converting its fixed assets into profits along with sales (Hampton, 2003).

M&A are helpful in enhancing operational performance of the company (Tyran, 1992) and eventually contributes to profits (Shick, 1972). Companies also increased their returns (Shick, 1972), net worth, and market share price after merger (Weston and Mansinghka, 1971) especially in case of conglomerate firms due to increase in financial leverage (Manson and Goudzwaard, 1976). The financial leverage refers to settlement of deal, either through issuing new equity shares or debt or cash settlement or with combinations of all above. Mitchel (1991) found that companies settle the deal through debt as they are easily available.

It is imperative to measure performance continuously with some methods such as cash flow, liquidity and productive growth (Kumar, 2012). Cash flow methods indicate cash generated from business operations (Viscione & Robert 1987) and operating profits available to shareholders (Officer, 2004). Operating profits are important because it ignore the financing scheme of the merger (Mayor, et. al., 1990). However, operating performance has not been improved after merger significantly (Mandal, 1995) and (Mantravadi and Reddy, 2008).

In post M&A period, the cash outflows remain high to meet the requirement of increased working capital. Selvam and Babu (2009) established that there is significant improvement in working capital and liquidity ratio of the companies after merger. On other hand, Kumar and Bansal (2008) argued that the requirement of working capital and amount

of debts increased after merger which hampered the profitability of the companies. White (1994) recommended that pooling of assets don't disclose the right picture of total assets. He suggested return on capital employed to assess operating efficiency in post M&A period. Kumar (2009) found there is no improvement in return on capital employed and assets turnover ratio after M&A.

M&A deal could be financed through internal sources or by issuing debt. Acquirers are likely to prefer to use internal funds or debts as these are less likely to be interpreted negatively by shareholders (Stewart and Nicholas, 1984) as there will be no dilution of power. Sinha and Kaushik (2010) conclude that earnings available to shareholders and debt to equity reveal a significant change in post M&A financial position. But, change in return on net worth, liquidity position, and profit before tax are not statistically significant. Dixit (2010) found that acquiring companies create value for shareholders. Kumar and Lal (2012) also concluded that there is increase in market price of share which contributed to shareholders wealth. However, results of companies for shareholders wealth with identical portfolios will vary with the level of reserves (Kannou, 2007).

OBJECTIVES OF THE STUDY

The financial performance may be measured in account of profitability, turnover, solvency, cash flows, capacity to generate future profits and retained earnings, and maximization of shareholders' wealth at large. The key objective of the study is to investigate the impact of M&A on corporate financial performance. On the basis of these measures the following objectives have been postulated.

1. To study the impact of M&A on corporate profitability, turnover and solvency.
2. To examine the impact of M&A on cash flow and productive growth rate of the company.
3. To inspect the impact of M&A on shareholders' wealth.

HYPOTHESES OF THE STUDY

On the basis of objectives of the study following hypotheses have been formulated:

H_{01} : There is no difference in profitability, turnover and solvency position after merger in comparison of pre merger.

H_{02} : there is no difference in generation of operating cash flow, productive growth rate and accumulated earnings in post-merger period.

H_{03} : there is no difference in the shareholders wealth in pre and post merger period.

RESEARCH METHODOLOGY

Data Collection

In the present study, financial performance of a sample of 55 companies has been examined that have gone for M&A. The data have been collected for ten years that is secondary in

nature. The collected data are arranged into two groups, the first group represents pre M&A period. The second group represents post M&A period. The full range of data starts from financial year 1995-1996 to 2009-2010. It includes the pre M&A and post M&A years. The companies gone for mergers ranges from year 2000-01 to 2004-05 have been considered. The data on merger is collected from Prowess- Database Software managed and provided by CMIE (Centre for Monitoring Indian Economy), BSE (Bombay Stock Exchange) website and its various publications, NSE (National Stock Exchange) website. The data on acquisition is collected from SEBI (Securities Exchange Board of India) website.

Performance Parameters

The literature emphasizes the impact of M&A on various financial performance parameters. On the basis of their importance and relevance these parameters are grouped as stated below in Table 1.

Table 1 : Groups and Financial Performance Parameters

Different Groups	Financial Parameters
Profitability, turnover and solvency.	1) Sales growth. 2) Return on net worth. 3) Post-tax rate of return of equity assets. 4) Total assets turnover ratio. 5) Liquidity ratio. 6) Return of capital employed.
Operating cash flow and productive growth rate	7) Operating cash flow before working capital changes. 8) Operating cash generated from operation. 9) Pre-tax rate of return on net assets. 10) Pre-tax productive growth of return.
Shareholders' wealth.	11) Retention ratio. 12) Capital gearing ratio. 13) Proprietary ratio. 14) Equity dividend paid. 15) Earnings per share.

Source : Authors' Owned

Statistical Tools Used

To examine the comparative financial performance in pre and post M&A period of the companies, the paired sample t-test has been used. Along with descriptive results, paired sample t-test value and difference observed mean have been computed. The SPSS.16 version has been used for the purpose of various statistical calculations. The

following notions are used in paired sample t-test.

X_i = value of variable X for case i. Y_i = value of variable Y for case i.

W_i = weight for case i. W = sum of weights. N = number of cases.

t-test algorithms

The various statistic used in the paired sample t-test is explained as under with their algorithms used for the analysis purpose (Pfaffenberger, R. C. and Patterson, James H. (1981).

Mean for variable X and Y.

Weighted mean for variable X

$$\bar{X} = \sum_{i=1}^{N} W_i X_i \div W$$

Weighted mean for variable Y

$$\bar{Y} = \sum_{i=1}^{N} W_i Y_i \div W$$

Variance (t-test algorithms)

$$s_x^2 = \left[\sum_{i=1}^{N} w_i x_i^2 - \left(\sum_{i=1}^{N} w_i x_i \right)^2 \div w \right] \div (w-1)$$

Similarly for S^2y.

Difference of Means (t-test algorithms)

$$D = \bar{X} - \bar{Y}$$

Standard Error of Difference of Means (t-test algorithms)

$$S_D = \sqrt{\left[\left(S_x^2 + S_y^2 - 2S_{xy} \right) \div w \right]}$$

t-statistic

$$t = D \div S_D$$

EMPIRICAL FINDINGS

The financial performance analysis has been conducted in terms of the three groups viz., (i) profitability, turnover and solvency, (ii) operating cash flows, productive growth rate and accumulated earnings, (iii) shareholders wealth, and finally conclusion has been drawn accordingly. The detailed empirical results and analyses are presented below.

1. Profitability, Turnover and Solvency

The results of paired sample t-test of above group have been explained in table 2 and 3. Table 2 states the descriptive results, and Table 3 explains difference observed mean (DOM) and t-value of the test along with p-values.

Table 2 : Descriptive Results : Profitability, Turnover and Solvency

Financial performance indicator	Pre-Merger			Post-Merger		
	Mean	Standard deviation	Standard error mean	Mean deviation	Standard error mean	Standard
Sales Growth	0.786	0.882	0.0394	0.774	0.081	0.036
Return on Net Worth	6.050	4.276	1.9123	18.962	9.806	4.385
Post-tax Return on Equity Assets	1.010	13.625	6.093	2.387	97.466	43.588
Total Assets Turnover	1.468	0.3149	0.1408	1.542	0.0978	0.043
Liquidity Ratio (stock measure)	0.786	0.0811	0.0362	0.774	0.081	0.0436
Return on Capital Employed	6.448	1.579	0.7062	10.718	3.908	1.747

Table 2 discloses mean value of sales growth ratio in the pre M&A period is 0.786 which declined in the post M&A period to 0.774. In the case of return on net worth, the mean value in pre-M&A period was 6.050 and in the post-M&A period 18.962. The mean value of post-tax return on equity assets is 1.01 and in post-M&A period the mean value of post-tax return on equity is 2.387. The mean value of total assets turnover ratio has been increased from 1.468 to 1.542 in the post- M&A period. The liquidity ratio has been declined in the post M&A period. There is an increase in the mean value of return on capital employed in the post M&A period as compared to pre M&A period which is 10.718.

Table 3 : Paired Sample t-Test : Profitability, Turnover and Solvency

Financial performance indicator	Diff. observed mean	Standard deviation	Standard error mean	t-value	95% confidence interval of the diff.		Sig. p-values
					Lower	Upper	
Sales growth	0.012	0.092	0.0411	0.292	-0.102	0.126	0.392
Return on net worth	-1.291	12.311	5.506	-2.345*	-28.19	2.375	0.0395
Return on equity assets	-1.377	10.04	44.90	-3.067*	-262.38	-13.06	0.015
Total assets turnover	-0.074	0.294	0.131	-0.561	-0.439	0.291	0.302
Liquidity ratio (stock measure)	0.012	0.092	0.0411	0.292	-0.102	0.126	0.392
Return on capital employed	-4.27	5.129	2.293	-1.861	-10.639	2.099	0.068

*Values are significant at 0.05 level.

Table 3 reveals the paired sample statistics of selected parameters. The difference observed mean (DOM) value of sales growth is 0.0120 which indicates that post M&A sales growth performance has been declined. The t value is 0.292 which is significant at the 0.05 level. DOM value of return on net worth is -1.291 which means that post-M&A return on net worth (RONW) is higher than the per-M&A. The t-test value is -2.345 is significant at 0.05 level. In case of return on equity the DOM score is -1.377 indicates higher performance in post-M&A period. The obtained t value is -3.067 which is significant at 0.05 level. The result of total assets turnover shows DOM is negative but t-value is not significant. The results are similar in case of return on capital employed and liquidity ratio.

2. Operating Cash Flow and Productive Growth Rate

The results of paired sample t-test have been presented below in table 4 and table 5.

Table 4 : Paired Sample Descriptive

Data: Operating Cash Flow and Productive Growth Rate

Financial performance indicator	Pre-Merger			Post-Merger		
	Mean	Standard deviation	Standard error mean	Mean deviation	Standard error mean	Standard
Operating Cash Flow before Working Capital	1.243	24.356	10.893	3.459	118.50	52.996
Operating Cash generated from Business operations	1.188	22.027	9.851	2.976	107.931	48.268
Pre-tax Rate of Return on Net Assets	52.87	15.369	6.873	61.15	17.141	7.666
Pre-tax Productive Growth Rate of Return	0.564	1.199	0.536	0.132	0.211	0.094

The Mean value of operating cash flow before working capital changes as shown in Table 4, in the pre-merger period is 1.243 and 3.459 in the post-merger period. The mean value of pre-tax rate of return on net assets in the pre-M&A is 52.87 which increased in post-M&A period to 61.15.

Table 5 : Paired Sample t-Test :
Operating Cash Flow and Productive Growth Rate

Financial performance indicator	Diff. observed mean	Standard deviation	Standard error mean	t-value	95% confidence interval of the diff.		Sig. p-values
					Lower	Upper	
Operating cash flow before working capital changes	-2.216	98.77	44.173	-5.018#	-344.3	-99.02	0.003
Operating cash generated from business operations	-1.788	90.99	40.695	-4.395#	-291.8	-65.86	0.006
Pre-tax rate of return on net assets	-8.27	30.59	13.68	-0.605	-46.268	29.716	0.289
Pre-tax productive growth rate of return	0.432	1.272	0.569	0.759	-1.148	2.012	0.245

Values are significant at 0.01 level

Table 5 reveals the DOM of operating cash flow before working capital changes as -2.216 which shows increase in the performance during post-merger period. The t value of operating cash flow before working capital changes is -5.018 which is significant at level 0.01. The results are similar in case of operating cash generated from business operations. The per-tax rate of return on net assets has been improved but it is not significant. The performance of pre-tax productive growth rate of return has not improved in post-M&A period.

3. Maximisation of Shareholders' Wealth

The results of paired sample t-test have been presented in Table 6 and Table 7 given below on maximisation of shareholders wealth.

Table 6 : Paired Sample Descriptive Results :
Maximisation of Shareholders' Wealth

Financial performance indicator	Pre-Merger			Post-Merger		
	Mean	Standard deviation	Standard error mean	Mean deviation	Standard error mean	Standard
Retention Ratio	11.09	5.067	2.266	11.24	6.923	3.096
Capital Gearing	0.852	0.505	0.225	0.888	0.156	0.069
Proprietary Ratio	0.450	0.0308	0.013	0.382	0.0130	0.005
Equity Dividend Paid	54.60	0.894	0.400	54.80	0.447	0.200
Earnings Per Share	10.528	1.005	0.449	16.264	5.246	2.346

Table 6 reveals mean value of retention ratio which is marginally increased in post M&A period. The results are similar in case of capital gearing ratio and equity dividend paid. However, the mean value of proprietary ratio in pre M&A is 0.450 which is reduced to 0.382 in post M&A period. Mean value of earnings per share has been increased from 10.528 to 16.264 in post M&A period.

Table 7 : Paired Sample t-Test : Maximisation of Shareholders' Wealth

Financial performance indicator	Diff. observed mean	Standard deviation	Standard error mean	t-value	95% confidence interval of the diff.		Sig. p-values
					Lower	Upper	
Retention ratio	-0.156	11.28	5.048	-0.031	-14.171	13.859	0.488
Capital gearing	-0.036	0.516	0.230	-0.156	-0.677	0.606	0.442
Proprietary ratio	0.068	0.038	0.071	3.966#	0.115	3.966	0.008
Equity dividend paid	-0.200	1.095	0.489	-0.408	1.160	-0.408	0.352
Earnings Per Share	-5.736	5.283	2.362	-2.42*	0.824	-2.428	0.036

#Value is significant at 0.01 level. *Value is significant at 0.05 level.

Table 7 discloses that DOM value is negative in the case of retention ratio which state improvement in the performance after merger. However, it is not statistically significant. Similar results have been found in the case of capital gearing and equity dividend paid. The proprietary ratio has been significantly declined after merger. An improvement has been found in case of earnings per share which is significant at 0.05 level.

CONCLUSION AND SUGGESTIONS

The results on sales growth, total assets turnover, liquidity ratio and return on capital employed established that there is no improvement in the performance after merger. The liquidity ratio might have decreased because of amplified short-run liabilities and increase in the requirement of working capital after merger, results are similar as reported by Kumar and Bansal, (2008) but it has not affected profitability to a great extent as the results are not significant as commended by Hongarty, (1970). The lower rate of assets turnover ratio means that there is a problem of resource pooling as suggested by White, (1994). The other reasons of low assets turnover might be excess holdings of assets, inefficient use of fixed assets or use at lower capacity, mismatched technology or unrelated business.

The increased post-tax rate of return on equity signifies that the lower amount of equity capital in the capital structure after M&A have been the cause of increase in equity

return and return on net worth. The return on equity assets and net worth indicates that there is an increase in shareholders' wealth (Shick, 1972), results are contrary to Kumar (2009).

The increased profitability has not been supported by the revenue drivers, because there is decrease in sales. It means that cost drivers have been managed effectively in post-merger period due to which cost is reduced and return on net worth increased. The productive growth rate and return on net asset ratios indicates mismanagement of resources allocation after the merger which could be due to inherited risk of the target company or weak policy designed during the process of merger. The profits of the companies have not contributed to the reserves and surpluses and as such there is no improvement in the retention ratio after the merger.

Decline in capital gearing and proprietary ratios indicate that merger deal has been financed by external borrowings. On the contrary to results of Sinha and Kaushik (2010), in the present study, the equity dividend paid ratio shows that there is not sufficient amount of profit after set-off of all business expenses to distribute to equity shareholders being a change in the capital structure of the resultant company. With a change in capital structure consisting high amount of debt and low number of equity shares has increased earnings of per share.

The performance of the companies has improved because of cost-effective strategies and operating business benefits. But at the same time companies failed to generate more revenue to meet all the business expenses, to distribute to the shareholders and to retain some portion of the profits for future growth or expansion. The critical point of the merger is the excess holdings of assets after merger, inability to manage current and long-term assets, and mismanagement of acquisition and allocation of resources. The difficulties might have arisen because of inherent risk of the target company, the quality of the assets of both companies, and effectiveness to manage the resources.

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CARBON CREDIT ACCOUNTING

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ABSTRACT :

In 1997 the Protocol to the UNFCC (United Nations Framework Convention on Climate Change) was adopted for use, in Kyoto Japan, and is commonly known as Kyoto protocol. It was established as a global policy which aimed at fighting global warming and thereby reducing green house gas (GHG) emissions. In response, slow steady steps are being taken to implement carbon emission limits. Markets are being established so that companies can exchange carbon allowance commonly known as 'Certified Emissions Reductions'. This paper explores that accounting for CER's and its reporting is a social activity. The format of accounting and its standards used to prepare them reflect our business values.

While there can be no two opinions on whether carbon emissions should be reduced, there appears that now how all companies appropriately account for carbon credits. Various approaches have been used to measure the greenhouse gas (GHG) mitigation. Some are based on absolute measurements at a point in time, while others take into account the time dimension of carbon sequestration and storage.

Carbon accounting is the accounting process undertaken to measure the amount of carbon dioxide equivalents that will not be released into the atmosphere. Several changes are recommended to corporate accounting policy. The anticipated benefit is that socially responsible professionals will prepare financial accounting systems to encourage the success as carbon emissions become more regulated.

KEYWORDS :

Green House Gases, Carbon Credits, Carbon Accounting, Certified Emissions Reductions, Clean Development Mechanism, Global warming ,Cap and trade Accounting standards, Accounting , Carbon Trading, Ton years, Average storage, Stock Change, Turnover and Tax Liability.

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CARBON CREDIT ACCOUNTING

Carbon Credit

Day by day the climate cycle on earth is changing. One of the reasons behind this is Global warming. Global warming is when the earth heats up (the temperature rises). It happens when greenhouse gases (carbon dioxide, water vapor, nitrous oxide, methane and ozone) trap heat and light from the sun in the earth's atmosphere, which increases the temperature. This effects many people, animals, plants and atmosphere. It has led to season shifting, changing landscapes, rising sea levels, increased risk of drought and floods, stronger storms, increase in heat related illness and diseases all over the world.

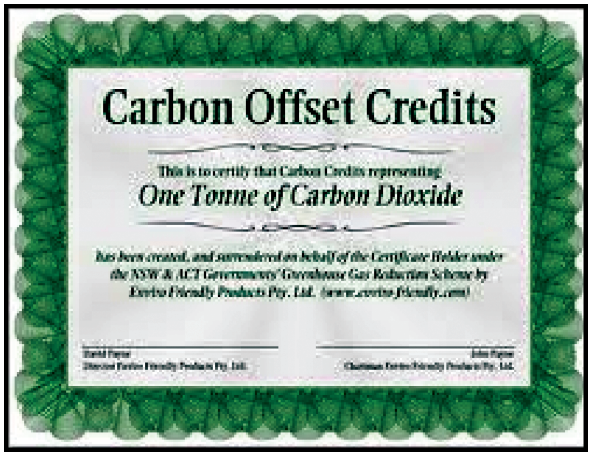
In 1997 a protocol to the UNFCC (United Nations Framework Convention on Climate Change) was initially adopted for use, in Kyoto Japan, and is commonly known as Kyoto protocol. Because of the inception of Kyoto Protocol many countries all over the world have become more concerned about 'Global Warming'. This protocol legally binds the industrialized countries to reduce their Green House Gas (GHG) emission. In order to protect ourselves, our economy, and our land from the adverse effects of climate change, we must reduce emissions of carbon dioxide and other greenhouse gases. To achieve this goal the concept of carbon credit has been introduced.

Carbon credits are certificates awarded to countries that are successful in reducing emissions of greenhouse gases. Carbon credits create a market for reducing greenhouse gas emissions by giving a monetary value to the cost of polluting the air. The Carbon Credit represents one tone of carbon dioxide either removed from the atmosphere or saved from being emitted. Carbon credits are also called emission permit. It is a simple, non-compulsory way to counteract the greenhouse gasses that contribute to climate change and global warming.Thus it can be said that Carbon credits are gained by those companies and manufacturers that use environmentally friendly forms of production and produce environment friendly products. Carbon credits can be created in many ways but there are two broad types:

1. Capturing or retaining carbon dioxide from the atmosphere such as forestation and reforestation activities.
2. Carbon Dioxide Saving Projects such as use of renewable energies

Carbon credit trading is an innovative method of controlling emissions. **Carbon trades or carbon offsetting**, is a way of balancing carbon emissions in one geographical place, with a reduction in emissions in another. Since it doesn't matter where Greenhouse Gases (GHG) are emitted, as their effect on climate change is global. It is thus a system that allows a company or country that reduces the amount of carbon dioxide to below a particular level to sell the extra reduction as a credit to a company or country that has not reduced the amount. Or in much simpler words it means that if a country cannot meet its Green House Gas reduction target, it can buy credits from other countries that have credits in excess.

Trading of Carbon Credits is done in the form of Certified **Emissions Reductions**. CERs are in the form of Certificates. A CER is given by the Clean **Development Mechanism_**(CDM) Executive Board to certify that they have reduced green house gas emissions by one tone of carbon dioxide per year. For example, if a project process saves 20 tones of carbon dioxide per year, it can claim 20 CERs (One CER is equivalent to one tone of carbon dioxide reduced). As a result Carbon has become a commodity, which like other commodities, is traded in open market, called carbon market. CERs represent a unit of greenhouse gas that has been avoided and certified by the United Nations Framework for Climate Change (UNFCCC).



1 CER = 1 tone of CO2

The Clean Development Mechanism (CDM) which is defined in the Article 12 of the Protocol that allows a country which has committed an emission-reduction under the Kyoto Protocol to implement an emission-reduction project in developing countries. It allows industrialized countries with a greenhouse gas reduction commitment to invest in emission reducing projects in developing countries as an alternative to what is generally considered more costly emission reductions in their own countries. Under CDM, a developed country can take up a greenhouse gas reduction project activity in a developing country where the cost of GHG reduction project activities is usually much lower.

Emission trading system is often called **Cap and Trade**. It is used by countries as a measure of controlling pollution. Purpose of a cap-and-trade system is to help in the fight against global climate change

Cap- Each company, will have a limit on the amount of green-house gas that it can emit. The firm must have an "emissions permit" for every ton of carbon dioxide it releases into the atmosphere. These permits enforce a limit, or cap, on the amount of greenhouse gas pollution that the company is allowed to release. Over time, the limits become stricter, allowing less and less pollution, until the ultimate reduction goal is met.

Trade: It will be relatively cheaper or easier for some companies to reduce their emissions below their required limit than others. These more efficient companies, who emit less than their allowance, can sell their extra permits to companies that are not able to make reductions as easily.

This creates a system that guarantees a set level of overall reductions, while rewarding the most efficient companies and ensuring that the cap can be met at the lowest possible cost to the economy.

The profits: If the federal government auctions the emissions permits to the companies required reducing their emissions, it would create a large and dependable revenue stream. These financial resources could be used to achieve critical public policy objectives related to climate change mitigation and economic development. This would give the most benefts to those companies with higher baseline emissions that have historically done the least to reduce their pollution.

ACCOUNTING FOR CARBON CREDIT

Accounting is a social activity. The reporting of accounts and the standards used to prepare them reflect our business values. Over time accounting reports and what they contain have changed and will continue to change. Accounting plays a central role in determining what matters. Until it is measured and reported on in financial statements, an economic development will rarely receive much attention. **Carbon accounting** is the accounting process undertaken to measure the amount of carbon dioxide equivalents that will not be released into the atmosphere as a result of Flexible Mechanisms projects under the Kyoto protocol.

While there can be no two opinions on whether carbon emissions should be reduced, there appears however to be a continuing debate among companies on how to appropriately account for carbon credits. As per Accounting Carbon Credits as per AS- 12: Some experts, having admitted that there are presently no guidelines/standards for accounting of Carbon Credits, have suggested that they be accounted as Government Grant.

Accounting plays a central role in determining what matters. Until it is measured and reported on in financial statements an economic development will rarely receive much attention. The dominant qualitative characteristic of accounting information is decision usefulness. Than come Reliability which is one of the primary characteristics of useful information. Accountants view reliability in terms of specific components. One such component is that information must be verifiable. This characteristic is much important for determining value for Carbon Credit.

There are two necessary steps for carbon emissions and reductions to be certified. Certification is needed so that the resulting credits are recognized. Certification is necessary since a carbon credit is not a deliverable commodity. The value of this intangible asset exists because of trust that buyers have in the system. The success and survival of the system is thus predicated on the credit-worthiness of emissions reductions. The verification of carbon credits is therefore a difficult issue

Objectivity is another component used to evaluate the reliability of information then come the primary quality of useful information is relevance. Information is relevant when it has predictive value, is timely, and provides feedback to the stockholders. Accounting is more art than science. It is a reflection of our prevalent culture. As long as we realize accounting is a powerful social tool it can play a role in leading cultural change. There are many examples within the accounting literature that encourage optimism regarding the role of accounting. One aspect of this discussion is the conflict within the profession regarding current value accounting in the move to adopt globally harmonized accounting standards.

The availability of an instrument to recognize carbon credits and its marketability provides additional revenues, and makes businesses more competitive in the global market. As of now, there are no separate Indian accounting standards to measure income and expenditure from carbon reducing projects.

CARBON ACCOUNTING METHODS

Various approaches have been used to measure the greenhouse gas (GHG) mitigation effectiveness of land use and forestry projects. Some are based on absolute measurements at a point in time, while others take into account the time dimension of carbon sequestration and storage. These methods are discussed below

1. Stock change method

The method most commonly used for expressing carbon storage is based on calculating the difference in carbon stocks between a project and its baseline at a given point in time. This method is referred to as the stock change method (previously referred to as the flow summation method), and measurements are usually expressed in tCha-1. It provides projects with credits as carbon is fixed, and credits are returned when carbon is released back to the atmosphere, irrespective of the period of storage. In effect, in environmental terms the stock change method produces a 'zero-sum game' in which projects may need to return all credits earned if the forestry activities are discontinued. Credits will be earned during the growth phases, and returned when these forests are harvested in years 18, 36 and 54. This proposal is essentially an application of the stock change method to CDM projects. In essence it proposes that projects have to replace 'emission reduction' credits at the end of a certain period or when the project ends.

$$Average\,net\,carbon\,storage(tC)=\frac{\sum_{t=0}^{t=n}(Carbon\,stored\,in\,project-ca}{n(year}$$

2. The average storage method

An inherent problem of the stock change method is that it involves frequent exchanges of credits and debts of carbon between project developers and buyers or regulatory bodies. This is particularly so in the case of dynamic systems, e.g., afforestation projects, in which planting, harvesting and replanting operations take place. In order to account for the carbon benefits of such systems, an alternative approach has been used called the average storage method (Schroeder, 1992). This method consists of averaging the amount of carbon stored in a site over the long-term according to the following equation:

where t is time, n is the project time frame (years), and measurements are expressed in t C ha . The advantage of this method is that it simplifies the process of credit allocation, while still accounting for the dynamics of carbon storage over the whole project duration, not only at the times chosen for accounting. However, a weakness of this method relates to the still subjective time frame, n, chosen for running the analysis.

3. Ton year approaches

Alternative approaches have been proposed to better address the temporal dimension of carbon storage. Most of these are based on adopting a two-dimensional measurement unit that reflects storage and time, i.e., the ton-C year. The concept of a ton-year unit has been proposed by many authors (Moura-Costa, 1996; Fearnside, 1997; Greenhouse Challenge Office, 1997; Chomitz, 1998; Tipper and de Jong, 1998; Dobes et al., 1999; Moura-Costa and Wilson, 2000; Fearnside et al., 2000; Maclaren, 2000; Sedjo et al. 2001).

The general concept of the ton-year approach is in the application of a factor to convert the climatic effect of temporal carbon storage to an equivalent amount of avoided emissions .This factor is derived from the "equivalence time" concept, i.e., the length of time that CO2 must be stored as carbon in biomass or soil for it to prevent the cumulative radiative forcing effect exerted by a similar amount of CO2 during its residence in the atmosphere.

If an equivalence factor ton-year approach is used, carbon storage could be credited according to the time frame over which storage takes place. Such a crediting system would reduce the need for long-term guarantees and hence the risks associated with long time frames. The main disadvantage of this method is that that, depending 3on the manner in which ton-years accounting is used, there may be disadvantages in relation to the timing when crediting occurs, discouraging the implementation of forestry-based GHG mitigation projects.

TAXATION ISSUES

Income from sale of CERs should be accounted for under the head Business & Profession and in case of sale of Intangible, it would be taxable under the head Capital Gains though most companies in India are recording earnings from carbon credit trading as Income from Other Sources. Trading in CER is carried out either in spot market or in futures. Service tax will be applicable on account of dealing in CERs on the exchange platform and in case of contracts resulting in delivery VAT will be applicable.

Typically carbon credits in India are sold to overseas buyers, hence there would be no VAT applicable on these goods. Thus sale of CERs to overseas buyers should qualify as exports, however there is no explicit mention made in this regard by the concerned authorities

FINANCIAL ACCOUNTING ISSUES OF CDM CREDITS IN INDIA

India is one of the major players in the global market on the supply side of CERs. Indian companies have started getting credit of CERs and some of them have also entered into sale arrangement with buyers in the international market. As this is a new concept, it has given rise to interesting financial accounting dimensions. Issues involved are (i) how to account for expenditure on CDM projects, (ii) whether or not to account for self-generated CERs held with registry, (iii) if credits are to be accounted, at what point of time these should be recognized

in books of accounts and at what value, and (iv) how to account for sale consideration of CERs and its disclosure in accounts and notes. These are debatable issues, till the time they are answered.

CER credits are considered goods. CER Sale is Other Income and not Turnover thus we can say that it cannot be included in Turnover. As Section 43A(11) of the Companies Act, 1956, defines 'Turnover' as "the aggregate value of the realization made from the sale, supply or distribution of goods or on account of services rendered, or both". As we have already concluded that CER credits are goods, their sales proceeds have to be recognized in financial accounts as per para.11 of the Accounting Standard 9. Since we have already said that availability of CER credits is only an additional benefit of a CDM project, it would be impossible to measure the cost of self-generated CER asset reliably. Thus it can be concluded that though self-generated CERs held with registry are

Assets (Intangible), they cannot be recognized in Accounts due to specific requirements of Accounting Standard-26. Accounting Carbon Credits as per AS-12: Some experts, having admitted that there are presently no guidelines/standards for accounting of Carbon Credits, have suggested that they be accounted as Government Grant but in this case if Carbon Credits are accounted as Government Grants, Accounting Standard-9 'revenue recognition' will cease to operate and this will lead to other accounting complications. CER credits are indeed intangible assets, held with registry. CER credits acquired from other parties for the purposes of trading are recognized in the books, whereas self-generated CER credits are not reflected in financial accounts. As issues for accounting of CER credits will appear for the first time and it is important to disclose the accounting policy adopted for this purpose. It would be appropriate to disclose units of CER held with registry in notes bi-furcating between purchased and self-generated.

As CERs are capital assets, tax liability should be admitted under the head Capital Gain, and claim for concessional rate of taxation should also be made if credit is held for more than 36 months immediately preceding the date of transfer. This gives an opportunity to take a decision about timings of sale of such credits, keeping a balance for long-term and short-term holdings. As there would be no cost of acquisition for self-generated CER credits, section 55(2) of the Income Tax Act will come into operation, and total sale consideration will be liable for Capital Gains Tax (long term/short term) according to the period of holding.

Thus we can concluded as the accounting issues of CER credits will appear for the first time in FY 2006-07, it will generate a fair amount of debate. May be some more accounting guidelines will come in due course. The views of taxation authorities would be another interesting dimension.

Despite several unresolved issues of carbon credits have emerged as a sought commodity for trade and will continue to interest the country for some time to come.

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AN EMPIRICAL STUDY ON FINANCIAL HEALTH OF ITDC THROUGH "Z" SCORE ANALYSIS

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ABSTRACT

Tourism has the potential to not only be the economy driver, but also become an effective tool for poverty alleviation and ensuring growth with equity. India Tourism Development Corporation (ITDC) came into existence on Oct. 01, 1966 and has been the prime mover in the progressive development, promotion and expansion of tourism in the country. A predictive model created by Edward Altman in the 1960s. This model combines five different financial ratios to determine the likelihood of bankruptcy amongst companies. The financial health of the Corporation for the last five years can be better understood with the help of Z Score Analysis. The present study is an attempt to apply the Altman 'Z' score model on ITDC to compute the financial health which seems to be not up to the mark due to global financial crisis and terrorists attack on Mumbai on November 26, 2008.

KEY WORDS :

Multiple Discriminant Analysis (MDA), 'Z' score Analysis, India Tourism Development Corporation (ITDC), financial health and bankruptcy.

INTRODUCTION

India Tourism Development Corporation (ITDC) is the only Public Sector Undertaking of the Ministry of Tourism. It has played a key role in the development of tourism infrastructure in the country. Apart from developing the largest hotel chain in India, the ITDC offered tourism related facilities like transport, duty free shopping, entertainment, production of tourist publicity literature, consultancy, etc. The mission of ITDC is 'To provide leadership and play a catalytic role in the development of tourism infrastructure in the country and to achieve excellence in its strategic business units through professionalism, efficiency, value for money and customer focused service'.

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The ITDC has played a committed and pivotal social role in the development of tourism infrastructure in backward areas, thereby trying to promote regional balance. After the disinvestment of 18 hotels, ITDC consolidated its remaining activities and restructured itself to take up diversified service-oriented business activities like consultancy and execution of tourism and engineering projects, training consultancy in hospitality sector, event management and mounting of Son-et-Lumeire (SEL) Shows, etc. The authorised and paid-up capital of the Corporation as on December, 2010, stood at 150 crores and 85.77 crores respectively. The pattern of share holding is indicated below:-

Government	92.108%
Indian Hotels Ltd.	7.870%
General Public and Employees	0.022%

The total manpower of ITDC as on 31.03.2011 is expected to be 2182. Of these, 667 employees belong to Scheduled Castes (SCs), 50 to Scheduled Tribes (STs) and 116 to other Backward Classes (OBCs).

NETWORK OF ITDC SERVICES

The present network of ITDC consists of 8 Ashok Group of Hotels, 7 Joint Venture Hotels including one yet to be completed hotel, 2 Restaurants, 11 Transport Units, 1 Tourist Service Station, 5 Duty Free Shops at airports / seaports, 1 Sound & Light Show and 4 Catering Outlets. Besides, ITDC is also managing a Hotel at Bharatpur, a Tourist Complex at Kosi.

FINANCIAL PERFORMANCE

The profitability of the Corporation was also affected due to enhanced wage bill on account of pay revision and also due to charging of a part of renovation expenditure to revenue expenditure in compliance with accounting standard. The revised budget estimate for 2009-10 envisaged a plan outlay of 97.45 crore, which included 95.80 crore for renovation/improvement in existing hotels and remaining fund for other activities of the Corporation. The plan capital expenditure during 2009-10 was 16.30 crore. Besides this 40.45 crore relating to hotel units including 39.31crore for the 'The Ashok' has also been spent during the year on the incomplete works relating to renovation works of hotel properties.

MEMORANDUM OF UNDERSTANDING (MOU)

The MoU for the year 2010-11 was signed between the Ministry of Tourism and ITDC envisaging targets for Financial, Dynamic, Sector-specific and Enterprise-specific parameters. The various criterion of MoU include targets for Gross Sales and Gross Margin, Customer Satisfaction, Corporate Social Responsibility (CSR), HRD (Employees

training), enrolment of hotels under Ashok Alliance, handling of conferences/ exhibitions for outside agencies, renovation of ITDC hotels, multiple of ARR and occupancy of ITDC hotels.

COMMONWEALTH GAMES – 2010

ITDC hotels in Delhi had been nominated as Games Family Hotels while the Ashok was Games Flagship Hotel for Commonwealth Games 2010. The event at these hotels was a grand success. Accolades were received from the VVIP delegates from 71 nations who stayed in the hotels. In addition to the delegates of CGF and International media, those who stayed at The Ashok included HRH Prince Edwards, HRH Prince of Jordon and HRH Prince of Bhutan. The services were appreciated by one and all. Apart from above, more than 600 National Technical Officers stayed at Vasant Kunj flats which were managed by ITDC and also apartments for stay of athletes in the Commonwealth Games Village at Akshardham were furnished. ITDC also operated Operation & Maintenance (O&M) Cell at the Village comprised of a team of dedicated engineers till the games were over. In addition, ITDC also provided housekeeping services in two towers at Commonwealth Games Village which were occupied by the athletes.

Illumination of ASI monuments at (i) Sher Shah Gate and Khairul Manzil Masjid (ii) Subj Burj (iii) Purana Quila and (iv) Safdarjung Tomb was completed earlier. During the year illumination of various ASI monuments namely Khane-e-khana, Dadi Poti Ka Gumbad, Lal Darwaza, Choti Gumti, Sikri Gumti, Barakhamba and Biran Ka Gumbad have been completed.

STATEMENT OF THE PROBLEM

Indian Tourism Development Corporation (ITDC) represents one of the important segments of the Indian economy in service sector. The decrease in turnover and profitability of the Corporation is mainly attributed to general recession in the tourism sector because of global financial crisis and terrorists attack on Mumbai on 26 November 2008 and also due to closure of main building of Ashok Hotel for renovation. The ITDC has incurred operating loss in the last three years during the period of study. One possible reason for such down cycle might be poor financial health or the reason cited above. From this viewpoint, it seems that the company may face threats to financial viability; hence this study bears a relevance to the present problems.

OBJECTIVES OF THE STUDY

The main objective of the research study to find out the health of Indian Tourism Development Corporation (ITDC) through Altman's Z score analysis. It will contain the following enumerated secondary objectives.

1. To get the background information of the ITDC and its activities.
2. To examine the overall financial performance of ITDC.
3. To predict the financial health and viability of the ITDC.

METHODOLOGY OF THE STUDY

Application of Z score

"Z" score analysis concept has been given by Edward I. Altman in 1968 which can be used to evaluate the general trend in the financial health of a corporate over a period of time. The accounting ratios used to predict the financial performance of a corporate may only provide warnings when it is too late to take a corrective action. Further it would be worth mentioning that the single ratio does not convey much of the sense for the corporate.

It is well known fact that there is no internationally accepted standard for financial ratios against which the results can be compared. Therefore, Edwin I Altman combined a number of accounting ratios (liquidity, leverage, activity and profitability) to form an index of the probability, which was effective indicator of corporate performance in predicting bankruptcy. This model has proven to be a reliable tool for bankruptcy forecasting in a wide variety of contexts and markets. In this context, a variety of studies have been conducted, over the period by applying Multiple Discriminant Analysis (MDA) to predict the corporate failure, by financial analysts like Altman.

Data Collection

The study is concerned with the analysis of financial health of ITDC. It is confined attempt by the researchers. This study includes mainly secondary source of data which has been taken from published information and through internet. This study is an attempt to have empirical investigation of micro nature. It will give an insight into the examination of financial health of ITDC.

'Z' Score Analysis

Leonard N. Stern School of Business of New York University Professor Edward I Altman published a formula to assess the probability that a firm will go bankrupt within two years. The objective was to measure financial distress along a number of objective metrics, standardizing the assessment of credit risk. He called this the Z-Score and it includes five easily derived business ratios, weighted by coefficients. Given its simplicity and accuracy, it is a common calculation used by investors and plays a relatively easy addition to an investment checklist.

The present study will make the analysis on the basis of data collected. It can be done with the help of five accounting ratios. These different ratios are combined into a

single measure-Z Score Analysis with the help of Multi Discriminant Analysis (MDA). The formulla's used to evaluate the "Z" score analysis as established by Altman is as follows.

$$Z = 1.2X_1 + 1.4X_2 + 3.3X_3 + 0.6X_4 + 0.99X_5$$

Variables (Ratios) Used in Z Score Analysis

The below enumerated accounting ratios has been taken as variables to combine them into a single measure (index), which can be used to measure the efficiency in predicting bankruptcy.

$\mathbf{X_1}$ –It indicate the relationship of working capital to total assets (WC/TA). It is the measure of the net liquid assets of a concern to the total capitalization.

$\mathbf{X_2}$ -The ratio of Retained Earnings to Total Assets (RE/TA). It indicates cumulative profitability relative to firm size.

$\mathbf{X_3}$ –It is the proportion of earning before interest and taxes to total assets (EBIT/TA). It is a measure of productivity of assets employed in an enterprise. The ultimate existence of an enterprise is based on the earning power (profitability).

$\mathbf{X_4}$ -The ratio of market value of equity to book value of total liabilities (MVE/BVTL). It gives consideration for the market's view of the company relative to its liabilities. This measure shows how much assets of an enterprise can decline in value before the liabilities exceed the assets and the concern becomes insolvent.

$\mathbf{X_5}$ –It show the relationship of sales to total assets (S/TA). The assets turnover ratio is a standard financial measure for illustrating the sales generating capacity of the assets.

Measurement of Financial Health

Altman coined the following guidelines to be used to classify firms as either financially sound or bankrupt.

Table: 1
Standard Z-Score Parameters

Situation	Z-Score Value	Zones	
I	Below 1.8	Bankruptcy Zone	Failure is certain
II	1.8 - 2.99	Healthy Zone	Uncertain to predict
III	Above 2.99	Too Healthy Zone	Not to fall

To interpret the resultant Z-Score, we place it in one of three categories:

1. Firms with a Z-Score greater than 2.99 are considered to be safe and thus have a relatively remote risk of bankruptcy.
2. Firms with a Z-Score between 1.81 and 2.99 are less clear, existing in a grey area where a clear statement cannot be made.
3. Firms with a Z-Score less than 1.81 are considered to be in distress and thus at higher risk of bankruptcy.

Financial Health of ITDC - Ratio Analysis.

The five financial ratios put forth above have been used as indicators in the equation for judging the financial health of ITDC. Table-l shows the select ratios (variables) of ITDC during the period from March 2007 to March 2011.

Table : 2

Ratios used in Z Score Analysis

Years/Ratios	X_1	X_2	X_3	X_4	X_5
2007	0.74	0.14	0.32	0.998	2.30
2008	0.82	0.09	0.23	0.999	1.25
2009	0.80	0.0467	0.10	1.0	1.14
2010	0.66	(-) 0.046	(-) 0.041	1.0	0.98
2011	0.70	(-) 0.028	(-) 0.042	1.0	1.31

The content of working capital in the total assets of ITDC has fluctuating trend as it increased from 0.74 in 2007 to 0.84 in 2008 and then it has come down to 0.80 in 2009 and in 2011 it is 0.70. As the portion of working capital in total asset is more so it can be viewed that the ITDC is following conservative policy of working capital for managing the short term fund. The excessive working capital would have affected the profitability as the funds remain idle with the Corporation.

It is found from the above table that the content of Retained Earning to Total Assets was recorded as 0.14 in 2007 to (-) 0.028 in 2011 during the period of study 2007-2011 with positive ratio to negative ratio. The ITDC has suffered from recession in tourism sector, global financial crisis and terrorist attack at Mumbai due to this reason the ratio has come negatively in 2010 and 2011.

The operational efficiency of an enterprise could be judged through the ratio of EBIT/ Total Assets. The operating efficiency ultimately leads to its success. The ratio of EBIT to Total Assets of ITDC was recorded as negatively during the period 2010 and 2011 but for the year from 2007 to 2009 is positive. The negative ratio during the period 2010 to 2011

would adversely affect the financial health of the Corporation.

The market value of equity is equal to book value of total liabilities from 2009 to 2011 whereas it is slight below than one during the period 2007 to 2008. The proportion in which interest bearing funds (debt) and interest free funds (equity) employed had a direct impact on its financial performance. The Corporation has very less leveraged during the period 2007 and 2008 whereas in the year 2009 to 2011 the Corporation does not have any borrowed capital. It indicates that the cost of financing is more in this case but the Corporation is having good solvency position to meet its long term obligations.

The Table portrays that the sales in relation to total assets has decreased from 2.30 to 1.31 with heavy fluctuation during the period of study. The ratio states that the sales is gradually coming down to effectively using the assets which is not good for the Corporation. Sales are the central point around which all the operations moved. The financial performance and profitability depends on sales revenue.

Financial Health -"Z" Score Analysis

As pointed out earlier, the "Z" score analysis was applied to evaluate the general trend in the financial health of ITDC by using ratio analysis. The analysis depends on ratio criteria. It is clear from the analysis of Table-2 & Chart-l that the ITDC during the period 2009 & 2010 is in the grey area where it is difficult to give the clear cut statement about the financial health. During the year 2007 to 2009, the Corporation is in the too healthy zone.

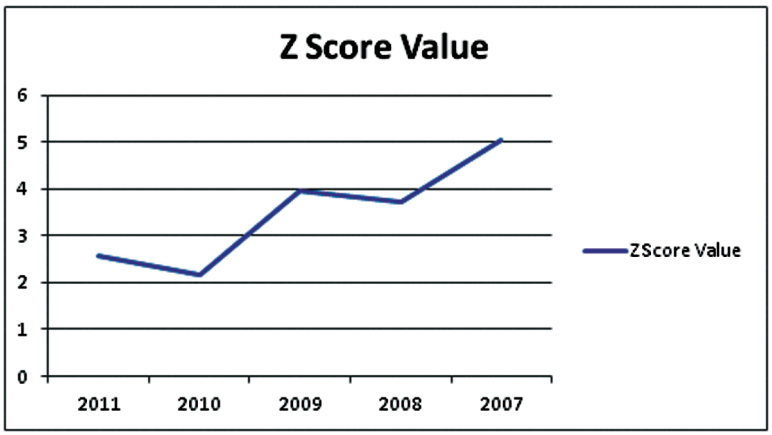
Table : 3

Z-Score Values of HMT-MTL

Years	*Equation*	*Z-Score*
2011	[1.2 x 0.70] + [1.4 x (-)0.028] + [3.3 x (-)0.042] +[0.6 x 1.0] + [0.99 x 1.31]	2.5592
2010	[1.2 x 0.66]+ [1.4 x (-) 0.046] +[3.3 x (-) 0.041]+[0.6 x 1.0]+[0.99 x 0.98]	2.1623
2009	[1.2 x 0.80] +[1.4 x 0.467] +[3.3 x 0.10] +[0.6 x 1.0] +[0.99 x 1.14]	3.9698
2008	[1.2 x 0.82] +[1.4 x 0.09] +[3.3 x 0.23] +[0.6 x 0.999] +[0.99 x 1.25]	3.7059
2007	[1.2 x 0.74] +[1.4 x 0.14] +[3.3 x 0.32] +[0.6 x 0.998] +[0.99 x 2.30]	5.0263

Figure: 1

Line Chart of Z score value



The financial health of the Corporation was in the too healthy zone during the first three year which has come to gray area or healthy zone due to recession in tourism sector, global crisis and terrorist attack at Mumbai.

Suggestions of the Study:

The above study put forth the following suggestions to be implemented in order to improve the financial health of ITDC in future.

- The company should change its working capital financing approach in this situation and may adopt the moderate/hedging working capital financing policy at least so that the corporation may able to earn profit on idle fund remain in the corporation.
- The corporate should take the step to reduce the operating expenses through modern cost accounting techniques i.e. Activity Based Costing and so on.
- The corporate has the core competency in accommodation and lodging hence it may go for aggressive promotional effort to enhance the service through its qualitative and customized product.
- The company should make effort to increase the affordable services which would make it to utilize the available capacity. The corporate should not make any unnecessary expenditure.
- The capital structure of ITDC has very low debt-equity mix. This will increase the cost of financing which ultimately result in high cost burden on the corporation.
- Necessary arrangements should be made to improve the managerial performance by providing the training through cutting edge technology.

CONCLUSION

The financial health of a corporate plays a dominant role in creating the image among stakeholders. Uncertainty of financial health threatens very survival and leads to business failure. The ITDC, a public sector undertaking was established with a view to promote and expand the tourism in the country. The estimated discriminate function is of great use for the management in ascertaining the financial health. This study would also be useful to all companies, policy makers and researchers for appraising financial health of corporate sector.

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STUDY OF SHAREHOLDER VALUE CREATION AND MEASUREMENT : AN EMPIRICAL ANALYSIS OF INDIAN PHARMACEUTICAL INDUSTRY

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ABSTRACT

Maximizing shareholders wealth is becoming the new corporate standard in India. Shareholders' wealth is measured in terms of the returns they receive on their investment. Traditionally, the yardsticks used to measure the efficiency and profitability of a business organization were accounting based measures like ROI, ROE, ROCE, EPS, RONW and financial ratios. But, now a day's value added measures have emerged as a replacement of the traditional accounting based measures. The reason behind this is that the financial performance of a business organization is measured from the shareholders' value point of view. Value added represents the wealth created by an enterprise during a specified period. No companies can survive and grow, if it fails to generate value to its shareholders. Hence, value added is a basic measure which is used for measuring the financial performance of an enterprise. By keeping this in mind, this study is an attempt to analyze the value creation in Indian Pharmaceutical Industry from 2000 to 2009 by using regression analysis.

KEY WORDS :

Value Creation, Economic Value Added, Market Value Added, ROI, yardstick

INTRODUCTION

Maximizing shareholders value has become the new corporate paradigm in recent years. The Corporate, which gave the lowest preference to shareholders curiosity, are now bestowing 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

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in the form of capital appreciation or both. Financial information is used by various stakeholders to assess firm's current performance and to forecast the future as well. Maximizing the shareholder value is considered as one of the fundamental goals of all businesses. There are a number of value based management (VBM) frameworks, shareholder value analysis (SVA) Rapport (1986) and Economic Value Analysis (EVA) developed by Stern Stewart (1990) is the two well known ones. Maximizing shareholders value is becoming the new corporate standard in India.

This does not mean EVA concept retards growth. It only suggests that so long as a company is earning a return on its investment in excess of the cost of investment, there is no limit to growth. It is only when the earning is insufficient to meet the cost of funds tied up, there arises a need to unlock the fund and thereby avoid or minimize bad or uneconomic investments. EVA is a modified version of shareholder value theory. EVA is different from shareholder value theory in the sense that it deducts depreciation to compute its residual income and also it makes certain adjustments to convert accounting profit to economic profit. It is believed that market value of a firm, at any given moment, is the summation of beginning invested capital and present value of future stream of expected EVAs. Stewart (1991) emphasized that to get significant benefits; EVA should be fully integrated into a company linking executive compensation to improvement in EVA. Stewart maintained that if executives' bonus and other incentives were linked to traditional parameters, EVA would fail as a performance measure. This is because corporate executives, in that case, would have no incentive to maximize EVA. EVA, thus, is not merely a financial computation reported at the end of the year but is a part of the fully integrated management system.

PHARMACEUTICAL INDUSTRY

Pharmaceutical Industry in India is one of the largest and most advanced among the developing countries. India is ranked among the top 15 drug manufacturing countries in the world. It is ranked fourth in volume terms and eleventh in value terms globally. The pharmaceutical industry is currently acknowledged as one of the leading industries in India. It provides employment to millions and ensures that essential drugs at affordable prices are available to the vast population of India. The Indian Pharmaceutical Industry today is in the front rank of India's science-based industries with wide ranging capabilities in the complex field of drug manufacture and technology. Pharmaceutical Companies in India is getting technologically strong and self reliant.

Pharmaceutical Market in India is actively partnering with Government, NGOs and other Healthcare providers to improve the health and quality of life by innovating and developing safe, cost-effective and quality medicines. It also aims to increase the access of medicines to people in rural areas and those living at or below the poverty line. Companies like Ranbaxy, Dr. Reddy's Lab, Lupin Lab, Torrent Pharmaceuticals, Glen mark

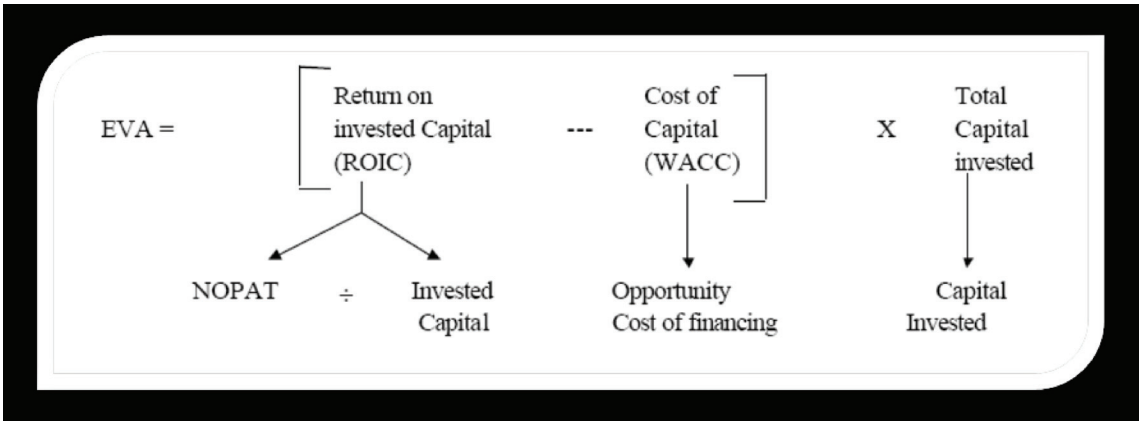
etc are performing excellently at the global level also. 'Pharmaceutical Companies Operating in India 'is a pool representing about 250 large Pharmaceuticals manufacturers, suppliers and about 8000 Small Scale Pharmaceutical & Drug Units. To be one of the largest and most advanced in the world ' Pharmaceutical Market in India 'must address the issues of exporters, manufacturers and suppliers. 'Pharmaceutical Companies in India 'offers tremendous growth opportunities in years to come especially in the areas of Biological Sciences Research, Clinical Research & Development and Innovative Process Chemistry.

ECONOMIC VALUE ADDED (EVA)

The concept of Economic Value Added was introduced by a New York based consulting firm M/s Stern Stewart & Co in early eighties. The corporate sector in India is gradually recognizing the importance of EVA as a result of which some Indian companies viz., Ranbaxy Laboratories, Samtel India Ltd.etc., have started calculating EVA. Infosys Technologies Ltd is the first Indian company to report its EVA in the annual report. EVA attempts to measure true economic profit as it compares actual rate of return as against the required rate of return.

EVA is an excess profit of a firm after charging cost of capital. To put it simply, EVA is the difference between Net Operating Profit after Tax (NOPAT) and the capital charge for both debt and equity (WACC- Weighted Average Cost of Capital). If NOPAT exceeds the capital charge (WACC), EVA is positive and if NOPAT is less than capital charge, EVA is negative.

MODEL OF EVA



COMPUTATION OF EVA :

While computing EVA, capital employed represents capital invested at the beginning

of the year.The logic behind taking beginning capital for computing EVA is that a company would take at least one year time to earn a return on investment. It may be mentioned here that calculation of EVA involves some tricky issues. Each element of EVA, therefore, has been discussed individually. EVA requires three different inputs for its computation. They are given below :

(A) NOPAT (Net Operating Profit after Tax)

(B) Invested Capital

(C) Weighted Average Cost of Capital (WACC).

$$EVA = NOPAT - (WACC \times Invested\ Capital)$$

Net Operating Profit after Tax (NOPAT) :

Stewart (1991) defined NOPAT as the "Profits derived from company's operations after taxes but before financing costs and non-cash book keeping entries. Such non-cash book keeping entries do not include depreciation since depreciation is considered as a true economic expense. In other words, NOPAT is equal to the income available to shareholders plus interest expenses (after tax).

Invested Capital / Capital Employed :

Invested capital or capital employed refers to total assets net of non-interest bearing liabilities. From an operating perspective, invested capital can be defined as Net Fixed Assets plus Investments plus Net current assets. Net current assets denote current assets net of non-interest bearing current liabilities. From a financing perspective, the same can be defined as Net Worth plus total borrowings. Total borrowings denote all interest bearing debts

Weighted Average Cost Of Capital (WACC) :

For calculating WACC, cost of each source of capital is calculated separately then weights are assigned to each source on the basis of proportion of a particular source in the total capital employed. Weights can be assigned on market value basis or book value basis. Stewart suggested market value basis. WACC can be calculated as below:

$$WACC = E/CE \times Ke + LTB/CE \times Kd$$

Where

E = Equity Capital,

CE = Capital Employed,

LTB = Long Term Borrowings,

Ke = Cost of Equity Capital,

Kd = Cost of Debt Capital

WACC includes two specific costs viz.,

(i) Cost of equity (Ke),

(ii) Cost of debt (Kd).

Calculation of Cost of Debt (Kd) :

Cost of debt is calculated by multiplying the pre-tax debt cost by (1"t), Where 't' refers the effective tax rate. This will furnish the post tax cost of debt. The post tax cost of debt is calculated because debt cost enjoys tax shield. In other words, tax reduces the effective cost of debt. Cost of debt can be calculated by applying the following formula:

$$\textit{Cost of Debt} = (\textit{Total Interest Expense} \,/\, \textit{Beginning Total Borrowings}) \times (1''t) \times 100$$

$$Kd = (TIE \,/\, BTB) \times (1''t) \times 100$$

Calculation of Cost of Equity (Ke) :

The cost of equity can be calculated by the Capital Asset Pricing Model (CAPM). The CAPM is normally used to determine minimum required rates of return from investment in risky assets. Stewart also used CAPM consistently as a measure for cost of equity in his methodology for computing EVA. The expected return on equity can be calculated under CAPM by applying the formula given below:

$$Rj = Rf + \beta \quad (Rm - Rf)$$

Where

Rj = Expected Return on Scrip j,

Rf = Risk free rate of return,

β = Beta representing the volatility of scrip j against market volatility.

Rm = Expected stock market return.

RETURN ON INVESTMENT

Return on investment is measures profitability and shows how well the business is utilizing its capital to generate profit. It is a performance measure used to evaluate the efficiency of an investment. Return on investment is very popular metric because of its simplicity and flexibility. Investment may be in the form of debt and equity. It can be found from the statement of financial position.

LITERATURE REVIEW

Lehn and Makhija (1996) stated that EVA and Market Value Added (MVA) are increasingly being eyed as alternative measures of business performance and strategic development. The study used data from 241 firms for the time slap 1987-96, showed that

EVA and MVA effectively measured the quality of strategic decisions and served as signals of strategic change. They were found to be significantly correlated with stock price performance and inversely related to turnover. Firms having greater focus in their business activities had higher MVA than less focused counterparts.

Kramer and Pushner (1997) tested the hypothesis that EVA is highly correlated with MVA. The study concluded that no clear evidence to support the contention that EVA is the best internal measure of corporate success in adding value to shareholder investments. The study found that there is no clear advantage to shareholders in looking at EVA, as the accounting return on their investment is NOPAT.

Banerjee (1997) has conducted an empirical research to find the superiority of EVA over other traditional financial performance measures. Ten industries have been chosen and each industry is represented by four/five companies. ROI and EVA have been calculated for sample companies and a comparison of both has been undertaken, showing the superiority of EVA over ROI.

KPMG-BS Study (1998) assessed top companies on EVA, sales, PAT (Profit after Tax), and MVA criteria. The survey has used the BS 1000 list of companies using a composite index comprising sales, profitability and compounded annual growth rate of those companies covering the period 1996-97. Sixty companies have been found able to create positive shareholder value whereas 38 companies have been found to destroy it. 24 companies have destroyed shareholder value by reporting negative MVA.

Pattanayak and Mukherjee (1998) discussed that there are traditional methods to measure corporate income or there is also a modern method to measure corporate income. EVA, which is based on economic concept, is professed to be a superior technique to identify whether the organization's NOPAT during a period is covering its WACC (Weighted Average Cost of Capital), thus generating value for its owners. But it is very tricky to calculate EVA. Companies trying to implement EVA are asked to incorporate 164 amendments to their financial accounts.

Anand, et.al. (1999) revealed that EVA, REVA (Refined Economic Value Added) and MVA are better measures of business performance than NOPAT and EPS in terms of shareholders' value creation and competitive advantage of a firm. Since conventional management compensation systems emphasize sales/asset growth at expense of profitability and shareholders' value. Thus, EVA is a measure that shifts focus on an organizational culture of concern for value.

Madhu Malik (2004) examined the relationship between shareholder wealth and certain financial variables like EPS, RNOW and ROCE. By using correlation analysis, it was found that there was positive and high correlation between EVA and RONW, ROCE. There was a positive but low correlation between EVA and EPS. By using co-efficient of determination

(r2), EVA was compared with Traditional performance measures and it was found that not a single traditional performance measure explains to the fullest extent variation in shareholder wealth.

Karam Pal Singh and Mahesh Garg (2004) examined the disclosure of EVA in Indian corporate. The study revealed that out of 50 companies, only 32 companies have generated positive EVA and 18 companies have destroyed their shareholders' wealth in 1998. In 2000, only 29 companies have generated positive EVA. In 2001, only 34 companies have generated positive EVA. And the same trend continued in 2002. The study also found that one – third of total companies are reporting negative EVA throughout the period and another one – third companies are generating positive EVA.

Singh (2005) examined an appropriate way of evaluating bank's performance and also found out which Indian banks have been able to create (or destroy) shareholders' wealth since 1998- 1999 to 2002-2003. This study is based on 28 Indian private and public sector banks that are listed on the Bombay Stock Exchange (BSE). The study suggested that the relationship between EVA and MVA is statistically significant. The study showed impressive performance in terms of EVA by banks such as State Bank of Bikaner and Jaipur, Jammu and Kashmir Bank, Global Trust Bank and Indusind Bank.

Panigrahi (2005) examined how the Economic Value Added (EVA) is superior to Market Value Added (MVA). This has been examined by financial performance of ITC Ltd, which has adopted the EVA as its performance measurement. This study found that by increasing Economic Value Added (EVA), Shareholder Wealth is created and established the fact that the Economic Value Added (EVA) is superior to the Market Value Added (MVA).

Ghanbari and Sarlak (2006) studied economic value added in Indian automobile industry. The objectives of the study are: to compute and analyze Economic Value Added (EVA) of firms in the automobile industry and to identify the EVA trend of the industry the period of the study. The study found that the Economic Value Added (EVA) of only 30 % of the selected companies is positive and 70 % of the selected companies have destroyed their shareholders wealth by negative EVA.

Rakshit (2006) has made a study to find out the relationship between EVA and MVA of five selected multinational companies in Indian pharmaceutical industry over a time span of ten years (1993-94 to 2002-03). The author concludes that there is no relationship between EVA and MVA in almost all sample companies during the study period. A similar study was made by Chattopadhyay and Gupta (2001) to examine the relation between EVA and MC using time series data of Hindustan Liver Ltd. They also found no significant relationship between these two performance matrices.

L Shankari (2007) conducted research study on the EVA in Pharma Industry in India.

He concluded that though computation of EVA is not compulsory for pharma companies they show keen interest in such computation as they believe that it ensures higher accountability for managerial actions. Pharma companies interested in enhancing the shareholders' values should try to weave the concept of EVA into the system. Internationally-known companies like Dr. Reddy's, Nicholas Piramal and JB Chemicals have followed the EVA model and all of them have recorded positive EVAs.

Sanjay Dhamija (2008) conducted study on "EVA® Reporting Practices in the Annual Reports of Indian Companies – A case study of Hindustan Unilever Limited". The total number of companies covered by the survey is 51. Out of 51 companies, 40 are from the private sector and 11 from the public sector. One out of 11 companies in the public sector (9%) and 6 out of 40 companies in the private sector (15%) have used EVA reporting. An increasing number of Indian companies have started reporting EVA in their annual reports on a voluntary basis.

N. Sakthivel and DR. C. Arjunan (2009) conducted study on "Value creation in Indian paper industry: An analysis" The sample size of the present study is '11' paper companies from the Indian paper industry for the period from 1996-97 to 2006-07. This study clearly revealed that there is positive relationship between EVA and MVA in the paper industry. It is concluded that the value creation based on the EVA happened on a year to year basis in respect of companies of the paper industry.

Dr. Anil K. Sharma & Satish Kumar (2010) conducted study on "Economic Value Added (EVA) - Literature Review and Relevant Issues". From the analysis of studies, it is felt that further research is needed on implementation issues, role of accounting adjustments, empirical evidences in developed economies, EVA as a strategy, EVA and discounting techniques like NPV, IRR and managerial performance measurement aspects of EVA. Empirical studies conducted till date on EVA had used data for smaller period whereas there is scope for future research on the concept by considering the data pertaining to longer durations in order to test the validity of the concept. Therefore efforts should be made in this direction to further broaden the horizon of applicability of this useful concept.

Dr. N. Sakthivel (2011) conducted study on "Shareholders' Value in Indian Pharmaceutical Industry: An Empirical Analysis". It is concluded that the companies under pharmaceutical industry has succeeded to meet public expectations in terms of shareholders' value creation through EVA either by increasing operating income from assets in place through reducing cost of production or increasing sales, or reducing the cost of capital by changing the financing mix in capital structure.

OBJECTIVES OF THE STUDY

This topic has been selected for study keeping in view following objectives :

- To know the growth and development of pharmaceutical industry in general.
- To examine the regression model related to ROI and other variables.
- To analyze the trend and growth of shareholders' value in Indian Pharmaceutical Industry in terms of EVA (Economic Value Added), MVA (Market Value Added) and return on investment (ROI) .
- To examine the relationship between EVA, MVA and ROI in comparison to shareholder value.
- To make suggestions based on the proposed research work.

RESEARCH METHODOLOGY :

DATA COLLECTION

The present study is mainly based on secondary data. The researcher has used the data publish in Annual Reports of the selected companies under study. The magazines and journals, relating to pharmaceutical industry have been used. Moreover, various websites relating to pharmaceutical industry has also provided useful information for the study. The surveys and articles published in newspaper, journals, various books, periodicals, relating to the subject have also been used. To analyze the trend and growth of value creation in terms of EVA and MVA in the Indian Pharmaceutical Industry and to analyze the relationship between EVA and MVA, required financial data of sample companies were collected from "**Capitaline Plus**" Database of Capital Market Publishers India (Pvt) Ltd. The collected data has been classified, analyzed and tabulated as per the requirement.

PERIOD OF STUDY

The period of the present research work is 10 year which begin from 2000-01 to 2009-10

UNIVERSE OF THE STUDY & SAMPLE SIZE

The Universe of the study is all the leading 128 Pharma companies which are working in Pharmaceutical Industries of India. Sample size refers to the number of items to be selected from the universe to constitute a sample. This is a major problem to make a research. Researcher has decided to take top ten units for his research purpose. The following top Pharma companies which give picture of pharmaceutical industry have been taken for the study.

1. Ranbaxy laboratories
2. Dr Reddy's Laboratories
3. Cipla Limited
4. Sun Pharma Industries
5. Lupin Labs

6. Aurobindo Pharma
7. Piramal Healthcare Ltd
8. Glaxo Smithkline Pharmaceuticals Limited
9. Cadila Healthcare Limited
10. Wockhardt Limited

Researcher has taken sales/revenue as basic criteria for the selection of sample for this study. Top ten companies have been selected on the basis of their sales figure for the year of 2008.

DATA ANALYSIS

ECONOMIC VALUE ADDED

EVA is an excess profit of a firm after charging cost of capital. EVA essentially seeks to Measure Company's actual rate of return as against the required rate of return. If value creation is a key, then EVA is the answer, and improvement of EVA is the goal.

TABLE-1 ECONOMICAL VALUE ADDED (Rs. IN CR.)

YEAR	Ran Baxy	Dr. Reddy	Cipla	Sun Pharma Labs	Lupin	Auro Bind Pharma	Pira Mal Care	GSK	Cadila Health Care	Wock Health Hardt
2000	176.74	60.15	132.93	47.75	2.04	73.92	45.87	-75.94	33.68	70.23
2001	251.64	144.08	178.88	108.16	55.33	66.84	64.70	-9.24	60.07	100.93
2002	606.16	454.26	234.44	172.24	65.63	66.56	46.40	54.60	60.26	106.55
2003	776.21	387.93	247.03	221.26	71.66	101.04	117.13	98.30	74.99	131.89
2004	509.65	276.85	301.12	-64.41	96.16	121.46	182.59	190.18	139.72	199.34
2005	182.32	62.14	406.58	-1465.38	82.81	34.53	163.84	362.17	128.88	230.50
2006	330.25	204.11	591.10	-1254.15	179.37	67.36	158.43	352.55	158.86	201.50
2007	574.31	1149.31	636.75	-433.60	293.44	221.16	176.24	206.75	191.90	170.58
2008	-1042.35	438.73	667.36	880.09	424.41	269.58	279.73	217.54	220.18	-348.76
2009	570.08	535.13	751.26	1205.18	406.38	122.34	263.55	192.15	259.24	-794.21
Avg.	293.50	371.27	414.75	-58.29	167.72	114.48	149.85	158.91	132.78	6.86
Std	510.60	320.55	227.57	829.86	153.06	74.95	82.78	143.22	75.70	326.32
CV	173.97	86.34	54.87	-1423.78	91.26	65.47	55.24	90.13	57.01	4760.33
Max	776.21	1149.31	751.26	1205.18	424.41	269.58	279.73	362.17	259.24	230.50
Min	-1042.35	60.15	132.93	-1465.38	2.04	34.53	45.87	-75.94	33.68	-794.21

(Source : Compiled Data)

HYPOTHESIS TESTING

EVA (ANOVA test)

Null Hypothesis : There is no significant difference in the value of EVA among the selected pharmaceutical company.

Alternative hypothesis : There is significant difference in the value of EVA among the selected pharmaceutical company.

Level of Significance: 5 percent

Critical value: 1.99

Degree of freedom: 99

TABLE : 2 ANOVA

Source of Variation	SS	df	MS	F	P-value	F crit
Between Groups	1991265.2	9	221251.7	1.74	0.09	1.99
Within Groups	11452934	90	127254.8			
Total	13444199	99				

Single factor ANOVA was applied to find whether there is any significant difference among the EVA in selected pharmaceutical company. The ANOVA result shows that the calculated F-Ratio value is 1.74, which is less than the table value 1.99 at 5% level of significance. Since the calculated value is less than the table value, it is inferred that there is no significant difference in the Economic value added among the selected pharmaceutical company. Hence the null hypothesis is accepted.

RETUNE ON INVESTMENT

Return on investment (ROI) is a measure of the returns that a company is realizing from its capital. It calculates as profit before interest and tax dividend by the difference between total assets and current liabilities. The resulting ratio represents the efficiency with which capital is being utilized to generate revenue.

TABLE – 3 RETUNE ON INVESTMENT (Rs. in Cr.)

YEAR	Ran Baxy	Dr. Reddy	Cipla	Sun Pharma Labs	Lupin	Auro Bind Pharma	Pira Mal Care	GSK	Cadila Health Care	Wock Health Hardt
2000	14.99	16.51	32.83	25.52	12.5	37.31	20.61	23.73	14.04	24.13
2001	17.62	31.5	36.35	33.33	23.02	29	20.57	16.92	12.9	31.55
2002	42.64	42.06	37.95	36.82	16.64	20.08	30.48	33.06	12.78	32.44
2003	45.53	26.44	30.66	40.89	16.05	20.68	34.66	42.72	18.89	26.48
2004	25.57	15.61	31.15	31.71	27.1	16.83	33.68	52.61	21.19	23.19

2005	5.82	2.19	28.96	16.37	12.75	5.54	17.53	50.82	18.37	19.17
2006	11.22	9.24	34.75	16.31	20.86	8.24	20.39	51.16	20.11	19.5
2007	15	35.94	28.28	19.3	19.39	12.25	20.07	50.57	20.95	17.72
2008	0	12.01	22.41	27.01	23.85	13.73	27.25	46.7	20.32	0
2009	14.54	13.55	19.93	27.37	0	7.54	26.86	46.73	19.99	0
Avg	19.29	20.51	30.33	27.46	17.22	17.12	25.21	41.5	17.95	19.42
Std	14.74	12.83	5.75	8.42	7.7	10.06	6.21	12.62	3.38	11.35
CV	76.41	62.55	18.96	30.66	44.72	58.76	24.63	30.41	18.83	58.44
Max	45.53	42.06	37.95	40.89	27.1	37.31	34.66	52.61	21.19	32.44
Min	0	2.19	19.93	16.31	0	5.54	17.53	16.92	12.78	0

(Source : Compiled Data)HYPOTHESIS TESTING

ROI (ANOVA test)

Null Hypothesis: There is no significant difference in the value of ROI among the selected pharmaceutical company.

Alternative hypothesis: There is significant difference in the value of ROI among the selected pharmaceutical company.

Level of Significance: 5 percent

Critical value: 1.99

Degree of freedom: 99

TABLE - 4 ANOVA

Source of Variation	SS	df	MS	F	P-value	F crit
Between Groups	5434.91	9	603.88	6.134	1.07	1.99
Within Groups	8858.59	90	98.43			
Total	14293.49	99				

Single factor ANOVA was applied to find whether there is any significant difference in the value of ROI among the selected pharmaceutical company. The ANOVA result shows that the calculated F-Ratio value is 6.134, which is more than the table value 1.99 at 5% level of significance. Since the calculated value is more than the table value, it is inferred that there is significant difference in the return on investment among the selected pharmaceutical company. Hence the null hypothesis is rejected

ANALYSIS OF RELATIONSHIP BETWEEN EVA AND MVA

H_0: There is no significant relationship between EVA and ROI

H_1: There is significant relationship between EVA and ROI

TABLE : 5 T-Test on EVA and ROI

NAME OF COMPANY	EVA	ROI
Ranbaxy	293.50	19.29
Dr. Reddy	371.27	20.51
Cipla	414.75	30.33
Sun Pharma	-58.29	27.46
Lupin Labs	167.72	17.22
Aurobindo Pharma	114.48	17.12
Piramal Healthcare	149.85	25.21
Gsk	158.91	41.50
Cadila Healthcare	132.78	17.95
Wockhardt	-41.26	19.42
Mean	**170.37**	**23.60**
Variance	**24156.62**	**60.38**
Observations	**10.00**	**10.00**
Pearson Correlation	**0.078**	
df	**9.00**	
t Stat	**2.99**	
t Critical one-tail	**1.83**	

Above table shows the amount of EVA and ROI and their statistical relation. The result of correlation analysis states that there is positive relation between EVA and ROI in pharmaceutical industry.

T-test result shows that the Calculated value of 't' is 2.99, when degree of freedom is 9 and level of significance is 5% and this calculated value is more than the table value i.e. 1.83. Thus, the Null hypothesis will be rejected which states that there is significant relationship between EVA and ROI in pharmaceutical industry.

REGRESSION MODEL

$ROI = \alpha_i + \beta_1 EVA_{i,t} + \beta_2 MVA_{i,t} + \beta_3 DP_{i,t} + \beta_4 EPS_{i,t} + \beta_5 RONW_{i,t} + \beta_6 NOPAT_{i,t} + \beta_7 DER_{i,t} + \beta_8 CR_{i,t} + \beta_9 PER_{i,t} + \beta_{10} ICR_{i\ t} + \beta_{11} PBIDTM_{i\ t} + \beta_{12} FATOR_{i,t} + \beta_{13} ITOR_{i,t} + \beta_{14} DTOR_{i,t} + \beta_{15} DV_{i,t} + \beta_{16} CV_{i,t} + \beta_{17} AUR_{i,t} + \beta_{18} CE_{i,t} + \beta_{19} NW_{i,t} + \beta_{20} MC_{i,t} + \beta_{21} NS_{i,t} + \beta_{22} OI_{i,t} + \beta_{23} EOI_{i,t} + \beta_{24} DOL_{i,t} + \beta_{25} DFL_{i,t} + \beta_{26} NWC_{i,t} + \beta_{27} BV_{i,t} + \beta_{28} TC_{i,t} + \beta_{29} TFC_{i,t} + \bullet_{i,t}$

α is intercept, β_1, and β_2 are regression coefficients, and • is the error.

Where

ROI = Return On Investment (Dependent Variable)

INDEPENDENT VARIABLES

EVA = Economic Value Added

MVA = Market Value Added

DP = Dividend Paid

EPS = Earnings Per Share

RONW = Return on net worth

NOPAT = Net Operating profit after tax

DER = Debt Equity Ratio

CR = Current Ratio

PER = Price Earnings Ratio

ICR = Interest Cover Ratio

PBIDTM = Profit before interest, depreciation and tax margin

FATOR = Fixed Asset Turnover Ratio

ITOR = Inventory Turnover Ratio

DTOR = Debtors Turnover Ratio

DV = Debtors Velocity

CV = Creditors Velocity

AUR = Asset Utilization Ratio

CE = Capital Employed

NW = Net Worth

MC = Market Capitalization

NS = Net Sales

OI = Other Income

EOI = Extraordinary Item

DOL= Degree of Operating Leverage

DFL=Degree of Financial Leverage

NWC = Net Working Capital

BV= Book Value

TC=Transaction Cost

TFC=Transformation Cost

T = Period

Result of Multiple Regressions of 10 Pharmaceutical Companies in India

Table : 6 Calculations of Multiple Regressions

(Dependent Variable: ROI)

Sr. No.	Independent Variables	
	INTERCEPT	14.409 (0.00)
1	EVA	0.855 (0.421)
2	MVA	1.121(0.299)
3	Dividend Paid	0.396 (0.704)
4	EPS	-0.847 (0.425)
5	RONW	2.27* (0.058)
6	NOPAT	1.499 (0.178)
7	DER	-2.254* (0.059)
8	Current Ratio	0.708 (0.502)
9	FATOR	0.262 (0.801)
10	ITOR	-0.83 (0.434)
11	DTOR	0.142 (0.891)
12	DV	-0.292 (0.779)
13	CV	-2.346* (0.051)
14	ICR	5.243**(0.001)
15	AUR	1.365 (0.215)
16	PER	0.896 (0.4)
17	PBIDTM	1.39 (0.207)
18	CE	-0.591 (0.573)
19	NW	0.636 (0.545)
20	MC	1.06 (0.325)

21	NS	0.418 (0.689)
22	OI	0.142 (0.891)
23	EOI	0.231(0.824)
24	DOL	-0.1 (0.923)
25	DFL	-1.079 (0.316)
26	NWC	0.534(0.61)
27	BV	-1.234 (0.257)
28	TC	-0.751 (0.477)
29	TFC	0.275 (0.792)
	R^2	0.775
	Adj.R^2	0.746
	F	27.488**

* indicates significance at 5% level,

** indicates significance at 1% Level

Looking to the empirical results from the above table we can conclude that return on net worth influence return on investment of the firm and significant at 5% level. It means that the relationship between return on investment and retune on net worth was positive (2.270). It was further concluded that return on investment influence by 2.270% by the 1% change in return on net worth. . It means higher return on net worth lead to higher return on investment.

We also find that debt equity ratio of the firm is positively related to ROI and also significant at 5% level in firm's performance. The relationship between return on investment and debt equity ratio was positive (2.254). It means 1% change in debt equity ratio was affected 2.254% in Return on investment. It means high debt equity ratio leads to increase in Return on investment of the firm.

Creditor's velocity of the firm is significant at 5% and negatively correlated to return on investment in financial performance of firm, The relationship between return on investment and creditor's velocity was negative (-2.346). It means 1% change in creditor's velocity was affected by 2.346% in Return on investment. It means company should take care of the vendors and make timely payment to increase return on investment.

Interest coverage ratio is positively (5.243) related with return on investment capacity of the firm. Interest coverage ratio is significant at 1% level. It means that return on investment is influence by 5.243% by the 1% change in interest converge ratio. It can be said that increase in interest coverage ratio will leads to increase in ROI.

In regression analysis results shows that the value of R^2 is 0.775, which shows that the sample regression explain 77.5% of aggregate data. The overall model is also significant with adjusted R^2 value of 0.746. So, it can be concluded that the model applicable to Indian Pharmaceutical industry. So model is fit for study.

The classical finance theory said that firm's shareholders value creation is based on firms earning ability and firms return on its net worth. On the basis of regression research we have proved that the firm's return on investment is highly dependent on economic return on net worth, debt equity ratio, creator's velocity and price earnings ratio.

LIMITATIONS OF THE STUDY

1. This study is based on secondary data which has been taken from published Annual report and financial literature of the pharmaceutical companies in India under study and from published journals and magazines and therefore its findings depend entirely on the accuracy of such data.
2. The present study is related with selected top ten pharma companies and so it will not be proper to make any generalization for universal application.
3. The present study is largely based on accounting techniques and statistical techniques and they have their own limitations which also apply to the study.

CONCLUSION

Though computation of EVA is not compulsory for pharma companies they show keen interest in such computation as they believe that it ensures higher accountability for managerial actions, facilitates them in aligning their performance with that of the shareholders' expectations, helps them in preparation of concrete performance reports, designing of incentive compensation on fair and equitable basis and efficient capital planning. Internationally-known companies like Dr. Reddy's, Nicholas Piramal and JB Chemicals have followed the EVA model and all of them have recorded positive EVAs. JB Chemicals reported an EVA of ' 1,143.41 lakh in its annual report for the financial year 2004-05.

The Indian pharma industry has to capitalize on the giant leaps made in IT and biotechnology. The future of the industry will depend on its ability to diversify its risks, the extent to which it is able to build its marketing network, co-marketing and licensing agreements, its forward and backward integration capabilities and its mergers and acquisitions. Special attention is needed with regard to its investment in R&D. In this industry, the investment made in R&D may/may not yield returns; therefore, the risk is very high which makes the industry to be very conservative in this area. The industry should be willing to take up risk with optimistic approach and that will pay rich dividends in the future.

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IN SEARCH OF PREDICTION MODEL FOR DETERMINATION OF SHAREHOLDERS' WEALTH

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ABSTRACT

Shareholders' wealth has become an important concept among investors in the globalized economy. Investors who have a variety of options will be interested in evaluating the performance of corporate sector in terms of shareholders' wealth before making any investments. Shareholders' wealth is measured in terms of Economic Value-Added (EVA). The purpose of the present research paper is to develop shareholders' wealth prediction model for Indian manufacturing industry so that prospective shareholders can estimate the wealth of a company before making investments. The sample of fifty four companies out of nine sectors of Indian manufacturing Industry has been taken for the present research work. The prediction model for determination of shareholders' wealth has been developed i.e. $Y = -1297.168 + 0.051X_2 + 15.744\ X3_1 + 71.318X_{10}$ through multiple regression statistical technique. In order to examine whether the developed multiple regression model is reliable or not, Z-test for two samples means is administered. The estimated amount of EVA is calculated by applying the own developed multiple regression model. We developed a hypothesis that there is no significant difference between mean values of actual amount of EVA and estimated amount of EVA. Our null hypothesis is accepted because the calculated value of Z (0.011847224) is less than the critical value (1.959963985). It clearly indicates that there is no significant difference between mean value of actual EVA and estimated EVA. The visible difference is only due to sampling fluctuations not due to major reason. Hence, this model can be used to predict the amount of EVA.

Where :

Y = *Economic Value Added*
X_2 = *Market Value Added*
$X3_1$ = *Finished Goods Turnover Ratio*
X_{10} = *Weighted Average Cost of Capital*

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INTRODUCTION

The traditional measures like ROCE, RONW, EPS etc. do not represent the shareholders' wealth because all these measures consider the borrowing cost but ignore the cost of equity. Certain value based performance measures e.g., Cash Flow Return on Investment (CFROI), Cash value added (CVA), Shareholder Value Added (SVA) and Economic Value Added (EVA) have appeared on the scene to measure the corporate financial performance. Out of these, although new performance measures the EVA is most popular as a performance measure and a yardstick of wealth creation yet it is the performance measure most directly linked to the creation of the shareholder wealth over time. Many researchers opined that shareholder wealth can be measured in terms of Economic Value Added. Investors who have a variety of options evaluate the performance of corporate sector based on the returns they provide, before making investments. In the present study, an attempt has been made to develop shareholders' wealth prediction model for Indian manufacturing industry so that prospective shareholders can estimate the wealth of a company before making investments.

REVIEW OF LITERATURE

A lot of research has been conducted regarding measurement of shareholder wealth and empirical studies have been conducted to examine the relationship between accounting variables and market risk. Bennett Stewart a senior partner of Stern Stewart & Co. (2000) suggested that by comparison with EPS, EVA is a far better way to keep score, a more challenging and meaningful goal, a more useful decision guide, and a truly superior metric for determining incentive compensation. Banerjee, A. (1999) concluded that EVA is an important explanatory variable of the shareholder wealth. The study also found the companies, which have started disclosing EVA results in their annual reports to face a direct impact on stock price. In five-year study period, Banerjee and Jain (1999) found that EVA turned out to be the most significant predictor of MVA. Study also reveals that EVA is positively associated with MVA in most of the companies. Along with EVA, some other variables like NOPAT and sales equally explain the MVA of many companies in pharmaceutical industry. Karamn Pal et al. (2004) examined the appearance of EVA in Indian companies; they found negative correlation between WACC and NOPAT and positive correlation between NOPAT and EVA for all five years. Madhu Malik (2004) studied the relationship between shareholder wealth and certain financial variables. EVA, which measure of shareholder wealth, was considered as dependent variable and EPS, ROCE and RONW are considered as independent variables. She found that there is a positive correlation between EVA and RONW and EVA and ROCE while positive and low correlation between EVA and EPS.

OBJECTIVE

✻ To construct a multiple regression model for determining the shareholders' wealth

Hypothesis :

* $H_{0:}$ There is no significant difference between actual mean value and predicted mean value of EVA which is derived from the author's own developed model.

Source of data

For the purpose of the present research paper, secondary data were used. All the financial information required for the study has been collected from Bombay stock exchange website, Annual Reports of respective selected companies and Centre for Monitoring Indian Economy's (CMIE) electronic database 'PROWESS'. The risk-free rates are obtained from RBI's web site.

Period of study

Five financial years pertaining 2003-2004, 2004-2005, 2005-2006, 2006-2007 and 2007-2008 are used for the purpose of present research paper. A study period of five years seems to be appropriate to establish trend in amount of EVA.

Statistical Techniques Used

Statistical techniques like mean, standard deviation, variance, F test, Z test , factor analysis, multiple regression analysis are used.

Sample selection

For present research paper, a sample of **Fifty four** companies has been selected from BSE-A Group on random basis. These selected fifty four companies have been classified into nine sectors of Indian manufacturing Industry. Automobile (7), FMCG (8), oil & gas(3), Power(3), Metal(7), electronics & electrical(9) , textile(4), cement(3) & Pharmaceutical(10).

ANALYSIS AND DISCUSSION OF PROCEDURE ADOPTED FOR MODEL BUILDING

The objective of the present research paper is to construct a multiple regression model for the determination of shareholder wealth in terms of Economic Value Added. In order to determine the Economic Value Added, a regression model has been developed. The following procedure has been adopted to build a multiple regression model for the determination of EVA;

- First of all thirty seven financial variables have been taken from annual reports of sample units. These financial variables are selected on the basis of review of literature and own discretion. Which and how much variables should be selected for the construction of multiple regression model, for this purpose Multivariate technique i.e. factor analysis technique was used. The average of five years of these variables is taken as base.
- Then Principal Component Method of factor analysis technique has been applied on thirty seven financial variables. After applying Varimax rotation with Kaiser

Normalization, rotated component matrix has been identified that is given below. All the calculations have been made on IBM SPSS 19 software. Total nine factors have been calculated by SPSS software. The Eigen value of tenth factor is less than one; hence only nine factors have been considered. The resultant factors with loading are given as under :

Table1: Rotated Component Matrix

Notation	Financial Variables	Factors								
		F_1	F_2	F_3	F_4	F_5	F_6	F_7	F_8	F_9
X_1	EVA	.369	.861	-.237	-.017	-.130	-.040	.048	.063	.028
X_2	MVA	.417	.571	-.030	-.047	-.116	.322	.251	.246	-.157
X3	DIVIDEND Rs Crore	.167	.920	-.212	-.037	-.118	-.087	.039	-.005	.040
X_4	No. of Shares Crore	.317	.361	-.094	-.003	-.139	.143	.055	.612	-.465
X_5	Dividend per Share	.024	.332	-.195	-.201	-.302	-.204	-.087	-.279	.446
X_6	Share Market price	.064	.030	.063	-.034	.001	.135	.187	.053	.757
X_7	NOPAT	.934	.203	-.096	-.041	-.020	.019	.014	.164	-.071
X_8	Invested Capital	.801	.562	-.130	-.011	-.009	-.023	.032	-.046	.025
X_9	Net Worth	.695	.683	-.138	-.016	-.030	-.019	.037	-.051	.054
X_{10}	WACC	-.114	-.099	.946	.021	-.030	.000	-.046	-.023	.065
X_{11}	Beta	-.081	-.152	.946	.022	.005	.081	-.102	-.087	.002
X_{12}	Ke	-.095	-.143	.952	.017	-.011	.080	-.090	-.078	.013
X_{13}	Kd	-.138	.513	.296	.018	-.101	.115	.539	.213	.085
X_{14}	Net Sales	.833	.377	-.034	-.093	.108	-.133	.033	.039	-.010
X_{15}	ROI	-.056	-.093	-.073	-.288	-.542	-.271	.266	-.073	-.041
X_{16}	Gross Fixed Assets	.967	.069	-.048	-.033	.034	-.044	-.013	.072	-.068
X_{17}	Investment	.920	.069	-.086	-.071	.126	.151	.054	-.144	-.047
X_{18}	Inventories	.913	.048	-.019	-.058	.114	-.088	-.023	.242	-.038
X_{19}	Receivables	.909	.008	-.067	.075	.098	-.047	.029	.212	.178
X_{20}	Cash and Bank Balance	.540	-.047	-.230	.060	-.010	-.017	-.014	.709	.101
X_{21}	Total Assets	.985	.057	-.056	-.017	.068	-.015	.005	.097	-.008
X_{22}	Borrowings	.893	.068	-.008	-.001	.195	.025	.105	-.206	-.009
X_{23}	Current Liabilities	.866	.011	-.102	-.002	.086	-.136	.008	.400	.094
X_{24}	Reserves	.975	.071	-.050	-.037	.059	.061	.013	-.028	.000
X_{25}	Quick ratio	-.079	-.051	.044	-.081	-.076	.929	.052	.011	.067

X_{26}	Current ratio	-.078	-.019	.122	-.099	.042	.946	-.055	.024	.003
X_{27}	Capital Gearing ratio	-.005	-.046	-.042	.922	.030	-.109	.065	-.147	-.218
X_{28}	Debt equity ratio	-.004	-.046	-.043	.922	.030	-.109	.065	-.147	-.218
X_{29}	Working capital	.371	.269	-.367	-.014	.055	.416	.122	.442	.185
$X3_0$	R.Material Turnover Ratio	.127	-.129	-.151	-.185	.716	-.174	.162	-.130	-.082
$X3_1$	F. Goods Turnover Ratio	-.104	.371	.011	.002	.436	-.077	.681	-.014	.174
$X3_2$	R. Material Storage Period	0.222	-0.150	-0.167	0.126	0.859	-0.006	0.023	0.008	-0.044
$X3_3$	Finished Storage Period	-0.038	0.065	0.467	-0.025	-0.048	0.136	-0.643	0.323	-0.217
$X3_4$	Debtors holding period	-.072	-0.037	0.129	0.828	0.133	0.054	0.041	0.233	0.291
$X3_5$	Raw material percent sales	0.192	-0.102	0.190	0.099	0.865	-0.010	-0.038	0.024	0.051
$X3_6$	Wages percentage sales	-0.187	0.052	.053	0.692	0.050	-0.077	-0.359	0.350	0.211
$X3_7$	Selling percentage sales	-0.252	-0.023	0.331	-0.012	0.155	-0.105	-0.681	-0.140	-0.009
Eigen values		12.43	4.274	3.404	2.979	2.481	2.266	1.510	1.368	1.272
% of Variance		33.59	11.55	9.2	8.052	6.707	6.125	4.082	3.698	3.438
Cumulative %		33.59	45.14	54.34	62.39	69.105	75.23	79.31	83.00	86.448

1. Out of nine factors eighteen independent financial variables are selected for the purpose of construction of regression model. The following criterions are taken into account for selecting the variables.
   1. Having a factor loading more than 0.9
   2. Those factor's financial variables are also taken into account whose loading is less than 0.9 but having a highest loading in that factor which has not be considered. It is done due to representation of all nine factors because all nine factors' eigen value are more than one.

Table no.2: Selected Financial Variables

S.N.	Factor	Notation	Financial Variables	Loading
1.	F_1	X_{21}	Total Assets	0.985
2.	F_1	X_{24}	Reserve & Surplus	0.975
3.	F_1	X_{16}	Gross Fixed Assets	0.967
4	F_1	X_7	NOPAT	0.934
5.	F_1	X_{17}	Investment	0.920
6	F_1	X_{18}	Inventories	0.913
7.	F_2	X3	Dividend Distributed	0.920
8.	F_2	X_2	Market Value Added	0.571

9.	F_3	X_{12}	Ke	0.952
10	F_3	X_{10}	WACC	0.946
11	F_3	X_{11}	Beta	0.946
12	F_4	X_{28}	Debt Equity Ratio	0.922
13	F_4	X_{27}	Capital Gearing Ratio	0.922
14	F_5	$X3_5$	RM as % of Sales	0.865
15	F_6	X_{26}	Current Ratio	0.946
16	F_7	$X3_1$	Finished Goods Turnover Ratio	0.681
17.	F_8	X_{20}	Cash and Bank Balance	0.709
18	F_9	X_6	Market Price Per Share	0.757

2. For the purpose of construction of multiple regression model seventy two different combinations of eighteen selected independent financial variables have been formed. These combinations have been made by taking one independent financial variable from each factor. These seventy two combinations are given in appendix.

The above seventy two combinations have been tested for the construction of regression model on trial and error basis. The financial variables included in each combination are taken as independent variable and EVA is taken as dependent variable and then seventy two multiple regression models have been developed with the help of IBM SPSS software 18 through stepwise linear regression method. The software automatically selected those independent financial variables which have maximum prediction power of EVA through step wise analysis. In this way seventy two regression models have been developed. In each model only two or three independent variables have been selected out of nine variables in each combination by software.

Now one multiple regression model has to be selected which having a maximum prediction power. According to Hair, BLACK, Babin, Anderson and Tatham we should test the hypothesis that our regression model can represent the population rather than just our sample. For this purpose two statistical test can be applied; a test of the variation explained (coefficient of variation) and a test of regression coefficient. The literature suggests that a regression model may be considered a good model if the following three criteria are satisfied:

1. The Adjusted R^2 should maximum in the model: The adjusted R^2 is the modified measure of the coefficient of determination that takes into account the number of independent variables included in the regression equation and the sample size. The R^2 is always increase on introducing the new independent variable but some time adjusted R^2 is not increased but start to decline. The decline in R^2 indicates an over fitting of the data. The adjusted R^2 not only reflect the over fitting, but

the addition of variables that do not contribute significantly to predictive accuracy. A next variable should be included till the adjusted R^2 is increased.

2. Standard error should minimum.

3. The F value should maximum: To test the hypothesis that the amount of variation explained by the regression model is more than the baseline prediction, the F ratio can be used. Intuitively, if the ratio of the explained variance to the unexplained variance is high, the regression variate must be of significant value in explaining the dependent variable. Using the F distribution, we can make a statistical test to determine whether the ratio is different from zero i.e. statistically significant. In those instances in which it is significantly significant, the researcher can feel confident that the regression model is not specific to just this sample, but would be expected to be significant in multiple samples from this population.

All these three parameters of all possible seventy regression models have been compiled in the following table. A Comparative Study of Seventy two different Combinations of Financial Variables Covered in nine factors having higher loadings is done on SPSS software.

Table 3: Coefficients and Other Information of Different Multiple Regression Models

S.N.	Combination of Financial Variable	Adj.R^2	S.E. of the Estimates	F Value	Variable Selected in Multiple Regression
1	3,6,10,20,21,26,27,31,35	0.321	1624.79319	13.525	31,10
2	3,6,11,20,21,26,27,31,35	0.304	1645.27331	12.560	31,3
3	3,6,12,20,21,26,27,31,35	0.304	1645.27331	12.560	31,3
4	2,6,10,20,21,26,27,31,35	**0.861**	**735.42773**	**110.324**	2,31,10
5	2,6,11,20,21,26,27,31,35	0.854	753.84422	104.195	2,31,11
6	2,6,12,20,21,26,27,31,35	0.855	750.74414	105.195	2,31,12
7	3,6,10,20,21,26,28,31,35	0.321	1624.79319	13.525	31,10
8	3,6,11,20,21,26,28,31,35	0.304	1645.27331	12.560	31,3
9	3,6,12,20,21,26,28,31,35	0.304	1645.27331	12.560	31,3
10	2,6,10,20,21,26,28,31,35	**0.861**	**735.42773**	**110.324**	2,31,10
11	2,6,11,20,21,26,28,31,35	**0.862**	753.84422	104.195	2,31,11
12	2,6,12,20,21,26,28,31,35	0.855	750.7441	105.195	2,31,12
13	3,6,10,20,24,26,27,31,35	0.321	1624.79319	13.525	31,10
14	3,6,11,20,24,26,27,31,35	0.304	1645.27331	12.560	31,3
15	3,6,12,20,24,26,27,31,35	0.304	1645.27331	12.560	31,3

16	2,6,10,20,24,26,27,31,35	**0.861**	**735.42773**	**110.324**	2,31,10
17	2,6,11,20,24,26,27,31,35	0.854	753.84422	104.195	2,31,11
18	2,6,12,20,24,26,27,31,35	0.855	750.74414	105.195	2,31,12
19	3,6,10,20,24,26,28,31,35	0.321	1624.79319	13.525	31,10
20	3,6,11,20,24,26,28,31,35	0.304	1645.27331	12.560	31,3
21	3,6,12,20,24,26,28,31,35	0.304	1645.27331	12.560	31,3
22	2,6,10,20,24,26,28,31,35	**0.861**	**735.42773**	**110.324**	2,31,10
23	2,6,11,20,24,26,28,31,35	0.854	753.84422	104.195	2,31,11
24	2,6,12,20,24,26,28,31,35	0.855	750.74414	105.195	2,31,12
25	3,6,10,20,16,26,27,31,35	0.321	1624.79319	13.525	31,10
26	3,6,11,20,16,26,27,31,35	0.304	1645.27331	12.560	31,3
27	3,6,12,20,16,26,27,31,35	0.304	1645.27331	12.560	31,3
28	2,6,10,20,16,26,27,31,35	**0.861**	**735.42773**	110.324	2,31,10
29	2,6,11,20,16,26,27,31,35	0.854	753.8422	104.195	2,31,11
30	2,6,12,20,16,26,27,31,35	0.855	750.74414	105.195	2,31,12
31	3,6,10,20,26,26,27,31,35	0.321	1624.79319	13.525	31,10
32	3,6,11,20,16,26,28,31,35	0.304	1645.27331	12.560	31,3
33	3,6,12,20,16,26,28,31,35	0.304	1645.27331	12.560	31,3
34	2,6,10,20,16,26,28,31,35	**0.861**	**735.42773**	**110.324**	2,31,10
35	2,6,11,20,16,26,28,31,35	0.854	753.84422	104.195	2,31,11
36	2,6,12,20,16,26,28,31,35	0.855	750.74414	105.195	2,31,12
37	3,6,10,20,17,26,27,31,35	0.321	1624.79319	13.525	31,10
38	3,6,11,20,17,26,27,31,35	0.304	1645.27331	12.560	31,3
39	3,6,12,20,17,26,27,31,35	0.304	1645.27331	12.560	31,3
40	2,6,10,20,17,26,27,31,35	**0.861**	753.42773	**110.324**	2,31,10
41	2,6,11,20,17,26,27,31,35	0.854	753.84422	104.195	2,31,11
42	2,6,12,20,17,26,27,31,35	0.855	750.74414	105.195	2,31,12
43	3,6,10,20,17,26,28,31,35	0.321	1624.79319	13.525	31,10
44	3,6,11,20,17,26,28,31,35	0.304	1645.27331	12.560	31,3
45	3,6,12,20,17,26,28,31,35	0.304	1645.27331	12.560	31,3
46	2,6,10,20,17,26,28,31,35	**0.861**	**735.42773**	**110.324**	2,31,10
47	2,6,11,20,17,26,28,31,35	0.854	753.84422	104.195	2,31,11

48	2,6,12,20,17,26,28,31,35	0.855	750.74414	105.195	2,31,12
49	3,6,10,20,18,26,27,31,35	0.321	1624.79319	13.525	31,10
50	3,6,11,20,18,26,27,31,35	0.304	1645.72331	12.560	31,3
51	3,6,12,20,18,26,27,31,35	0.304	1645.72331	12.560	31,3
52	2,6,10,20,18,26,27,31,35	**0.861**	**735.42773**	**110.324**	2,31,10
53	2,6,10,20,18,26,27,31,35	0.854	753.84422	104.195	2,31,11
54	2,6,12,20,18,26,27,31,35	0.855	750.74414	105.195	2,31,12
55	3,6,10,20,18,26,28,31,35	0.321	1624.79319	13.525	31,10
56	3,6,11,20,18,26,28,31,35	0.304	1645.27331	12.560	31,3
57	3,6,12,20,18,26,28,31,35	0.304	1645.27331	12.560	31,3
58	2,6,10,20,18,26,28,31,35	**0.861**	735.42773	**110.324**	2,31,10
59	2,6,11,20,18,26,28,31,35	0.854	**753.84422**	104.195	2,31,11
60	2,6,12,20,18,26,28,31,35	0.855	750.74414	105.195	2,31,12
61	3,6,10,20,7,26,27,31,35	0.321	1624.79319	13.525	31,10
62	3,6,11,20,7,26,27,31,35	0.304	1645.27331	12.560	31,3
63	3,6,12,20,7,26,27,31,35	0.304	1645.27331	12.560	31,3
64	2,6,10,20,7,26,27,31,35	**0.861**	**735.42773**	**110.324**	2,31,10
65	2,6,11,20,7,26,27,31,35	0.854	753.84422	104.195	2,31,11
66	2,6,12,20,7,26,27,31,35	0.855	750.74414	105.195	2,31,12
67	3,6,10,20,7,26,28,31,35	0.321	1624.79319	13.525	31,10
68	3,6,11,20,7,26,28,31,35	0.304	1645.27331	12.560	31,3
69	3,6,12,20,7,26,28,31,35	0.304	1645.27331	12.560	31,3
70	2,6,10,20,7,26,28,31,35	**0.861**	**735.42773**	**110.324**	2,31,10
71	2,6,11,20,7,26,28,31,35	0.854	753.84422	104.195	2,31,11
72	3,6,11,20,7,26,28,31,35	0.855	750.74414	105.195	2,31,12

➢ On observation of above table it is revealed that combination no.4,10,16,22,34,40,46,52,58,64 and 71 having not only same value of adjusted R^2 , F and standard error of estimate but also fulfillment of our criterion. The R^2 and F value of these models are maximum and standard error of estimate is minimum. One more important point is that all these combinations selected only three variables X_2, $X3_1$ and X_{10} in stepwise method of multiple regression model. All these calculations have been carried on SPPS software.

Multiple Regression Model

$$Y = -1297.168 + 0.051X_2 + 15.744\ X_{31} + 71.318X_{10}$$

Where:

Y = Economic Value Added

X_2 = Market Value Added

X_{X31} = Finished Goods Turnover Ratio

X_{10} = Weighted Average Cost of Capital

Model at a Glance

Table 4 : Coefficients of Developed Regression Model

Model	Unstandardized Coefficients		Standardize Coefficients	't"	Sig
	B	Std. Error	Beta		
Constant	-1297.168	239.555		-5.415	0.000
MVA	0.051	0.004	0.781	14.104	0.000
FGTR	15.744	X3.294	0.263	4.780	0.000
WACC	71.318	24.488	0.152	2.912	0.005

Model	R	R^2	Adjusted R^2	Std. Error of the Estimate
1	0.932	0.869	0.861	735.42773

Testing the Regression model

In order to examine whether the results of developed multiple regression model is reliable or not Z test for two sample mean has been administered. First of all estimated EVA of sample units has been calculated on the basis of developed multiple regression model. Then these results are compared with actual amount of EVA and z test has been used. The resultant figures are given in the following table.

Table 5: Comparison of Actual EVA and Estimated EVA

Sample Units	ACTUAL FIVE YEARS AVERAGE				ESTIMATED EVA
	EVA	MVA	WACC	FGTR TIMES	
	Y	X_2	X_{10}	$X3_1$	BASED ON MODEL
ABB Ltd	12851.84803	146897.4495	17.309653	164.486	10018.75938
ACC Ltd	6367.308416	106476.7126	6.8113214	52.29	5442.167921
Apollo Tyres Ltd	3161.340037	105407.4245	6.3887691	18.09	4819.053846
Ashok Leyland Ltd	2424.803589	83047.0055	9.4506803	14.682	3843.386312
Asian Paints Ltd	1617.199372	64158.426	5.6791724	11.524	2561.3728
Aventis pharma ltd.	1279.929594	47304.4546	14.335134	8.332	2268.891347
Bharat Electronics ltd 1964.65462	1124.11890	44498.8837	3.0712340	49.12	
Bharat Heavy Electricals	1121.035479	41291.9201	1.2153869	29.026	1352.384237
Birla Corporation Ltd.	1061.387697	32573.4952	8.2367331	37.84	1547.260551
Bombay Dyeing & Mfg. c	862.4263701	32443.65148	6.5123056	20.682	1147.520248
Bosch Ltd	678.4158896	30270.7052	8.0514598	18.338	1109.565453
Britania Industries Ltd	600.6383716	25398.2893	8.3343224	37.32	1180.09804
Cadila Health Care Ltd	555.5862924	21126.1432	11.009302	10.446	729.888595
Century Textile & Industr	476.6603523	18843.98446	6.6193496	19.6	444.5363859
cipla Ltd.	433.0487031	17244.26645	19.568508	6.218	1075.772658
Dabur India Ltd.	409.0917089	14947.525	5.0559965	15.628	71.7865666
Dr.Reddy's laboratories	398.1662731	14900.03	11.161140	21.902	603.5488201
Escort Ltd	347.0734713	14596.8817	10.803688	49.756	1001.128907
Finolex Cables Ltd.	302.3183606	13865.0463	3.2662753	8.812	-218.3702838
Gillette India Ltd.	200.0019755	12164.75019	7.5379038	9.59	11.80744338
Glaxo Smith	182.4574574	12092.98091	13.382381	10.928	446.0291214
Godrej Consumer product	160.0570493	11637.8925	6.278786	0	-255.845004
Grasim Industries Ltd.	154.2656318	10442.0275	5.2499792	31.39	103.9975854
Gujarat Gas Co. Ltd.	147.3540092	9027.46224	6.6761755	0	-360.6359395

H M T Ltd.	139.5026114	8394.26468	7.695917	24.86	71.19279367
HCL TECNOLOGICAL	119.4540408	8181.2794	5.9601584	0	-454.8561735
Hero Honda Motors Ltd.	119.3267532	8180.6859	3.4606577	131.076	1430.514715
Hindalco Industries Ltd.	109.4020923	8154.42134	2.8763305	52.516	150.653533
Hindustan Petroleum Cor	97.38652148	7410.336	12.373424	14.798	196.1867056
Hindustan Zinc Ltd.	96.69644954	6632.34504	9.1911320	6.504	-201.0262726
India Cements Ltd.	87.53733695	6200.37424	8.1792446	73.328	756.8544905
ITC Ltd	87.49970313	6026.017	4.2903933	7.716	-562.3781588
Jindal Steel Power Ltd	76.9579977	5561.8546	7.9482957	20.848	-118.4259463
Mahindra & Mahindra	64.18374071	5285.174	3.8106598	17.734	-476.6513917
Maruti Suzuki India Ltd.	61.96293871	4993.19055	6.2651149	41.094	51.28412055
Mirc Electronics	59.58278028	4425.9879	7.3708183	13.862	-327.5272678
Nestle India Ltd	50.27631474	3019.70304	5.2222529	16.206	-515.5752485
National Aluminum ltd	49.70519554	2990.33486	0.2848378	32.198	-617.4215419
Nirma	43.11747994	2882.27356	10.586883	30.4	83.48087798
Novartis	35.78422471	2550.67301	16.780608	7.018	140.1671353
NTPC	31.51031477	2414.6344	7.8701080	0	-612.7412788
Oil & Natural gas Corpor	25.80860388	2230.6144	2.1146681	101.626	567.4069803
Pfizer ltd.	22.13727559	2148.63186	14.365410	8.252	-33.1559682
Piramal Health Care Ltd	21.16186607	1929.6292	16.265778	9.83	116.0493919
Ranbaxy Laboratories	17.90813489	1690.14544	12.583620	9.844	-158.5480175
Reliance Industries Ltd	12.11962736	1513.37368	5.1442104	23.96	-475.8848999
Reymond Ltd.	8.838239436	1354.46114	7.9011083	7.784	-542.0479419
Siemens Ltd	2.53708624	1095.46073	12.612325	40.788	300.3525746
Steel authority of India ltd	0.650851371	1092.20508	6.8433676	9.048	-610.9585345
Sterlite Industries Ltd.	-20.41978009	979.29152	6.6323261	109.794	954.37684
Sun Pharma	-34.85486234	822.57724	11.190581	16.39	-199.082533
Tata Motors	-42.41466735	49.9426	6.8580957	22.04	-458.5174926
Tata power co. Ltd.	-127.7722814	0.72363	5.8151133	0	-882.4088408
Tata Steel ltd.	-230.2670674	-193.50575	4.2247224	12.274	-812.4961839

AVERAGE	**701.8861584**				**697.5477051**
S.D	**1971.734218**				**1831.33719**
VARIANCE	**3887735.825**				**3353795.902**

Z Test : For Test of Significance of Two Mean Values

In order to test whether the mean value of actual computed EVA and mean value of EVA derived by applying our own developed multiple regression model is significant or not, Z test has been administered. The values are derived from Microsoft Excle software. The resultant values are given below:

Table 6: The Results of Z Test

Particulars	*Actual EVA*	*Predicted EVA*
Mean	701.8861584	697.5477051
Known Variance	3887735.83	3353795.9
Observations	54	54
Hypothesized Mean Difference	0	
Z		**0.011847224**
P(Z<=z) two-tail		0.990547504
z Critical two-tail		**1.959963985**

The actual amount of EVA and estimated amount of EVA are given in above table no. 18. The estimated amount of EVA is calculated by applying the multiple regression model i.e. $Y = -1297.168 + 0.051X_2 + 15.744\ X3_1 + 71.318X_{10}$. We developed a hypothesis that there is no significant difference between mean values of actual amount of EVA and estimated amount of EVA. i.e. actual mean value of EVA = estimated value of EVA. Our null hypothesis is accepted because the calculated value of Z (**0.011847224)** is less than the critical value (**1.959963985). It clearly indicates that there is no significant difference between mean value of actual EVA and estimated EVA. The visible difference is only due to sampling fluctuations not due to major reason. This model can be used to predict the amount of EVA.**

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APPENDIX

Table 1 : Combinations of Independent Variable On the Basis of Factors

1	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**	**14**	**15**
X3	X3	X3	X2	X2	X2	X3	X3	X3	X2	X2	X2	X3	X3	X3
X6	X6	X6	X6	X6	X6	X6	X6	X6	X6	X6	X6	X6	X6	X6
X10	X11	X12	X10	X11	X12	X10	X11	X12	X10	X11	X12	X10	X11	X12
X20	X20	X20	X20	X20	X20	X20	X20	X20	X20	X20	X20	X20	X20	X20
X21	X21	X21	X21	X21	X21	X21	X21	X21	X21	X21	X21	X24	X24	X24
X26	X26	X26	X26	X26	X26	X26	X26	X26	X26	X26	X26	X26	X26	X26
X27	X27	X27	X27	X27	X27	X28	X28	X28	X28	X28	X28	X27	X27	X27
X31	X31	X31	X31	X31	X31	X31	X31	X31	X31	X31	X31	X31	X31	X31
X35	X35	X35	X35	X35	X35	X35	X35	X35	X35	X35	X35	X35	X35	X35
16	**17**	**18**	**19**	**20**	**21**	**22**	**23**	**24**	**25**	**26**	**27**	**28**	**29**	**30**
X2	X2	X2	X3	X3	X3	X2	X2	X2	X3	X3	X3	X2	X2	X2
X6	X6	X6	X6	X6	X6	X6	X6	X6	X6	X6	X6	X6	X6	X6
X10	X11	X12	X10	X11	X12	X10	X11	X12	X10	X11	X12	X10	X11	X12
X20	X20	X20	X20	X20	X20	X20	X20	X20	X20	X20	X20	X20	X20	X20
X24	X24	X24	X24	X24	X24	X24	X24	X24	X16	X16	X16	X16	X16	X16
X26	X26	X26	X26	X26	X26	X26	X26	X26	X26	X26	X26	X26	X26	X26
X27	X27	X27	X28	X28	X28	X28	X28	X28	X27	X27	X27	X27	X27	X27
X31	X31	X31	X31	X31	X31	X31	X31	X31	X31	X31	X31	X31	X31	X31
X35	X35	X35	X35	X35	X35	X35	X35	X35	X35	X35	X35	X35	X35	X35

31	**32**	**33**	**34**	**35**	**36**	**37**	**38**	**39**	**40**	**41**	**42**	**43**	**44**	**45**
X3	X3	X3	X2	X2	X2	X3	X3	X3	X2	X2	X2	X3	X3	X3
X6	X6	X6	X6	X6	X6	X6	X6	X6	X6	X6	X6	X6	X6	6
X10	X11	X12	X10	X11	X12	X10	X11	X12	X10	X11	X12	X10	X11	X12
X20	X20	X20	X20	X20	X20	X20	X20	X20	X20	X20	X20	X20	X20	X20
X16	X16	X16	X16	X16	X16	X17	X17	X17	X17	X17	X17	X17	X17	X17
X26	X26	X26	X26	X26	X26	X26	X26	X26	X26	X26	X26	X26	X26	X26
X28	X28	X28	X28	X28	X28	X27	X27	X27	X27	X27	X27	X28	X28	X28
X31	X31	X31	X31	X31	X31	X31	X31	X31	X31	X31	X31	X31	X31	X31
X35	X35	X35	X35	X35	X35	X35	X35	X35	X35	X35	X35	X35	X35	X35
46	**47**	**48**	**49**	**50**	**51**	**52**	**53**	**54**	**55**	**56**	**57**	**58**	**59**	**60**
X2	X2	X2	X3	X3	X3	X2	X2	X2	X3	X3	X3	X2	X2	X2
X6	X6	X6	X6	X6	X6	X6	X6	X6	X6	X6	X6	X6	X6	X6
X10	X11	X12	X10	X11	X12	X10	X11	X12	X10	X11	X12	X10	X11	X12
X20	X20	X20	X20	X20	X20	X20	X20	X20	X20	X20	X20	X20	X20	X20
X17	X17	X17	X18	X18	X18	X18	X18	X18	X18	X18	X18	X18	X18	X18
X26	X26	X26	X26	X26	X26	X26	X26	X26	X26	X26	X26	X26	X26	X26
X28	X28	X28	X27	X27	X27	X27	X27	X27	X28	X28	X28	X28	X28	X28
X31	X31	X31	X31	X31	X31	X31	X31	X31	X31	X31	X31	X31	X31	X31
X35	X35	X35	X35	X35	X35	X35	X35	X35	X35	X35	X35	X35	X35	X35

61	**62**	**63**	**64**	**65**	**66**	**67**	**68**	**69**	**70**	**71**	**72**
X_3	X_3	X_3	X2	X2	X2	X3	X3	X3	X2	X2	X2
X6	X6	X6	X6	X6	X6	X6	X6	X6	X6	X6	X6
X7	X7	X7	X7	X7	X7	X7	X7	X7	X7	X7	X7
X10	X11	X12	X10	X11	X12	X10	X11	X12	X10	X11	X12
X20	X20	X20	X20	X20	X20	X20	X20	X20	X20	X20	X20
X26	X26	X26	X26	X26	X26	X26	X26	X26	X26	X26	X26
X27	X27	X27	X27	X27	X27	X28	X28	X28	X28	X28	X28
X31	X31	X31	X31	X31	X31	X31	X31	X31	X31	X31	X31
X35	X35	X35	X35	X35	X35	X35	X35	X35	X35	X35	X35

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CONTROLLING MANUFACTURING COST OF A PRODUCT BY STATISTICAL COST CONTROL (SCC) TECHNIQUE

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ABSTRACT :

Manufacturing cost of a product produced under the system of Job type production, Batch production, Mass and flow production or Process production or any other system is always vulnerable to changes, mostly developing trends of rise of cost. This change of cost is whatsoever be in nature, is acceptable up to some limits of fluctuations in rise upon the standard cost line. Once this standard line is crossed, these changes need to be monitored and controlled so that beyond that level rise in cost of production is not entertained. Some allowable limits over the standard cost line is allowed and deviation is required to be restricted between the limits – upper and lower. It is not allowed to go beyond the limits. The pattern of this deviation is regularly required to be observed and maintained under allowable limits.

The statistically established methods, subsequent to implementation, are subjective of identification of deviations. By this method much before an unusual and unacceptable rejection of a total lot, the cause of rejection of the lot is established and care is thereof taken so that causes of rejection is minimized avoiding risk factors contributing to rise of costs and situation is brought under control because a big lot is produced avoiding unacceptable high cost of production.

KEY WORDS :

Standard cost, statistical methods, allowable limit, risk factor.

1.0 INTRODUCTION :

In the process of manufacturing or broadly generating a product or service three elements of costs are predominant in nature – i) Direct material ii) Direct labor and iii) Overhead expenses. Also under these broad categories there are different other sub-categories. Because of several situations beyond control or environmental conditions the

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trend of contributions of components like material, labor or overhead upon product manufacturing cost change, the change may become the cause of rise of production cost of product marginal or significant. This need to be monitored regularly so that the tendency of rise of product cost can be identified at the beginning and pattern of rise can be identified. If necessary the pattern of steep rise of production cost need to be established in form of graph etc.

This, if done, will help analyzing the reason of product price rise etc. and can be used to reorient the price curve to its previous position before a big lot of product roles out of production system with a high cost of production resulting a very narrow margin of profit, if it at all exists, with existing selling price or rise in selling price of product, may it be at the cost of loosing market.

2.0 COMPONENTS OF COSTS AND ITS VARIABILITY IN CONTRIBUTION UPON PRODUCT MANUFACTURING COST:

2.1 Material Cost : Materials used for manufacturing a product may be i) raw material, ii) sub-assembly material which the product manufacturing organization do not make but directly buy from other sources like ancillaries etc and directly use for making the product ii) different spares purchased from the market iv) coolant, lubricant etc. v) electricity, fuel etc. which are used as sources of energy.

Because of different reasons like large increase in demand, scarcity and unavailability, non-availability of suitable quality of material, rise in price because of manufacturer's discretion or government policy or introduction of new taxes etc. by government, the price of material used for a product and consequently material cost may be increased.

2.2 Labor Cost : Labor cost is another is another component of cost which contributes to the cost of production of a product. The labor cost is subjected to change because of several reasons-i) seasonal unavailability of labor, ii) requirement of labor with some specific skill and experience which is scarce in nature, iii) additional requirement of labor because of some exigencies like sudden rise in demand of product when situation forces to give higher payment like overtime etc. to labors, iv) rise in salary etc. of people involved in production. These all are causes of rise of price of product.

2.3 Overhead Cost : Like material cost and labor cost overhead cost, both variable overhead and fixed overhead, are subjected to change. There are several factors in an organization – i)some are linked with internal environment and ii)some are with external environment which are causes of rise of overhead cost.

All these three factors are prime components of product manufacturing cost. Under ideal conditions of national economy the production cost of a product is not supposed to remain unchanged. Elements of cost are commodities of open market of a country and consequently are subjected to price rise, but this rise in price follows a reasonable rate of

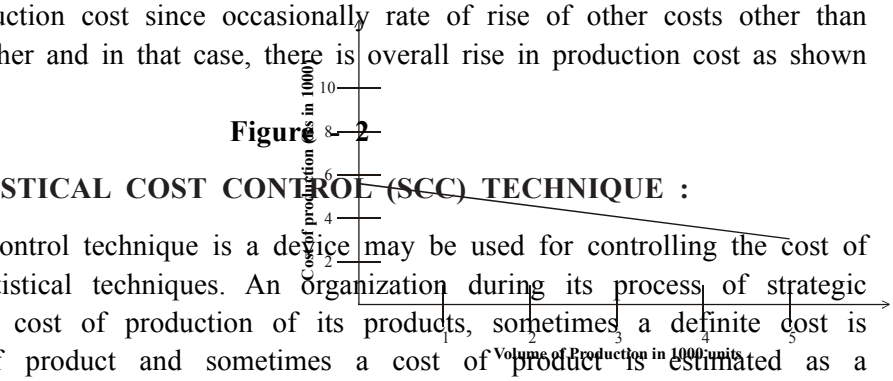
change. Because of the cumulative effect of these components accordingly product manufacturing price is also subjected to a corresponding change. This trend of change of rate may be shown as in Figure - I below :

Figure - I

The cumulative increase in volume of production reduces per unit fixed overhead cost and the adverse effect of rise in production cost because rise in other cost are overcome thereof under normal situation.

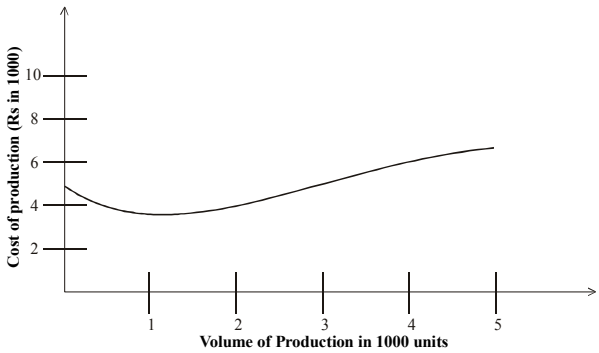
However, sometime reduction in per unit fixed overhead is not sufficient to check upward rise of production cost since occasionally rate of rise of other costs other than fixed overhead is higher and in that case, there is overall rise in production cost as shown in figure – 2.

Figure - 2



3.0 USE OF STATISTICAL COST CONTROL (SCC) TECHNIQUE :

Statistical cost control technique is a device may be used for controlling the cost of a product using statistical techniques. An organization during its process of strategic decision decides the cost of production of its products, sometimes a definite cost is assumed as cost of product and sometimes a cost of product is estimated as a percentage of prices of product. This cost is called standard cost. During the process of



manufacture, it is not always possible to restrict the cost of production in the standard cost line. Accordingly some deviation 'σ' is allowed as standard deviation in cost which is under scope of manufacturing processes and practices to accommodate. This deviation in production cost against the standard production cost is noted along the volume of production in the production process keeping it uninterrupted noting the pattern of deviation. This is plotted in the form of a graph as the standard chart drawn as shown in Figure – 3.

Figure – 3

It is important to know how cost of out-run varied beyond limit. It involves the consideration of the theoretical distribution under a normal curve. It is assumed that 99.75 percent of the items would lie between $\overline{X}$ and 3σ on either side of mean as shown in

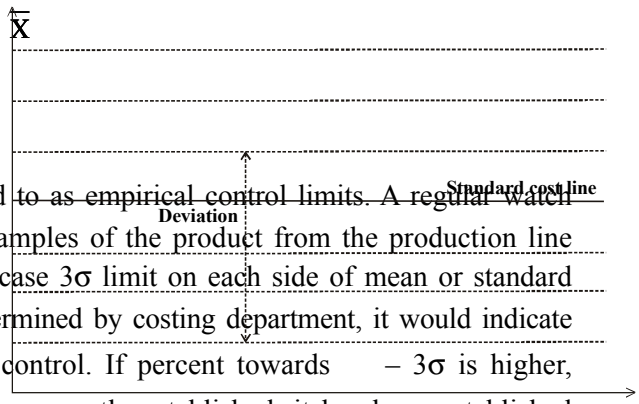
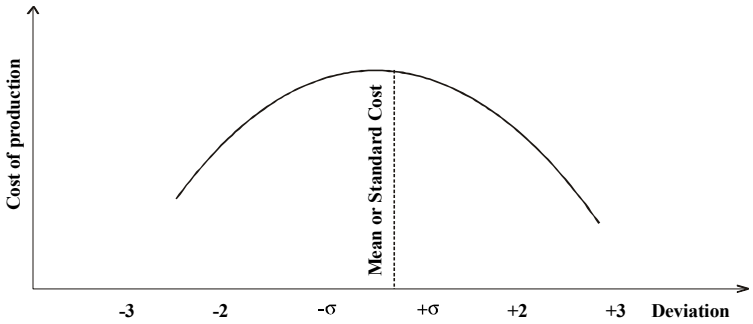


Figure – 4.

Thus ± 3σ gives limits, which referred to as empirical control limits. A regular watch on the process would be kept by taking out samples of the product from the production line occasionally and finding out standard cost. In case 3σ limit on each side of mean or standard cost is beyond the limit of variation predetermined by costing department, it would indicate that the cost of the product has gone out of control. If percent towards – 3σ is higher, it shows that or standard cost has not been correctly established, it has been established on higher rate. There is scope of revising on lower estimates of the production cost of product.

However, if the limit ± 3σ is crossed at the higher extent then it may be assumed that process has gone out of control and some measures like technological change, adoption of higher lot size which will reduce overhead cost of individual item, outsourcing or any other measure need to be taken so that before the whole process of production go out of control resulting cost of production beyond expected norm, it can be rescheduled to previously established norm.

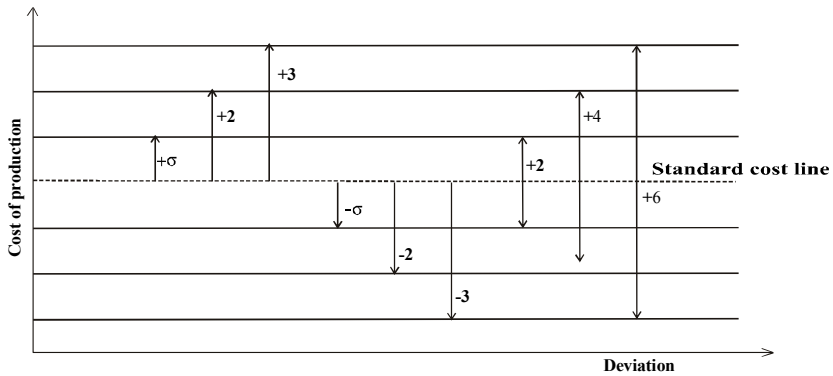


In case of an efficient SCC system, the fault may be found out soon, causes of variation of cost may be investigated and identified. This would be known as assignable cause. If variations are nominal these are attributed to chance factors and do not call for any action.

4.0 CONTROL CHART

Control Chart can be drawn to state the graphical representation of the status of the product under process of production with respect to cost of production or production costing done from the information generated from collected cost related data. Control chart shows the steady pattern of deviation from the cost criterion. Figure -5 shows the layout of a standard control chart :

Figure – 5



Once a set of control limits are incorporated in the graph, which shows an upper limit and lower limit, it becomes a control chart.

Assuming that to avoid rejection because of higher cost of production of products, the cost of product of 99.73% of items would be reasonably between $\overline{X}$ and 3σ of mean as shown in Figure–3, the limits can be 1σ, 2σ or 3σ depending upon whether confidence level is 68.66%, 84.25% or 99.75%.

Normally 3σ limits are taken for plotting control charts and (3σ + 3σ) i.e. 6σ becoming spread in such cases is known as "basic spread".

5.0 OBSERVATION :

(i) At the beginning of the process of manufacturing a product in most of the cases the cost of the product is seen to be close to the standard cost line. It is because it is possible to identify the existing or present cost parameters more accurately and because of this designed or estimated cost and actual cost are very close to each other. This is shown by the position of the cost curve in Figure–6 as below :

The cost curve is close to standard cost line in beginning. If the situation is not like this and actual cost line is not close to standard cost line, it can be assumed that assumptions for establishing the standard cost or the parameters taken for establishing the standard cost were not reasonable and realistic.

(ii) Under normal situation it is observed that in course of time deviation in production cost come up from standard cost line towards $+\sigma$, $+2\sigma$, and finally to $+3\sigma$. Once these deviations start taking up, the reasons need to be identified. In course of time since beginning of process of manufacturing of a product the basic factors upon which standard cost had been established, become subjected to change towards higher value like rise in raw material cost, rise in labor cost etc.

This initiates re establishing the standard cost line and revising the situation since it is normal phenomena that in course of time there will be reasonable rise in cost of production. This rise needs to be justified and optimized. The Statistical Cost Control (SCC) system helps to monitor this system.

(iii) If the deviation become downward, like $-\sigma$, x -2σ, -3σ situation need to be identified also. Occasionally there can be reduction in cost because of adoption of new technology, fall in price of raw material, fall in labor cost (when demand of labor is less than its supply or lower skilled manpower can manage the job working in less skill requiring machines in case of automation etc.). The curve is shown by broken line in Figure 6 as above. In such case the standard cost line needs to be re established.

The Statistical Cost Control (SCC) system help evaluating and identifying the different situations related with cost of manufacture of the product developed in the process of manufacture.

6.0 CONCLUSION :

The control chart method statistically show the trend of cost of production of product, if sample costs are collected regularly and plotted in control chart. Once deviation from standard cost lines stars developing effort can be made for remedial measure so that production cost can be reinstated into pre-established norm, otherwise

Figure –

the production cost will remain steadily rising unnoticed and remain without any effort being put for its reinstatement in earlier established standard without trying for remedial method.

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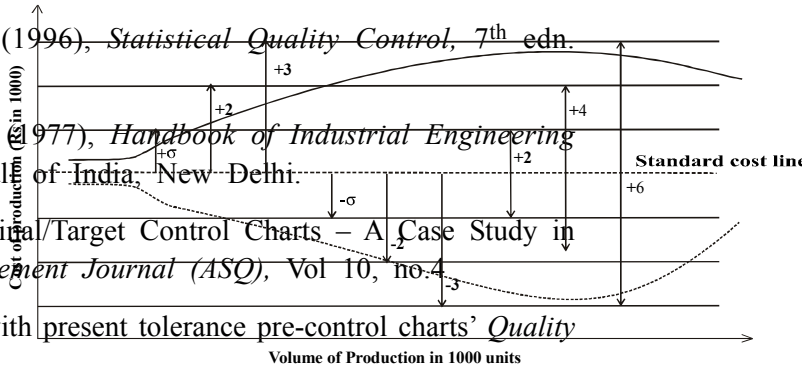

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STRATEGIC HRM-AN IMPACT OF ORGANIZATIONAL CAPABILITIES ON COMMUNITY PERFORMANCE – AN EMPIRICAL STUDY

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Mrs. Lakshmi T **

ABSTRACT :

The role of Human Resources function in firms has changed in parallel with the economic shift from agrarian to manufacturing to services and now to information. Thus if one views HR's primary role as influencing work-force mindset, competences and behaviour, HR's role becomes central to the firm for it is the people who carry out its strategy. Research has demonstrated that, HR does have a significant impact on the bottom line. Becker, Huselid and their colleagues found that, investment in HR practices impact business performance favourably. Most of the work on HRM and performance as been undertaken in the US and recently in the UK. Ashok Som (2008) finds the positive effect of innovative HRM practices on corporate performance before and after economic liberalization in India. There are similar studies in other parts of the globe like China and Pacific Rim. Becker and Huselid (2006) have raised important question: 'what is the black box linking business strategy and business performance. The answer according to Dave Ulrich is organizational capabilities. The focus of this paper is HR strategy as manifest by organizational capabilities. The corporate performance measurement has taken many forms in previous studies. Balanced score card is one of the recent measures that is making headlines. The present study draws on only one of the components of the balanced scorecard viz., Community Performance. Thus the focus of this study is the effect of organizational capabilities on Community-related Performance. It is based on a survey of 44 companies in Mumbai and Bangalore.

KEYWORDS :

HR strategy, Integration (linkage), Community Performance Organizational Capabilities, Balanced Scorecard, Mumbai.

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INTRODUCTION :

The role of Human Resources Function in firms has changed in parallel with the economic shift from agrarian to manufacturing to services and now to information. One factor in changing HR's role is increased reliance on knowledge workers. In this transitioning economy, observers view a firm's workforce as far more valuable. Thus if one views HR's primary role as influencing workforce mindset, competencies and behaviour, HR's role becomes central to the firms, for it is the people who carryout its strategy.

In the 1980s studies which examined the relationship between investments in HR and business performance came up some what empty. Firms that invested more in HR were not more successful.

The scenario changed in nineties, Yeung and Ulrich (1990) found that under conditions of low environmental change, HR investments did not affect business performance, but under conditions of high environmental change HR investments had a positive impact on business performance. So for the companies where the external world was predictable and constant, investment in HR did not matter that much while companies facing uncertainty and change would be well served to invest heavily in HR practices. Jackson and Schuler (1995) found that alignment of HR practices with strategy had a positive impact on business performance.

Firms with extra-ordinary increases in market value seem to invest in high performing work practices (Pfeffer, 1994, 1998). Pfeffer attributes extra-ordinary gains in market value to high performing HR practices in staffing, decision making, governance and compensation. Ulrich, Zenger and Small wood (1999) found that firms in the same industry who have similar balance sheet and financial results may have different market values. A higher perceived quality of management, derived from quality HR practices would result in higher market value.

Collectively these studies and perspectives suggest that investments in HR can and do impact business performance.

REVIEW OF LITERATURE :

Becker B.E and Huselid (2006) raise an important question : Strategic Human Resources – where do we go from here? The authors focus on a clearer articulation of the black box between HR and firm performance. Taking the above lead, we have some studies. Ashok Som (2008) studied with a sample of 69 firms, the effect of innovative HRM practices i.e., innovative recruitment practices, innovative retraining and redeployment, innovative performance appraisal practices and innovative compensation and reward practices on corporate performance. The corporate performance is measured by productivity,

operating efficiency, growth rate, financial strength, market share and profitability. The study compares the HR practices in year 2002 with those 5 years earlier and finds its positive effect on the corporate performance, since it describes the situation in the context of economic liberalization in India.

Law K S, D K TSe and N. Zhou (2003) conduct a similar study in the transitional economy of China. Their focus is role of Human Resources Management and perception among employees about the top management. The dependent variables are return on equity and productivity. The study establishes that HRM plays an important role in firms' financial and operational performance.

Huselid's (1995) study of the relationship between HR practices and corporate performance serves as probably the seminal and definitely most cited work in this area. He found high-involvement HRM practices to be strongly and positively linked to various measures of organizational performance, including work attachment, firm financial performance and productivity. In another study Delaney and Huselid (1996) found that practices consistent with a high involvement HRM strategy such as highly selective staffing, incentive compensation, and training were positively linked to organizational performance.

Katou and Budhwar (2006) in their study of 178 Greek manufacturing firms found support with the universalistic model and reported that HRM Policies of recruitment, training, promotion, incentives, benefits, involvement and health and safety are positively related to organizational performance. Follow up empirical works have shown reasonably strong, positive relationships between the extent of firm's adopting high involvement HRM strategies and Organizational Performance. MacDuffe (1995), Delery and Doty (1996), Youndt, Snell, Dean and Lepak (1996), Huselid, Jackson and Schuler (1997), Ichniowsk; et al (1997), Chadwick and Cappelli (1998) Green, Wu, Whitten and Medlin (2006) reported that vertically aligned and horizontally integrated HR function and practices performed better and produced more committed and satisfied HR function employees who exhibited improved individual and organizational performance.

Most of the work on HRM and performance has been undertaken in the US and recently in the last decade in UK. The question which arises, though, is whether US and UK-oriented models, however appropriate they might be for the US, hold in other contexts (see debate in special issue of the International Journal of Human Resource Management 12, 7, 2001). Numerous researchers outside the US have built upon this foundation over the past few years to add to this literature. Harel and Tzafrir (1999) found that among public and private organizations within Israel, HR practices were related to perceived organizational and market performance.

Bae, Chen, Wan, Lawler and Walumba (2003) in their study of HR strategy in Pacific Rim countries found that in general, the effect of high-performance work systems worked effectively, though under tremendously variable conditions. Morishima (1998) found support for the contingency perspective in a sample of Japanese companies. Firms with well-integrated high-involvement work practices and firms with well-integrated practices consistent with more traditional Japanese employment strategies both did better than firms with poorly integrated practices. A study by Ngo, Turban, Lau and Lui (1998) investigated certain work practices (training and compensation techniques) with high involvement characteristics and found they tended to increase organizational performance in Hong Kong companies.

A considerable amount of interest has since gained ground on understanding the link between HRM and performance in the Indian context (Budhwar and Sparrow 1997; Amba-Rao et al. 2000; Singh 2003; Paul and Anantharaman 2003; Budhwar and Boyne 2004). With a relatively large questionnaire survey of 137 companies, Budhwar and Sparrow (1997) analyzed the levels of integration of human resource management in the corporate strategy and development of responsibility for HRM to line management in India. Singh. K (2003) from his survey of 84 companies found a significant relationship between strategic HR orientation index and firm performance.

Amba-Rao et al. (2000) in his empirical study compared performance appraisal practices and management values in India among foreign and domestic firms in India. They found that managers have to adapt selectively to firms depending on the basis of a firms ownership structure. Paul and Anantharaman (2003) in their study of 35 Indian software companies determined, developed and tested a causal model linking HRM with organizational performance, through an intervening process. They observed that no single HRM practice has direct causal connection with organizational financial performance, though HRM practices have an indirect influence on the operational and financial performance of the organization. In their comparative study of 137 large manufacturing firms, Budhwar and Boyne (2004) differentiate the HR practices in public sector and private sector companies in India. Their findings suggest that against the established notion, the gap between the Indian private and public sector HRM practices (structure of HR department, role of HR in corporate change, recruitment and selection, pay and benefits, training and development, employee relations and key HRM strategies) is not very significant but in a few functional areas (compensation, training and development), private-sector firms have adopted a more rational approach than their public sector counterparts.

CONCEPTUAL BASIS FOR THE STUDY :

This research takes the lead from Becker and Huselid (2006), the authors pose the research question what is the link between strategy, HR and business performance. Ulrich D finds an answer to the black box between HR and firm performance and that answer is organizational capabilities. According to Ulrich D organizational capabilities enable a company to successfully implement strategy.

A 'capability' view of organization is a bridge between HR investments and business performance.

In the field of Strategic Management work was traditionally divided into two parts – strategy formulation and strategy implementation. Strategy work has tried to find the middle ground between strategy and action, other disciplines have also attempted to define this middle ground between strategy and action.

Organizational capabilities offer a way of thinking about the missing link between strategy and action (Ulrich and Lake 1990, Ulrich 1998). McKinsey and Co., define organizational capabilities as anything an organization does well that drives meaningful business results. In a global survey McKinsey and Co found that 58% of the companies are striving to develop their organizational capabilities.

In what follows, we present a list of organizational capabilities, identified by Dave Ulrich.

HR OPERATING EFFICIENCY :

A basic tenet of HR capability is to make sure that HR practices occur more efficiently. Better, faster, and cheaper HR practices mean that the organization has the capacity to do better HR work at a lower cost.

HUMAN (INTELLECTUAL) CAPITAL :

Recent work on intellectual (Saint-onge, 1996; Stewart, 1997) shows that the workforce within a firm becomes a critical predictor of overall firm success. At a broad level, intellectual capital represents the collective knowledge, skills, and abilities of all employees within a firm.

LEADERSHIP DEPTH :

Companies with leadership bench have the ability to continue to adapt and change with new business conditions. Johnson and Johnson has invested heavily in building the next generation of leaders through formal training programs and stretch job assignments. These investments build leaders who have the capacity to make bold and difficult decisions and to shape an organization for the future (Collins and Porras, 1995).

LEARNING :

In recent years, learning organizations have been identified as central to a firm's success (Wick, 1993). Organizations that learn seem to have the capacity to reinvent themselves, to manage knowledge, and to adjust to changing competitive conditions (Senge, 1990). Yeung, Ulrich, Nason, and Von Glinow (1998) found that learning organizations had the capacity to both generate and generalize ideas with impact.

CHANGE :

In a world where the pace of change is faster than ever, organizations that win will develop the capacity to adapt and adjust quicker than competitors. Organizations that change quicker have the capacity to anticipate rather than react, to enter new markets before competitors, and to transform new cultures for new work requirements. 3-Com continually works to reinvent itself, to identify new markets, and move quickly into those markets.

SHARED MINDSET :

Shared mindset, or common culture, represents the extent to which employees have a common focus or agenda (Ulrich and Lake, 1990). When a shared mindset exists, employees have a common focus and commitment to how to work to meet goals.

STRATEGIC CLARITY :

If a test with a single question were given to a random set of employees to identify a firm's probability of success, a marvelous question would be: "What is the strategy of this business which sets us a apart from competitors and helps us win with customers?" When employees have common answer to this question, strategic clarity exists.

ACCOUNTABILITY :

Many firms make promises… to investors, customers, and employees. Firms that meet those promises are more likely to be successful. Accountability increases the probability of meeting promises.

BOUNDARY LESS :

Over time, most firms create multiple boundaries (Ashkenas et al., 1995). Vertical boundaries separate lower from higher level employees. Horizontal boundaries separate functions or units from each other. Geographic boundaries separate counties. External boundaries separate a firm from suppliers and customers. These boundaries cost time and money to cross. Removing boundaries makes an organization both more efficient and quicker.

BUSINESS PERFORMANCE AND CUSTOMER PERFORMANCE :

Literature survey reveals that different studies try to establish the relationship between HR strategy and business performance in one form or other. The business performance may be increase in market value, increase in stock return, increase in productivity and the like.

Searching the academic as well as the popular business literature revealed authors use the ubiquitous term 'organizational effectiveness' but seldom share their working definition. The term organizational effectiveness, Jamnog J.J et al. (2004) used purely from General Management Perspective.

Dave Ulrich values the fulfillment of various corporate stakeholders' expectations and finally corporate stakeholders' satisfaction. He discusses different stakeholder viz., customers, investors, regulators, community, suppliers, and distributors. In this study, we consider only one stakeholder viz., community and we take community-related performance as the dependent variable.

In today's competitive environment when competition is on a global platform and comparison shopping is at a click of a mouse a way a community is a very valuable asset, infact at times more valuable than employees, products and machinery.

Community have become increasingly segmented, literate, demanding. As they are offered greater choice they become more selective about choosing the organization to work with. Many firms have discovered that 15%% of community account for 80% of business performance. These target community become absolutely critical for a firm to compete and win. It can cost upto four times as much to provide the community service as compared to keeping an old one. Service companies like banks, stock broking companies indentify High Networth individuals and have dedicated account managers and teams to service them. Companies have dedicated teams to manage community relations. Community Relationship Management is a discipline to optimize revenue profitability, and community satisfaction.

Ulrich D et all (2001) discusses about linking HR strategy to performance. Huselid M.A. (1995) discusses impact of Human Resources Management Practices on turnover, productivity and financial performance. **There is no study on linking HR strategy to community-related performance. The present study aims at filling this gap.**

OBJECTIVES OF THE PRESENT STUDY :

Organizational capabilities are built in an organization by the HR processes, the vision and mission statements. They are the enablers for strategy implementation. The quality of organizational capabilities in an organization affects the business performance in particular; the quality of organizational capabilities determines the customer performance. Hence the objectives of this study are to

(i) ascertain the extent of recognition given to organizational capabilities in an organization: and

(ii) find the relationship between organizational capabilities and the community-related performance.

HYPOTHESIS :

The study proposes to test the following hypothesis.

Organizational Capabilities will be positively related to community- performance.

DATA AND PROFILE OF THE RESPONDENT COMPANIES :

The study is based on a survey conducted in 44 business organizations in Mumbai and Bangalore. The respondents were HR executives with a mean of about 11 years of experience in that industry and a mean of about 8 years in that company. 10 (22.7%) out of 44 respondents were women and the rest men. The respondents had a total of mean experience of about 16 years. 75% of the respondents were from different service industries like hospitality and like. About 9% were from IT industry and the rest were from manufacturing sector.

Data about extent of recognition given to organizational capabilities was collected on a likert scale with 5 points.

Table-1 and 2 provide descriptive statistics regarding the independent variables.

Table–1

Independent Variable – Recognition of Organizational Capabilities

Sl. No.	Organizational Capabilities	Mean	SD	Range
1	HR operating efficiency (ability to perform HR practices better, faster and cheaper)	1.79	0.84	1-5
2	Human (Intellectual) capital (to attract and Retain employees who have competence and Commitment)	1.97	0.98	1-5
3	Leadership Depth	1.70	0.75	1-5
4	Learning	1.93	0.86	1-5
5	Change	1.90	0.82	1-5
6	Shred Mindset	1.75	0.80	1-5
7	Strategic clarity	1.75	1.02	1-5
8	Accountability	1.68	0.94	1-5
9	Boundary less organization	2.02	0.83	1-5
10	Collaboration	2.00	0.85	1-5
11	Simplicity	2.15	0.99	1-5
12	Risk	2.27	1.00	1-5

(Source : Primary Data)

further the current level of organizational capabilities was measured as follows.

Table–2

Current level of organizational capabilities

Sl. No.	Organizational Capabilities	Mean	SD	Range
1	HR operating efficiency (ability to perform HR practices better, faster and cheaper)	2.72	0.49	1-5
2	Human (Intellectual) capital (to attract and Retain employees who have competence and Commitment)	2.72	0.49	1-5
3	Leadership Depth	2.14	0.77	1-5
4	Learning	2.55	0.56	1-5
5	Change	2.52	0.55	1-5
6	Shred Mindset	2.40	0.50	1-5
7	Strategic clarity	2.44	0.56	1-5
8	Accountability	2.37	0.49	1-5
9	Boundary less organization	2.38	0.55	1-5
10	Collaboration	2.52	0.51	1-5
11	Simplicity	2.58	0.61	1-5
12	Risk	2.74	0.52	1-5

(Source: Primary Data)

Finally the customer performance was measured on a similar likert type scale which averaged to 2.27 with a standard deviation of 0.64.

ANALYSIS :

Table - 3 provides descriptive statistics regarding correlation between the dependent variable of community-related performance and the independent variables of organizational capabilities, which are mostly positive and significant. This result provides initial support for the hypothesis.

Table-3 Correlation between Community and Organizational Capabilities

HR Operating Efficiency	.182 .125
Human (Intellectual)	-.121 .222
Leadership depth	-.017 .457
Learning	-.058 .357
Change	.013 .467
Shared Mindset	-.075 .318
Strategic Clarity	.131 .203
Accountability	-.129 .209
Bounaryless Organization	.056 .362
Simplicity	.401 .004
Risk	.142 .186
Collaboration	-.053 .369

(Source : Primary Data)

There was significant cross-correlation between the dependent and independent variables. Community-related performance was significantly correlated with simplicity only. Thus, the only independent variable significantly correlating with the dependent variable is: simplicity.

Table–4, 5, & 6 shows the results of the regression analysis that were done to test the hypothesis. The model is significant at 0.01 level with an R^2 of 32.6%. Hence, we accept the hypothesis that organizational capabilities have a favourable effect as customer performance

Table-4 The R-square value

Model	R	R Square	Std. Error of the Estimate
1	.571[a]	.326	.80824

(Source: Primary Data)

Table-5

	Model	Sum of Squares	df	Mean Square	F	Sig.
1.	Regression	9.147	12	.762	1.167	.350[a]
	Residual	18.944	29	.653		
	Total	28.091	41			

(Source : Primary Data)

Table-6

Regression Coefficients

Model	Coefficients		t	significance
	B	Std. Error		
Simplicity	.631	.331	1.908	.066

(Source : Primary Data)

Multiple regression of community-related performance on the independent variables was found to be statistically significant, explaining 32.6.0% of the variation in community-related performance. The variable with highest impact on community-related performance was simplicity. Other variables did not have a statistically significant impact on customer-related performance. Further, accountability had a negative impact on community-related performance, while learning and boundaryless organization had positive impact.

The hypothesis that organizational capabilities affect (to some extent) on community-related performance is accepted.

We see that accountability had a negative impact on the dependent variable. We should not jump to conclude that Indian employees are averse to being accountable; we may mention that this is the finding of the present survey.

LIMITATIONS :

The study is based on perceptual data. Both the independent and dependent variables are perception of some responsible individuals in the selected organization.

DISCUSSION AND CONCLUSION :

The concept of organizational capability coined by Ulrich D is relatively new, and is highly contemporary. It is the in thing in organizations today.

Empirical studies in HRM seem to be consolidating attention and certain broad areas of policy namely careful investment in HRM practices do pay off in desired business results.

This was the conclusion of the studies that were considered in the review of literature. The same has been corroborated by the present study as well.

This work brings to light that, innovative HR practices are prevailing MNCs in India and also they are resulting in favourable business performance. This acts as a message to the global companies having business units in India and those companies planning to enter India.

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ADOPTION OF INTERNATIONAL FINANCIAL REPORTING STANDARDS

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ABSTRACT :

IFRS is a set of financial reporting standards issued by the International Accounting Standards Board. IFRS is a trade mark of the International Accounting Standards Committee Foundations. It refers to International Financial Reporting Standards which are applied while preparing the Balance Sheet and other Profitability Statements of a Company. These have already been applied in more than a 100 Countries and would soon be used across the Globe. It has designed as a common global language for business affairs so that company accounts are understandable and comparable across international boundaries. They are a consequence of growing international shareholding and trade and are particularly important for companies that have dealings in several countries. They are progressively replacing the many different national accounting standards. The rules to be followed by accountants to maintain books of accounts which is comparable, understandable, reliable and relevant as per the users internal or external.

KEYWORDS :

IFRS, Accounting Standards, IASC, IAS, SIC

INTRODUCTION :

IFRS began as an attempt to harmonies accounting across the European Union but the value of harmonization quickly made the concept attractive around the world. They are sometimes still called by the original name of International Accounting Standards (IAS). IAS was issued between 1973 and 2001 by the Board of the International Accounting Standards Committee (IASC). On 1 April 2001, the new International Accounting Standards Board took over from the IASC the responsibility for setting International Accounting Standards. During its first meeting the new Board adopted existing IAS and Standing Interpretations Committee standards (SICs). The IASB has continued to develop standards calling the new standards International Financial Reporting Standards (IFRS). Since 2011, the Republic of Korea introduced the full-scale adoption of International Financial Reporting Standards (K-IFRS) IFRS translated into Korean. IFRS are used in many parts of the world, including the EU, Hong Kong, India, Australia, GCC Countries, Malaysia, Pakistan, Russia, South Africa, Chile,

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Singapore and Turkey. According to US Securities and Exchange commission, on August 2008, more than 113 countries around the world, including all of Europe, currently require or permit IFRS reporting and 85 require IFRS reporting for all domestic, listed companies. IFRS are principal based set of standards in the sense that they establish broad rules as well as dictating specific treatments. Presently there are eight International Financial Reporting Standards, twenty nine International Accounting Standards, seventeen International Financial Reporting Interpretations, and eleven SIC Interpretation. IFRS comprise of the following :

1. International Financial Reporting Standards (IFRS)
2. International Accounting Standards (IAS)
3. International Financial Reporting Interpretation Committee (IFRIC), and
4. Standards Interpretation Committee (SIC)

Following IFRS have been issued

S N	Title	Originally issued	Effective
IFRS 1	First-time Adoption of International Financial Reporting Standards	2003	January 1, 2004
IFRS 2	Share-based payment	2004	January 1, 2005
IFRS 3	Business Combinations	2004	April 1, 2004
IFRS 4	Insurance Contracts	2004	January 1, 2005
IFRS 5	Non-current Assets Held for Sale and Discontinued Operations	2004	January 1, 2005
IFRS 6	Exploration for & Evaluation of Mineral Resources	2004	January 1, 2006
IFRS 7	Financial Instruments : Disclosures	2005	January 1, 2007
IFRS 8	Operating Segments	2006	January 1, 2009
IFRS 9	Financial Instruments	2009	January 1, 2015
IFRS 10	Consolidated Financial Statements	2011	January 1, 2013
IFRS 11	Joint Arrangements	2011	January 1, 2013
IFRS 12	Disclosure of Interests in Other Entities	2011	January 1, 2013
IFRS 13	Fair Value Measurement	2011	January 1, 2013

REVIEW OF LITERATURE :

The wide variety of literatures both of academic and non-academic nature is available on the adoption of IFRS. However, only few major literatures have been covered here to provide a comprehensive idea about the research trends on the different dimensions of current research.

Cuijpers (et al 2005) examined the voluntary adoption of IFRS or non-local GAAP by European Union firms, but they fail to document a lower cost of capital for IFRS adopters in the EU.

Daske (2006) investigates a sample of German firms with IFRS adoptions for the period of 1993-2002 and find a higher cost of equity capital for IFRS adopters or US-GAAP adopters than for local GAAP adopters, which is inconsistent with the argument advanced by proponents of IFRS.

Ibarra & Suez-Sales (2011), p-48-49 stated that Currently India is on the transition from Stage I to Stage III of IFRS adoption: from the stage where IFRS is not allowed to the stage where IFRS is required for some types of companies. Since 2010, India has complied with some IFRS, and it planned to reach full converge from 2011.

Bhattacharyya, Ashish K (2012), But IFRS is no more a priority for companies because it is difficult to guess when the government will notify the effective dates for the implementation of converged IAS.

The Association of Chartered Certified Accountants (2013) has published a report summarizing research on the impacts of the convergence with International Financial Reporting Standards (IFRS) in China. The report finds that IFRS convergence in China has been beneficial where companies have had appropriate legal, governance and commercial incentives to provide high-quality disclosures.

Chair, Mary Jo White (2013), in a speech given to the Investment Company Institute (ICI) in Washington, US Securities and Exchange Commission (SEC), a broad analysis of the impact of globalization on regulation. In relation to accounting standards, He highlights the need to "accommodate different but equally legitimate financial reporting standards".

INDIA & IFRS :

India is currently on the transition from Stage I to Stage III of IFRS adoption popularly known as Ind AS. The Institute of Chartered Accountant of India was announced that IFRS will be mandatory in India for financial statement for the periods beginning on or after 1 April 2012. The ICAI was also stated that IFRS will be applied to companies above INR 1000 crore from April 2011. Phase wise applicability details for different companies in India is as follows-

PHASE 1 :

Companies which are part of NSE – Nifty 50, or part of BSE - Sensex 30, or have a net worth in excess of Rs.1,000 (whether listed or not), or companies whose shares or other securities are listed on stock exchanges outside India will adopt converged IFRS starting from April 1st, 2011

PHASE 2 :

Companies, whether listed or not, having a net worth exceeding Rs. 500 crores but not exceeding Rs. 1,000 crores will convert their opening balance sheet as at 1st April, 2013.

PHASE 3 :

Listed companies which have a net worth of Rs. 500 crores or less will convert their opening balance sheet as at 1st April, 2014.

NEED FOR IFRS

Different Countries employ different Accounting Standards while computing the Profits of a Company. It may happen that if the Profits are computed as per US Accounting Laws the Profits are $ 100 Billion but when the same Profits are computed using the UK Accounting Laws, the Profits may turn out to be say $ 50 Billion and when computed as per the Indian Accounting Laws, it may turn out to be $200 Billion (Hypothetical Figures).

Profits computed as per different accounting laws of different countries always yield different figures. So as to remove this discrepancy in Accounting across the Globe, Countries world over decided to apply uniform standards of accounting so as to arrive at uniform profits across the Globe.

It is expected that IFRS adoption worldwide will be beneficial to investors and other users of financial statements, by reducing the Costs of Comparing alternative Investments and Increasing the Quality of Information. The Companies are also expected to benefit, as investors will be more willing to provide financing.

There are many benefits of implementing IFRS which can be broadly divided into 3 main parts – Economy, Investors and the Industry.

Economy – As the market expands globally, the need for a global standard is also increasing. Implementation of IFRS benefits the economy by increasing the growth of its International Business. It facilitates the maintenance of orderly and efficient capital markets and also helps to increase the capital formation and thereby economic growth.

Investors - Investors who are willing to invest abroad want information which is more relevant, reliable, timely and comparable across various jurisdictions. Financial statements prepared using a common set of accounting standards help investors better understand the investment opportunities as opposed to financial statements prepared using a different set of national accounting standards. Investor's confidence would be strong if the accounting standards used are globally accepted. Convergence with IFRS contributes to investors understanding and confidence in high quality financial statements.

Industry -A major push towards implementation of IFRS has been coming from the Industry. The reason for the same is that the Industry would be able to raise capital from foreign markets at a lower cost if it can create confidence in the minds of the foreign investor that their financial statements comply with globally accepted accounting standards.

With diversity in accounting standards from country to country, enterprises which operate in different countries face a multitude of accounting requirements prevailing in different countries. The burden of financial reporting is lessened with convergence of accounting standards because it simplifies the process of preparing the individual and group financial statements and thereby reduces the cost of preparing the financial statements.

HURDLES' WITH IFRS

Changing the Accounting Laws is not as easy task. It takes ample time, money and efforts for framing new laws and applying the same as a result of which Countries were not in favor of IFRS earlier. But with the advent of Globalization, the whole scenario has changed. Many companies are interested in Investing in Foreign Countries or in Raising Capital from Foreign Countries but are hindered by the fact that Accounting Laws in the home country and the foreign country differ significantly as a result of which they are unable to transact. The only option left for the company is to restate its accounts as per laws of the Foreign Country but this in itself is a very time and money consuming effort.

Indian Corporate is not yet ready to meet the April 1, 2013 deadline for the adoption of the Indian version of International Financial Reporting Standards (IFRS). There are several parts of the International Standards that India Inc is not willing to accept. Some companies are already providing financial information prepared in accordance with accounting principles generally accepted in the US (US GAAP) and IFRS. But for some companies it is more of a necessity than a best practice, say tax experts. Several Indian companies are listed in the foreign markets. Some also have large international operations and significant stakeholders in other markets. Companies like Dr Reddy's Laboratories, Infosys and Wipro are dual listed, while others like Glenmark Pharmaceuticals and Bharti are driven by global operations. Bharti has been coming out with IFRS financial statements for some time now and the same is reported to SEBI. Murugappa Group, automaker Mahindra & Mahindra and textile major Bombay Dyeing were ready with the accounting standards three years ago. Yet, there is also resistance by a sizable some section of India Inc to adopting the standards. About 70% companies believe that it is illogical and not good for the corporate sector. Many companies are not inclined because many of the provisions are stringent in India. Engineering and consumer goods companies and even those in the financial sector are not inclined to move to the new standards. There is no motivation, no incentive. The Government has not given clear directives to the corporate sector. Sai Venkateshwaran, Partner and Practice Leader, Financial Reporting Advisory Services, Grant Thornton India stated that the moment we move into IFRS there are a lot of adjustments, both positive and negative.

ACCOUNTING MODELS & ASSUMPTIONS

A financial statement should reflect true and fair view of the business affairs of the organization. As statements are used by various constituents of the society / regulators, they need to reflect true view of the financial position of the organization. IFRS authorize three basic accounting models:

I. Current Cost Accounting, under Physical Capital Maintenance at all levels of inflation and deflation under the Historical Cost paradigm as well as the Capital Maintenance in Units of Constant Purchasing Power paradigm.

II. Financial capital maintenance in nominal monetary units, i.e., globally implemented Historical Cost Accounting during low inflation and deflation only under the traditional Historical Cost paradigm.

III. Financial Capital Maintenance in Units of Constant Purchasing power, CMUCPP – in terms of a daily consumer price index or daily rate at all levels of inflation and deflation.

The accounting model of IFRS is based on the following three underlying assumptions:

1. Going Concern: The IFRS is based on the assumption that an entity will continue for the foreseeable future under the Historical Cost paradigm as well as under the Capital Maintenance in Units of Constant Purchasing Power paradigm.

2. Stable Measuring Unit Assumption: The IFRS second assumption is that financial capital maintenance in nominal monetary units or traditional historical cost accounting only under the traditional Historical Cost paradigm; i.e., accountants consider changes in the purchasing power of the functional currency up to but excluding 26% per annum for three years in a row as immaterial or not sufficiently important for them to choose Capital Maintenance in units of constant purchasing power in terms of a Daily Consumer Price Index or daily rate. Accountants implementing the stable measuring unit assumption (traditional Historical Cost Accounting) during annual inflation of 25% for 3 years in a row would erode 100% of the real value of all constant real value non-monetary items not maintained constant under the Historical Cost paradigm.

3. Units of Constant Purchasing Power: Capital Maintenance in Units of Constant Purchasing Power at all levels of inflation and deflation - including during hyperinflation as required in IAS 29 - in terms of a Daily Consumer Price Index or daily rate only under the Capital Maintenance in Units of Constant Purchasing Power paradigm; i.e. the total rejection of the stable measuring unit assumption at all levels of inflation and deflation. Capital Maintenance in Units of Constant Purchasing Power in terms of a Daily Consumer Price Index or daily rate of all constant real value non-monetary items in all entities that at least break even in real value at all levels of inflation and deflation - ceteris paribus - remedies for an indefinite period of time the erosion caused by Historical Cost Accounting of the real values of constant real value non-monetary items never maintained constant as a result of the implementation of the stable measuring unit assumption at all levels of inflation and deflation under HCA.

CONCLUSION :

On 22 January 2010, the Ministry of Corporate Affairs was issued the road map for transition to IFRS. It is clear that India has deferred transition to IFRS by a year. In the first phase, companies included in Nifty 50 or BSE Sensex, and companies whose securities are listed on stock exchanges outside India and all other companies having net worth of INR 1000 crore will prepare and present financial statements using Indian Accounting Standards converged with IFRS. According to the press note issued by the government, those companies will convert their first balance sheet as at 1 April 2011, applying accounting standards convergent with IFRS if the accounting year ends on 31 March. This implies that the transition date will be 1 April 2011. According to the earlier plan, the transition date was fixed at 1 April 2010. MCA again stated February 2011 that India's commitment to

convergence with International Financial Reporting Standards ("IFRS") moved a step closer with the publication of 35 Indian IFRS standards. The MCA prepared roadmap for the implementation of IFRS and provided specific dates for adoption of IFRS in India on the basis of a company's net worth as indicated by the exchange on which they are traded. The IFRS conversion roadmap for Banks and Insurance companies will follow separately. So as encourage free trade of money so that Companies can Invest/Raise money from other Countries, the whole world has now started the process of Adoption/Convergence with IFRS. All Countries in the European Union have already implemented IFRS from 2005 and the whole world is expected to adhere with IFRS norms.

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RELATIONSHIP BETWEEN CAPITAL STRUCTURE AND PROFITABILITY OF INDIAN PHARMACEUTICAL INDUSTRY

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ABSTRACT :

The determination of a company's capital structure constitutes a difficult decision, one that involves several and antagonistic factors, such as risk and profitability. That decision becomes even more difficult in the time this global recession. The present research paper investigates the relationship between capital structure and profitability of Indian pharmaceutical industry during the study period of 2007-08 to 2011-12. The data collected from annual reports of the top 5 pharmaceutical companies listed in stock exchange. Regression analysis tools are applied to estimate the relationship between capital structure and profitability. Performance is measured by operating profit margin, gross profit margin, net profit margin, return on capital employed and return on net worth with debt equity ratio of the selected units. Findings of the study validated a strongly negative relationship between capital structure and firm's profitability (except net profit margin and return on net worth) of pharmaceutical industry but statistically in the light of t-value, all these findings were insignificant to establish any valid relationship of the said independent variable with the dependent variables of capital structure.

KEY WORDS :

Capital Structure, Profitability, Debt-Equity, Pharmaceutical Industry

INTRODUCTION :

One of the tough challenges that firms face is the choice of capital structure. Capital structure decision is important because it affects the financial performance of the firm. The capital structure of a firm is defined as specific mix of debt and equity that a firm uses to finance its operations. Firms can use either debt or equity capital to finance their assets. The best choice is a mix of debt and equity. In the case where interest

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was not tax deductible, firms' owners would be indifferent as to whether they used debt or equity, and where interest was tax deductible; they would maximize the value of their firms by using 100% debt financing. The use of debt in capital structure of the firm leads to agency costs. Agency costs arise as a result of the relationships between shareholders and managers, and those between debt- holders and shareholders (Jensen and Meckling, 1976).

CAPITAL STRUCTURE :

The term capital structure can be defined as: "The mix of a firm's permanent long-term financing represented by debt, preferred stock, and common stock equity." (Van Horne & Wachowicz, 2000, p.470) It can be defined as "The mix of long-term sources of funds used by the firm. This is also called the firm's "capitalization". The relative total (percentage) of each type of fund is emphasized." (Petty, Keown, Scott, and Martin, 2001, p.932) One of the exhaustive and inclusive description was given by Masulis (1988, pl): 'Capital structure encompasses a corporation's publicly issued securities, private placements, bank debt, trade debt, leasing contracts, tax liabilities, pension liabilities, deferred compensation to management and employees, performance guarantees, product warranties, and other contingent liabilities. This list represents the major claims to a corporation's assets. Increases or reductions in any of these claims represent a form of capital structure change."

PROFITABILITY :

The term profitability is a very common term in the business world. It refers to an all round measurement and indicator for a firm's success. Profitability can be defined as the ability of a firm to generate net income or profit on a consistent basis. It is often measured by price to earnings ratio. The accounting definition of profit can be given as the difference between the total revenue and the total costs incurred in bringing to market the product i.e. goods or service. Hence, profitability had come to mean different things for different people. It can be defined and measured in several ways depending on the purpose. It is a generic name for variables such as net income, return on total assets, earnings per share, etc. though the simplest and common meaning of profitability is the net income.

CAPITAL STRUCTURE AND PROFITABILITY :

The capital structure of a firm has long been a much debated issue for academic studies and in the corporate finance world. It is the way a firm finances its assets through some combination of equity, debt, or hybrid securities - the composition or 'structure' of its liabilities. In reality, capital structure may be highly complex and include various sources. The question whether capital structure affects to the profitability of the firm or it is affected by profitability is crucial one. Profitability and capital structure

relationship is a two way relationship. On the one hand profitability of firm is an important determinant of the capital structure, the other hand changes in capital structure changes affect underlying profits and risk of the firm.

Traditionally it was believed that the debt is useful up to certain limit and afterwards it proves costly. There is an optimum level of capital structure exist up to that level increasing debt will improve profitability, beyond that it will reduce profitability.

STATEMENT OF PROBLEM :

The relationship between capital structure and profitability is one that received considerable attention in the finance literature. The study regarding the effects of capital structure on profitability will help us to know the potential problems in performance and capital structure. The modern industrial firm must conduct its business in a highly complex and competitive business environment. The statement of problem is:

RELATIONSHIP BETWEEN CAPITAL STRUCTURE AND PROFITABILITY OF INDIAN PHARMACEUTICAL INDUSTRY

LITERATURE REVIEW :

Modigliani and Miller (1958) have a theory of "capital structure irrelevance" where argue that financial leverage does not affect the firm's market value with assumptions related to homogenous expectations, perfect capital markets and no taxes.

Myers and Majluf (1984) find firms that are profitable and generate high earnings are expected to use less debt capital comparing with equity than those that do not generate high earnings.

Sheel (1994) showed that all leverage determinants factors studied, excepting firm size, are significant to explain debt behaviour variations. **Gleason, et al., (2000)** Using data from retailers in 14 European countries, which are grouped into 4 cultural clusters, it is shown that capital structures for retailers vary by cultural clusters. This result holds in the presence of control variables. Using both financial and operational measures of performance, it is shown that capital structure influences financial performance, although not exclusively. A negative relationship between capital structure and performance suggests that agency issues may lead to use of higher than appropriate levels of debt in the capital structure, thereby producing lower performance. **Graham (2000)** integrates under firm- specific benefit functions to estimate that the capitalized tax benefit of debt equals 9.7% of firm value. The typical firm could double tax benefits by issuing debt until the marginal tax benefit begins to decline. It is inferred how aggressively a firm uses debt by observing the shape of its tax benefit function. Paradoxically, large, liquid, profitable firms with low expected distress costs use debt conservatively. Product market

factors, growth options, low asset collateral, and planning for future expenditures lead to conservative debt usage. Conservative debt policy is persistent.

Hennessy and Whited (2005) develop a dynamic trade-off model with endogenous choice of leverage, distributions, and real investment in the presence of a graduated corporate income tax, individual taxes on interest and corporate distributions, financial distress costs, and equity flotation costs. The study explains several empirical findings inconsistent with the static trade-off theory and show that there is no target leverage ratio, firms can be savers or heavily levered, leverage is path dependent, leverage is decreasing in lagged liquidity, and leverage varies negatively with an external finance weighted average. Using estimates of structural parameters, they find also that simulated model moments match data moments.

Namazi and Shekhzadeh (2010) in their study investigated the effect of capital structure on profitability of accepted companies in Tehran Stock Exchange in various industries. The sample includes 108 companies from various industries and the average debt on assets ratio and equity data collected over a concentrated and annually in a 5 years period and then analyzed. In addition, the average ratio of debt on assets and return on assets (ROA) during the same period were collected and tested. In order to test the hypothesis a simple regression coefficient correlation was used. Results indicate that, generally, there is a positive relationship between capital structure and profitability, but this relationship is statistically weak. The relationship between capital structure and profitability also depends on the industry and the optimized capital structure can be determined in various industries.

RESEARCH OBJECTIVES :

The main objective of the present study is to scrutinise the relationship between the capital structure and profitability of top 5 Indian pharmaceutical companies. Other objective is to suggest the selected companies in a way to increase profitability through adapting a better strategic framework of capital structure.

RESEARCH IMPORTANCE :

The relationship between capital structure and profitability cannot be ignored because the improvement in the profitability is necessary for the long-term survivability of the firm. Because interest payment on debt is tax deductible, the addition of debt in the capital structure will improve the profitability of the firm. Therefore, it is important to test the relationship between capital structure and the profitability of the firm to make sound capital structure decisions. The lack of a consensus about what would qualify as optimal capital structure in the service and manufacturing industries has motivated me to conduct this research. A better understanding of the issues at hand requires a look at the concept of capital structure and its effect on the firm's profitability.

METHODOLOGY :

The purpose of this research is to contribute towards a very important aspect of financial management known as capital structure with reference to Indian Pharmaceutical Industry. Here the relationship between capital structure practices and its effects on profitability of top 5 pharmaceutical companies listed on BSE for a period of 5 years from 2007-08 – 2011-12 is examined. This section discusses the firms and variables included in the study, the distribution patterns of data and applied statistical techniques in investigating the relationship between capital structure and profitability.

SAMPLING DESIGN :

The pharmaceutical industry in India is going through a major shift in its business model in the last few years in order to get ready for a product patent regime from 2005 onwards. The Indian pharmaceutical industry ranks among the top five countries by volume and accounts for about 10% of global production. The Indian pharmaceutical industry is fragmented with more than 10,000 manufacturers in the organised and unorganised segments. The products manufactured by the Indian pharmaceutical industry can be broadly classified into bulk drugs and formulations. Of the total number of pharmaceutical manufacturers, about 77% produce formulations, while the remaining 23% manufacture bulk drugs. The research has selected top 5 companies of pharmaceutical on the basis of market capitalisation as under :

No.	Name of the Company
1	Sun Pharmaceutical Industries
2	Dr. Reddys Laboratories
3	Cipla Ltd.
4	Lupin Ltd.
5	Ranbaxy Laboratories

PERIOD OF THE STUDY :

The present study is mainly intended to evaluate the relationship between capital structure and profitability of Indian pharmaceutical industry. The period of the study is 2007-08 to 2011-12.

DATA COLLECTION :

The present study is mainly based on the secondary data and the data is collected from the statement of accounts and annual reports of selected units for various years, www.bseindia.com and www.moneycontrol.com. And all the data relating to conceptual framework of Industries is collected mainly from the books and magazines.

TOOLS OF ANALYSIS :

For the data analysis *Means, Standard Deviations, regression analysis and student t test* have been used. Ratios are among the well known and most widely used tools of financial analysis. Ratio can be defined as "The indicated quotient of two mathematical expressions". Here in this study *capital structure and profitability related following ratios* have been used.

1. Operating Profit Margin Ratio
2. Gross Profit Margin Ratio
3. Net Profit Margin Ratio
4. Return on capital Employed (ROCE) Ratio
5. Return on Net Worth Ratio
6. Debt – Equity Ratio

RESEARCH HYPOTHESIS :

Following hypothesis are developed to investigate the relationship between capital structure and profitability of Indian pharmaceutical industry during the study period.

H_0 : There is no significant relationship between capital structure and profitability of selected pharmaceutical units during the study period.

H_1 : There is significant relationship between capital structure and profitability of selected pharmaceutical units during the study period.

RESULTS AND ANALYSIS :

DESCRIPTIVE STATISTICS :

The descriptive analysis of the study is as under :

Particulars	No	Minimum	Maximum	Mean	S D
Operating Profit Margin (OPM)	25	8.33	46.17	23.41	9.19
Gross Profit Margin (GPM)	25	4.52	43.29	19.43	9.56
Net Profit Margin (NPM)	25	-28.04	42.49	13.56	15.67
Return on Capital Employed (ROCE)	25	5.67	31.03	20.10	6.01
Return on Net Worth (RONW)	25	-101.31	35.20	12.59	27.74
Debt-Equity Ratio	25	00	1.57	0.48	0.42

The descriptive statistics show that over the period under study, the profitability ratios measured by Operating profit, Gross profit, net profit, return on capital employed, return on Net worth averaged 23.41%, 19.43%, 13.56%, 20.10% and 12.59% respectively. The debt/equity ratio stood at 0.48:1. This is an indication that approximately 48% of total assets in the pharmaceutical sectors of India are represented by debt. The maximum and minimum values for debt/equity ratio indicate that the debt/equity composition varies substantially among the pharmaceutical sectors in India.

REGRESSION ANALYSIS :

Dependent Variables	R	R^2	Adjusted R Square	Std. Error of the Estimate
OPM	0.609	0.371	0.343	7.45
GPM	0.590	0.348	0.320	7.88
NPM	0.723	0.523	0.503	11.05
ROCE	0.250	0.063	0.022	5.95
RNW	0.519	0.270	0.238	24.21

It can be observed from the table that the estimated value of the R-squared is approximately 0.371, 0.320,0.503, 0.022 and 0.238. This implies that the capital structure of the firm is very negligibly determined by the said variable jointly. It shows that only 31.5% of the variations in dependent variables are explained by the given independent variable. These R^2 values indicate that there may be number of variables which can have impact on profitability other than the Debt/Equity ratio. Hence this area indicated as a scope for future research.

Variables	Un standardized Coefficients		Standardized Coefficients	t- value	Sig
	B	Std. Error	Beta		
OPM(Constant)	29.692-13.155	2.2653.575	-0.609	13.108-3.680	0.0000.001
GPM (Constant)	25.750-13.248	2.3963.782	-0.590	10.745-3.503	0.0000.002
NPM(Constant)	26.275-26.637	3.3595.301	0.723	7.822-5.025	0.0000.000
ROCE(Constant)	21.789-3.536	1.8082.854	-0.250	12.050-1.239	0.0000.228
RNW(Constant)	28.741-33.852	7.3611.62	0.519	3.905-2.914	0.0010.008

The above table indicates the Coefficients of Beta, Standard error and t values were found to be significant in the dependent variable of selected profitability ratio and the independent variable of debt to equity ratio. From the above mentioned table it is very clear that negative association was found between all the independent and dependent variables except the association between Debt Equity ratio and Net profit margin and Return on net worth.

No	Hypothesis	Results	Tools
H1	There is no significant relationship between capital structure and operating profit margin of selected pharmaceutical units during the study period.	Accepted	Regression
H2	There is no significant relationship between capital structure and gross profit margin of selected pharmaceutical units during the study period.	Accepted	Regression
H3	There is no significant relationship between capital structure and net profit margin of selected pharmaceutical units during the study period.	Accepted	Regression
H4	There is no significant relationship between capital structure and return on capital employed of selected pharmaceutical units during the study period.	Accepted	Regression
H5	There is no significant relationship between capital structure and return on net worth of selected pharmaceutical units during the study period.	Accepted	Regression

Regarding the significance of individual variables, the empirical results show that the firms' capital structure is very significantly negatively associated with profitability. This implies that the null hypothesis (H_O **:** No significant relationship between capital structure and profitability) is accepted at 5 percent level of significance. Thus empirically, profitability does not affect capital structure and we do not find much evidence that this relationship is statistically significant.

CONCLUSION :

The relationship between capital structure and profitability is one that received considerable attention in the finance literature. The study regarding the effects of capital structure on profitability will help us to know the potential problems in performance and capital structure. Henceforth, it can be concluded that though firm's profitability (except net profit margin and return on net worth) is strongly negatively related to capital structure and but statistically in the light of t-value, all these findings were

insignificant to establish any valid relationship of the said independent variable with the dependent variables of capital structure. Therefore, it can be safely said that in pharmaceutical sectors of India, profitability of firms is insignificant in bringing about any changes in their capital structure.

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E-ACCOUNTING : A CRITICAL EVALUATION

Ravi Kant Modi *
Rishabh Srivastava **

ABSTRACT :

Accounting is an integral part of business, through the accounting the financial information of business can be traced out. Accounting helps to all the stakeholder of business. The work of accounting includes preparation of various documentation work like voucher ledger account etc. And this kind of accounting takes lot of time and cost in the preparation and presentation. Now various different companies not only in India but also in the world started a new method of accounting that is e-accounting.

E-accounting is the application of online and internet technologies to the business accounting function. Similar to e-mail being an electronic version of traditional mail, e-accounting is "electronic Enablement" of accounting and accounting processes which are more traditionally manual and paper-based. E-accounting is a term originally coined by Joanie Mann at InsynQ one of the founders of the ASP industry, and was introduced in 1998 along with InsynQ's hosted Quick books offerings under the banner of InsynQ Accounting Solution, and later CPAASP. Therefore this paper is based on review of the literature about e-accounting and provides a brief outline about adoption and impact of e-accounting. Concept and features of e-accounting, e-accounting model and benefits-problems of e-accounting have been discussed in the paper comprehensively.

THE CONCEPT :

E-Accounting or Online Accounting is still a new development in field of accounting. It means all business transactions are recorded in online server or data base, just like website or blog or web blog. But for opening or making accounts requires login ID and password provided by accounting service provider. E-Accounting is just in the development age still and we may see its commercial use only. There is large number of companies who stared E-Accounting. In E-Accounting the accountants and employer both feel satisfaction because, this is cheap and without software defaults or failure. Business accounts are saved in online server or database, so there is need to record the business transactions manually. By this way big business entity that cross-border coverage can save large amount of money spending on manual books and different accounting software.

E-Accounting means accounting on computer by using internet. To undersigned the concept of e-accounting we must learn the following terms.

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E-accounting is the application of online and internet technologies to the business accounting function. Similar to e-mail being an electronic version of traditional mail, e-accounting is "electronic enablement' of accounting and accounting processes which are more traditionally manual and paper-based.

E-Accounting does not have a standard definition but merely refers to the changes in accounting due to computing and networking technologies. Emerging Technologies provide an institutional setting for the use of electronic data media in financial accounting for registering, transferring and storing data as well as reporting information electronically. Thus, source documents and accounting records exit in digital form instead of on paper in an electronic accounting system.

E-Accounting may be understood in simple way as E-Accounting involves performing regular accounting functions, accounting research and the accounting training and education through various computer based/internet based accounting tools such as: digital tool kits, various internet resources, international web-based materials, institute and company database which are internet based, accounting software and electronic financial spreadsheet tools to provide efficient decision making.

DEFINITION OF E-ACCOUNTING :

E-Accounting is the application of online and internet technologies to the business accounting function. Similar to e-mail being an electronic version of traditional mail, e-accounting is "electronic enablement" of lawful accounting and traceable accounting processes which were traditionally manual and paper-based.

E-accounting is a term originally coined by Joanie Mann at InsynQ one of the founders of the ASP industry, and was introduced in 1998 along with InsynQ's hosted Quick Books offering under the banner of InsynQ Accounting Solutions, and later CPAASP. E-accounting involves performing regular accounting functions, accounting research and the accounting training and education through various computer based/internet based accounting tools such as: digital tool kits, various internet resources, international web –based materials, institute and company databases which are internet based, web links, internet based accounting software and electronic financial spreadsheet tools to provide efficient decision making.

CHARACTERISTICS OF E-ACCOUNTING :

A real online accounting or bookkeeping service can be recognized by the following characteristics which all make for a much efficient accounting process:-

- Multi-user access
- Multi-site access
- Zero system administration for end-users
- Very economical to provide services to large number of clients
- A single / multiple, shared database (s)
- Enhancements and fixes continuously developed and installed by service provider

There are large number of companies who started E-Accounting. In a-E-Accounting the accountant and employer both feel satisfaction because, this is cheep and without software defaults or failure. Your accounts saves in online server or database, so there is no need to

record manually. By this way we can save large amount of money spending on manual books and different accounting software.

Under E-accounting, professional can make record, accountants can check and audit records as well as editor can make correction in entries, or ledger if there is need so. User of the records can use accounting records for any purpose. There are various accountants can make records and users can them simultaneously. All the records are stored in a Web-servers connected with internet. Thus, everyone use them as per their needs and availability of time.

E-ACCOUNTING : PROBLEMS AND PROSPECT :

The only permanent state of affairs throughout the world is CHANGE. Alvin Toffler has coined the phrase " Future Shock" for change. However, mankind is moving irrevocably towards a global information society. Hence all around the world scholars concerned with education are grappling with the following urgent problems:

1. How to meet the challenge of technological change & its requirements?
2. How best to prepare students for occupational roles, to stand on their own feet in life, in changing the global business environment & culture system?

The E-accounting education system exists as a part of a larger system-the total (global) system. However, change in any part of the system is going to have an effect on the other elements/ parts of the system and cause reactive changes, which raises many kinds of issues and has been considered from many angles by many different people.

Globalization gives one message In fact accounting education must stay relevant if it does not want to become extinct. In other words, E-Commerce and Internet & accounting education have a cause and effect relationship, which should be harmonious and ideal one. When we think of accounting education in terms of E-commerce & internet, we find that it should have an identity and integrity of its own. It must have its own views and strategies for success. In brief, all of us must be ready to accommodate the internet change and master it if we want to survive. We can do this thinking globally and acting locally.

E-accounting enables the rapid creation of extended enterprises that are competitively superior. Combined, these opportunities show that E-Accounting affects the full spectrum of business activity. It will also change how people within the enterprises interact with one another. Whether a business is establishing an initial presence on the World Wide Web or transferring funds over the internet the times is always right envisioning how e-accounting can enhance operational effectiveness and competitive positioning. Internet is the buzzword in India. With reduction in the prices of computers and advancement in the fields of telecommunications and technology, the Internet phenomenon has gripped the Indian imagination. The online experience has arrived with the clarion call of globalization of the Indian economy. The various problems in E-Accounting are as under:-

1. Data Security –All the data of the company resides on a remote server: however, a backup can be taken regularly.
2. Speed- Most of the currently available online office suites require a high broadband internet connection.

3. Lacks some features available on the offline office suites: but this is progressively becoming available (MS LIVE, Google online suites, Thinkfree, Zoho Office, Internet OfficeBiz and eDesk online)
4. A network connection (usually Internet Access) is required to send and receive changes. That is, internet dependence makes it more difficult to work offline.

From above criticisms, it can be said that today, where information can be compromised and distributed, global firms need to be cent –percent assured that their information is safe and are being safeguarded from identity theft. Being professionals, Indian Chartered Accountants should be absolutely about the work process, ensure service integrity, observe professional ethics and generate trust and confidence in the client for striking a lasting business relationship.

ADVANTAGES OF E-ACCOUNTING :

Timely, accurate financial and accounting information is vital for organizations hoping to maintain a niche over the competitors in the market. In a fast paced world, the clients need to have control over financial data to know their 24x7 financial positions, from any geographical location. How is this possible ……..through e-accounting? E-accounting helps businesses keep their financial data and accounting software in a safe, secure environment, allowing real time access to authorized users, irrespective of their location or computing platform. This is possible due to application software hosted on a remote but safe and secure environment by and ASP (application service provider) that allows access to users of financial information with different levels of permission and password. In this regards, main benefits of e-accounting can be listed as below.

1. No need of in-house bookkeepers training and expertise.
2. No communication difficulties between the accountant and business owner or organization due to load/work pressure.
3. The business organization can concentrate on the revenue side of business, and spend as little time as necessary on the accounting and payroll function.
4. No problems with employee turnover, vacations, sick leave and absenteeism.
5. The accounting function receives attention only when a critical need arises. No time wastage.
6. No payroll related costs, FICA, workers compensation, unemployment, vacation /sick benefits health insurance benefits, and many other expenses.
7. Save time and money, the cost is low (in some cases: free)
8. Gain greater control of finances by moving from paper records to computerized accounting software.
9. Transactions that affect the company's bank account can be sent automatically to the online accounting connection.
10. Cost saving on office space (rent for additional offices)
11. No need of in-house bookkeeper's training and expertise.
12. The business organization concentrates on the revenue side of business, and spends as little time as necessary on the accounting and payroll function.

13. They are portable. The company can access its documents from almost any computer with a broadband connection.
14. If the company's computer crashes, its documents are still safe on the server.
15. No problems with employee turnover, vacations, sick leave and absenteeism.
16. No Communication difficulties between the accountant and business owner or organization due to load / work pressure.

Thus, E-accounting is advantageous because it is very smooth I operation. It is the most hassle-free and trouble –free operating system of accounting. Its smooth operation makes it quick, easy, adaptable, and efficient. Its affordability with its smoothen is another advantage of e-accounting. It saves a lot of expenditure and incurs lower costs. Both hardware as well as software requirement for e-accounting are almost barely minimum. Its one-to-may and may-to-one facilities make it a multi-tasking system which is almost obligatory in the present times of transparency in transactions. E-accounting software is easy for both installation and operation. The portability of e-accounting makes its transfer online possible without loss of time. The safe custody of the documents I the server is an added advantage of e-accounting. Smooth operation, easy online, transfer, cost-saving system, minimum hardware and ready software, multi-tasking ability and safe custody are some of the advantages of e-accounting.

DISADVANTAGES OF E-ACCOUNTANING :

Although a lot of applications are associated with e-accounting but there are some disadvantage also. People can manipulate raw accounting data to obtain desired digital reports. To find any error in e-accounting, different types of skills which are operating system, data base system, accounting software etc. are required and may need to maintenance and support of support of software. Other problems related to cost and up gradation of software.

Where is advantages, there is disadvantages. As e-accounting has various facilitating features, it does not mean it is free from limitation like-

- Power failure, computer viruses and hackers are the inherent problems of using computerized systems
- Once data been input into the system, automatically the output are obtained hence the data being input needs to be validated for the accuracy and completeness, we should not forget concept of GIGO (Garbage In(input) Garbage out(output) and
- Accounting system not properly set up to meet the requirement of the business due to badly programmed or inappropriate software or hardware or personal problems can caused more havoc and
- Danger of computer fraud if proper level of control and security whether internal and external are not properly been instituted

Thus, there are still some drawbacks and disadvantages in using e-accounting as a system. The entire data related to e-accounting becomes a part and parcel of the public domain. The meanings of confidentiality and security of data have changed in online

automated office and accounting procedures. Instances of misuse of data are multiplying. There are causes of jumping on conclusion on conjectures which have made the stoke markets all over the world sensitive to any and every change. E-accounting has become a mechanical process and the touch of human judgment is absent in tis operations. E-accounting performs the task of scrutiny and evaluation on the set format of the system and does not take into account the fluctuating conditions that exert on the finances of a unit. E-accounting is depended on the internet technology on one hand and on the competent software experts trained in e-commerce. Continuous updating, constant revision and introduction of new features require the personnel to undergo almost without any interruption. Some of the disadvantages of e-accounting have resulted in the problems that are required to be faced in using e-accounting.

COMPARISION OF TRADITIONAL AND ELECTRONIC ACCOUNTING

Attributes	Evidence	
	Traditional	Electronic
Completeness of documents	Paper evidence typically includes all essential terms of a transaction	Electronic processing may mask the evidence with codes or by cross reference to other data fields
Ease of use	Paper evidence does not require special tools to use in evaluating and understanding the evidence	Electronic evidence may require knowledge of data extraction techniques to evaluate and understand the evidence
Difficulty of alternation	Paper evidence is difficult to alter and there is a reasonable like hood to detect such alternation in the normal course of audit	Electronic evidence is much easier to alter and much harder to detect and, accordingly, an effective internal control plays an important role in detecting certain changes to electronic evidence
Evidence of approvals	Paper evidence approvals are prominent on the face of original documents	Electronic approvals may not be viable and can be done by pressing one key on the key board
Prime facie Credibility	Paper documents have a high degree of credibility	Electronic evidence's credibility and can be done by the effectiveness of internal control structure
Clarity	Paper evidence is usually clear and leads to the same conclusions by different authors	Electronic evidence is not as clear and may lead to different conclusions by authors depending on the procedures used and controls implemented

Source: Rezaee z.and A Reinstain (1998:467) " The impact of emerging information technology on auditing", Managerial Auditing Journal 13/8

From the above table, it is seen that evidence from e-accounting process becomes more reliable and there are positive contributions to the effectiveness of the controls.

CONCLUSION :

E-accounting has immense future. E-accounting has ushered in the age of paperless digitalization. E-accounting is adopted all over the world by private and public as well as national and international financial organizations, safety, elasticity, freedom of decision-making, high efficiency, quickness of speed, smooth and easy operating system will enable e-accounting becoming universally acceptable. The problems and the solutions of the problems discussed above will ensure bright future to e-accounting as an efficient e-device.

E-accounting is new development in field of accounting. In e-accounting, source documents and accounting records exist in digital form instead of on paper. E-accounting concept is adopted at international level. It has given so much opportunity to according professional, with the help of e-accounting they can save their time and can handle many clients at the required time. It also helps the investor of the business they can know financial statement which is published online. In e-accounting, source documents and accounting records exist in digital form instead of on paper. All major institution and organization at national and international level are in the favor of e-accounting. Perceived benefits, organizational readiness, external pressures and trust are the main factors that could explain the e-accounting adoption behavior of small firms and the expected impact of the technology. E-accounting keeps safe and secure to the financial information through secured software, allowing real time access to authorized users, irrespective of their location or computing platform and offers number of benefits.

The outcome of the study provides strong evidences that the use of E-Accounting can improve the effectiveness of accounting, budgeting, controlling, auditing and reporting which ultimately results in organizational effectiveness. An improved quality in the system may provide support for the tasks performed by the system. This study finds that E-Accounting has the most significant impacts on accounting, reporting and budgeting task performance.

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- http/www.svtution.org/2008/12/e-accounting.html
- http//e-accounting.4t.com/

Press Release-1 **INDIAN ACCOUNTING ASSOCIATION**

36th ALL INDIA ACCOUNTING CONFERENCE &
INTERNATIONAL SEMINAR - Jan 6-7, 2014

By the Dept. of Comm. (1934) & Management (1957) Studies, Andhra University (1926) & Indian Accounting Association, Visakhapatnam Branch

IAA Presidnet:	Prof Sasi Kumar	Kerala University, Trivandrum
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IAA Treasurer:	Prof Sanjay Bhayani	Saurashtra University, Rajkot
IAA Chief Editor:	Prof H. S. Oza	Gujarat University, Ahmedabad

The Department of Commerce & Management Studies, Andhra University and Visakhapatnam Branch of Indian Accounting Association consider it as a privilege to host the XXXVI All India Accounting Conference during January 6-7, 2014. The conference would have an International Seminar on Accounting Education and Research followed by three concurrent technical sessions as noted below:

International Seminar	***Accounting Education and Research*** ***(With Focus on Pedagogical Tools and Evaluation Methods)***
Technical Session I	***Government Accounting***
Technical Session II	***Corporate Reporting*** ***(With focus on Accounting Standards and XBRL)***
Technical Session III	***Emerging Dimensions of Accounting***

The Papers to be sent to the Conference Secretary (two hard copies with one soft copy in MS Word, Font: Times New Roman, 12 Size and 1.5 line spacing) latest by October 31, 2013. Papers would be subjected to a blind review by a technical committee. High Quality Papers would be allowed upto 15 minutes for presentation, while only the summary of the Satisfactory Papers will be allowed for about three minutes. Papers received on or before the stipulated time alone will be considered for presentation.

Registration & Delegate Fee **(No Spot Registration Please)**

(By crossed demand draft on any nationalised bank, in favour of "Indian Accounting Association" payable at Visakhapatnam)

IAA members registered by 31-10-2013	Rs.1200 (Rs. Twelve Hundred only)
IAA members registered after 31-10-13 but before 15-11-2013	Rs.1500 (Rs. Fifteen Hundred only)
Non-members registered by 31-10-2013	Rs.1700 (Rs. Seventeen Hundred only)
Non-members registered after 31-10-13 but before 15-11-2013	Rs.2000 (Rs. Two Thousand only)
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Registration Form :

36th All India Accounting Conference & International Seminar, Jan 6-7, 2014
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1. Name & Address with mobile & email(Block Letters):
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4. Food Habits (Please Tick) : (i) Veg. (ii) Non-Veg.
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A meeting of the **IAA General House** will be held at the Venue of 36th IAAConference, Visakhpatnam with Prof. Sasi Kumar, in the Chair on 7th Jan.2014 at 12 pm with the following agenda:

1. Consideration of minutes of Rajkot AGM.
2. Consideration of the Accounts of the Association
3. Topics for the next IAA Annual Conference
4. Venue of the 37th Conference
5. Nomination of Two Senior members for panel to nominate Jr. Vice President
6. Election of Executive Members as per rules and
7. Any other item with the permission of the Chair.

All the members are requested to kindly attend the meeting.

General Secretary, IAA

A meeting of the **IAA Executive Committee** will be held at the Venue of 36th Annual Conference, Visakhpatnam with Prof. Sasi Kumar , in the Chair on 6th Jan 2014 at 8.00 pm with the following agenda:

1. Consideration of the minutes of Rajkot EC meeting;
2. Consideration of the Accounts of the Association
3. Nomination of 3 EC members for panel to nominate Jr. Vice President
4. Venue of the 37th Conference;
5. Consideration of election to EC as per rules
6. Co option of members to EC and
7. Any other item with the permission of the Chair.

All the Executive Members are requested to kindly attend the meeting.

General Secretary, IAA

ANNOUNCEMENT OF YRA AWARD

IAA invites proposals for **Young Researcher Award – 2013**, on the Research Work done during the last five years in the area of Accounting by scholars/faculty members of not more than 35 years of age as on 31-12-2012, for the consideration of IAA Young Researcher Award-2013. Proposals are invited only from the life members of IAA.Proposals may be submitted on or before 25th Oct. 2013, to

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Principal, College of Arts & Commerce
Andhra University, Visakhapatnam-530003
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