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Positive Synergetic Changes In Capital Structure Through Mergers And Acquisitions

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Abstract:

The determination of the capital structure for income producing investment plans, through mergers and acquisitions. The study of debt reduction and operating leverage by the combination of two firms value of the capital structure provide a option for refinancing, leading and lagging is evaluated reflecting with taxes and bankruptcy cost. The study helps to evaluate changes in capital structure from mergers and acquisitions. The paper outlines a comprehensive study of Tata- Corus Pre and Post merger and acquisition for synergizing the capital structure and dividend policy of the combination of two firms. This paper provide useful insights for understand the better strategies and key motive factors and also help to analyse the positive synergetic change in capital structure based on empirical evidences.

Keywords: Mergers and Acquisitions, Steel Industry, Key drivers, changes in capital structure, Equity dividends

1.Introduction

One of the tough and compatible challenge that firms faces in the choice of capital structure. When a firm has surplus funds, it utilized into various activity. It gains them to the shareholders wealth by increasing their special dividend payments, it may utilizes them to finance capital feasibility projects or use as additional working capital, or to implement schemes for renovation and expansion on a more economies of scale to have better turnover by providing better credit terms.

Maximum studies were had been done related to mergers and acquisitions, but only few research have determined so far the long run performance of bidders firm after the merger and acquisitions to evaluate whether there is any changes in capital structure, dividend policies and to the share holders of bides firm inevitably gain or not.

	overpaid	Price - 3
Range of synergy value	Must capture same or all synergies	Price - 2
Stand alone value	No synergies require	Price - 1

Figure: 1 Pricing, synergy and Value creation.(Schweiger,2002)

Source : D,M.Schweiger.(2002) Merger and acquisition integration

Mergers and acquisitions should be examined as an investment activity in which the bidder firm acts as an investors and the firm being target acts as seller, which evolves of the proprietary right or the right to control by one.

A firm should always try to seek a better mix of its debt and equity in its capital structure. So, capital structure is most important determinant of the value of a firm on the basis of the major area clearly identify three models.

Model- 1 : When capital market is perfect

VL = VU = EBIT/Ka = EBIT/KeU

Where VL and VU = value of levered and unlevered firm

EBIT = Earnings before interest and tax

Ka = average cost of capital

KeU = Cost of equity of Unlevered firm

This model shows that the value of a firm and its cost of capital are separate and independent of its capital structure. Therefore there is no exists of an optimal capital structure.

Model- 2 : When only corporate taxes are taken into consideration.

VL = VU + T.D

Where T = corporate Tax

D = amount of debt

        In this model explains bankruptcy, agency and related costs to be too insignificant to affect the value of a firm. Therefore, the value of a firm increases with the increase in debt level. But this model was not perceptually determine the actual value which increase and the capacity of investment debt level.

Model – 3 : when bankruptcy, agency and other related cost are taken into consideration

VL = VU+ T.D –present value of expected bankruptcy cost-reduction in value from increased cost of debt –reduction in value from lower EBIT – present value of agency costs

This model clearly examined the existence of a optimal capital structure which is a trade-off between tax advantages and disadvantages of leverage. Because capital structure is affects the corporate profitability. It is most needed to find the most important factors that influence capital mix- through the combination of debt and equity proportion.

Licensing   strategic alliances   joint ventures mergers   and   acquisitions Lowinvestment control high Over operation commitment of resources

Figure 2 : Modes of corporate growth
Source: Adopted fromMarks, M and Marvis,P.(1998): Joining forces- making one plus one equal three in merger and acquisition, and strategic alliances

This model revealed that how Tata steel (TISCO) funded to Corus acquisition of $12.9 billion, or 52000 crores. Out of this Tata steel will provide only $ 4.1 billion, or 17750 crores. The following transaction shows a clear picture of the payment structure made by Tata steel by adopting several financial strategies.

Equity :

The Tata promoters converted preferential allocation warrants of Rs.2.85 crores to ordinary shares at Rs.482 per share. This became a net amount of Rs. 1380 crores.

Tata Company issued the right shares at 1:5 ratios at Rs 300 per share. This issue had 40% discount to the spot price of Rs. 500 per share. From this they raised 3660 crores by giving out 12.2 Crore shares.

Providing 1:7 ratio (1 share for every 7 own shares) of preference shares for Rs. 4350 crores at 2% interest, convertible at a rate between Rs.500 to Rs.600 in future. That's an additional 7.91 crore shares.

A foreign issue of IPO $500million (Rs.2100 crores).this yields another 3.82 crores shares issued for this.

A quasi- equity by Tata Singapore, for $1.25 billion. Gives that an equity dilution of 9.77 crores shares.

Internal accruals

The promoters cash of Rs.3000 crores:($700mill).

Debt :

External commercial borrowings of$500 million; (2170 crores).

Tata Steel taken a loan from UK debt with no recourse $6.14 billion about Rs. 26400 crores Tata Singapore also taken debt of $1.41 billion :(Rs.6063 crores).

Tata steel announces that the cost of debt is 4.3 %, which debt totals 34635 crores. The cost of debt is 1489 crores. At the same time if we observe the Tata steel earnings from the last 4 quarters are Rs.3901 crores. It shows the current EPS of Rs.67.21 per share at an equity share capital of Rs.58.05 crores shares and the P/E of 7.5.

At a comprehensive survey of Corus resulted with only had £269 million profit for first 3 months quarters before acquisition. But at that date used a pound rate of Rs.84. therefore it come around a net profit of Rs.3013 crores of Corus. This is lesser than the Tata's annual profit. Let's add up the net profit of Corus with Tata it will Rs.6104.56 crores.

From this consolidated net profit less the secured debt cost fetch on 34635 crores at the rate of 4.3% that is 1489.305. from the consolidated net profit of Tata and Corus after deduct the interest than the available consolidated net profit after paying the interest is 5246 crores also its increases the total equity to 94.6 crores shares and the real EPS will became 58 per share.

2.Theoretical Background

This paper seeks to determine the changes in capital structure and in dividend policies by strategic mergers and acquisitions. The capital structure decision is most important because it affects the overall organization performance of the firm in long run. The capital structure of a firm is adopting a combination of mix of debt and equity. That a firms uses to maintaining adequacy, liquidity and sophisticated mutilation of investment funds in better financial plans.

3.Review Of Literature

According to Elumibde.(2010), he observed that remarkable changes have been influenced largely by challenges posed by deregulation of financial sector, globalization of operations, technological renovation and innovation and adaptation of board connections that confirms to international standards.

Yook(2004) states that the bidder firms experience reduced operating performance after the mergers and acquisitions. Tambi(2005) examined that mergers neither provides economic scale nor synergy. Mergers and acquisitions were failed to provide any positive contribution in terms of return on capital employed.

Biger,Ngnyen and Hoang (2008) have tested variables by collecting Vietnamese firms this is result can be generalized to the steel industry. Most of the empirical studies on the determinants of capital structure of the firm through mergers and acquisitions on different sectors. Therefore the paper only limited to the analysis of Tata and Corus steel companies.

Andrade et al (2001) examined that unexpected shocks lead to a restructuring by firms as a reaction, often via mergers and acquisitions. The goal of outside directors may be more aligned with shareholders interest. These directors may seek strategic change and reengineering when they encounter poor firm performance.

Johnson, Hoskisson and Hitt(1993)furthermore, this study helps to check for consistency in the capital structure reaction from mergers and acquisitions announcements by firms

with past superior operating performance, negative reactions to such deals indicate stakeholders are unenthusiastic about the outcome of the deals.

While reviewing the literature, many studies already had been done to analyse the capital structure variations to the announcements made by companies like dividends, bonus, share splits, dilution, capital decisions and even the monetary policy announcements. only my study is limited to analyse the positive synergetic changes in capital structure due to the corporate integration through mergers and acquisition of Tata and Corus steel companies.

4.Hypothesis

To find the positive synergetic changes in capital structure through mergers and acquisitions

- H_0:there is no significant difference between change in capital structure in Pre and Post mergers and acquisitions
- H1: there is a significant difference between change in capital structure in Pre and Post mergers and acquisitions.
- H0: there is no significant relationship between pre merger and acquisition total capital and equity dividends.
- H1: there is a significant relationship between pre merger and acquisition total capital and equity dividends.
- H0: there is no significant relationship between post merger and acquisition total capital and equity dividends.
- H1: there is a significant relationship between post merger and acquisition total capital and equity dividends.

5.Research Design

5.1.Data Collection And Their Sources

The data used for the study were collected from websites, journals and the financial statements are taken from companies' websites. Therefore the study is based on secondary data

5.2.Methodology

This study "event methodology" is used to ascertain there are any changes in capital structure associated with the merger and acquisition announcement of Tata and Corus steel companies.

5.3.Financial Parameters

The study carried out over various years under the consideration using accounting based approach by evaluating different financial tools

Trend income statement

Comparative balance sheet

Leverage

Statistical tools

Correlation co-efficient =   r = $\dfrac{N(\sum xy) - (\sum x)(\sum y)}{\sqrt{[N(\sum x^2) - (\sum x)^2]\,[N(\sum y^2) - (\sum y)^2]}}$

The T- test is used to determine the changes in capital structure in pre and post period of mergers and acquisition

$$t = \dfrac{\sum d}{\dfrac{\sqrt{N(\sum d^2) - (\sum d)^2}}{N-1}}$$

5.4.Decision Rule

If the probability level of significance of the t- calculated value is less than 5%. We accept the alternative hypothesis and otherwise, we should reject the null hypothesis

5.5.Data Analysis And Findings

Year	Debt (D)	Equity (E)	Leverage (L)=D/D+E=D/C
2003	4225.61	3186.02	0.57
2004	3373.28	4515.86	0.43
2005	2739.70	7059.92	0.28
2006	2516.15	9755.30	0.21
2007	9645.33	14096.15	0.41
2008	18021.69	27300.73	0.67
2009	26946.18	29704.60	0.48
2010	25239.2	37168.75	0.40
2011	28301.14	48444.63	0.37
2012	23693.82	52216.46	0.31

Table 1: Calculation of changes in leverage of Tata –Corus Pre and Post merger and acquisition period Calculation of leverage of Tata steel from the period of 2003-2012

Hypothesis: 1

There is significant difference between pre and post merger and acquisition capital structure

T-Test

	Pre EPS 2003-2007	Post EPS 2008-2012	D	D^2
1	0.57	0.67	0.10	0.01
2	0.43	0.48	0.05	0.0025
3	0.28	0.40	0.12	0.0144
4	0.21	0.37	0.16	0.0256
5	0.41	0.31	-0.10	0.01
			D=0.33	D^2=0.0625

Table 2

$\sum d = 0.33 / 5 = 0.066$

$$t = \frac{\sum d}{\sqrt{\dfrac{N(\sum d^2) - (\sum d)^2}{N^2(N-1)}}}$$

$$t = \frac{0.066}{\sqrt{\dfrac{5(0.0625) - (0.066)^2}{5^2(5^2-1)}}}$$

$$t = \frac{0.066}{\sqrt{\dfrac{5(0.0625) - (0.066)^2}{25(24)}}}$$

$$t = \frac{0.066}{\sqrt{\dfrac{0.3125 - 0.004356}{25(24)}}}$$

$$t = \frac{0.066}{\sqrt{\dfrac{0.308144}{600}}}$$

$$t = \frac{0.066}{\sqrt{0.00051357}}$$

$$t = \frac{0.066}{0.02266}$$

$$t = 2.913$$

Degree of freedom = N-1 = 5-1 = 4 at 5% level of significance The tabulated values 2.776, since this value is lesser than the computed value above 2.913, therefore reject the null hypothesis and accept the alternative hypothesis.

There is significant difference between pre merger and acquisition equity capital and equity dividends.

Pre-Merger and Acquisition period -2003-2007

	Capital(X)	Equity dividend(Y)	x^2	y^2	X y
1	7411.63	295.19	54932259.26	87137.14	2187839.06
2	7889.14	368.98	62238529.94	136146.20	2910934.88
3	9799.62	719.51	96032552.14	517694.60	7050924.59
4	12271.45	719.51	150588485.10	517694.60	8829430.99
5	23741.48	943.91	563657872.60	890966.10	22409820.39
	$\sum x$ =61113.32	$\sum y$ = 3047.10	$\sum x^2$ = 927449699	$\sum y^2$ =2149639	$\sum xy$ =43388949.9

Table 3

$$\text{Correlation co-efficient} = r = \frac{N(\sum xy) - (\sum x)(\sum y)}{\sqrt{[N(\sum x^2) - (\sum x)^2][N(\sum y^2) - (\sum y)^2]}}$$

$$\frac{5(43388949.9) - (61113.32)(3047.10)}{\sqrt{[5(927449699) - (61113.32)^2][5(2149639) - (3047.10)^2]}}$$

$$\frac{216944749.50 - 186218397.372}{\sqrt{[4637248495 - 3734837881.42][10748195 - 9284818.41]}}$$

$$\frac{30726352.128}{\sqrt{[902410613.58][1463376.59]}}$$

$$\frac{30726352.128}{36339600.5272}$$

$R^2 = \quad 0.846$

There is significant difference between post merger and acquisition equity capital and equity dividends.

Post-Merger and Acquisition period -2008-2012

	Capital(X)	Equity dividend(Y)	x2	y2	X y
1	45322.42	1168.93	2054121754.65	1366397.34	52978736.41
2	56650.78	1168.93	3209310874.60	1366397.34	66220796.27
3	62407.95	709.77	3894752223.20	503773.45	44295290.67
4	76745.77	1151.06	5889913212.89	1324939.12	88338986.02
5	75910.28	1165.46	5762370609.67	1358297.01	88470394.93
	$\sum x$ =317037.20	$\sum y$ = 5364.15	$\sum x2$ = 20810468674.90	$\sum y2$ =5919804.26	$\sum xy$ =340304204.30

Table 4

Correlation co-efficient =   r =

$$r = \frac{N(\sum xy) - (\sum x)(\sum y)}{\sqrt{[N(\sum x^2) - (\sum x)^2][N(\sum y^2) - (\sum y)^2]}}$$

$$\frac{5(340304204.30) - (317037.20)(5364.15)}{\sqrt{[5(20810468674.90) - (317037.20)^2][5(5919804.26) - (5364.15)^2]}}$$

$$\frac{1701521021.50 - 186218397.372}{\sqrt{[1040523433574 - 100512586183][29599021.30 - 28774105.22]}}$$

$$\frac{885925.12}{\sqrt{[3539757191][824916.08]}}$$

$$\frac{885925.12}{54037048.64}$$

$R^2 = \quad 0.01639$

Particular	2006	2012	Increase or decrease	% Increase or decrease
Assets				
Net block	8707.32	11366.26	2658.94	30.85
Capital work in progress	1157.73	18506.63	17348.90	1498.53
Investment	4069.96	50282.52	46212.56	1135.45
Inventories	2174.75	4858.99	2684.24	123.43
Sundry debtors	539.40	904.08	364.68	67.61
Cash & bank balance	288.35	30.82	-257.53	-89.31
Loans & advances	1994.46	6935.93	4940.74	247.72
Fixed deposits	0.04	3918.93	3918.89	9797225
Miscellaneous expenses	253.27	0.00	-253.27	-100
Total	19185.28	96803.43	77618.15	404.57
Liabilities				
Equity share capital	553.67	971.41	417.74	75.45
Reserves	9201.63	51245.05	42043.42	456.91
Secured loans	2191.74	1919.27	-272.47	-12.43
Unsecured loans	324.41	21774.55	21450.14	6612.05
Current liabilities	4552.39	16975.61	12423.22	272.89
Provisions	2361.44	3917.54	1556.10	65.90
Total	19185.28	96803.43	77618.15	404.57

Table 5: Comparative balance sheet of pre and post merger and acquisition period

Particular	2006	2006(%)	2012	2012(%)
Net sales	15132.09	100	33838.51	223.62
(+)income	357.49	100	1144.14	320.05
Total income	15489.58	100	34982.65	225.85
(-)expenses	9352.78	100	22046.74	235.72
PBDIT	6136.80	100	12935.91	210.79
(-)interest	168.44	100	1925.42	1143.09
PBDT	5968.36	100	11010.49	184.48
(-)depreciation	775.10	100	1151.44	148.55
PBT	5193.26	100	9859.05	189.84
(=)extra- ordinary items	47.50	100	-	-
PBT(post extra-ord items)	5240.76	100	9859.05	188.42
(-)tax	1734.38	100	3162.63	182.35
PAT	3506.38	100	6696.42	190.98

Table 6: Trend income statement of pre and post merger and acquisition period

Year	Total turnover	Sales turnover	Value of assets	Gross block	Exports
2011-12	475,721	471,045	373,026	396,218	44,100
2010-11	379,675	374,687	313,960	334,338	37,852
2009-10	319,534	311,129	250,179	292,248	31,721
2008-09	325,334	321,849	237,247	261,276	33,987
2007-08	251,543	247,416	177,293	193,507	25,280
2006-07	129,994	128,377	113,573	86,613	23,635
2005-06	96,723	94,714	79,766	68,169	23,643
2004-05	79,913	78,275	68,018	60,029	20,587
2003-04	65,424	61,434	55,063	45,884	14,136
2002-03	54,227	52,134	50,927	43,481	13,076
2001-02	49,457	48,000	49,162	40,365	12,574

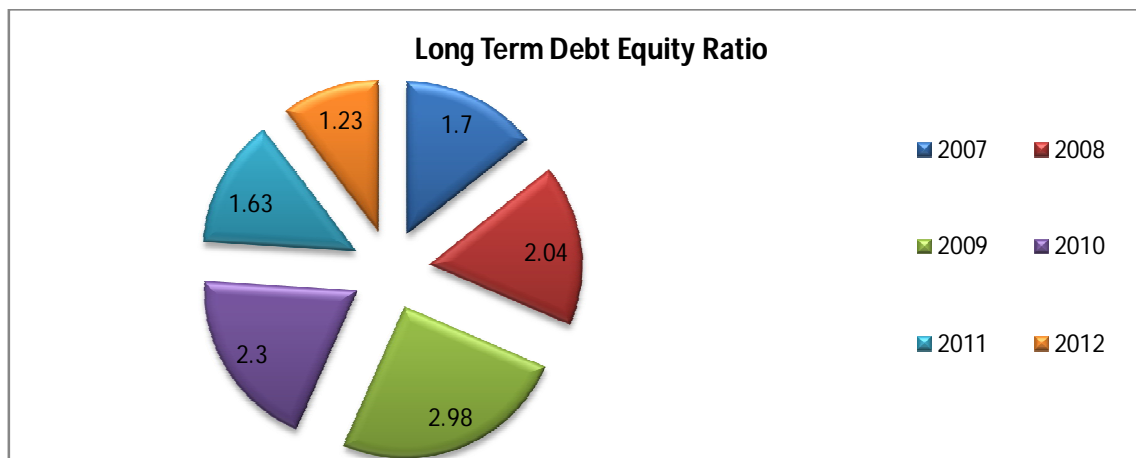*Table 7: Tata Group Figures - the operating performance of pre and post M & A*

Rs in crore

Figure 1

Return On Net Worth(%)

■ Return On Net Worth(%)

Figure 2

Return on Long Term Funds(%)

Return on Long Term Funds(%)

Figure 3
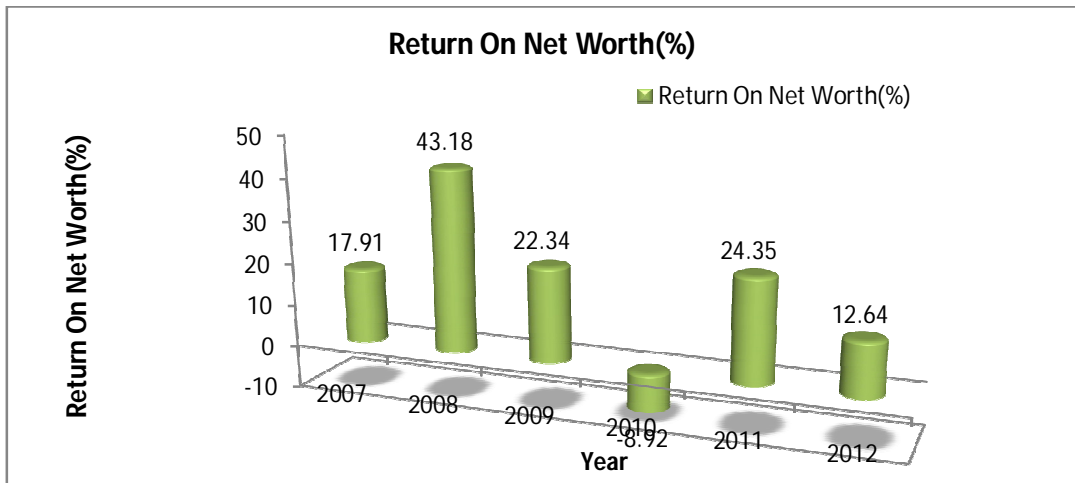
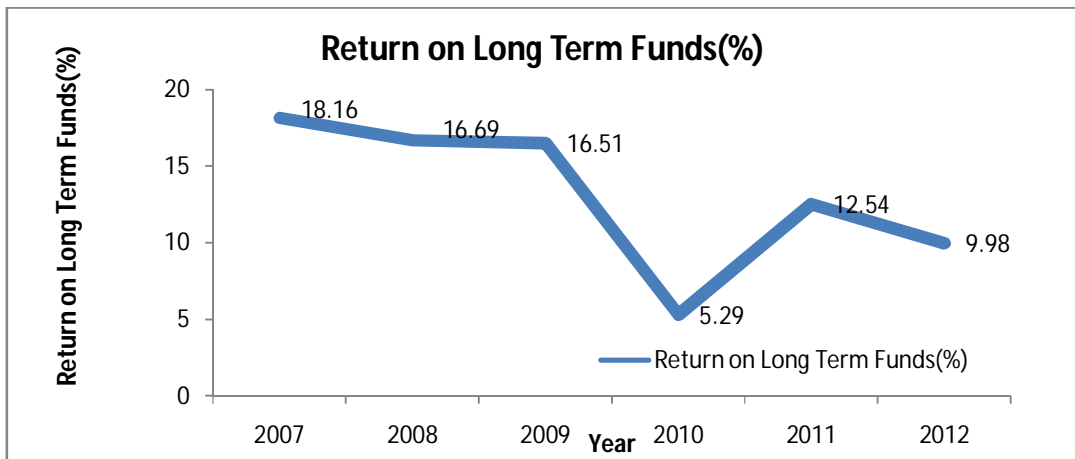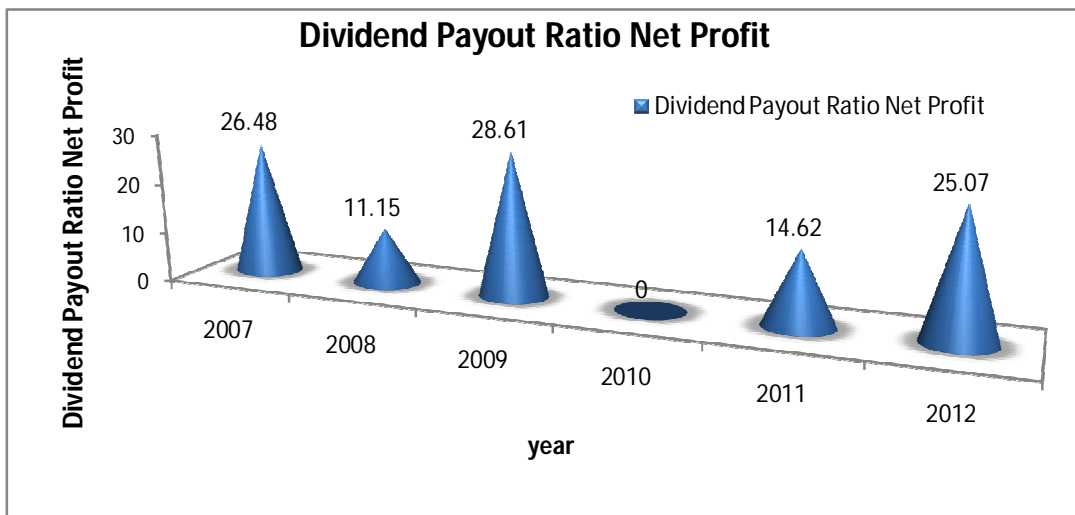**Dividend Payout Ratio Net Profit**

■ Dividend Payout Ratio Net Profit

Figure 4

6.Empirical Results And Interpretation

The result of the first hypothesis examined for empirical evaluation deals with important challenge. In connection with the first hypothesis by using the student t-test statistical analytical tool the tabulated value is 2.776. Since the value is lesser than the computed value above-2.913. Therefore reject the null hypothesis and accept the alternative hypothesis.

The second hypothesis resulted with 0.846. It also had shown a very high relationship. Therefore accept the alternative hypothesis, which states that there is a significant relationship between change in capital structure and dividend policy in pre merger and acquisition period.therfore reject null hypothesis.

The last hypothesis examined and resulted that changes in capital structure is significantly influencing the dividend policy of the organization as value of r^2 falls less than 1 that is 0.0163. This resulted with very positive high relationship between changes in capital structure and dividend policy after the post period of acquisition. Therefore accept the alternative hypothesis, which states that there is a significant relationship between changes in capital structure and dividend policy.

The trend analysis and the comparative balance sheet had shown a positive synergetic change in capital structure, organization profitability, and leverage positions. The reduction of debt investment makes increase the investment of equity in post period of acquisition and also the companies provide better returns to equity share holders.

7.Limitations Of The Study

This study is limited to the sample of Tata and Corus Steel manufacturing companies. The findings of the study could only be adoptable and advisable to steel manufacturing firms similar to those that were included in this research.

8.Conclusion

This study has remained an important goal to rework or need a re-engineering the group of capital structure. Especially in steel industry, in the current global recession in steel manufacturing, the terms of this refinancing are exceptional for their flexibility in operation and financing plans and attractiveness to the business. Tata steel's acquisition of Corus steel was not without controversy. There were substantial performance during and after acquisition period that require more comprehensive further study. The current

industry woes are seen by experts as an opportunity for expansion and strengthening of the steel industry in India.

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