

Financial Leverage and Its Impacts on Earning Per Share

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ABSTRACT

To study comparative effect of leverages on small, medium and large cap software companies located in India. Similarly it's earning capacity and dividend payout for the period of 2010-2015. It covers such areas, methods of financing, financial leverage effects on earnings, inter relationship between Degree of financial leverage, earning per share, and dividend per share. Is the market price impacted by dividend per share and earnings per share? Usually investors depend upon declaration of dividend and good earnings per share to make decision regarding the investment.

DESIGN OF STUDY

The study is partly exploratory and partly analytical in nature which is mainly based on the secondary data. The secondary data will be collected from the published annual reports of the company. The data collected from this source have been used and compiled with due care as per requirement of the study. The study covers a period of 6 years from 2009-10 to 2014-15. It had been made by converting the collected data into relative measures, such as ratios, percentages, rather than absolute one. For analyzing the degree of association between degree of financial leverage, earning per share, dividend per share, Karl Pearson's correlation analysis has been applied. The ANOVA Variance analysis-used to judge whether the calculated correlation coefficient are significant or not, or to test the hypothesis.

1. NEED FOR THE STUDY

The encouragements given by government have enabled the growth of industry. But these encouragements require strategic policy decision from the part of government in the Present day scenario of globalization. So the study is significant as it would reveal how efficiently and effectively utilize the capital for attaining maximum value to stakeholders and study the relationship between Earning per share and Dividend per share. The study looks forward to analyze importance of financial leverage in improving EPS. Review of literature on leverage, earnings and dividend reveals that not much research has been done in the area of leverage, earnings and dividend in general and software Industry in particular. Present study is a humble attempt to fill-in this gap.

2. OBJECTIVE OF STUDY

The objectives for which study has been undertaken are,

- To examine the impact of financial leverage on earning per share in the case of Small cap, Mid cap and Large cap Software Companies.
- To know about the relationship between earning per share and dividend
- per share of the Small cap, Midcap and Large cap Software Companies.

- 111 to summarize main findings of the study and offer some suggestions for
- improving EPS by the usage of financial leverage.

DATA COLLECTION AND SOURCE

Total sample of 30 companies of information technology industry consisting of small cap, mid cap and large cap selected as a respondent. The 30 companies selected are listed companies of Bombay stock exchange and National Stock Exchange BSEIT Index , BSE SMALL CAP INDEX and CNXIT Index as on 31-3-2015. The study is based upon financial leverage, earnings, dividend with respect to these companies which are software companies. A pilot study has been conducted to arrive at selecting these 30 companies as sample units. The pilot study of three software units located in and around Bangalore. The source of data is secondary in nature. The sources of data include

- Annual reports of 2010-2015 of sample units.
- BSE and NSE reports of 2010-2015.
- Monthly reports of 2010-2015 of sample units.
- Books, journals, monographs, databases, websites, and research studies carry carried out by individuals/ Institutions.
- Unstructured interview with financial executives of sample units.

METHOD OF SAMPLING

The units of BSEIT Index collected through Survey method, whereas units of CNXIT Index and BSE SMALL CAP Index were collected through judgment sampling for the study. In the case of BSEIT units all the units are involved as the part of study, were as CNXIT Index out of 20 units only 10 are selected as sampling units through judgment sampling as other 10 units of the Index are already part of BSEIT Index. As the study is comparative study on financial leverage, earnings and dividend of software industry, these units as respondent will meet the requirement the study.

3. DATA ANALYSIS

The study has been made by converting the collected data into relative, measure such as ratios, percentages, rather than absolute one. For analyzing the degree of association between DFL, EPS, DPS, Pearson's correlation analysis has been applied. Following statistical tools were used for analysis.

- Multiple correlations.
- Multiple Regressions and ANOVA variance analysis.
- t test analysis.
- Trend percentage.

SAMPLING UNITS

It is comparative study of small, mid and large cap company over the period of 6 years during the period of 2009-10, 2010-11, 2011-12, 2012-13, 2013-14, 2014-15. The companies are listed in BSE SMALL CAP Index, BSEIT Index, of Bombay Stock Exchange and CNXIT of National Stock Exchange respectively. The present study is related to financial leverage, earnings and dividend of Software industry therefore the unit of sample is software companies.

It is always desirable to ascertain the background of the sample. This would help to analyze the research issue in its right prospective. The units of sample are selected from software units belong

to software industry. The units studied have been classified in to three categories, viz., large cap, medium cap and small cap. Further they are classified as units involve domestic and export business, constitution of organization, age of the sampled units, and source of sample units.

FINANCIAL LEVERAGE

The assets of the firm can be financed by either increasing the owner's claim or the creditor's claim. The owners claim increase when the firm raise funds by issue of ordinary shares or by retaining the earnings, the creditors claim increase by borrowing. The various means of financing represent the financial structure of the business. The use of the fixed-charges sources of funds ,such as debt and preference capital along with owners' equity in the capital structure is known as financial leverage or gearing or Trading on equity. The use of words trading on equity is derived from the fact that it is owner's equity that used as a basis to raise debt: that is the equity that is traded upon. The supplier of debt has limited participation in the company's profit and therefore he will insist on protection in earnings and protection in value represented by ownership equity. The financial leverage employed by a company is intended to earn more on the fixed charges funds than their cost. The surplus will increase the return to the owner's equity. The rate of return on owner's equity is levered above or below the rate of return on total assets. Financial leverage at once provides the potentials of increasing the shareholders earnings as well as creating the risk of loss to them. It is double edged sword.

GLOBAL TRENDS IN CAPITAL STRUCTURE

Company's capital structures vary among countries. For example, on an average, Japanese firms use 85% debt to total assets (in book value terms), German firm use 64% and U.S firm use 55%. One problem while interpreting these numbers is different countries follow different accounting conventions with regards to reporting of assets on historical or replacement cost basis, it becomes difficult to compare the capital structure. A study by Reghuram rajan and Luigi Zingles concluded that difference in accounting practice can explain much of cross-country variation in capital structure. The evidence suggest that companies in Germany, U.K tend have less leverage, where as firms in Canada appears to have more leverage, relative to firm in U.S, France, Italy and Japan. The times-interest earned ratio is the ratio of operating income to interest expenses which is more in U.K, Germany and less in Canada.

FINANCIAL LEVERAGE, EARNINGS AND DIVDEND

Use of fixed cost bearing capital in the capital structure is termed as financial leverage. Such capital especially debt is cheaper than the equity as the cost of debt is generally lower than that of equity and a tax advantage is attached with its use. In this circumstances, If total capital employed remain constant , increase in financial leverage or use of debt implies that relatively cheaper source fund replace a source of fund having relatively higher cost. Now if a company follows this practice its net return will be attributable to the low base of equity shareholders. As a results it will leads to magnification of return to equity and EPS But one should keep in mind that the same hold good in favorable business environment where the company is able to earn a rate return on investment being higher than its cost of financing. So long this situation continues the return on equity or EPS will increase with increase in financial leverage. However during the period of adversity when the company is not in a position to earn greater rate of return than the cost of debt its return equity and EPS decreases. Keeping these theoretical backgrounds in view the study is focused on relationship between financial leverage, EPS and dividend. The Data collected through secondary reports was

arranged with the help of percentage, average scores, and was analyzed with the help of multiple correlations, multiple regression, ANOVAs variance analysis and t'test to test the hypothesis. Findings are based on the said analysis.

AVERAGE VALUE OF EQUITY, RESERVE, NET WORTH, LONG TERM DEBT, CAPITAL EMPLOYED AND TREND RATIOS, RETURN ON CAPITAL EMPLOYED OF LARGE CAP UNITS. (RS. IN MILLIONS)

Year		2010	2011	2012	2013	2014	2015
Equity	Ave-Equity	75.22	100.13	139.44	171.42	166.21	176.44
	Trend %	100	133.11	185.37	227.89	220.96	234.56
Reserve	Ave-reserve	2079.12	2657.06	3836.17	4649.32	5615.89	7145.7
	Trend %	100	127.8	184.5	223.6	270.1	343.7
Debt	Ave-debt	207.6	175.8	271.7	727.8	1052	1380
	Trend %	100	120.7	180.2	234.91	282.44	363.37
Net worth	Ave- net-worth	2154	2757	3976	4821	5782	7322
	Trend %	100	127.8	184.5	223.8	268.4	339.9
Capital Employed	Ave-capital employed	2361.96	2932.95	4247.35	5548.49	6833.93	8701.89
	Trend %	100	124.17	182.27	229.59	275.74	352.16
Return on capital employed		20.698	24.058	23.314	19.742	26.515	22.674

Source: Audited financial data of sample units

TABLE NO 1

TREND VALUE OF AVERAGE EQUITY OF LARGE, MID AND SMALL CAP SOFTWARE INDUSTRY.

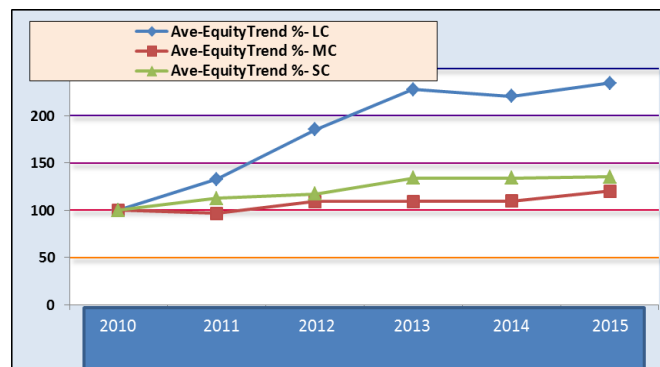


FIG NO 1

AVERAGE VALUE OF EQUITY, RESERVE, NET WORTH, LONG TERM DEBT, CAPITAL EMPLOYED, TREND RATIO, RETURN ON CAPITAL EMPLOYED OF MID CAP UNITS.(RS IN MILLION)

Year		2010	2011	2012	2013	2014	2015
Equity	Ave-Equity	64.51	62.49	70.47	70.68	70.94	77.72
	Trend %	100	96.86	109.23	109.56	109.96	120.47
Reserve	Ave-reserve	415.89	417.05	560.42	762.06	975.31	1228.21
	Trend %	100	127.8	184.50	223.6	270.1	343.7
Debt	Ave-debt	479.5	630.9	832.7	1046	1306	659.6
	Trend %	100	106.47	244.7	527.98	664.01	860.03
Net worth	Ave- net-worth	480.4	479.5	630.9	832.7	1046	1306
	Trend %	100	99.82	131.3	173.3	217.8	271.8
Capital Employed	Ave-capital employed	557.09	561.19	818.56	1237.66	1555.5	1965.5
	Trend %	100	100.73	146.93	222.16	279.21	352.81
Return on capital employed		20.687	17.689	46.91	20.68	12.98	15.081

Source: Audited financial data of sample units

TABLE NO 2

TREND VALUE OF AVERAGE RESERVE OF LARGE, MID AND SMALL CAP SOFTWARE INDUSTRY

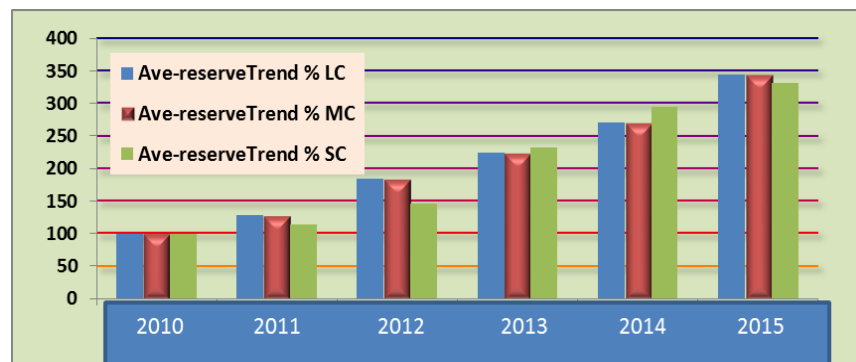


FIG NO 2

AVERAGE VALUE OF EQUITY, RESERVE, NET WORTH, LONG TERM DEBT, CAPITAL EMPLOYED, TREND RATIO, RETURN ON CAPITAL EMPLOYED OF SMALL CAP UNITS.(RS IN MILLION)

Year		2010	2011	2012	2013	2014	2015
Equity	Ave-Equity	19.79	22.31	23.26	26.56	26.56	26.85
	Trend %	100	112.73	117.53	134.2	134.2	135.67
Reserve	Ave-reserve	61.212	69.7088	89.582	142.459	180.539	202.644
	Trend %	100	113.9	146.3	232.6	294.9	331
Debt	Ave-debt	36.92	56.05	66.89	137.1	260.4	380.6
	Trend %	100	151.8	181.11	371.4	705.2	1030.9
Net worth	Ave- net-worth	81	91.61	112.8	169	207.1	229.5
	Trend %	100	113.6	139.3	208.6	255.6	283.3
Capital Employed	Ave-capital employed	117.92	147.66	179.73	306.139	467.459	610.124
	Trend %	100	125.55	152.39	259.56	396.38	517.36
Return on capital employed		11.49	17.55	22.31	14.82	18.38	22.95

Source: Audited financial data of sample units

TABLE NO 3

TREND VALUE OF AVERAGE DEBT OF LARGE, MID AND SMALL CAP SOFTWARE INDUSTRY

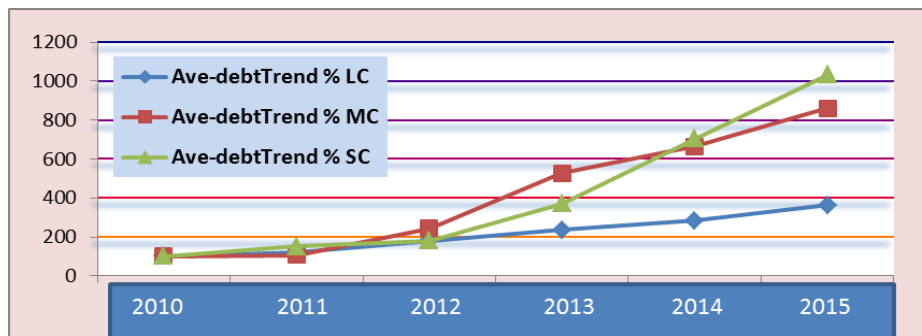


FIG NO 3

TREND VALUE OF AVERAGE NET WORTH OF LARGE, MID AND SMALL CAP IT INDUSTRY

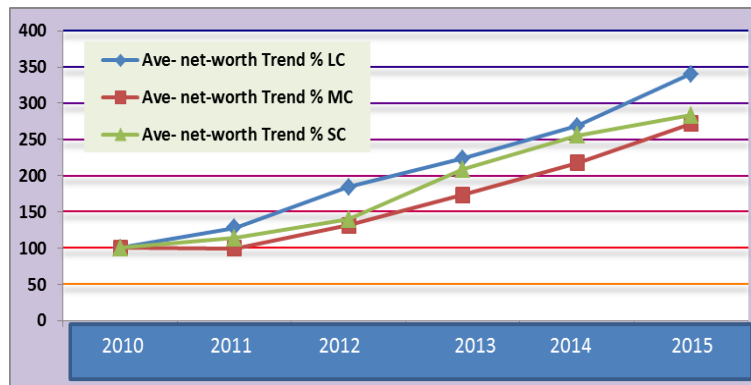


FIG NO 4

TREND VALUE OF AVERAGE CAPITAL EMPLOYED OF LARGE, MID AND SMALL CAP IT INDUSTRY

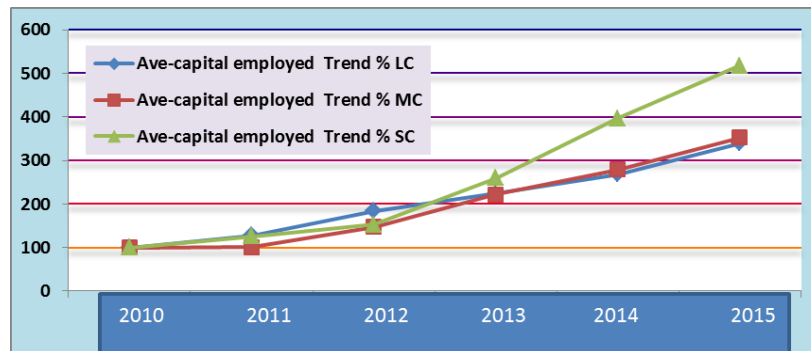


FIG NO 5

The table 4.1 and diagram 4.1,4.2,4.3,4.4,4.5 reveals the fact that, In the case of large cap units equity shows steady growth of 33.11%, 85.37%,127.89%,120.96%, 134.56% from 2010 to 2015.As reserve is concerned the rate of growth is faster with growth rate of 27.8%,84.5%,123.6%,170.01% and 243.7% from 2010 to 2015. The rate of growth in long term debt indicates fact that usage of financial leverage concept to increase the return to equity holders by large cap units of software industry. The growth trend of debt was 20.7%, 80.02%, 134.91%, 182.44% and 263.37 from 2010 to 2015. With respect to capital employed the growth trend was 24.17%, 82.27%, 129.59%, 175.74% and 252.16% from 2010 to2015. The growth in terms of return on capital employed indicate that increase of 3.36%,2.616%,-.956%,5.817%and 1.976% from the year 2010 to 2015. The above table 4.2 and diagram 4.1,4.2,4.3,4.4,4.5 bring out the fact that in the case of mid-caps software industry, average growth in equity comparatively low. The growth rate being -.3.14%, 9.23%, 9.56%, 9.96%, 20.47%from 2010 onwards. The usage of debt in capital structure is result in the financial leverage effects; the growth rate being 6.47%, 144.7%, 427.98%, 564.1%, 760.03% from 2010 to 2015. There is huge amount of reserve available for future growth and its incremental growth being 27.8%,84.50%,123.6%,170.10%,243.7% from 2010 to 2015. The growth trend of return on capital employed indicate -2.998%, 26.223%,-7.707%, 5.606% respectively from 2010.

As per table 4.3 and diagram 4.1,4.2,4.3,4.4,4.5 show the picture of small cap unit's equity growth is low 12.73%, 17.53%,34.2%,34.2%,35.67% from 2010 to 2015 The accumulation of profits is evident from the reserve value which is at high growth 13.9%, 46.3%,132.6%, 194.9%,231% .Small cap unit use debt as a source of capital as evident from the above table to increase value to equity shareholders the growth trend of 51.8%,81.11%,271.4%,605%,930.97% . The growth rate of return on capital employed 25.55%, 52.39%,159.56%,296.38%,417.36% from 2010 onwards.

The table 4.1,4.2,4.3 reveal the fact that the trend of equity ,reserve, debt, net-worth and capital employed of large cap, mid cap and small cap software industry. The table reveals that during 2010, equity growth trend 234.56% for large cap software industry, 120.47% for mid cap software industry, 135.67% for small cap software industry. Regarding growth rate of reserve during 2015 reveal the fact that 343.68% for large cap software industry, 295.37% for mid cap software industry, 330.94% for small cap software industry. Regarding growth rate of debt 363.37% for large cap software industry, 860.03% for mid cap software industry and 1030.94% for small cap software industry. With respect to capital employed the growth trend of 352.16% for large cap industry, 352.81% for mid cap industry, 517.36% for small cap software industry during 2015.

The Table 4.1,4.2,4.3 and diagram 4.1,4.2,4.3 shows the picture that software industry large cap or mid cap or small cap capital structure policy is to increase its net worth by retain back the profits and in this way to reduce the cost of equity over the period. Firm can enjoy equity at a cheaper cost if its net worth is strengthened by retaining back of profits which is not dividend bearing. An increasing amount of reserve and surplus included in net worth is visible in all 6 years. The equity growth is at minimum growth rate throughout the period of study. The industry utilized reserve to increase the net worth. The average capital employed for large cap units constitutes 2361.96 (10 millions) consisting of equity 75.22 (10 millions), reserve 2079.1 (10 millions) and rest long term debt for the year 2010. The average capital employed for mid cap units constitutes 557.092 (10 millions) consisting of equity 64.51 (10 millions), reserve 415.89 (10 millions) and rest long term debt for the year 2010. The average capital employed for small cap units constitutes 117.92 (10 millions) consisting of equity 19.79 (10 millions), reserve 61.21 (10 millions) and rest long term debt for the year 2010. The average capital employed for large cap units constitutes 8701.89 (10 millions) consisting of equity 176.44 (10 millions), reserve 7145.6 (10 millions) and rest long term debt for the year 2015. The average capital employed for mid cap units constitutes 1965.496 (10 millions) consisting of equity 77.72 (10 millions), reserve 1228.2 (10 millions) and rest long term debt for the year 2015. The average capital employed for small cap units constitutes 610.075 (10 millions) consisting of equity 26.85 (10 millions), reserve 202.6 (10 millions) and rest long term debt for the year 2015. Therefore the increased content of reserve and surplus in capital employed will reduce the cost of equity as additional equity base is comparatively less

ANALYSIS OF CAPITAL STRUCTURE OF LARGE CAP SOFTWARE INDUSTRY

PERCENTAGE TO NET-WORTH			PERCENTAGE TO CAPITAL EMPLOYED		
YEAR	EQUITY	RESERVES & SURPLUS	DEBT	EQUITY	RESERVES
2009-10	3.49	96.51	52.30	1.67	46.03
2010-11	3.63	96.37	50.84	1.79	47.37
2011-12	3.50	96.50	51.70	1.69	46.61
2012-13	3.56	96.44	53.51	1.65	44.84
2013-14	2.87	97.13	53.57	1.34	45.09
2014-15	2.41	97.59	53.96	1.11	44.93

TABLE NO 4

ANALYSIS OF CAPITAL STRUCTURE OF MID CAP SOFTWARE INDUSTRY

PERCENTAGE TO NET-WORTH			PERCENTAGE TO CAPITAL EMPLOYED		
YEAR	EQUITY	RESERVES & SURPLUS	DEBT	EQUITY	RESERVES
2009-10	13.43	86.57	13.77	11.58	74.65
2010-11	13.03	86.97	14.55	11.14	74.31
2011-12	11.17	88.83	22.93	8.61	68.46
2012-13	8.49	91.51	32.72	5.71	61.57
2013-14	6.78	93.22	32.74	4.56	62.70
2014-15	5.95	94.05	33.56	3.95	62.49

TABLE NO 5

ANALYSIS OF CAPITAL STRUCTURE OF SMALL CAP SOFTWARE INDUSTRY

PERCENTAGE TO NET-WORTH			PERCENTAGE TO CAPITAL EMPLOYED		
YEAR	EQUITY	RESERVES & SURPLUS	DEBT	EQUITY	RESERVES
2009-10	24.43	74.57	31.32	16.78	51.90
2010-11	24.25	75.75	37.85	15.07	47.08
2011-12	20.61	79.39	37.21	12.94	49.85
2012-13	15.72	84.28	44.80	8.68	46.52
2013-14	12.83	87.17	55.70	5.68	38.62
2014-15	11.70	88.30	62.39	4.40	33.21

TABLE NO 6

Source: Audited financial data of sample units

Table 4.4 reveals the fact that the relative method of financing adopted by the large cap units under study. The net-worth of the company constitutes equity capital and reserve, 3.49% of equity and 96.51% of reserve and surplus in the year 2009-10 for large cap units. In the following years large cap units increased the proportion of reserve and surplus from 96.37% to 97.57% with decrease in proportion of equity from 3.63% to 2.41% during the period of 2011 to 2015. One can observe from the table that a percentage decrease in equity capital result in increase in reserve and surplus. The relative percentage of debt, equity and reserve to capital employed reveals that during 2009-10 debt constitutes 52.30%, equity 1.67%, reserve 46.03%. During 2014-15 period debt constitutes 53.96%, equity 1.11% and reserve 44.93%. One can observe that equity base is reduced and corresponding increase in reserve as debt percentage remains constants during the period of study.

The table 4.5 reveals the fact that the relative method of financing adopted by the mid cap units under the study. During 2009-10 reserves and surplus constitute 86.57% and equity 13.43% of the net-worth. During 2014-15 reserve and surplus constitutes 94.05% and equity 5.95%. One can observe from the table decrease in equity base results in increase in reserve and surplus of mid cap software units. The relative percentage of debt, equity and reserve to capital employed reveal that during 2009-10 debt constitutes 13.77%, equity 11.58% ,and reserve 74.65%. During 2014-15 period debt constitutes 33.56%, equity 3.95% and reserve 62.49%. One can observe that equity base is reduced and corresponding increase in reserve and debt percentage during the period of study.

Table 4.6 reveals the fact that relative method of financing adopted by small cap units under the study. During 2009-10 period reserve and surplus constitute 74.57% and equity constitutes 24.43%. During 2014-15 period reserve and surplus constitute 88.30% and equity constitutes 11.70%. One can observe from the table that decreases in equity base results in increase in reserve and surplus of small cap software units. The relative percentage of debt, equity and reserve to capital employed reveal that during 2009-10 debt constitute 31.32%, equity constitute 16.78% ,reserve constitute 51.90%. During 2014-15 period debt constitutes 62.39%, equity constitute 4.40% and reserve constitute 33.21%. One can observe that equity base is reduced and corresponding increase in debt percentage during the period of study.

4. CONCLUSION

From the study of the financial leverage and its impacts on earning per share and dividend per share of the select companies to pay short-term obligations on due dates. Long-term solvency is lower which shows that companies relied more on external funds in terms of long-term borrowings thereby providing a lower degree of protection to the creditors. Capital structure and financial stability ratios in debt to net worth ratio in case of RDPL have showed a downward trend and consequently the financial stability has been decreasing at an intense rate. The Indian software industry will witness an increase in the market share. The software sector is poised not only to take new challenge but to sustain the growth momentum of the past decade.

5. REFERENCES

- [1] Altman, E., 1968. Financial ratios, discriminant analysis and the prediction of corporate bankruptcy. *J. Finance*, pp: 589-609.
- [2] Altman, E.I. and A.C. Eberhart, 1994. Do seniority provisions protect bondholder investments. *J. Portfolio Manage.*, Summer, 20(4): 179-194
- [3] Campbell, J., J. Hilscher and J. Szilagyi, 2008. In search of distress risk. *J. Finan.*, 63(6): 2899-2939.
- [4] Eljelly, A., 2004. Liquidity-profitability trade off: An empirical investigation in emerging market. *Int. J. Comm. Manage.*, 14(2): 48-58.
- [5] Gepp, A. and K. Kumar, 2008. The role of survival analysis in financial distress prediction. *Int. Res. J. Finan. Econ.*, 16: 13-34.
- [6] Lazaridis, I., 2007. Relationship between working capital management and profitability of listed companies in the athens stock exchange.
- [7] J. Finan. Manage. Anal., 19(1): 26-35. Ohlson, J.A., 1980. Financial ratios and the probabilistic prediction of bankruptcy. *J. Account. Res.*, 18(1): 109-131.