

IMPACT OF FINANCIAL PERFORMANCE AND FINANCIAL DECISIONS ON MARKET VALUE: A CASE STUDY OF INFOSYS

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ABSTRACT

The paper analyzes the impact of financial performance and financial decisions on the market value of Infosys. The secondary data is used for the study. Apart from financial performance, capital structure and dividend decisions are evaluated. Data of five years is considered. Infosys has grown from a capital base of US\$250 to a company with a market capitalization of US\$ 30.9 billion. The findings support the irrelevance of capital structure and dividend policy on the market value of the firm. The market price show positive correlation with the revenues.

Keywords: Infosys, Market Capitalization, Capital Structure, Dividend Policy

1. Introduction

Infosys was established by Mr. N R Narayana Murthy in 1981 along with six engineers in Pune with a capital of US \$ 250. Now Infosys has emerged as a global leader in consulting, technology and outsourcing solutions. The company has 93 global development centers spread across 40 countries. The company has more than \$8.39 billion revenue registering a 5 year compounded annual growth rate (CAGR) of 10.7% with an employee base of more than 161284 (as per Q1 FY 2015). The market capitalization of the company has reached US\$ 30.9 billion, as on June 2014 (Infosys, 2104).

The dividend policy has been created lot of academic interest among researchers. There are authors who argue that dividends are relevant, and some argue that dividends are irrelevant.

Walter model proposes that dividend policy affects market price of share and share price reflects the present value of expected dividends. Gordon proposed that current and future dividend receipts decide the worth of a share.

The Miller Modigliani model proposed that dividends are irrelevant. It was argued that benefit of current dividend is compensated by loss of capital gain. Similarly loss of current dividends is compensated by capital gain in future.

The clientele effect provides another way of examining dividend policy. It proposes that investors have different dividend preferences and they look for dividend payment firms to suit their requirements. The investors may hesitate to switch over their shareholding due to transaction costs. Dividend policy also serves as a signal to identify the future prospect and investment opportunities. Large increase in dividends may signal bright future, decrease in dividends may signal gloomy prospect, normal dividend may signal normal growth of the firm. The ability of investors to differentiate between reinvestment opportunities and poor performance is important to properly identify the information content of the dividends (Kapil, 2103)

Capital Structure represents ratio between different forms of capital (Sharan, 2009). Net Income approach of capital structure proposes that capital structure affects the valuation of the firm. Valuation of firm increase with increase in financial leverage which lowers the weighted average cost of capital. On the other hand Net Operating Income approach is just opposite to net income approach. The net operating income approach proposes that capital structure does not affect value of a firm. The decrease in cost of capital due to increased leverage is offset by increase in cost of equity as equity shareholders require a higher return to compensate for higher risk. Modigliani and Miller supported irrelevance of capital structure on account of investor's substitution of corporate leverage with personal leverage. However in presence of taxes Modigliani and Miller propose that value of levered firm is more than unlevered firm by amount of tax advantage of debt. Traditional approach propose that firm can increase the value of firm by reducing the cost of capital with increased debt upto a certain point referred to as optimal

capital structure. After that point cost of capital increases with increase in debt due to rise in financial risk (Khan, Jain 2005).

2. Objectives:

1. To analyze the financial performance and its impact on market price
2. To analyze the correlation between capital structure and market price of share
3. To analyze the correlation between dividend payout and market price of share

3. Literature Review:

Booth et al. (2001) analyzed debt-equity ratio of developing countries found that the more profitable the firm, the lower is the debt-equity ratio. The capital structure decisions of firms in these countries are affected by the same firm specific factors as in developed countries. However, it was found that there are differences in the way aggregate leverage is affected by firm-specific factors such as GDP growth, inflation and capital market development. This finding is justified with the pecking order hypothesis. The outcome shows that external financing is costly and is avoided by firms, which means that profitable firms have less demand for external financing as discussed by Donaldson 1963 as cited by Pao 2008. This explanation would support the argument that there are agency costs of managerial discretion. This result does not fit well with the static trade-off model, under which we would expect that highly profitable firms would use more debt to lower their tax bill.

In general, debt ratios in developing countries seem to be affected in the same way and by the same type of variables that are significant in developed countries. However, there are systematic differences in the way these ratios are affected by country factors, such as GDP growth rates, inflation rates, and the development of capital markets.

Sheehan, Graham 2001 studied capital structure among high tech firms. It was found that capital structure choices in high tech firms support static trade off theory. It was argued that market conditions of 1990's supported smaller and riskier firm's greater access to equity markets. The authors also supported pecking order theory and suggested pecking order scale that allows for multitude of high equity issues.

Hovakimian et al. 2002 argued that companies make financing and stock repurchase decisions to offset the impacts of past profitability and keep their debt ratios towards the target capital structure.

Hao, Zhang 2007 found inverse relationship between relative profitability and industry beta to be stronger for medium concentration industries than high or low concentration industries.

Gupta 2011 found that there is a correlation between financial ratios and market price and concluded that investors consider the ratios for their buy/sell decisions.

Talat, Hussain 2011 studied capital structure in automobile, engineering, and cable and electrical goods sector. It was found that these sectors with good liquidity and large depreciation allowances use retrained earnings, followed by debt financing for growth and equity financing is used as a last option.

Kabajeh et al. 2012 found that return on asset, return on equity and return on investment show a positive relation with share prices.

Marx 2012 argued that profitable firms generate significantly higher returns than unprofitable firms. Singh, Luthra (2013) discussed that firm's capital structure trends have a great impact on firm's financial performance. The analysis of the study concludes that companies are using both debt and equity financing as a part of their Capital Structure pattern. Although the trend in debt and equity financing is increasing in both the industries which implies that due to fear of financial risk, the companies are using debt financing also to the maximum possible extent.

Kumar 2012 argued that there is no consensus and no universal factor determining capital structure.

Dalal 2013 found negative correlation between cost of capital and capital structure, but the results were not statistically significant. It was argued that qualitative determinants of capital structure and their effect on value of firm vary from company to company.

Dividend Policy

Aivazian, Booth (2003) revealed that Dividends are inversely related to debt and positively related to both ROE and Market-to-book ratio. In other words profitable firms with low debt levels that have relatively high market values seem to pay out larger amounts of dividends. There is some evidence that larger firms with more tangible assets and lower business risk pay higher dividends. When the market to book ratio is dropped, the effect of both debt and ROE is even stronger, whereas the other three variables remain insignificant.

Kapoor (2009) expressed that IT sector and service sector demonstrate a pattern, which is seen in emerging economies like Tunisia, Zimbabwe and Turkey. These sectors are characterized by high target payouts coupled with high speed of adjustment coefficient. Through the analysis of second objective it was found that there are sectoral differences in corporate dividend policy determinants. A factor which may be relevant for one industry becomes irrelevant for another depending upon the Industry characteristics like growth phase, ownership pattern, size, systematic risk and earnings variability.

IT sector is a human intensive sector and do not require huge capital asset base like manufacturing companies for their operations. The major asset of this sector is manpower. The funds required for recruitment and retention of manpower is comparatively less than funds required for purchasing capital assets. So these firms can easily release funds for payment of dividends. Also a negative relationship between profitability can be attributed to the fact that agency problems are not very relevant and thus Dividend payout as a monitoring mechanism may be less needed.

Das, Samanta (2013) argued that dividend policy i.e., splitting of total profits into dividend and retained earnings is not at all a decisive factor for stock price behavior in information technology sector. The findings support irrelevance theorem. It was argued that irrelevance is due to young Indian investor's preference for growth of the firm, which largely depends on profitability and other factors, than cash dividend.

4. Research Methodology:

The secondary data is used for the study. The data is obtained from annual reports available on website of Infosys. The data is analyzed using financial ratios and correlation using Minitab17. Data of five years has been considered for the study. The financial statements from FY 2009 to FY 2013 have been considered. The monthly adjusted closing has been considered for the study. The average of the monthly prices has been considered as yearly average market price. The historical market prices have been obtained from Yahoo Finance. Following hypothesis has been framed for testing.

H₀: There is no correlation between Dividend per Share (DPS) & Market Price per Share (MPS)

H₁: There is a correlation between Dividend per Share (DPS) & Market Price per Share (MPS)

5. Findings:

Infosys’s capital structure consists of 100% equity. There is no debt in the company. As it does not have debt, so it does not have to pay any fixed interest. Infosys has a conservative capital structure. It has little financial risk as the capital structure does not rely on leverage. Infosys is doing well only with equity, but it unable it to take advantages of leverage and tax shield.

TABLE1: CAPITAL STRUCTURE RATIOS

| | 2007-08 | 2008-09 | 2009-10 | 2010-11 | 2011-12 |
|-------------------|---------|---------|---------|---------|---------|
| Debt-Equity Ratio | 0 | 0 | 0 | 0 | 0 |

(Source: Infosys)

Infosys has a history of heavily relying on internal funds and equity issues and the same procedure is running till now. The company has strengthened its equity base. Low debt indicated a financial opportunity in capital structure to increase proportion of permanent capital consisting long term debt.

TABLE2: PROFITABILITY TREND

| Particulars | 2008-09 | 2009-10 | 2010-11 | 2011-12 | 2012-13 |
|----------------------|---------|---------|---------|---------|---------|
| Revenue (Rs. Crores) | 21,693 | 22,742 | 27,501 | 33,734 | 40,352 |

| | | | | | |
|-----------------------------|-------|-------|-------|-------|-------|
| Gross Profit/ revenue (%) | 45 | 45.32 | 43.8 | 42.94 | 41.08 |
| Operating profit Margin (%) | 34.08 | 34.82 | 33.15 | 32.19 | 29.96 |
| Net Profit Margin (%) | 28.72 | 27.22 | 25.38 | 25.55 | 24.61 |

(Source: Infosys)

As the above chart shows that the gross profit ratio remained highest, 45.32% in 2009-10 and lowest (41.08%) in 2012-13. It is increasing till 2009-10 but after that it started decreasing and reached at 41.08 in 2012-13. The operating profit margin increases from the year 2009 to 2010. But it started decreasing from 2011 and continuously decreased till 2013 which is not a good sign for a company. The net profit margin of Infosys decreased over the period from 2009-2013. The operating expenses relative to sales have been increasing.

TABLE 3: LIQUIDITY RATIOS

| Particulars | 2008-09 | 2009-10 | 2010-11 | 2011-12 | 2012-13 |
|---------------|---------|---------|---------|---------|---------|
| Current ratio | 4.72 | 4.46 | 5.05 | 4.72 | 4.82 |
| Quick Ratio | 4.26 | 3.89 | 4.56 | 4.27 | 4.25 |

(Source: Infosys)

The current ratio is also fluctuating over the years ranging from 4.72 in 2009 to 4.82 in 2013. But overall its current ratio is healthy enough which shows company's current assets to meet its obligation is increasing. Short term creditors of Infosys are protected as it is able to convert in cash in one year.

The quick ratio of Infosys is showing a fluctuating trend ranging from 4.26 in 2009 to 4.25 in 2013. It decreased from 4.26 in 2009 to 3.89 in 2010. Then it increased tremendously in 2011 to 4.56 but after that it again started decreased in 2012 and 2013. In all 5 years the Quick Ratio of Infosys is above 1 which is good.

TABLE 4: EARNINGS RATIO

| Particulars | 2008-09 | 2009-10 | 2010-11 | 2011-12 | 2012-13 |
|------------------------------------|---------|---------|---------|---------|---------|
| Cash EPS from ordinary activities | 113.77 | 114.46 | 125.14 | 152.9 | 174.21 |
| Basic EPS from ordinary activities | 101.65 | 100.37 | 112.26 | 139.07 | 157.55 |
| Price/ earnings, end of year | 13.02 | 26.06 | 28.87 | 20.61 | 18.34 |
| Price/ cash earnings, end of year | 11.64 | 22.85 | 25.9 | 18.75 | 16.59 |
| Return on assets | 27.2 | 22.9 | 18.7 | 21.9 | 20.6 |
| Return on equity | 32.8 | 27.2 | 26.3 | 26.6 | 24.8 |
| ROCE | 42.9 | 37.25 | 37.58 | 40.87 | 37.3 |
| RONW | 33.82 | 28.22 | 27.90 | 28.00 | 26.15 |

(Source: Infosys)

Cash EPS from ordinary activities of Infosys is showing an increasing trend. It is at the peak in 2012-13. Basic EPS from ordinary activities is also increasing in all the years except in FY 2009-10. After that it is showing an increasing trend. This shows that company would have higher market price for its shares. There is very less difference in Cash EPS and Basic EPS.

Price/earnings ratio is showing a fluctuating trend ranging from 13.02 in 2008-09 to 18.34 in 2012-13. It is highest in 2010-11 and after that it is decreasing. It is not good for the company. It indicates that company has more price of its shares as compare to its earnings. Price/Cash Earnings ratio is ranging from 11.64 in 2008-09 to 16.59 in 2012-13. There is very less difference in price/Earnings Ratio and Price/Cash Earnings Ratio.

Dividend per share (DPS) is ranging from 23.5 in 2008-09 to 42 in 2012-13. It is highest in 2010-11 reaching at 60 but after that it is decreasing and reached to 47 in 2011-12 and 42 in

2012-13. DPS shows that company gives higher profits to its shareholders and it believes in sustaining the growth.

- Return on assets is highest in 2008-09 and lowest in 2010-11. It is ranging from 27.2 in 2008-09 to 20.6 in 2012-13. There is fluctuating trend in return on assets. In FY 2008-09, it was earning the highest return on assets. In FY 2011-12, it declined to 18.7%. After that it increased to 21.9% in 2012-13 and again decreased to 20.6%. The trend shows that company is not able to earn efficiently from its investments.
- Return on equity is decreasing till 2010-11, after that it slightly increased to 26.6% in 2011-12 and then again decreased to 24.8%.
- The Return on Capital Employed gives a sense of how well a company is using its money to generate returns. The ROCE is fluctuating over the years ranging from 42.9 in 2009 to 37.3 in 2013. The Return on Capital Employed of Infosys decreases in the year 2010 which indicates lower profitability. But in 2011 and 2012 it is increasing reason could be the company reduces its capital investment. In 2013 it again decreased which means company is not efficiently utilizing its funds.
- ROCE and RONW were also in the fluctuating trend due to less profitability posted by the firm. The ROCE was high in the FY 2008-09 however it has come down to 37.3 % in the FY 2012-13. Even in posting good RONW also, the company miserably failed due to low operating efficiency. However the company has reported higher EPS (increasing trend) over the study period.

The Pearson correlation between market price per share and return on assets is obtained as -0.953 (P value of 0.012), between market per share and return on equity as -0.878 (P value of 0.050), between sales and market price per share as 0.609 (P Value of 0.276). It is concluded that return on equity and return on assets are negatively correlated with the market price. Market price per share is positively correlated with market price.

TABLE 5: DIVIDEND PAYOUT

| Particulars | 2008-09 | 2009-10 | 2010-11 | 2011-12 | 2012-13 |
|-----------------------------------|---------|---------|---------|---------|---------|
| Dividend Payout Ratio Net Profit | 26.26 | 26.71 | 58.71 | 37.51 | 29.69 |
| Dividend Payout Ratio Cash Profit | 23.3 | 23.34 | 52.19 | 33.75 | 26.59 |

(Source: Infosys)

The dividend payout is high in FY 2010-11. It means Infosys distributed more profits to the shareholders in FY 2010-11 but in other years it would have retained the profits for further growth of the company.

TABLE NO.6: TREND OF DEBT EQUITY RATIO AND MARKET PRICE

| Year | 2009 | 2010 | 2011 | 2012 | 2013 |
|-------------------|---------|---------|---------|---------|---------|
| Debt Equity Ratio | 0 | 0 | 0 | 0 | 0 |
| MPS | 1357.52 | 2038.17 | 2784.49 | 2614.40 | 2433.55 |

(Source: Infosys, Yahoo Finance)

Correlation coefficient cannot be calculated since one variable is constant. It is concluded that there is no significant correlation between Debt equity ratio and Market price per share. The findings are consistent with the Miller-Modigliani theory of irrelevance of capital structure.

TABLE NO7: DIVIDEND TREND VS MARKET PRICE

| Year | 2009 | 2010 | 2011 | 2012 | 2013 |
|------------------------|---------|---------|---------|---------|---------|
| Dividend per share | 23.5 | 25 | 30 | 37 | 42 |
| Market Price per Share | 1357.52 | 2038.17 | 2784.49 | 2614.40 | 2433.55 |

(Source: Infosys, Yahoo Finance)

Correlation coefficient is 0.649 & P value is obtained as 0.236 and it is greater than 0.05. H_0 is accepted this shows that there is no correlation between Dividend per share and Market per share. These findings are consistent with Modigliani-Miller theory.

Conclusion

The company is doing well and it manages a strong cash balance. It has low financial risk due to zero debt profile, and attracts more investors by paying good amount for dividend. With its strong cash balance, Infosys can expand its business by making more investment in IT sector. The results show that return on assets and return on equity show negative correlation with market price. Market price per share shows positive correlation with revenue. The market price is found to be independent of capital structure and dividend policy. The findings suggest that the macro economic factors and growth potential have an impact on the market price of Infosys. Macro economic factors should also be studied to understand the factors that determine market price in addition to financing and dividend decisions of the company.

References:

1. Aivazian V, Booth L, 2003, Do Emerging Markets Firms follow Different Dividend Policies from US Firms, *The Journal of Financial Research*, Vol XXVI, No 3, 371-387, Retrieved 27th September 2014 from www.researchgate.net/.../Laurence_Booth/...Market...Dividend.../00b4951a...
2. Booth L, Aivazian V, Demirguc-Kunt A, Maksimovic V, 2001, Capital Structure in Developing Countries, *The Journal of Finance*, Vol. 56 No 1, (Feb 2001), 87-130. Retrieved 15th September 2014 from <http://economicdiscussion.com/capital.pdf>
3. Dalal G, 2013, Capital Structure Decisions, *Journal of Business Management & Social Sciences Research*, Volume 2, No.4, April 2013. Retrieved 25th September 2014 from http://borjournals.com/Research_papers/Ap_2013/1215M.pdf

4. Das A, Samanta A 2013, Stock Price Behaviour And Dividend Policy-An Empirical Investigation In Information Technology Sector Of Corporate India In Liberalized Era, *International Journal of Marketing, Financial Services & Management Research*, Vol.2, No. 9, September (2013), Retrieved 23rd September 2014 from <http://indianresearchjournals.com/pdf/ijmfsmr/2013/september/16.pdf>
5. Gupta P, Bansal S, Goyal R, Mengi R, Malla R 2011, Studying share price & company ratio correlation across various sectors in the Indian Market, Retrieved 15th September 2014 from <http://www.cse.iitd.ernet.in/~cs5080224/ReportFinal.pdf>
6. Hao S, Zhang G, 2007 Relative Firm Profitability and Stock Price Sensitivity to Aggregate Information, Retrieved 28th September 2014 from <http://classic.marshall.usc.edu/assets/034/8376.pdf>
7. Hovakimian A, Opler T, Titman S, 2002, The Capital Structure Choice: New Evidence for a Dynamic Tradeoff Model, *Journal of Applied Corporate Finance*, Volume 15, Issue 1, pages 24–30, Spring 2002
8. Infosys, 2014 Investor Presentation. Retrieved 27th September 2014 from <http://www.infosys.com/investors/InvestorPresentation/IR-Presentation.pdf>
9. Infosys, 2014 History, Retrieved 27th September 2014 from <http://www.infosys.com/about/Pages/history.aspx>
10. Infosys, 2014 Fact File, Retrieved 27th September 2014 from <http://www.infosys.com/about/Pages/fact-file.aspx>
11. Infosys, 2014 Five Year Overview, Retrieved 28th September 2014 from <http://www.infosys.com/investors/financials/>

12. Infosys, 2014 Annual Report 2009, Retrieved 28th September 2014 from <http://www.infosys.com/investors/reports-filings/annual-report/annual/Documents/Infosys-AR-09.pdf>
13. Kabajeh M, Nuaimat S, Dahmash F 2012, The Relationship between the ROA, ROE and ROI Ratios with Jordanian Insurance Public Companies Market Share Prices, *International Journal of Humanities and Social Science*, Vol. 2 No. 11; June 2012, Retrieved 18th April 2014 from http://www.ijhssnet.com/journals/Vol_2_No_11_June_2012/12.pdf
14. Kapil S, 2013, *Fundamentals of Financial Management*, Dorling Kindersley (India) Pvt Ltd, New Delhi
15. Khan M Y, Jain P K, 2005, *Basic Financial Management*, Tata McGraw Hill Publishing Company Limited, New Delhi
16. Kumar R, 2012, Determinants of Firm's Financial Leverage: A Critical Review, *Journal of Contemporary Research in Management*, January - March 2008. Retrieved 16th September 2014 from www.psgim.ac.in/journals/index.php/jcrm/article/download/10/10
17. Marx R, 2012 The Other Side of Value: The Gross Profitability Premium, Retrieved 26th September 2014 from <http://rnm.simon.rochester.edu/research/OSoV.pdf>
18. Pao H, 2008, A comparison of neural network and multiple regression analysis in modeling capital structure, *Expert Systems with Applications* 35 (2008) 720–727, Retrieved 18th September 2014 from <http://cecs.wright.edu/~yan.liu/DataMining/Articles/CompareNN%20and%20Multiple%20Regression.pdf>

19. Sharan V, 2009, *Fundamentals of Financial Management*, Dorling Kindersley (India) Pvt Ltd, New Delhi
20. Sheehan R J, Graham J E, 2001, Capital Structure Choice and the New High-Tech Firm, Retrieved 27th September 2014 from <http://csb.uncw.edu/people/edgraham/docs/Published%20Files/Investments/FinalProceedingsCopy.pdf>
21. Singh S, Luthra R, 2013, A Comparative Study of Trends in Corporate Capital Structure Pattern of Refinery and Metal Industry, *Asia Pacific Journal of Marketing & Management Review*, Vol.2 (6), June (2013), Retrieved 10th September 2014 from <http://indianresearchjournals.com/pdf/APJMMR/2013/June/2.pdf>
22. Talat A, Hussain A, 2011, Determinants of Capital Structure across Selected Manufacturing Sectors of Pakistan, *International Journal of Humanities and Social Science*, Vol. 1 No. 12; September 2011, Retrieved 15th September 2014 from http://www.ijhssnet.com/journals/Vol_1_No_12_September_2011/31.pdf
23. Yahoo Finance, 2014 Historical Prices, Retrieved 28th September 2014 from <https://in.finance.yahoo.com/q/hp?s=INFY.BO&a=03&b=1&c=2008&d=02&e=31&f=2013&g=m>