Study on Impact of Financial Leverage and Liquidity on Financial Performance: A Case Study on DLF Ltd.; Construction & Contracting- Real Estate Company in India

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Abstract: *There prevails a notion that liquidity is important for any business unit to boost its profitability and also that financial leverage is helpful in enhancing financial performance of the companies. In India, real estate is the second largest employer after agriculture and is slated to grow at 30 per cent over the next decade. The real estate sector comprises four sub sectors - housing, retail, hospitality, and commercial. Few large developers with a pan-India presence dominate the market. This study proposes to study the impact of financial leverage and liquidity on the profitability for which case study of DLF Ltd.; a construction & contracting- a real estate company in India is taken. The variables considered are Operating profit margin, Net profit margin, Return on Capital Employed, Current Ratio, Quick Ratio, Working Capital Turnover Ratio, Debt/Equity Ratio, Financial Leverage and Degree of Operating Leverage.*

Keywords: *leverage, liquidity, financial performance, construction & contracting- real estate companies*

I. INTRODUCTION

Real Estate Sector in India: In India, real estate is the second largest employer after agriculture and is slated to grow at 30 per cent over the next decade. The real estate sector comprises four sub sectors - housing, retail, hospitality, and commercial. Few large developers with a pan-India presence dominate the market, the operating model has shifted from sales to a lease & maintenance. The growth of this sector is well complemented by the growth of the corporate environment and the demand for office space as well as urban and semi-urban accommodations. The construction industry ranks third among the 14 major sectors in terms of direct, indirect and induced effects in all sectors of the economy.

It is also expected that this sector will incur more non-resident Indian (NRI) investments in both the short term and the long term. Bengaluru is expected to be the most favoured property investment destination for NRIs, followed by Ahmedabad, Pune, Chennai, Goa, Delhi and Dehradun. NCR & Mumbai are by far the biggest hospitality markets in India, followed by Bengaluru, Hyderabad & Chennai, besides hotels, the hospitality market comprises serviced apartments & convention centres

The rapid growth in services sectors: IT/ITeS, BFSI & Telecom, rising demand from MNCs, Demand for office space in Tier 2 cities and a robust domestic tourism industry, the increasingly global nature of Indian businesses boosting business travel, tax incentives for hotels & higher FSI, expansion of physical infrastructure during the 12th Five Year Plan seem to be the key drives of the industry. In the period FY2008-2020, the market size of this sector is expected to increase at a Compound Annual Growth Rate (CAGR) of 11.2 per cent. Retail, hospitality and commercial real estate are also growing significantly, providing the much-needed infrastructure for India's growing needs.

The Government of India along with the governments of the respective states has taken several initiatives to encourage the development in the sector. The Smart City Project, where there is a plan to build 100 smart cities, is a prime opportunity for the real estate companies.

The Securities and Exchange Board of India (SEBI) has given its approval for the Real Estate Investment Trust (REIT) platform which will help in allowing all kinds of investors to invest in the Indian real estate market.

Financial Leverage: Financial Leverage means the degree to which any company uses fixed income securities like preference capital and debt. Higher the portion of such capital in total capital interest payments increase. On account of high financial leverage, EPS is driven lower and this leads to financial risk to shareholders. It is therefore advisable for a company should keep optimum capital structure in mind when making financing decisions to ensure any increase in debt and preferred equity increase the value of the company. In order to study leverage; Debt/Equity ratio, Financial Leverage and Degree of Operating Leverage are considered in the study.

Liquidity: Liquidity is the ability to resolve current debt with current assets. In other words it is the ability to honour short term financial obligations with the current asses. Lower liquidity creates a crunch and higher liquidity leads to redundant capital as it posses opportunity cost. Companies need to have adequate working capital as lower liquidity creates problems like- interrupted production, exploiting favourable market opportunities, regular payments and purchases, regular returns on capital employed etc. Higher liquidity leads to blocking of funds in inventories, inability to exploit opportunities as the accumulation of idle funds that don't fetch any profits for the company. In order to study liquidity; Current Ratio, Quick Ratio, Working Capital Turnover ratio are considered in the study

Performance: The performance of any organisation is measured in terms of profitability and growth in financial terms. Financial analysis facilitates in establishing a relationship among components of various financial statements. This can be done through various tools, for instance ratios. In order to study profitability; Operating Profit Margin, Net Profit Margin & Return on Capital Employed are considered in the study.

II. LITERATURE REVIEW

Rajkumar (2014), The findings of the study by saying that the financial leverage has got a negative relationship with financial performance of John Keells Holdings plc Sri Lanka during the periods 2006 - 2012. But financial leverage has significant impact on financial performance. Similarly, the findings support the work of Higgins (1972) and McCabe (1979) who suggested that debt has a negative influence o the amount of dividend paid. This is because firms with higher fixed charges pay lower dividends in order to avoid the costs of external finance. The employment of debt in the capital structure of the companies may make a negative impact on the performance.

Reddy kumar & Reddy Sivarami (2013), Long term funds constitute the major source of financing the investments in the Indian Real-Estate Industry. Owners' funds are more significant than the long term borrowed funds. Equity base of the industry is enlarged primarily because of substantial retention of profits. The improvement in the internally generated funds shows a move towards self-reliance of the industry. Long term funds are adequate to finance the fixed assets and also a major chunk of current assets. The interest of long term creditors is well protected because the size of ownership funds is large enough and even if the assets value decline by cent per cent, creditors need not worry. The industry in spite of its efforts could not improve the profits to the desired level. The increase in the degree of financial leverage has not favourably impacted either the ROE or EPS of the industry

Gupta Naresh, Gupta Himani (2014),The research concludes there is both positive & negative relationship between capital structure and financial performance. And also, capital structure has very high significant impact on financial performance of the firms in case of Return on Capital Employed and Return on Assets and capital structure has less significant impact on the financial performance of the firms in case of Gross Profit Margin, Net Profit Margin and Return on Equity. So, we conclude that whatever be the pattern of capital structure the financial performance of the firms are changing due to other factors in the firms or in the economy. So, the firms should concentrate on the pattern of capital structure as well as on the other variables such as government policies, competition between rivalries, expansion of business etc to earn profit and carry on their business successfully

Edison J.(2017).The study has considered sales of the real estate industry as real estate sector investment and carried out a linear regression analysis by taking GDP as dependant variable and sales of the real estate industry as dependable variable. The results indicate a positive relationship between both the variables. The financial analysis of Indian real estate industry reveals that: (i) the real estate industry is yet to recover from recession; (ii) the profit generated during an accounting period against the total income generated was continuously declining during the recent years; (iii) operating profit is decreasing; (iv) returns on funds provided by its equity shareholders have declined considerably; (v) profitability as a ratio of capital employed is currently having a downward trend (vi) there is a drastic fall in returns that the Indian real estate industry generates on the fixed assets created by it; (vii) asset utilisation points out a trend of increase in expenditure; and (viii) able to give only a bare minimum amount of returns

Bhatia S. & Barwal N.(2015), the industry has a very high percentage of current assets and major portion of these are parked in the inventories. The working capital practices of the firms in the real estate sector are not very efficient as there is a very heavy dependence on one component of current asset. The industry is also in sentiment driven sector. When, economy is having positive outlook, investment and sales increase leading to profitability. The profitability of the company is related to the working capital of the company.
The study shows that profitability is significantly related to the current and liquid ratios. The net profit margin is also negatively depe ndant on current liabilities to total assets ratios the percentage of current liabilities decreases, the net profit margin increases. It proves that the companies which are better at handling their liquidity against their current dues, are better at handling their liquidity against their current dues, are better able to optimize the use of their assets and generate more profit

Rudin, Nurdin & Fattah(2016), the research concluded that: 1) liquidity and leverage simultaneously have significant effect on profitability of property and real estate industry in Indonesian stock exchange within the period of 2005-2010, 2) liquidity partially has no significant effect on profitability of property and real estate industry in Indonesian stock exchange within the period of 2005-2010, and 3) leverage partially has significant effect on profitability of property and real estate industry in Indonesian stock exchange within the period of 2005-2010. The paper suggests that: 1) company's management should be able to increase the company's profitability by enhancing the cost efficiency, in production aspect, sale, financial, and marketing aspects; 2) investors in property and real estate companies should also analyze the liquidity ratio, leverage, and profitability ratio as consideration in making decision of investment.

III. OBJECTIVES OF THE STUDY

1. To analyse the extent to which financial leverage and financial performance of the company affect each other.
2. To analyse the extent to which liquidity and financial performance of the company affect each other.

Research design/Methodology

Five construction & contracting- real estate companies namely DLF Ltd., Indiabulls Real Estate Ltd. , Godrej Properties Ltd., Housing Development and Infrastructure Ltd., Oberoi Realty Ltd., Prestige Estates Projects Ltd., Sobha Ltd.& Housing & Urban Development Corporation Ltd.; have been taken under the umbrella for consideration because these companies are the leading organisations in construction & contracting- real estate based on Asset, Net Sales, Net Profit, Market Capitalisation, PBDIT. DLF Ltd. has been taken for the study since it is in prominent player in the above ratios.[8,9,10,11,12,13]

Previous research concludes that there is an increase in current ratio, quick ratio and working capital turnover ratio form 2013- 2017. On relating the liquidity ratios with profitability ratios, it is observed that there has been an increase in operating profit margin, net profit margin and return on capital employed (at large) except operating profit margin in 2014 and net profit margin in 2016 saw a decrease. It is also observed that there are huge fluctuations (sometimes follows a linear trend and sometimes quadratic)

IV. DATA ANALYSIS & INTERPRETATION

To analyse the financial leverage & liquidity ratio with respect to financial performance of the company, the researcher considers and equation Y= a+b X as an equation of straight line (trend line). Here Y is and dependent variable and X is an independent variable, here financial leverage and liquidity (individual analysis) is considered as dependent variable. Now in the first part operating profit margin is considered as dependent variable, current ratio is considered as predictor variable so as to predict and forecast the value based on the past data and debt equity ratio is the instrumental variable so as to forecast the above said variable.

Table 1- Regression Analysis

Multiple R	.850
R Square	.723
Adjusted R Square	.631
Std. Error of the Estimate	3.273

Table 1 signifies the regression analysis of financial leverage & liquidity ratio with respect to financial performance of the DLF Ltd. The value of Multiple R = 0.850 signifies that there exists a strong and linear relationship between operating profit margin, current ratio and debt equity ratio. R Square value (0.723) and Adjusted R Square (0.631) is greater than 0.5 signifies the extent to which operating profit is associated with current ratio and debt equity ratio. Although standard error estimate = 3.27 is on the higher side, this may be due to heterogeneity between and within the variables i.e. due to dynamic nature of the selected variable with respect to time span (2013-2017)

Table 2- Risk factors

	Unstandardized Coefficients				
	B	Std. Error	Beta	t	Sig.
(Constant)	.144	13.376		.011	.992
CR	20.625	7.370	1.117	2.799	.068

The above table (table2) concludes that there exist certain risk factors for the consideration of current ratio. This may be due to payable opportunity cost, change in business dynamics, government intervention, certain controllable and uncontrollable measures etc.

Further again, Y is and dependent variable and X is an independent variable, here financial leverage and liquidity (individual analysis) is considered as dependent variable. Now in the second part Net Profit Margin is considered as dependent variable, Quick Ratio is considered as predictor variable so as to predict and forecast the value based on the past data and Financial Leverage is the instrumental variable so as to forecast the above said variable.

Table 3- Regression Analysis

Multiple R	.020
R Square	.000
Adjusted R Square	-.333
Std. Error of the Estimate	1.317

Table 3 signifies the regression analysis of financial leverage & liquidity ratio with respect to financial performance of the DLF Ltd. The value of Multiple R = 0.020 signifies that there exists a weak and linear relationship between Net Profit Margin, Quick Ratio and Financial Leverage. R Square value (0.000) and Adjusted R Square (-0.333) is less than 0.5 and a negative value. This signifies that there exists a less association of Net Profit Margin, Quick Ratio and Financial Leverage, this may be due to unfavourable leverage i.e. even a small change in interest expenses leads to big change in profit after tax.

Table 4- Risk Factors

	Unstandardized Coefficients				
	B	Std. Error	Beta	t	Sig.
(Constant)	8.011	11.385		.704	.532
QR	-.329	9.603	-.061	-.034	.975

The above table (Table 4) concludes that there exist certain uncontrollable factors like change in interest rate, changes in governmental policies, financial market influence, purchasing power of customers etc.

Further again, Y is and dependent variable and X is an independent variable, here financial leverage and liquidity (individual analysis) is considered as dependent variable. Now in the third part Return on Capital Employed is considered as dependent variable, Working Capital Turnover is considered as predictor variable so as to predict and forecast the value based on the past data and Degree of Operating Leverage is the instrumental variable so as to forecast the above said variable

Table 5- Regression Analysis

Multiple R	.160
R Square	.026
Adjusted R Square	-.299
Std. Error of the Estimate	1.211

Table 5 signifies the regression analysis of financial leverage & liquidity ratio with respect to financial performance of the DLF Ltd. The value of Multiple R = 0.160 signifies that there exists a weak and linear relationship between Return on Capital Employed, Working Capital Turnover and Degree of Operating Leverage. R Square value (0.026) and Adjusted R Square (-0.299) is less than 0.5 and a negative value. This signifies that there exists a less association of Return on Capital Employed, Working Capital Turnover and Degree of Operating Leverage; this may be due to lengthy working capital cycle. A lengthy cycle creates adverse impact on profit before interest and tax on account of variable and fixed operating expenses. This also impacts blocking of funds creating unfavourable impact on return on employed capital.

Table 6- Risk Factors

	Unstandardized Coefficients				
	B	Std. Error	Beta	t	Sig.
(Constant)	1.388	19.174		.072	.947
WCT	1.936	6.904	1.604	.280	.797

The above table (table 6) concludes that there exist certain risk factors for the consideration of Working Capital Turnover. This may be due to certain external or uncontrollable factors like purchasing power, government interventions, financial and business environment

V. CONCLUSION

Business risk and financial risk affects the firm as the business environment is uncertain. The former is due to variability of EBIT & is associated with asset mix decision i.e. capital budgeting (OL). The latter is due to variability of EBT & is associated with capital Mix decision i.e. source of funds (FL). The company should use operating leverage so that the impact of change in sales has a positive impact on operating income (EBIT). Further the company should use financial leverage so that the impact of change in EBIT has a favourable impact on shareholders earning. Cost of debt creates a pressure on income generated by business and thereby reduces earnings per share and retained earnings which are future source of investment.

Liquidity is the ability to meet cash requirements at the time the need occurs. It is required for uninterrupted supply of materials, honouring short term cash requirements & routine obligations. Further it is also required for availing certain benefits like discounts; exploring favourable opportunities like purchasing land or premises etc. Liquidity and profitability are inversely related; higher liquidity leads to blocking of funds in current & liquid assets which may remain idle. The company should have adequate liquidity which will honour short term obligations on time and work on making the operating cycle fast.

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