RELATIONSHIP BETWEEN CAPITAL STRUCTURE AND PROFITABILITY: A STUDY OF NON BANKING FINANCE COMPANIES IN INDIA

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ABSTRACT

Non-Banking Finance Companies play a key role and are an integral part of the financial system. Their role is reflected in the growth of assets. Initially NBFCs were complimenting the banking system but slowly they are emerged as an alternative to the banking system and posing them tough competition. They play an important role in the Infrastructure development of the country. In 2013, 47 percent of their advances went into Infrastructure financing (Source: ICRA Report). Their net profits rose from INR.222 billion in 2013 to INR.290 billion in 2014. The present study is an attempt to study the capital structure of Non- Banking Finance Companies and its effect on their profitability from 2006-2016. Data is analysed using correlation. Twenty three finance companies listed in National Stock Exchange, India is taken for the study. The research paper looks into the relationship between the capital structure of NBFCs and their Net Profit, Return on Capital employed, Return on Equity, Return on Assets and Interest Coverage Ratio.

Keywords: Non-Banking Finance Companies, Capital Structure, Return on Capital Employed, Return on Assets, Interest Coverage Ratio.

JEL Classification: G23, G32.

INTRODUCTION

Non-Banking Finance Companies (NBFCs) are an integral part of Indian financial system. Traditionally over the years NBFCs are involved in serving that class of borrowers who are excluded from the formal banking system or not accessible to one. Over the years NBFCs are competing with banks in providing financial services by creating a niche for themselves especially in infrastructure finance and housing finance among other credit related offerings. The share of NBFCs has grown to 14.3% of banking assets in 2014. RBI Act 1934 defines Non-Banking Finance Company as a company engaged in granting loans and advances or in the acquisition of shares or hire purchase finance or insurance business or chit fund activities or lending in any manner provided the principal business of such company does not constitute any non-financial activities such as agricultural operations, industrial activity, trading in goods, providing securities, purchase or sale of immovable property.

In 1997 far-reaching changes were made to the RBI Act 1934 which defines NBFC with the primary objective of putting in place a regulatory framework to protect the interests of the depositors as well as ensuring the proper functioning of NBFCs.

NBFCs have been classified on the basis of kind of liabilities to access, the type of activities they pursue and their perceived importance. On the basis of liabilities NBFCs are categorized into Category A and Category B. Category A NBFCs take public deposits and have

capital adequacy norms, exposure norms, liquidity requirements. Category B NBFCs are not having public deposits. On the basis of Activity, NBFCs are classified into Loan companies, Investment companies, Infrastructure finance companies and systematically important core investment companies. Based on size non deposit taking NBFCs with asset size of INR.100 crore and above are systematically important NBFCs. Capital adequacy and exposure norms are applicable to them.

NBFCs are playing a crucial role by generating and providing capital, converting savings into investments, helps in bringing in vibrancy in financial markets, provides credit and helps in economic development. They play an important role by complimenting the banking sector by delivering credit. The role these institutions play profitability and liquidity is a very important component for their sustenance. This motivated the researchers to understand the relationship between capital structure and profitability in Non-Banking Finance Companies. NBFCs operate in a highly regulated environment and lacks total freedom to decide on their capital structure which is also a motivation behind this study.

Capital structure is the mix of debt and equity financing which a firm uses as capital. This to a great extent has an impact on profitability of the company. Many theories are propounded and the most popular is the pecking order theory which says that if the firm is profitable is expected to use less debt in their capital than the one which do not generate earnings.

The study attempts to understand the capital structure of Non-Banking Finance Companies listed in NSE and to identify and understand the relationship between capital structure and profitability of Non-Banking Finance Companies in Indian context.

The rest of the paper contains Section 2 which is the Regulatory framework of NBFCs. Section 3 provides literature review, Section 4 the research methodology followed by Section 5 Data analysis and Findings and Conclusion is in Section 6.

Regulatory Framework of NBFCs

It is mandatory that every NBFC should be registered with RBI to commence and carry business as per RBI Act 1934. However to avoid dual registration, certain categories of NBFCs which are regulated by other regulators are exempted from this requirement of registering with RBI. A NBFC is classified into a housing finance company if its principal object is to provide housing finance. If there is more than one principal object housing finance should have a major share in the company's assets in the balance sheet.

The minimum net owned funds required for registration of NBFC is INR 20 million. The BASEL norms are applicable to NBFCs also. 15% of the deposit liabilities of NBFCs are to be held in certain permitted securities. There is a limitation on the assets of NBFCs. Investment in real estate and unquoted equity shares are not permitted. Capital market exposure by these companies should be reported.

REVIEW OF LITERATURE

Capital structure can have significant implications on the profitability and value of the firm. The interesting aspect is there are abundance of theories proposed in the past and each one contradicting the other. Some maybe in agreement but have different views about why the outcome is predicted. Capital structure of finance companies that provide finances to individuals or corporate is not a highly researched topic in the past. Deciding on the capital structure of a company and understanding the effect of it on profitability is always a matter of controversy.

There was never a consensus arrived by researchers in the past on capital structure. Tailab (2014) studied the effect of capital structure on the profitability of energy firms in America. As per their study capital structure is measured by short term and long term debt, Debt to equity ratio and firm size. Return on Equity and Return on Assets are taken as performance indicators. They have found that debt in capital structure has a negative impact on ROE and ROA and size have an inverse relationship with ROE in energy firms in America. Velanampy & Aloy (2012) have done a study on the relationship between capital structure and profitability of Srilankan banks. Their study has shown a negative relationship between capital structure and profitability except between debt and equity and return on equity. In their study they have found that Srilankan banks are highly geared institutions. Ogbulu & Emani (2012) have conducted a study on determinants of capital structure. Size of the firm and age of the firm were important determinants of capital structure according to their study. Harris & Raviv (1991) in their study found that leverage is positively related to firm size, tangibility of assets and growth opportunities.

Seng & Heng (2011) have analysed the relationship between capital structure and performance of construction companies in Malaysia. In their study capital structure was taken as independent variable and Return on Capital, Return on Assets, Return on Equity, EPS, Operating margin and Net margin are taken as dependent variables.

Graham (2000) argues that firms compromise on maximizing their value by increasing leverage to get advantage on tax payments because interest paid on debt is tax deductible expense for tax purposes.

Azhagaiah & Govoury (2011) analysed the effect of capital structure on the profitability of IT firms. The study was conducted based on two attributes- Business revenue and Asset size. Their study proves that profitability decreases significantly with decrease in spending of business revenue or decrease in debt content in the capital structure. In other words as per their study increase in use of debt tends to reduce the profitability. Song (2005) studied the determinants of capital structure of Swedish companies of a sample of 6000 companies for the period of 1992-2000. Three different leverage measures used are total debt ratio, long term debt ratio and short term debt ratio. The results were different for the different debt ratios. The ratios are related to tangibility, profitability, size and income variability, non-debt tax shield was only related to short and long term ratio. Uniqueness and growth are not related to any of the debt measures. The study highlighted the differences between short and long term debt ratios. Tangibility is positively related to long term debt while it is negatively related to short term; non debt tax shield has positive effect on short term ratio whereas negative impact on long term, size is positively related to both total and short term whereas negatively related to long term ratio.

METHODOLOGY

For the purpose of the study 23 Non-Banking Finance Companies are selected which are listed in National Stock Exchange (NSE) India. Data for the study has been collected from the Financial Statements Profit and Loss and Balance sheet of the company. Data for 2006-2016 has been taken for the study.

Descriptive Analysis is done for interpretation of data. Correlation Analysis is done to identify and understand the relationship between capital structure and Profitability. In consistence with the previous literature and empirical research the following variables are selected to test the relationship between the capital structure and profitability. The variables taken are Debt to equity, Debt to total assets, Short term and Long term debt to Total Assets to

measure capital structure. To measure profitability Net Profit, Return on Capital Employed, Return on Equity, Return on Assets and Interest Coverage are taken.

Table1 REPRESENTING THE SAMPLE NON-BANKING FINANCE COMPANIES	
S No.	**Name of the NBFC**
1	Capital First
2	Capri Global Capital
3	SKS Micro Finance
4	Geojit BNP Paribas Financial Services
5	Edelweiss Financial Services
6	Dewan Housing Finance Corporation
7	GRUH Finance
8	Can Fin Homes
9	Repco Home Finance
10	Muthoot Finance
11	Reliance Capital
12	Bajaj Holdings & Investment
13	Bajaj Finance Ltd
14	Shriram City Union finance ltd
15	Shriram transport finance Co. Ltd
16	PNB Gilts
17	Tata Investment Corporation
18	Muthoot Capital Services
19	SE Investments
20	Inter Globe Finance
21	TCFC Finance
22	J M Finance
23	Religare Enterprises

Based on the literature review the following hypothesis is formulated

Hypothesis

H1: There is a positive relationship between capital structure (Debt Equity, Debt to Total Assets, Short term Debt and Long term Debt to Total Assets) and Net Profit.

H2: There is a positive relationship between capital structure (Debt Equity, Debt to Total Assets, Short term Debt and Long term Debt to Total Assets) and Return on Capital Employed.

H3: There is a positive relationship between capital structure (Debt Equity, Debt to Total Assets, Short term Debt and Long term Debt to Total Assets) and Return on Equity.

H4: There is a positive relationship between capital structure (Debt Equity, Debt to Total Assets, Short term Debt and Long term Debt to Total Assets) and Return on Assets.

H5: There is a positive relationship between capital structure (Debt Equity, Debt to Total Assets, Short term Debt and Long term Debt to Total Assets) and Interest Coverage.

DATA ANALYSIS AND FINDINGS

Variables		Debt to Equity	Debt to Total Assets	Short Term Debt to Total Assets	Long Term Debt to Total Assets	Net Profit	Return on Capital Employed	Return On Equity	Return n On Assets	Interest Coverage
Debt to Equity	Pearson Correlation	1	0.788**	-0.001	0.741**	0.231**	0.147*	0.761**	-0.045	-0.120
	Sig. (2-tailed)		0.000	0.986	0.000	0.000	0.026	0.000	0.494	0.070
	N	230	230	230	230	230	230	230	230	230
Debt to Total Assets	Pearson Correlation	-0.001	1	0.098	0.897**	0.305**	0.009	0.609**	-0.055	-0.188**
	Sig. (2-tailed)	0.000		0.140	0.000	0.000	0.891	0.000	0.410	0.004
	N	230	230	230	230	230	230	230	230	230
Short Term Debt to Total Assets	Pearson Correlation	-0.001	0.098	1	-0.352**	-0.060	0.445	-0.095	0.025	-0.027
	Sig. (2-tailed)	0.986	0.140		0.000	0.369	0.000	0.149	0.701	0.682
	N	230	230	230	230	230	230	230	230	230
Long Term Debt to Total Assets	Pearson Correlation	-0.741**	0.897**	-352**	1	0.313**	-0.189**	0.615**	-0.062	-0.165*
	Sig. (2-tailed)	0.000	0.000	0.000		0.000	0.004	0.000	0.352	0.012
	N	230	230	230	230	230	230	230	230	230
Net Profit	Pearson Correlation	0.231**	0.305**	-0.060	0.313**	1	0.038	0.335**	0.113	-0.035
	Sig. (2-tailed)	0.000	0.000	0.369	0.000		0.571	0.000	0.087	0.600
	N	230	230	230	230	230	230	230	230	230
Return on Capital Employed	Pearson Correlation	0.147*	0.009	0.445**	-0.189**	0.038	1	0.433**	0.751**	-0.045
	Sig. (2-tailed)	0.026	0.891	0.000	0.004	0.571		0.000	0.000	0.500
	N	230	230	230	230	230	230	230	230	230
Return On Equity	Pearson Correlation	0.761**	0.609**	-0.095	0.615**	0.335**	0.433**	1	0.486**	-0.109
	Sig. (2-tailed)	0.000	0.000	0.149	0.000	0.000	0.000		0.000	0.100
	N	230	230	230	230	230	230	230	230	230
Return On Assets	Pearson Correlation	-0.045	-0.055	0.025	-0.062	0.113	0.751**	0.486**	1	-0.054
	Sig. (2-tailed)	0.494	0.410	0.701	0.352	0.087	0.000	0.000		0.412
	N	230	230	230	230	230	230	230	230	230
Interest Coverage	Pearson Correlation	-0.120	-0.188	-0.027	0.165*	-0.035	-0.045	-0.109	-0.054	1
	Sig. (2-tailed)	0.070	0.004	0.682	0.012	0.600	0.500	0.100	0.412	
	N	230	230	230	230	230	230	230	230	230

Table 2
CORRELATION ANALYSIS

The capital structure of the Non-Banking Finance Companies are represented by variables Debt to Equity Ratio, Debt to Total Assets, Short term Debt to Total Assets Ratio and Long term Debt to Total Assets Ratio. The profitability is measured by the Net profit, Return on Capital Employed, Return on Equity, Return on Assets and Interest Coverage Ratio. The Debt to Total Assets Ratio in NBFC's in India on an average is at 63% i.e., 63% of the assets in the financial sector is represented by debt. The above table represents the relationship between the

independent and dependent variables. It is found that the relationship between the variables is mostly positive.

H1: There is a positive relationship between Capital structure and Net Profit.

It is clearly evident from the correlation analysis that Debt Equity ratio, Debt to Total Assets ratio and Long term Debt to Total Assets are positively correlated at 1% level of significance hence hypothesis accepted.

H2: There is a positive relationship between capital structure and Return on Capital Employed.

Return on capital Employed indicates the efficient use of capital. Debt Equity and Short term debt to Total Assets are positively correlated but Long term debt to Total Assets is negatively correlated to ROCE. NBFCs are into financing business. This indicates that they are not employing long term debt capital actively into business. So the Return on capital employed is decreasing with the usage of long term debt.

H3: There is a positive relationship between capital structure and Return on Equity.

Debt Equity, Debt to Total Assets and Long term Debt to Total Assets are positively correlated with Return on Equity. Hence hypothesis accepted.

H4: There is a positive relationship between capital structure and Return on Assets.

It is clearly evident from the table that this hypothesis is rejected. Return on Assets measures the profitability of firms and is calculated as Operating Income/Total Assets. NBFCs should charge competitive interest rates to increase their operating income.

H5: There is a positive relationship between capital structure and Interest Coverage.

Interest Coverage determined how easily a company can pay interest on outstanding debt. It is clearly evident from the result that Debt to Total Assets and Long term debt to Total Assets is negatively correlated with Interest Coverage Ratio i.e., more the debt lesser the interest coverage ratio. The acceptable minimum limit of Interest Coverage ratio is 2.5 which vary across industries. A higher ratio indicates better financial health and the company able to meet its obligations from operating earnings. Generally NBFCs have a high interest coverage ratio.

Previous studies have proved that there is a positive relationship between capital structure and profitability in most of the industries. In NBFC also there is positive relationship between the variables which supports the result of the past studies. The only exception is the relationship between capital structure and ROA which is negative.

DISCUSSION AND CONCLUSION

NBFCs have emerged as financial intermediaries and growth engines in the Indian financial system. The study examined the relationship between capital structure and profitability of NBFCs listed in NSE in India. The study has taken a sample of 23 companies over a period of 10 years. RBI Act 1934 defines Non-Banking Finance Company as a company engaged in granting loans and advances or in the acquisition of shares or hire purchase finance or insurance business or chit fund activities or lending in any manner provided the principal business of such

company does not constitute any non-financial activities such as agricultural operations, industrial activity, trading in goods, providing securities, purchase or sale of immovable property.

The mean value of debt equity ratio indicates that debt is 4.17 times more than the equity capital. The debt to Total Assets indicates that on an average 63% of the Total Assets in NBFCs is in debt. NBFCs are generally highly levered in India.

Table 3
KEY LEVERAGE RATIOS IN NBFCS

	MFIs	Gold Finance NBFCs	Asset Finance NBFCs	Housing Finance Companies	SME Focused NBFCs	Wholesale Lending NBFCs
Bank Borrowing as % of Total Borrowing	84%	53%	50%	55%	43%	47%
Access to bank Borrowings	High	Medium	High	High	Medium	Low to Medium
Dependence on bank Borrowing	High	Medium	Medium to High	Medium	Medium	Low to Medium
Leverage	4.1x	5.3x	4.3x	9.1x	4.2x	3.9x
Leverage Potential	Medium	High	High	Very High	Medium	Low to Medium

Source: ASSOCHAM India: Proceedings and Recommendations-2nd National Summit "Non-Banking Finance Companies The way Forward"

Non-Banking Finance companies play a crucial role in the Indian financial system. The critical decision which these companies face is the capital structure the choice of the proportion of debt and equity along with the regulatory requirements thrust on them because they are in the business of financing individuals or corporates. An appropriate mix of debt and equity should be used. The findings reveal that the debt equity ratio is positively correlated at (0.231**), debt to Total Assets is positively correlated at (0.305**) and Long term Debt to Total Assets is correlated at (0.313**). Increase in debt financing will increase the profitability as debt is the cheapest source of financing. Debt Equity is positively correlated with ROCE (0.447*) and Short term debt to Total Assets at (0.445*). Long term debt is negatively correlated with ROCE. The NBFCs must use their long term debt effectively and efficiently. To achieve this objective they must set competitive lending rates to customers. This study and its results are helpful to the policy makers when they decide on the regulatory framework in which these companies operate. It is also helpful for the companies to decide on their products on services, interest rates and deciding on the capital structure.

The current research is only restricted to only 23 NBFCs listed in NSE for a period of 10 years. They may be many more variables which can affect the profitability which are not taken in this study. The study has not considered the impact of changes on the economy. The continuous changes in regulatory framework of NBFCs and its impact on the profitability of those companies can be further investigated and is the scope of further research.

REFERENCES

Azhagaiah, R. & Govoury, C.S. (2011). The impact of capital structure on profitability. *Managing Global Transitions*, *9*(4), 371-392.

Graham, J.R. (2000). How big are the tax benefits of debt? *Journal of Finance*, *55*, 1901-1941.

Harris, M. & Raviv. (1991). The theory of capital structure. *Journal of Finance*, *46*, 297-355.

Ogbulu, O.M. & Francis, K.E. (2012). Determinants of capital structure in Nigeria. *International Journal of Economics and Management Science*, *1*(10), 81-95.

Song, H. (2005). Capital structure determinants: An empirical study of Swedish companies. *The Royal Institute of technology Centre of Excellence for Science and Innovation Studies*, Paper No.25, available at: http://www.infra.kth.se/cesis

Seng, O.T. & Heng, B.T. (2011). Capital structure and corporate performance of Malaysian construction sector. *International Journal of Humanities and Social Science*, *1*(2), 28-36.

Tailab, M.K. (2014). The effect of capital structure on profitability of energy American firms. *International Journal of Business and Management Invention, 3*(12), 54-61.

Velanampy, T. & Aloy, J.N. (2012). The relationship between capital structure and profitability. *Global Journal of Management and Business Research, 12*(13), 86-97.

http://www.Icra.in/files/articles/note-dec-12 release.pdf

https://www2.deloitte.com/in/en/pages/financial-services/articles/regulatory-impact-assessment.html

https://rbi.org.in/scripts/AnnualReportPublications.aspx?year=2011

https://www.kotaksecurities.com/ksweb/Meaningful-Minutes/Why-are-Non-Banking-Financial-Companies-important+and+PwCIndiaanalysis