DETERMINANTS OF PROFITABILITY OF SELECTED HOUSING FINANCE CORPORATIONS IN INDIA

Dr.V.Mohanraj*

S.Sounthiri**

ABSTRACT

An attempt has been made in this paper to explain the factors determining profitability of selected Housing Finance Corporations in India. The empirical analysis has been done by using Linear Regression Model. It is based on the secondary data for the period of 10 years from 2003-04 to 2012-13. The analysis reveals that Interest expenses, and Non-interest expenses, Long Term Debt, Net Working Capital, Growth, Inflation, GDP and Size were found to be an important determinants of profitability of selected Housing Finance Corporations. However, inflation and GDP does not have significant impact on the profitability of sample firms. It is concluded that the profitability significantly influenced by Interest Expenses, working capital, debt and size of the firms

Key words: Return on Capital Employed, GD, Inflation, Interest and Non-interest Expenses and Net Working Capital.

Introduction

* **Associate Professor,PG and Research,Department of Commerce,Sri Vasavi College, Erode**

** **Assistant Professor of Commerce (CA),Vellalar College for Women, Erode-12.**

Housing is the one of the basic needs for every human being, with Food, Clothing and Education being the other three. Housing is an important component and a measure of socio–economic status of the people. It is regarded as a critical sector in terms of policy initiatives and interventions. The relevance of housing as a social need has been long recognized, and this has influenced the innovations and inventions made by mankind, since the Stone Ages. The emergence of a number of HFCs in organized and unorganized sectors has brightened the economic scenario. The potential for the HFCs is vast. The Success of HFCs depends on how effectively they can tap resources. Fortunately, during the last couple of years, lot of emphasis has been placed on creating an integrated national housing finance system. With the creation of National Housing Bank, an apex housing finance institution, housing finance has received added impetus. The urban population of India has been growing at a rapid pace. The housing sector has strong backward and forward linkages to over 250 ancillary industries which includes construction workers, builders, developers, suppliers, civil engineers, valuers, property consultants, furnishers, interior decorators, and plumbers a virtually unending list. Housing ranks fourth in terms of the multiplier effect on the economy and third amongst 14 major industries in terms of total linkage effect. After agriculture, the housing and real estate industry is the second largest employment generator in India. The sector is labour intensive and, including indirect jobs, provides employment to around 33 million people. It is estimated that about 70 per cent of these are employed in the infrastructure segment and the remaining 30 per cent in the real estate segment.

According to industry estimates, the industry is expected to generate additional employment of 47 million, with the total number of persons employed in the sector reaching 83 million persons by 2022. Housing and building activity levels have significant macroeconomic effects directly in terms of the consumer price index and interest rates, and indirectly in terms of the 'wealth' effect on spending levels and multiplier effects from employment in the sector With time, there has been expansion and improvement in the housing finance market by way of various financial reforms; however the housing loans as a percentage of GDP have remained at around 7 per cent, significantly lower than the levels achieved in most of the developed countries. It indicates the extent of opportunity for deeper penetration of such market. With improving demographics and economies of scale, the mortgage to GDP ratio is likely to increase. The stakeholders, however, need to reckon with problems and impediments in the process which may arise from changes in the economic cycle, uncertainties surrounding land acquisition policies, changes in the policy framework and systemic risk that could arise out of rapid credit expansion with lax due diligence standards. HFCs is considered to be the benchmark in the housing finance sector given the consistency of earnings and sustainable growth rate; In this context the present paper attempts to study determinants of profitability of selected Housing Finance corporations in India.

Statement of the Problem

There are many researches done on the subject of determinants of profitability for different sectors including banking and non banking companies but the actual motivation of dividend decision still remains unsolved in corporate finance and there is no consensus solution for the subject of factor determining profitability, however many researchers are continuing to conduct study on this field in order to obtain a strong theoretical and empirical analysis on the profitability functions and solve this finance puzzle. When referring to the prior empirical studies on profitability, most of the researches have been conducted mainly on banking companies but a limited study have been undertaken to identify the factor determining the profitability of Housing Finance Corporations in India. Hence an attempt has been made in this study to analyze the factors determining profitability of selected Housing finance corporations in India.

Scope of the Study

The present study aims to analyze the factor determining the selected Housing finance corporations in India. The study was undertaken for period of thirteen years from 2000-01 to 2012-13. The study could help the company as well as the investors to understand the factors to be considered to evaluate the financial performance of HFCs.

Objectives of the Study

The Study is under taken with the following main objective

❖ To analyze the factors determining the profitability of Selected Housing Finance Corporations of India.

Methodology

The methodology adopted in the present study is as follows.

Sources of Data

The present study is mainly based on secondary data. It has been collected from PROWESS a database of CMIE and the annual report of RBI.

Period of Study

The study covers period of 13 years from 2000-01 to 2012-13. The accounting year commence from 1st April to 31st March.

Selection of Sample

There are 45 housing finance companies listed under NHB. Based on the market capitalization the top ten corporations have been selected as the sample unit under convenient sampling method. The HFCs are listed below

1. **Housing Development Finance Corporation Limited (HDFC)**
2. **LIC Housing Finance Limited (LIC)**
3. **Gruh Finance Limited(GRUH)**
4. **Dewan Housing Finance Limited (DHFL)**
5. **Can Fin Homes Ltd (CANFIN)**
6. **GIC Housing Finance(GIC)**
7. **India Home Loan (IHL)**
8. **Sahara India(SHFL)**
9. **Housing and Urban Development Corporation(HUDCO)**
10. **Ind Bank Housing(IBHFL)**

Data Analysis

The following tools were used for the purpose of analysis and interpretation of data.

Statistical tools and techniques:

Different kinds of statistical tools and techniques are used for the analysis of data taken from published reports along with ratio analysis. They are: Mean, Standard Deviation, Co-efficient of Variation, Annual Compound Growth Rate and Regression

Review of Literature

Bharathi. N (2010)[1] in his in-depth study on "Profitability Performance of New Private Sector Banks - An Empirical Study" analyzed the nature of profitability of 9 new private sector banks for 10 years. He found that there is a significant relationship between the net profit and loss to working fund and net profit to interest income. He concluded that new private sector Banks can improve their performance by identifying and concentrating on the relevant areas where the attention is much needed and there is scope for improvement.

Pandey (2012)[2] conducted a study on "Financial Structure and Profitability of IFCI Ltd" to identify the shortcoming and inadequacy of the funds and to raise profit during the study period. He found that more than 70% of the total assets are financed by loan fund which is not a good sign of profitability. He also found that the profitability was not favorably affected by the loan funds during the period, which supports the hypothesis framed for the study that loan fund is not contributing towards the profitability of the company. Hence he suggested the IFCI Ltd to reduce its loan funds gradually so as to remove the non-operating expenses.

Aparna Bhatia, PoonamMahajan and SubhashChander (2012)[3] deal with the determinants of profitability of private sector banks in India.They found that the spread ratio have a positive association with profitability. The operating Expenses, Non-performing assets and the investment deposit ratio have a negative impact on profitability. They also found that there is a positive association between Business per employee and return on asset. They concluded that the bank specific factors which represent the internal efficiency of any bank ought to be analyzed and improved. Only then the macro and external factors could be faced.

Selvaraj and Rajangam (2013)[4] analyzed the profitability of Seshasayee Paper and Boards Ltd, they found that there is a close relationship between Gross Profit margin, Operating Profit margin and Net Sales during the study period. It is also observed that Net Sales showed a positive and an increasing trend. They concluded that, though the company is a profitable one and has good future opportunities, it has to look carefully at controlling the cost of goods sold and reduce its expenses to avoid facing difficult financial conditions in the future.

M. Ramanakumar(2014)[5] made a study on relationship between leverage and profitability in Bata India ltd. In this study, ratios and leverage analysis were used. Operating, financial and combined leverage were conducted. According to the profitability and leverage relationship analysis, degree of operating leverage positively correlated with the ROI. He concluded that if the company revise its capital structures it will have the positive impact on ROI.

In this Section the important determinants of profitability of selected Housing finance corporations were analyzed through the multiple regression technique.

Regression Analysis

In order to estimate the degree and extent of inter relationship between a dependent variable and the number of independent variable, the multiple linear regression equation is generally estimated.

The estimated equation represents

$$\mathbf{Y= b_0+b_1x_1+b_2x_2+b_3x_3.........+b_nx_n+U_1}$$

Where,

Y= Return on Net worth (Dependent Variable)

X_1= Interest Expenses

X_2= Non Interest Expenses

X_3= Debt

X_4= Net Working Capital

X_5= Growth

X_6= Inflation

X_7 = Gross Domestic Product

X_8 = Size

U=Error term

A= Regression constant value

b=Regression Co-efficient values of variables concerned.

Measurements of Variables

Regression Results

The Regression results of selected Housing Finance Corporations for the study period 2000-01 to 2012-13 has been presented in table.1

Symbols	**Description**	**Measurement**
ROE	*Return on Equity*	Profit after tax/Net Worth
IE	*Interest Expenses*	Interest on Borrowings
NIE	*Non-interest Expenses*	Expenses other than Interest
DEBT	*Debt*	Total of Secured and Unsecured Loan
NWC	*Net Working Capital*	Current Assets – Current Liabilities
GROW	*Growth*	Simple growth rate of total asset of the firm
INFL	*Inflation*	Rate of Inflation
GDP	*Gross Domestic Product*	% of Gross Domestic Product
SIZE	*Size of the firm*	Natural Log of Sales

Table -1

Company name	Constant	Interest exp	Non-intexp	Debt	NWC	Growth	Inflation	GDP	Size	R^2	Adjusted R^2	F Value	DW Statistics
HDFC	4104.23** (2.21)	-0.09 (1.79)	0.19 (0.21)	-0.01 (3.22)	-0.002 (0.17)	4.25* (3.02)	-7.29 (0.59)	-3.99 (0.24)	-946.29** (2.20)	99	98.2	1.27*	2.11
LIC	127.31 (0.09)	-0.31 (1.44)	-0.08 (0.17)	0	-0.06 (0.81)	3.08 (1.47)	-0.66 (0.03)	-24.35 (0.98)	34.04 (0.09)	97.4	93.8	27.09*	1.42
GRUH	170.74** (2.91)	-0.24** (2.78)	2.27** (3.22)	0.05* (4.38)	0.06** (2.23)	0	0.51 (0.58)	0.62 (0.53)	-73.99 (3.12)	99.7	99.4	265.19*	1.97
DEWAN	-35.57 (0.64)	-0.05 (0.59)	0.58 (1.53)	0.01 (1.71)	0.01 (0.21)	0	-0.576 (0.309)	-2.234 (0.888)	18.903 (1.071)	99.9	99.6	481.47*	2.63
CAN FIN	142.63** (2.65)	-0.01 (0.40)	0.22 (1.67)	-0.09** (3.39)	0.06** (2.84)	10.75** (4.45)	-0.16 (0.48)	0.72 (2.11)	-48.09** (2.65)	99.6	98.9	142.30*	2.89
GIC	-106.079** (3.189)	0.002 (0.011)	0.334 (1.003)	-0.182** (2.534)	-0.09** (2.534)	17.59** (2.94)	0.19 (0.13)	0.14 (0.07)	39.04* (4.85)	98.9	96.7	44.89*	3.04

IHL	10.07** (2.49)	0.49 (0.08)	-1.07* (24.67)	0.41** (2.86)	0.543** (3.83)	8.839** (2.351)	-0.047 (1.581)	0.003 (0.171)	-1.512 (1.986)	99.8	99.3	215.71*	1.49
SHFL	3.21 (0.27)	0.13 (0.54)	-0.06 (0.19)	-0.02 (0.19)	0.01 (0.23)	2.53 (0.26)	0.07 (0.54)	0.03 (0.19)	-0.98 (0.51)	96.7	90.0	14.57*	2.34
HHFL	7256.46 (0.57)	-0.09 (0.56)	0.35 (1.52)	-.0.08 (1.92)	-0.002 (0.49)	13.04 (1.51)	22.63 (1.62)	-16.21 (0.89)	-1907.83 0.59	97.2	91.5	17.09*	2.42
IBHFL	58.69 (0.46)	0.37 (0.13)	-0.97 (1.71)	-0.62 (1.29)	1.89 (0.79)	17.77 (0.21)	0.72 (0.27)	1.04 (0.39)	-5.29 (0.23)	90.8	72.4	4.93***	2.26

Regression Results of Selected Housing Finance Corporations

Table 1 summarizes the estimated regression function for profitability for all the sample units both individually as well as collectively during the period of study. The estimated regression function is found statistically good fit since the explanatory power measured by R^2 and F appears to be high in all the sample firms. The value of R^2 is found to be very high ranging in between 90.8 to 99.9 in the sample firms. This very high value of R^2 showed that the estimated regression equation explains significantly well with the profit behavior of the sample units.

Interest expenses

The regression co-efficient of interest expenses appear with positive sign in GIC, IHL, SHFL and IBHFL and negatively related with all other sample units. This result is similar to those reported in previous research. This result suggests that the interest expenses are one of the determinants in profitability.

Non-interest expenses

The regression co-efficient of non-interest expenses appear with positive sign in HDFC, GRUH, DEWAN, CANFIN, GIC, and HHFL and negatively related with all other sample units. From this analysis the non-interest expenses are one of the determinants in profitability.

Debt

The debt appears with negative sign in all the sample units except GRUH, DEWAN and IHL. This implies that the profitability is less related with debt. The regression coefficient of Debt is statistically significant in the case of GRUH, DEWAN and IHL. In these sectors, debt had more influence on profitability.

Net working capital

Based on this analysis the net working capital has more influence in the profitability. The coefficient of Net working capital has positively related with all the cases except HDFC, LIC, DEWAN and HHFL. Moreover the sample industries have significant relationship with profitability based on the variable of networking capital.

Growth

The regression results indicate that the coefficient of Growth is positively related to profitability of the sample units. The beta value of exogenous variables Growth was almost positive in all the sample units, whereas it was statistically significant in HDFC, CANFIN, GIC and IHL. It is evident from the regression results that the growth of the firm has significant impact on profitability of the selected sample units except DEWAN and GRUH.

Inflation

The regression results indicate that the coefficient of inflation is positively related to profitability in case of GRUH, GIC, SHFL, HHFL and IBHFL. Based on this study there is no significant relationship between Inflation and profitability. It is evident from the regression results that the Inflation has no influence in profitability of selected sample units.

GDP

Based on this study there is no significant relationship between GDP and profitability. It is evident from the regression results that the GDP has no impact on profitability of selected sample units.

Size

The regression coefficient of Size is negatively related with profitability in all the sample industries except LIC, DEWAN and GIC. From the analysis, it is observed that the relationship between size and profitability is statistically significant only in HDFC, GRUH, CANFIN, and GIC. In all other units, size does not have significant relationship with profitability.

To conclude that the constant term (Y) in the estimated equations is found to be positive. This supports the specification of the regression model. The Durbin Watson statistics (DW) estimated for knowing the presence or absence of autocorrelation problem in the estimated equation also showed that in all the sampled units, there were no autocorrelation problems.

Conclusion

From the regression analysis of measures of profitability (ROCE), it is proved that the profitability is affected altogether by all the exogenous variable viz., Interest expenses, and

Non-interest expenses, Debt, Net Working Capital, Growth, Inflation, GDP and Size in most of the firms. Whereas the inflation and GDP does not have significant impact on the profitability of the selected housing finance companies in India. It is found that profitability significantly influenced by Interest Expenses, working capital, debt and size of the firms.

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