CHAPTER 9

SUMMARY OF

FINDINGS AND SUGGESTIONS
CONTENTS

1.0 INTRODUCTION

1.1 Statement of the Problem
1.2 Significance of the Study
1.3 The Sample Design

2.0 THE SAMPLE INDIAN REAL ESTATE COMPANIES

2.1 DLF
2.2 VASCON
2.3 SOBHA
2.4 OMAXE
2.5 BRIGADE
2.6 INDIABULLS

3.0 FINDINGS

3.1 Quantum and Structure of Funds
3.2 Adequacy of Long Term Funds
3.3 Assessment of Long-Term Solvency
3.4 Justification for the use of Debt
3.5 Impact of Financial Leverage
3.6 Structure and Growth of Fixed Assets
3.7 Financing Pattern of Fixed Assets
3.8 Utilization of Fixed Assets
3.9 Impact of Gross Block on Sales and Operating Profits
3.10 Adequacy of Depreciation
3.11 Structure of Working Capital
3.12 Inventory Efficiency
3.13 Short Term Solvency and Extent of Liquidity
3.14 Profitability in Terms of Capital Employed
3.15 Profitability in terms of Shareholders’ Investment
3.16 Profitability in terms of Sales

4.0 RESULTS OF THE HYPOTHESES TESTED

4.1 Solvency
4.2 Liquidity
4.3 Profitability
4.4 Joint impact of financial performance variables on profitability for the IREI (Consolidated) and select companies

5.0 SUGGESTIONS

6.0 SCOPE FOR FURTHER RESEARCH
1.0 INTRODUCTION

The term 'Real estate' refers to land as well as building. The word 'Land' includes-the air above and the ground below and any buildings or structures on it. The oldest use of the term “Real Estate” that has been preserved in historical records was in 1666. This use of “real” also reflects the ancient and feudal preference for land, and the ownership (and owners) thereof. Some people have claimed that the word real in this sense descended (like French Royal and Spanish Real) from the Latin word 'King'. Title lands were broken into smaller parcels and sold on free market of sorts. The industrial revolution was one of the great equalizers in human history, perhaps only matched by the invention of firearms. The Real Estate covers residential houses, commercial offices, trading spaces such as theatres, hotels and restaurants, retail outlets, industrial buildings, factories and also government buildings. Thus, the term real estate connotes immovable property which can be either land or building or both. Real Estate sector is a large, huge diversified sector, with many verticals such as land, design/construction, development, investment, lending etc. India, emerging as one of the most important business locations in the world with its favourable demographics and strong economic growth, makes it an attractive place
for property investors as the demand for property is determined mainly by business development and demographic trends.

1.1 Statement of the Problem

The Real Estate sector in India is recognized as an “infrastructure service that is driving the economic growth engine of the country” according to industry experts. Real estate development in India has spread from the large metros to smaller cities and towns. Several factors such as sustained GDP growth, higher disposable incomes, proactive Government policies etc. have induced this transformation. The IT/ITS sectors accounts for 80 per cent of absorption of office space: this sector is seen as the driver foremost importance of current scenario. The rapid pace of urbanization in India is another factor that is contributing to the growth of real estate. The Government has aided the growth of real estate by allowing access to overseas equity while at the same time it has put in place checks and balances to control the sector and avoid any speculative bubble formation. These offerings range from projects where, land is not acquired, to projects where, all the structures are in place.

The review of literature points to limited studies conducted on certain issues of financial performance in Indian Real Estate Industry (IREI). But, no specific study on the financial performance (Strengths and Weakness) of IREI has been undertaken. Further, without any factual information, it is difficult to evolve norms for sound financial performance of the IREI. Hence, the present study is an attempt to fill this research gap.

1.2 Significance of the Study

Financial management is responsible for maintaining right amount of funds at the right time for a right purpose. It plays a dominant role in the continuity and growth of a business, since no business can be established or expanded without adequate financial resources. Improper management of finance leads not only to loss of profit but also ultimate failure of business. Financial management is concerned with the overall management like taking policy decisions relating to line of business, size of firm, acquisition of fixed assets, extent of debt, liquidity, solvency, retention of earnings and payment of dividend which in turn determine the size of the
profitability. Therefore, financial management assumes vital importance in any industry. Hence, the present study “financial performance of Indian Real Estate Industry – A study of select enterprises” assumes significance from the point of view of all the stake players involved in the industry apart from the academic and research dimensions.

1.3 Sample Design

Multi-stage Sampling Technique is adopted in selecting the sample for the study. IREI is dominated by private sector comprising several small, medium and large Real Estate companies. Money Control.com of Bombay Stock Exchange has provided a list of 36 top Real Estate companies under private sector. The universe for selection of sample consists of these 36 companies at the first stage. In the second stage, companies with turnover of more than Rs.1000 crores alone are considered for making out the sample. Accordingly, 16 companies are identified with this characteristic, while the rest of 20 eliminated. In the third stage, these 16 companies are categorized into three groups such as Better Performing Companies (BPC), Moderately Performing Companies (MPC) and Low Performing Companies (LPC) based on their respective ROCE. Two companies from each of these three groups are drawn at random totaling to 6 units as sample for the present study.

2.0 THE SAMPLE INDIAN REAL ESTATE COMPANIES

The sample consists of 6 Indian real estate companies for the present study.

2.1 DLF

The DLF Group was founded in 1946. DLF developed some of the first residential colonies in Delhi such as Krishna Nagar in East Delhi, which was completed in 1949. DLF, therefore, commenced acquiring land at relatively low cost outside the area controlled by the Delhi Development Authority. This led the first landmark real estate development project – DLF. DLF has over 60 years of track record of sustained growth, customer satisfaction, and innovation. DLF’s primary business is development of residential, commercial and retail properties. With over six decades of excellence, DLF is a name synonymous with global standards, new generation workspaces and lifestyles. It has the distinction of developing commercial
projects and IT parks that are at par with the best in the world. DLF’s mission is to build a world-class real estate development company with the highest standards of professionalism, ethics and customer service and thereby contribute to and benefit from the growth of the Indian economy. The Retail Malls business is a major thrust area for DLF. Currently, DLF is actively creating new shopping and entertainment spaces all over the country. DLF has a strong management team running independent businesses, though complementing each other in cases of opportunities of mixed land use.

2.2 Vascon

The Company was originally incorporated on January 1, 1986 as a private limited company under the provisions of the Companies Act, 1956 as Vascon Engineers Private Limited. It became a deemed public company by virtue of Section 43A of the Companies Act with effect from August 25, 1997 and renamed as Vascon Engineers Limited. It became a private limited company with effect from January 16, 2001. Pursuant to a resolution of the shareholders, it converted into a public limited company with effect from December 7, 2006. It acquired the assets of Vascon Hadapsar Ventures, in which they were a partner, pursuant to a deed of retirement cum dissolution dated May 29, 2007. The company has bagged another order work that includes construction of multi-storied group housing complexes for North Town - an ‘Arihant and Unitech initiative’ at Perambur, Chennai (Phase I and II) worth Rs 747.5 million. Vascon Engineers bagged various contracts worth Rs 1.05 billion. The order work includes construction of retail and commercial complex for Bharti Realty at Ludhiana, Punjab, which is aggregating nearly Rs 300 million.

2.3 Sobha

Sobha Developers Ltd, a Rs. 15 billion company, is one of the largest and only backward integrated real estate players in the country. With three decades of experience in creating resplendent interiors of palaces and masterpieces in the Middle-East, Mr. PNC Menon founded Sobha Developers in 1995 with a clear vision to transform the way people perceive quality in the real estate sector in India. Since inception the company has always strived for benchmark quality, customer-centric approach, robust engineering, in-house research, uncompromising business ethics,
timeless values and transparency in all spheres of business conduct, which have contributed in making it a preferred real estate brand in India. In 2006 Sobha went public through its initial public offering, an event that created history when the issue got oversubscribed a record 126 times. A unique social developmental program was initiated by the company in 2006 in two grama panchayaths in Palakkad district of Kerala. The program covers key human development verticals like education, health, employment, water, sanitation and housing. As of 31 March 2012, in the past 17 years since its inception, Sobha has completed 79 real estate projects and 209 contractual projects covering about 51.80 Million Square Feet of area. The Company has all the competencies and in-house resources to deliver a project from conceptualization to completion. Sobha's prestigious clients include Infosys, Taj Group, DELL, HP, Timken, Biocon, Institute of Public Enterprises (IPE), Bosch, Hotel Leela Ventures and others.

2.4 Omaxe

Omaxe Limited was incorporated on March 8, 1989 as Omaxe Builders Private Limited under the Companies Act, 1956. Company changed the name to Omaxe Construction Private Limited, which was approved by the Registrar of Companies, National Capital Territory of Delhi and Haryana through their approval letter dated March 4, 1997. It converted into a public company with the name of Omaxe Construction Limited by passing a special resolution in terms of section 31/21 read with section 44 of the Companies Act, 1956, which was approved by the Registrar of Companies, National Capital Territory of Delhi and Haryana through their approval letter dated August 10, 1999. The name was changed to Omaxe Limited with effect from June 6, 2006. In 1999 the company has been awarded the achiever of the Millennium Award by All India Achievers Conference and Pride of the Country Award by the Society of Industry and Business Achievements. It received rating of A (ind) from Fitch Rating India Private Limited in relation to the Rs. 3,000 million long term debt program of Omaxe Limited 2008.

2.5 Brigade

The company was originally called 'Brigade Enterprises', a partnership firm, formed by the Promoters, Mr. M. R Jaishankar and Ms. Githa Sharikar, which was
subsequently converted into a private limited company called Brigade Enterprises Private Limited in 1995.

The Company was changed to a public limited company by a special resolution of the members passed at an annual general meeting held on June 20, 2007. The company is certified as an ISO 9001:2000 property developer. It is also awarded a certificate of recognition by the International Facility Management Association in December 2003 for being amongst the best service providers in the real estate industry. The company’s project ‘Brigade Regency’ in Bangalore was rated by CRISIL and has received ‘PA2’ rating in December 1996.

2.6 Indiabulls

Indiabulls real estate is one of the largest real estate company in India with development projects spread across high-end office and commercial complexes, premium residential developments, mega townships, retail spaces, hotel and resorts, state of the art special economic zones and infrastructure development. It has 31 ongoing projects totaling 72.86 million square feet, 2588 acres of SEZ development and additional land bank of 1001.43 acres. The main focus of Indiabulls Real Estate is construction and development of properties, project management, investment advisory and construction services. It employs most advanced construction equipments and technologies that guarantees on time delivery like advanced jump start technology, advanced logistics and vertical transportation systems, wind tunnel engineering as also international quality construction grade steel.

3.0 FINDINGS

The present research study which investigated into various financial variables such as, solvency, liquidity and profitability of IREI enabled the researcher to come out with the following findings:

3.1 Quantum and Structure of Funds

Long-term funds contributed on an average 73.05 per cent of the total investment in the consolidated position. Of the long-term funds, owners’ funds
constituted 45.76 per cent and long term borrowed funds at 27.29 per cent. Long term funds contributed a major source of financing investments in the IREI.

- Vascon preferred to rely upon more on long term funds to finance its expansion and growth activities. The extent of net worth is more than the borrowed funds in the long term funds. Among short term funds, 'others and provisions' are significantly used as spontaneous sources of financing working capital needs in the enterprise.

- DLF also preferred to rely more on long term funds to finance its expansion and growth activities, as is reflected by the increased net worth during the study period. This shows strong creditworthiness in both the Real Estate enterprises.

- The internally generated funds in SOBHA are less than that of DLF and VASCON and the external borrowings more. Hence, SOBHA preferred to employ more external borrowings as against DLF and VASCON.

- Long Term funds are more than the short term funds in OMAXE as in the case of the above three companies. As a percentage to total liabilities, long term funds registered an overall increase in first three years, but thereafter, declined steeply.

- The proportion of borrowed funds in Omaxe is more than the proportion of the net worth on an average which indicates that the firm is increasingly depend more on external financing than internal sources which seems to be not a sound practice.

- Share capital in Brigade is though kept at a minimum level, owned funds registered an impressive rise due to larger retention of profits. Owned funds and long term borrowed funds have shown a overall progress signifying the strengthening position of long term funds in this enterprise.

- Long term funds contributed a major source of financing the investments in Indiabulls. The use of short term funds is less than the long term funds and the extent of short term funds as a percentage of total funds invested declined. The enterprise relied more on owners' funds than on borrowed funds. The firm, therefore, has missed the opportunity of trading on equity.

- The financial structure of all the sample enterprises is properly balanced but for some minor deficiency in OMAXE.
3.2 Adequacy of Long Term Funds

- Consolidated position of real estate industry shows that on an average 72.17 per cent of total assets are invested from long term sources.
- The long term funds are sufficient to finance entire fixed assets component as these assets on an average formed only 36.81 per cent of total assets.
- An analysis of individual firms points out that in all the select real estate companies, the proportion of long term funds employed has exceeded that of the fixed assets. Subsequently, these companies are able to finance a sizeable part of current assets too through long term funds.

3.3 Assessment of Long Term Solvency

- Despite a mixed trend of up and downs in the ratio, the real estate industry has the requisite financial strength and it faces low financial risk. Hence, the threat to long term solvency is remote.
- DLF, Sobha and Brigade depended both on debt and equity which may help these companies reap the benefits of leverage marginally. Omaxe is relatively using more debt financing than equity financing.
- Vascon and Indiabulls are totally depending on equity financing rather than debt financing.
- The debt-equity ratio in the combined position has, however, shown a downward trend denoting that, the dependence on borrowed funds has been brought down by the industry.
- The average debt-equity ratio recorded is 1.10 times for Vascon and 0.70 times for Indiabulls. There is a case for these units to opt for some more debt funds in order to magnify the return on shareholders' funds.

3.4 Justification for the Use of Debt

- Interest coverage ratio of the industry is relatively higher in the earlier years than in the later years of study. The industry in spite of its efforts could not improve the profits to the desired level in view of volatility in the earnings. Therefore, it has no
option but to reduce the use of debt capital leading to some improvement in the interest coverage.

- In view of instability, and unpredictability in the industry, there is justification for the reduced use of debt capital.
- The ICR of Vascon, Sobha, Omaxe, and Indiabulls are less than the industry average. The decreasing use of debt is justifiable in these firms as they earned lesser profits in the later years.

3.5 Impact of Financial Leverage

- The degree of financial leverage of the industry showed an uptrend. But the increase in the degree of financial leverage has not impacted favourably either the ROE or EPS.
- The degree of financial leverage of DLF, Vascon, Sobha, Omaxe and Brigade could neither increase the ROE nor EPS which means that the impact of financial leverage has no significant positive influence.
- The degree of financial leverage in Indiabulls though has shown favourable impact on ROE and EPS may create more risk to the stakeholders in view of volatility in the later two.

3.6 Structure and Growth of Fixed Assets

- The major investment in IREI is not in the form of fixed assets but in current assets. The pace of growth in gross block as well as fixed assets (net) is highly progressive, thereby, signifying that the pace of expansion programme during this period was very rapid and appreciable.
- Investments in fixed assets (Gross Block) in DLF recorded a progressive growth over the period of study. The percentage of investments in current assets has slid down while that of the fixed assets reported a rise.
- In Vascon, the fixed assets are less than current assets. The expansion in fixed assets is not effective.
Fixed Assets investment in Sobha recorded a positive growth over the period. The investment in this category of assets has steadily increased. But the decline in fixed assets percentage can be attributed to the fast increasing current assets.

Fixed assets investment in Omaxe depicted a marginal raise during the period of study.

The fixed assets investment in Brigade has recorded a positive growth, even in terms of percentage, the investment in fixed assets has increased. This enterprise is investing equal proportion in fixed assets as well as current assets. When compared with the industry and other companies, Brigade alone has invested more funds in fixed assets.

The investment of Indiabulls in fixed assets is less than the investment in current assets. The investment in gross block in absolute figures has shown an uptrend.

The fixed assets (Gross) and fixed assets (Net) reported an uptrend in all the sample companies and the industry. But, the investment in fixed assets is less than the investment in current assets of all the sample companies as reflected in the consolidated position. In all the companies and the industry 'other assets' is the dominant component of fixed assets followed by land and buildings. The least investment is on furniture and fixture. From the foregoing analysis, it is inferred that the current assets are major investment than fixed assets in the IREI.

3.7 Financing Pattern of Fixed Assets

The IREI net worth has exceeded fixed assets in all the years of study. The ratio is less than unity for the first four years indicating that the shareholders' funds were sufficient not only to finance fixed assets, but also marginal portion of current assets.

DLF used not only owned funds but also borrowed funds to finance fixed assets. The protection offered to creditors is thin as the ratio calculated is very high.

In Brigade, the average fixed assets to net worth ratio calculated is 0.94, which is more than the industry average as well as the other companies, i.e., Vascon, Sobha,
Omaxe and Indiabulls. Sobha and Omaxe are able to strengthen their shareholders’ funds in financing fixed assets.

- DLF and Vascon have not only relied upon equity funds but also borrowed funds to finance their fixed assets and Brigade marginally. Vascon, Sobha, Omaxe and Indiabulls were able to finance their fixed assets out of owner’s funds only.

- The ratio of fixed assets to long term funds points out that long term funds are sufficient to finance fixed assets in the IREI. All the sample companies, therefore, are capable of financing the entire fixed assets by the long term funds as well as a part of current assets. Hence, these companies reflected a better financing option.

### 3.8 Utilization of Fixed Assets

- The fixed assets turnover is less than unity which is averaged at 0.64 times in the IREI. The overall trend of the ratio depicts a mixed fare.

- The utilization of fixed assets is not up to the mark in the Real Estate industry. Labour troubles, short supply of raw materials in time and other inputs were some of the reasons attributable for this state of affairs.

- Average utilization of fixed assets has adversely affected the turnover rate and it failed to lift the rate of return on capital employed to the desired level.

- An examination of individual companies reveals that Vascon, Sobha and Omaxe have shown relatively better fixed assets performance than DLF, Brigade and Indiabulls which depicted poor performance.

### 3.9 Impact of Gross Block on Sales and Operating Profits

- The impact of gross block on sales and operating profits of IREI reported an increasing trend. But, the rate of increase in gross block is higher than the sales coupled with the declining trend of operating profits. It reveals that the expansion is not profitable in spite of some increase in sales. This is an indication of operating inefficiency in the Real Estate industry. Sample companies have shown an unfavourable impact of gross block on sales in all the companies.

- The impact of expansion in gross block on sales is not impressive in all the companies since the pace of increase in sales has not exceeded that of the gross block.
This unfavourable trend resulted in decreasing operating profit margin in DLF, Vascon, Omaxe, Brigade and Indiabulls.

➢ In Sobha, the expansion in gross block has however, showed a mixed trend of ups and downs in sales implying inconsistency in the use of fixed assets.

3.10 Adequacy of Depreciation

➢ The increasing ratio of depreciation to gross block of IREI indicates that depreciation consumes a larger proportion of sales revenue and as a result operating income gets reduced. Further, the ratio of depreciation to sales is inflated in the industry because of inadequate sales and not that it provided more depreciation. Therefore, depreciation was not provided sufficiently in the IREI.

➢ The depreciation provided in DLF, Vascon, Sobha and Omaxe is relatively better when compared with the consolidated picture. Brigade is singled out for maintaining an uniform depreciation policy. Indiabulls, however, could not provide sufficient depreciation considering the combined average. The depreciation provided in all these companies surely will be inadequate to replace their fixed assets as and when required on replacement cost basis.

3.11 Structure of Working Capital

➢ In the consolidated position, the share of current assets in total assets is higher than that of the fixed assets. In absolute figures the investment in both the category of assets has registered an overall increase.

➢ Work in progress formed the core component of inventory and least inventory is in the form of raw material followed by finished goods.

➢ As against current assets which exceeded the fixed assets, current liabilities are less than the long term funds during the study period.

➢ It is observed that on the one hand the pace of increase in the indices of current liabilities outstripped that of the current assets and on the other, the net working capital indices depicted a decline. It is, therefore, evident that, working capital condition of the IREI is not sound.
The working capital condition of DLF and Vascon seems to be not healthy, whereas, Sobha, Omaxe, Brigade and Indiabulls are relatively better.

3.12 Inventory Efficiency

IREI did not turnover its inventory into sales quickly denoting under-trading by the industry generating no effective revenues and profits.

The ITR of DLF, Sobha and Brigade were higher than the IREI, which indicates relatively better inventory performance. However, the overall inventory performance of the sample real estate units is not satisfactory.

The raw material storage period on an average in Brigade is the highest which indicates overstocking of raw materials in this unit followed by Sobha. DLF and Vascon could manage this raw materials inventory at lower levels.

Individually, the average turnover of work in progress is higher and conversion period lesser than the IREI in Vascon, Sobha and Brigade. In the other companies, conversion period exceeded the industry average.

The investment in finished goods inventory is the maximum in Indiabulls and minimum in Sobha. In DLF and Vascon finished goods inventory as a percentage of aggregated inventory has exceeded the consolidated percentage. This reflects that these companies carried on with higher finished goods inventory than that of the other companies.

3.13 Short Term Solvency and Extent of Liquidity

The quantum of debtors in the IREI reported a fluctuating trend and the same situation is also evident in all the sample units bearing Omaxe.

The rising share of debtors to current assets reflect the marginally liberal credit policy pursued in the sample enterprises.

The declining rate of debtors turnover in the combined position resulted in the highest collection period, thereby, implying slower collection of debtors. Individually, Indiabulls has the highest collection period and Brigade the lowest. In between, other sample companies are identified.
No stability is found in the cash balance position of the sample companies. In other words, no systematic maintenance of cash balances is evident. Hence, sometimes, these companies may have to confront problems of either cash shortage or cash surplus.

The current ratio of DLF, Sobha and Omaxe are more than the ideal norm of 2:1 implying sound short-term solvency and liquidity enjoyed by these units. But, Vascon, Brigade and Indiabulls showed a contrary picture revealing that they are not able to payoff current debt out of the proceeds realized from current assets. Therefore, these three companies could not experience better solvency and liquidity.

Considering the liquidity ratios, it is observed that, Brigade and Omaxe have weak short term solvency and liquidity than the rest of the sample units.

All the sample companies except DLF have less cash funds to pay out the currently maturing obligations when compared with industry average.

The cash flow coverage ratio is strong in DLF, moderate in Sobha, and less in rest of the companies. Indiabulls is maintaining the least cash flow coverage ratio reflecting poor liquidity.

Funds are primarily used to finance expansion activity. It is apparent that much of the funds pooled by the sample enterprises are used to finance the developmental activities, i.e., to finance the expanding fixed and working capital needs.

3.14 Profitability in Terms of Capital Employed

The IREI's profit performance is not up to the standard level. The variations in ROCE are volatile implying inconsistency in the industry's overall profitability. The rate of return in the industry declined in view of falling capital turnover.

It is evident that, all the sample units are characterized with falling ROCE during the study period in view of declining capital turnover. The continuous decline in ROCE is due to falling sales in view of economic slowdown in India. But, individually, DLF, Sobha, Vascon and Omaxe could put up relatively better profit performance in terms ROCE than Brigade and Indiabulls.
3.15 **Profitability in Terms of Shareholders' Investment**

- ROI of DLF is higher than the Industry average, indicating more value for its shareholders/investors.
- The ROI of all other companies is lower than the industry average, denoting less value for their shareholders/investors.
- The ROI of Indiabulls is the least of all other companies indicating the least value for its shareholders/investors.

3.16 **Profitability in Terms of Sales**

- The operating profits reaped by the IREI are not encouraging.
- The rate of growth in sales in DLF, Omaxe and Indiabulls is more than that of the operating expenses. The operating expenses are well controlled and as a result DLF could enjoy better profits. A reverse situation is evident in Vascon, Brigade and Sobha.
- The Real Estate industry's (consolidated) gross profit margin has shown a downward trend over the study period. Gross profit margin could not increase effectively in view of escalating cost of production, thereby permitting the industry to earn moderate gross profits only.
- Gross profit margin of DLF has exceeded the industry average. This company is able to control its costs of operation relatively better than that of the other companies. The lowest gross profit margin is observed in Vascon, Brigade and Omaxe. The gross profit margin of Indiabulls which is very high initially, showed volatility afterwards and ultimately fell steeply in view of higher construction cost.
- The IREI enjoyed good net operating profit margin on sales. However, it is experiencing a slow down over the years in view of instability in the economy. Of the six sample real estate enterprises, the net operating profit margin is not satisfactory in Vascon, Brigade and Omaxe. The rest of the sample units did well in respect of net operating profit margins.
- DLF recorded a lower average operating ratio than the industry reflecting relatively better operating efficiency. In Vascon, Omaxe and Brigade the operating
ratio is above the industry average. The operating expenses absorbed higher portion of operating revenues leaving lesser margin towards operating profits which may be inadequate.

The net profit margin in the real estate industry has slid down during the study period and very low in view of presence of high interest charges and heavy tax burden.

As regards the individual companies, DLF is the only company to exceed the average industry net profit margin pointing to relatively better net profit performance. All the other companies however, did not do well.

4.0 RESULT OF THE HYPOTHESIS TESTED

The present study is based on null hypothesis - \( H_0 \) - that there is no significant difference between the IREI's consolidated performance and the select real estate companies. In order to test the overall hypothesis, the three variables of financial performance of IREI viz. solvency, liquidity and profitability were tested through the following.

4.1 Solvency

\( H_0: \) There is no significant difference between the DER of select companies and IREI.

The Null Hypothesis is accepted for DLF, Vascon, Sobha and Brigade

\( H_0: \) There is no significant difference between the DER (LTD + STD) of select companies and IREI.

The Null Hypothesis is accepted for all the companies except Omaxe

\( H_0: \) There is no significant difference between the ICR of the sample companies and the Industry.

The Null Hypothesis is accepted for all the companies

4.2 Liquidity

\( H_0: \) There is no significant difference between the ITR of individual companies and the IREI.
The Null Hypothesis is rejected for Vascon and Indiabulls only

\( H_0 \): There is no significant difference between the DTR of individual companies and that of the IREI.

The Null Hypothesis is accepted for DLF, Sobha, Omaxe, Brigade and Indiabulls and rejected for Vascon. There is no significant difference between DTR of individual companies and IREI.

\( H_0 \): There is no significant difference between the CR of individual companies and the IREI.

The null hypothesis is accepted for DLF, Vascon, Brigade and Indiabulls and rejected for Sobha and Omaxe.

\( H_0 \): There is no significant difference between the QR of individual companies and the IREI.

The null hypothesis is accepted for DLF, Vascon and Indiabulls, whereas, rejected for Sobha, Omaxe and Brigade.

4.3 Profitability

\( H_0 \): There is no significant difference between the ROIR of individual companies and the Industry (Consolidated).

The null hypothesis is accepted for Vascon, Sobha, Omaxe and Brigade, while, the alternate hypothesis is accepted for DLF and Indiabulls.

\( H_0 \): There is no significant difference between the NPTAR of individual companies and the Industry.

The null hypothesis is accepted for all the companies except DLF and Indiabulls.
4.4 Joint impact of financial performance variables on profitability for the IREI (Consolidated) and select companies.

➤ ROIR of the IREI is significantly influenced by independent financial variables such as NPTAR, DTR, CR, QR and LTD+STD. [Multiple correlation co-efficient R=1 and Co-efficient of determination \( R^2 = 1 \)]. Therefore, there exists perfect positive correlation between the variables and co-efficient of determination 1 indicates that the independent variables explain 100 per cent dependent variable.

➤ ROIR of the DLF is significantly influenced by independent financial variables such as ICR, DTR, CR, QR, LTD+STD. [Multiple correlation co-efficient R=1 and Co-efficient of determination \( R^2 = 1 \)]. There exists perfect positive multiple correlation co-efficient between the variables.

➤ ROIR of the Vascon is significantly influenced by independent financial variables such as NPTAR, DER, DTR, QR and LTD+STD. [Multiple correlation co-efficient R=1 and Co-efficient of determination \( R^2 = 1 \)]. ROIR of Vascon is significantly influenced by independent financial variables.

➤ ROIR of the Sobha is significantly influenced by independent financial variables such as NPTAR, ITR, LTD+STD, QR, DTR. [Multiple correlation co-efficient R=1 and Co-efficient of determination \( R^2 = 1 \)]. ROIR of Sobha is significantly influenced by independent financial variables.

➤ ROIR of the Omaxe is significantly influenced by independent financial variables such as NPTAR, ITR, CR, QR, LTD+STD. [Multiple correlation co-efficient R=1 and Co-efficient of determination \( R^2 = 1 \)]. ROIR of Omaxe is significantly influenced by independent financial variables.

➤ ROIR of the Brigade is significantly influenced by independent financial variables such as ITR, DTR, CR, QR and LTD+STD. [Multiple correlation co-efficient R=1 and Co-efficient of determination \( R^2 = 1 \)]. ROIR of Brigade is significantly influenced by independent financial variables.

➤ ROIR of the Brigade is significantly influenced by independent financial variables such as NPTAR, ITR, CR, QR, LTD+STD. [Multiple correlation co-
efficient $R=1$ and Co-efficient of determination $R^2 = 1$. ROIR of Indiabulls is significantly influenced by independent financial variables.

5.0 SUGGESTIONS

In the light of the foregoing findings, the researcher offers the following suggestions to overcome the weaknesses and strengthen the financial performance of Indian real estate industry. These suggestions may be considered by the policy makers, executives of real estate companies, financial institutions, Government, stakeholders and all other players interested in the well being of the industry.

✓ The long term solvency of the IREI though is good enough there exists scope for its further strengthening. In order to improve the long term solvency of the individual companies like Sobha and Omaxe, more long term funds shall be used to finance their fixed and core current assets instead of using short term borrowed funds as is now practiced in these enterprises. It will ease out the risk of renewing funds often and makes the financial structure of these undertakings more balanced.

✓ Units which are faring better as regards their profitability such as DLF, Sobha, Omaxe and Vascon need not opt for conservative capital structure. Instead, they can use more fixed interest bearing funds in order to reap the benefits of treading on equity. There is also a need for Brigade and Indiabulls, to opt for some more debt funds in order to magnify the return on shareholders’ funds.

✓ Fixed assets have to be utilised more effectively so as to generate more sales because the quantum of sales in relation to the size of investment in fixed assets is not impressive at present. At the same time the operating cost has to be controlled and kept at the minimum possible level, so that the increased revenues due to better use of fixed assets may result in higher operating profit.

✓ Depreciation provided in the IREI even on historical cost basis is inadequate to replace the fixed assets. As such, under the present inflationary conditions, it becomes a difficult task to replace the fixed assets with the existing depreciation reserve. Therefore, these enterprises have to make provision for replacement fund in addition to normal depreciation in order to provide adequate funds for replacing the fixed assets when they become obsolete.
For real estate industry, working capital is the major form of investment. But, this is evident only in two sample companies, viz., Vascon and Indiabulls. The rest of the companies should also try to improve working capital funds as it enables these enterprises to overcome the problems of working capital deficit.

Inventory is the major item of current assets in real estate industry. Hence, effective procedures and methods have to be developed in order to optimize investment in this component of current assets. The following points may be considered for the efficiency management of inventory:

- In order to keep the costs of inventory at a lower level, inventory carrying costs, inventory ordering costs and stock-out costs has to be evaluated with suitable methods.

- To exercise effective control over inventory, administrative and procurement lead times have to be analyzed and action has to be initiated for streamlining the existing procedures in this regard. To reduce investment in inventories, the lead time is to be minimized to the extent possible. The concept of Economic Order Quantity (EOQ) has to be adopted carefully, while placing orders for purchase of raw materials.

- To control the overall level of inventories, norms have to be developed for different inventory holdings. These norms have to be compared with the actual consumption and the loopholes if any, blocked cautiously.

The raw material storage period of Brigade and Sobha have to be brought down to avoid the problems of overstocking.

In order to strength the liquidity and solvency position of Vascon, Brigade and Indiabulls, core current have to be financed through long term funds. At the same time, it is necessary for these companies to reduce substantially the existing current debt.

In order to withstand the economic imbalances higher operating expenses have to be brought under control through effective profit planning and control systems.

Except DLF, EPS is not attractive at present in all select enterprises, Therefore, investors may not come forward to invest in these companies shares.
Hence, an effort has to be made to convince the investing public that these enterprises are committed on improving their profitability in future.

The real estate sector is one affected adversely because of the financial crisis. The financial crisis has led to increased mortgage rates and complicated acceptance procedures of banks to provide mortgages for potential buyers. This has created more uncertainty concerning the financial performance of the real estate companies. The policy making bodies of governments and banks shall think of easing out the situation through more liberal extension of credit to home and other property buyers. So that, the real estate companies could breathe comfortably with regard to financial and operating performance.

The confidence of the investors of real estate companies has decreased in view of low and falling profits. In order to maintain the confidence of the investors, the real estate companies shall work hard, get more profits by tiding over the temporary hurdles.

The different interests of the users and preparers of the financial statements, information asymmetry and the agency theory are an increasing problem in the financial crisis. Especially in this uncertain times there seems to be a greater need of transparency for the users of the financial statements. The fair value measurement and disclosures are important for the transparency for the users of financial statements. Users of the financial statements need transparency and comparability.

After leading the IT bandwagon, India is poised to grow as a Retail hub. Going by the current growth trend and considering the fact that existing prominent players, the Indian format of retailing is going to retain its own touch, with numerous small retailers and other traders being located in the city centres and the large organized retailers coming up in the suburbs of the metropolitan cities. Organized retailing shall be set in the real estate business to boost infrastructure growth and create efficient backward linkages. In the process, the sector will also create efficiencies, reducing marketing cost, wastages and redundancies.

The research and experience-based expertise is necessary to understand and solve diverse and complex investment and development challenges in the contemporary real estate industry. To facilitate this necessary educational training and research in this direction shall be established.
The Indian Real Estate Industry has to design and develop a balanced financial structure, use fixed assets effectively, create adequate depreciation provision, optimize the inventory investment, adopt sound credit policy, strengthen the degree of liquidity and control operating expenses effectively in order to improve its financial efficiency.

6.0 SCOPE FOR FURTHER RESEARCH

The following areas of the Indian Real Estate Industry may be considered for further research by the prospective researchers.

- Inter-firm comparison of real estate companies.
- Working Capital Management Practices in IREI:
- Comparison of IREI with global real estate companies.
- Capital structure, cost of capital and market value of IREI.
- Capital budgeting decisions and market value of IREI.
- Problems and prospects of real estate industry in India.
- Impact of variables of finance on profitability of IREI.