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A COMPARATIVE ANALYSIS OF FINANCIAL PERFORMANCE IN INDIA'S HOUSING FINANCE INDUSTRY: A STUDY OF SELECTED HOUSING FINANCE COMPANIES

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Abstract: Housing development, even on a small scale, can have a significant impact on the economy, making it a crucial tool for growth and development. There are a variety of players involved in the country's housing finance industry, including banks, housing finance companies, and government organizations. These entities compete with one another to finance homes for individuals. Housing financing companies (HFCs) have had to reduce their payments and reverse portfolio sales to meet their obligations. When it comes to making financial decisions, one of the most important factors to consider is your company's financial performance. This paper analyzes and compares the financial performance of selected housing finance companies in India on the basis of profitability, liquidity, and solvency from the years 2018-19 to 2022-23. 5 housing finance companies have been considered for the study on the basis of market capitalization as on 30 June 2023. In this study, ratios have been used to analyze the financial operations and viability of the selected organisations as well as to show the data in research tables and graphs. For assessing the financial operations and performance of HFCs, certain ratios were employed, including liquidity, solvency, valuation, and profitability ratios. Statistical tools like mean, S.D, C.V, and one-way ANOVA are used for the analysis purpose. The study observed a significance difference among the performance of sample companies.

JEL classification: G23, M41, O18.

Keywords: Financial Performance, ANOVA and Housing Finance Companies.

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INTRODUCTION

According to Wallace F. Smith, "Housing finance is a factor of production quite distinct from labor, materials, and risk-taking." In addition to food, clothing, and education, housing is one of a person's four basic needs. A key aspect and indicator of socioeconomic position is housing. Housing is the basis of happiness, and Buddhism holds that without adequate housing, a person cannot fully develop psychologically, intellectually, or spiritually. Additionally, housing helps the economy and society grow. A housing finance company (HFC) is part of a non-banking financial institution. It is committed to the business of financing the purchase and development of houses including acquiring a plot of land for the construction of new houses. The Indian housing finance companies are under the control of RBI (Reserve Bank of India) and NHB-1987 (National Housing Bank) as per the Finance Act 2019.

Financial performance of the selected housing finance companies, analysis is the process of identifying the financial pros and cons of the housing finance companies by properly establishing the relationship between the items of financial statements. This helps in short-term and long-term forecasting and growth can be identified with the help of the financial performance analysis.

REVIEW OF LITERATURE

Virparia, V., & Panchal, N. (2023) have focused on the analysis of financial performance through parameters like liquidity, solvency, valuation, and profitability from 2018-2022. All HFCs have fluctuated throughthe period of study but they always maintained sufficient funds which are more than enough tomeet the short-term obligations of respective concerns.

Rekha, B. J., & Rajashree, M. G. (2022), have focused on evaluating and comparing the stability of housing finance companies in the current financial performance by using ratio analysis from 2010 to 2020. Concluded in this study that the overall ranking of ratio analysis that HDFC is the best housing finance company.

Jaggarwal, S., & Ahuja, K.(2021) has attempted to conduct a review study on the financial performance of housing finance companies. The researchers have concluded that housing finance companies are not performing well in terms of liquidity. The problem of NPA increases day by day due to unequal distribution.

D., Srinivasa, Kumar. (2020) have shown that the financial performance of the selected companies estimated through the Return on Capital Employed ratio is good and it is adequate during the study period. However, there is no significant difference between net profits between the years or between companies. The study concludes that the financial performance of the HFCs is affected by variables such as capital utilization, cost, revenue, and profit margin.

K & Ahuja, (2020) Examine the housing finance company's financial performance from 2014–2015 to 2018–2019. The reputable stock exchange lists selected housing finance companies. They used financial parameters like liquidity, solvency, valuation, and profitability ratio to analyze and arrive at the conclusion that Crest Venture and India Bulls are performing well in terms of liquidity, that India Bulls is performing better overall, and that Crest Venture is performing better in terms of investment when compared to other chosen housing finance companies.

Nagar, R. (2016) provides a literature survey of the basic requirements for acquiring a home loan and the growth of the housing finance sector in India. The researcher highlights the static culture of Indian society, where housing is considered a lifetime dream and debt is considered an evil. The paper also discusses the distribution of national capital and how it affects the housing finance sector directly.

OBJECTIVES

1. To analyze the financial performance of the selected housing finance companies in India from the period of 2018-19 to 2022-23.
2. To evaluatethe comparative analysis of selected housing finance companies.
3. To make an overall ranking of the current financial position of the selected housing finance company as per the ratios computed.

RESEARCH METHODOLOGY

The sample companies, which represent the top 5 housing finance companies in India on the basis of market capitalization as on 30 June 2023are Housing Development Finance Corporation, LIC Housing Finance, Aptus Value, PNB Housing Finance, and AAVAS Financier. The ratios that are considered for the purpose of the analysis are Return on equity, return on assets, debt-equity ratio, interest coverage ratio, Current ratio, and Quick ratio. Return on equity and return on assets are used for analyzing the profitability position. Debt-equity ratio and interest coverage ratio are used for analyzing the solvency position. The current ratio and Quick ratio are used for analyzing the liquidity position.

Data has been collected through the annual reports of the company. The study covers a period of five financial years starting from 2018-19 to 2022-23. In this study, tables and graphs are used for presenting the data and for analyzing the financial operations. The statistical tools used for the study are mean, standard deviation, CV, and one-way ANOVA.

RESEARCH HYPOTHESES

For achieving the above the following hypotheses have been formulated:

- H_{01}: There is no significant difference in Return on Equity between the Sample Units and within the sample units during the study period.
- H_{02}: There is no significant difference in Return on Assets between the Sample Units and within the sample units during the study period.
- H_{03}: There is no significant difference in Debt Equity Ratio between the Sample Units and within the sample units during the study period.
- H_{04}: There is no significant difference in Interest Coverage Ratio between the Sample Units and within the sample units during the study period.
- H_{05}: There is no significant difference in Current Ratio between the Sample Units and within the sample units during the study period.
- H_{06}: There is no significant difference in Quick Ratio between the Sample Units and within the sample units during the study period.

DATA ANALYSIS AND INTERPRETATION

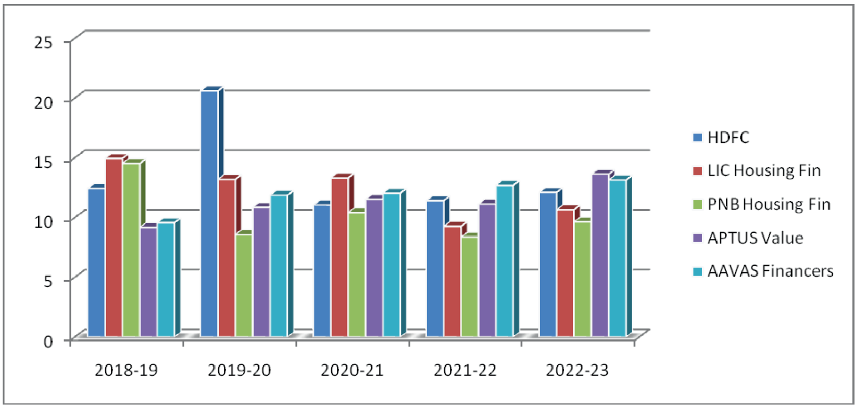
The data which has been used for this study was extracted from the annual reports of the respective selected companies. The analysis is divided into three parts, analysis of profitability, analysis of solvency, and analysis of liquidity.

ANALYSIS OF PROFITABILITY

Return on Equity (ROE): Return on equity (ROE) is the measure of a company's net income divided by its shareholders' equity. ROE is a gauge of a corporation's profitability and how efficiently it generates those profits. The higher the ROE, the better a company is at converting its equity financing into profits.The following table gives us an idea about the return on equity of the sample companies:

Table 1: Return on Equity

	2018-19	*2019-20*	*2020-21*	*2021-22*	*2022-23*	*Mean*	*S.D.*	*C.V*	*Rank*
HDFC	12.45	20.62	11.05	11.42	12.12	13.53	4.00	29.56%	1
LIC Housing Fin	14.95	13.2	13.32	9.27	10.66	12.28	2.27	18.54%	2
PNB Housing Fin	14.54	8.58	10.43	8.38	9.64	10.31	2.50	24.27%	5
APTUS Value	9.18	10.86	11.52	11.14	13.64	11.26	1.59	14.19%	4
AAVAS Financers	9.57	11.87	12.05	12.7	13.15	11.86	1.38	11.65%	3



It has been observed that HDFC has the highest average return on equity whereas the lowest is found in the case of PNB housing finance. Due to this HDFC ranks first and PNB ranks last. It is also observed that HDFC has the highest variability and lowest observed in AAVAS Financers.

AAVAS Financers has the least variability in its return on equity implying that it is very much centered around its average of 11.86. Now, it can be tested whether there is a significant difference between the return on equity of sample companies on the basis of the following ANOVA table:

Table 2

ANOVA						
Source of Variation	*SS*	*Df*	*MS*	*F*	*P-value*	*F crit*
Between Groups	15.52378	4	3.880944	0.551425	0.70021	2.866081
Within Groups	140.7605	20	7.038024			
Total	156.2843	24				

Interpretation: As the calculated value (0.55) is lower than the critical value (2.86) at a 5% level of significance in Table 2, the null hypothesis (H_{01}) is failed to reject and hence it can be concluded that there is no significant difference in return on equity between the selected companies. Hence, it can be noted that HDFC has the best profitability position in terms of return on equity among the sample companies. PNB's housing finance has to improve its profitability position as it has thelowest average return on equity ratio.

Return on Asset (ROA): Return on assets (ROA) is a financial ratio that measures the profitability of a company in relation to its total assets. It is calculated by dividing the company's net income by its total assets. A higher ROA means that the company is more profitable and efficient in using its assets to generate income.The following table gives us an idea about the return on assets of the sample companies:

Table 3: Return on Asset

	2018-19	*2019-20*	*2020-21*	*2021-22*	*2022-23*	*Mean*	*S.D.*	*C.V*	*Rank*
HDFC	2.09	3.39	2.11	2.14	2.23	2.39	0.56	23.43%	3
LIC Housing Fin	1.21	1.1	1.16	0.89	1.03	1.07	0.12	11.57%	5
PNB Housing Fin	1.29	0.86	1.29	1.25	1.58	1.25	0.25	20.49%	4
APTUS Value	5.11	5.16	5.32	5.98	6.4	5.59	0.56	10.17%	1
AAVAS Financers	3.12	3.25	3.23	3.23	3.2	3.20	0.05	1.59%	2

It has been observed that APTUS value has the highest average return on asset (5.59) whereas the least is found in the case of LIC housing finance. Due to this APTUS value ranks first and LIC Housing finance ranks last. It is also observed that HDFC has the highest variability and lowest observed in AAVAS Financers.

AAVAS Financers has the least variability in its return on assets implying that it is very much centered around its average of 3.20. Now, it can be tested whether there is a significant difference between the return on assets of sample companies on the basis of the following ANOVA table:

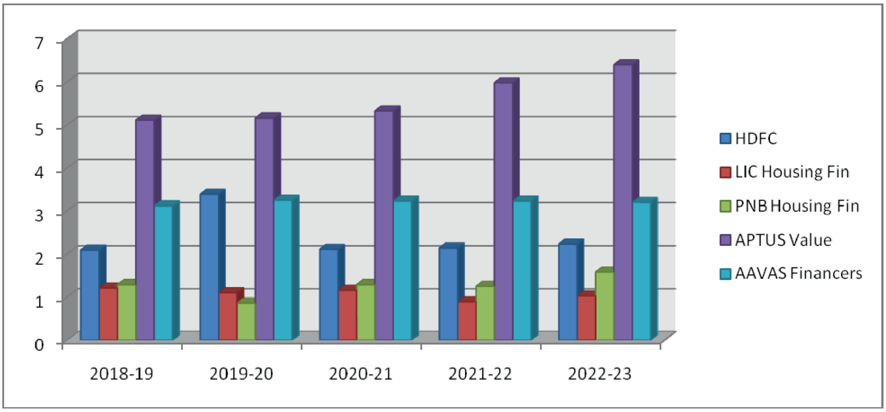


Table 4

ANOVA						
Source of Variation	*SS*	*df*	*MS*	*F*	*P-value*	*F crit*
Between Groups	0.312584	4	0.078146	0.022386	0.998936	2.866081
Within Groups	69.81624	20	3.490812			
Total	70.12882	24				

Interpretation: In ANOVA Analysis, it has been observed that the calculated value (0.02) is lower than the critical value (2.86) at a 5% level of significance in Table 4, the null hypothesis (H_{02}) is failed to reject and it is concluded that there is no significance difference in return on asset between the selected companies. Hence, APTUS value has the best profitability position in terms of return on assets among the sample companies.

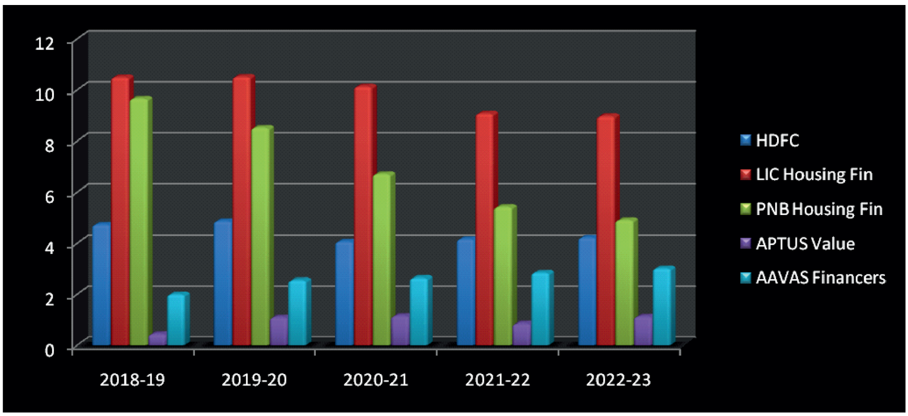
ANALYSIS OF SOLVENCY

Debt-Equity Ratio: The debt-to-equity ratio (D/E ratio) is a financial ratio that measures the amount of debt a company has compared to its equity. It is calculated by dividing a company's total liabilities by its shareholder equity.A high D/E ratio means that a company is relying more on debt financing to fund its operations. This can be a sign of financial risk, as the company may have difficulty repaying its debts if its profits decline.

It has been observed that LIC housing finance has the highest average debt-equity ratio (9.83) whereas the least found in the case of APTUS value. Due to this LIC housing finance ranks first and APTUS value ranks last. It is also observed that the APTUS value has the highest variability and lowest observed in LIC housing finance.

Table 5: Debt-EquityRatio

	2018-19	*2019-20*	*2020-21*	*2021-22*	*2022-23*	*Mean*	*S.D.*	*C.V.*	*Rank*
HDFC	4.72	4.86	4.06	4.16	4.22	4.40	0.36	8.18%	3
LIC Housing Fin	10.5	10.52	10.13	9.07	8.97	9.83	0.76	7.76%	1
PNB Housing Fin	9.66	8.52	6.7	5.41	4.9	7.03	2.02	28.77%	2
APTUS Value	0.44	1.09	1.15	0.85	1.12	0.93	0.29	32.10%	5
AAVAS Financers	1.99	2.55	2.64	2.84	3.01	2.60	0.38	14.88%	4



LIC housing finance has the least variability in its debt-equity ratio implying that it is very much centered around its average of 9.83. Now, it can be tested whether there is a significant difference between the debt-equity ratio of sample companies on the basis of the following ANOVA table:

Table 6

ANOVA						
Source of Variation	*SS*	*df*	*MS*	*F*	*P-value*	*F crit*
Between Groups	5.315624	4	1.328906	0.099947	0.981219	2.866081
Within Groups	265.9223	20	13.29612			
Total	271.2379	24				

Interpretation: In ANOVA Analysis, it has been observed that the calculated value (0.099) is lower than the critical value (2.86) at a 5% level of significance in Table 6, the null hypothesis (H_{03}) is failed to reject and hence it is concluded that there is no significance difference in debt-equity ratio between the selected companies. Hence, LIC housing finance has the best solvency position in terms of debt-equity ratio among the sample companies.

Interest Coverage Ratio: The interest coverage ratio (ICR) is a financial ratio that measures a company's ability to meet its interest payments. It is calculated by dividing the company's earnings before interest and taxes (EBIT) by its interest expense.A high-interest coverage ratio indicates that a company has a strong ability to meet its interest payments. This is important because interest payments are a fixed cost, and a company that cannot meet its interest payments may be forced to default on its debt.

Table 7: Interest Coverage Ratio

	2018-19	*2019-20*	*2020-21*	*2021-22*	*2022-23*	*Mean*	*S.D.*	*C.V.*	*Rank*
HDFC	1.42	1.44	1.54	1.65	3.61	1.93	0.94	48.78%	1
LIC Housing Fin	1.26	1.22	1.23	1.2	1.18	1.21	0.03	2.49%	5
PNB Housing Fin	1.34	1.14	1.24	1.27	1.27	1.25	0.07	5.79%	4
APTUS Value	2.39	0.47	0.44	2.78	3.37	1.89	1.35	71.72%	2
AAVAS Financers	1.69	1.45	1.75	2.01	1.55	1.69	0.21	12.66%	3

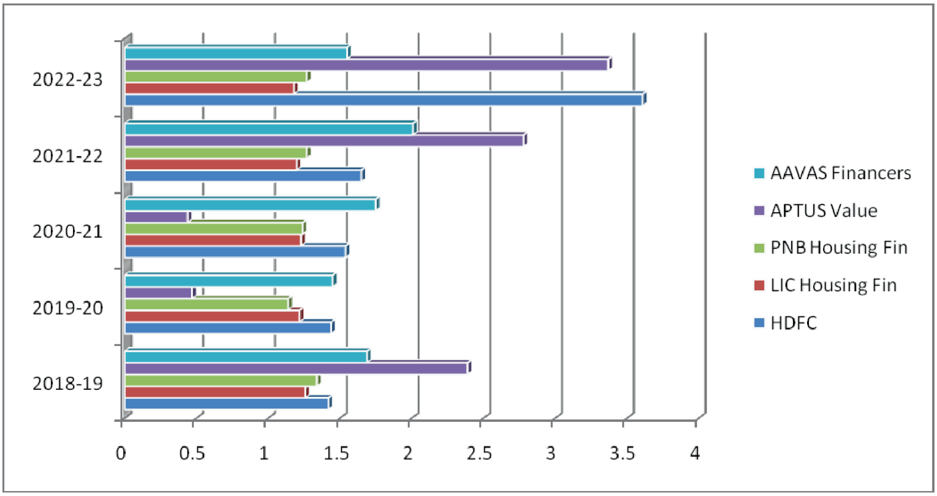


Table 7 shows the different years of interest coverage ratios of selected housing finance companies. HDFC has the highest average interest coverage ratio (1.93) whereas the least is found in the case of LIC housing finance.

HDFC ranks first and LIC housing finance last due to their respective ranks. It is also observed that the APTUS value has the highest variability and lowest observed in LIC housing finance.

LIC housing finance has the least variability in its interest coverage ratio implying that it is very much centered around its average of 1.12. Now, it can be tested whether there is a significant difference between the interest coverageratio of sample companies on the basis of the following ANOVA table:

Table 8

ANOVA						
Source of Variation	*SS*	*df*	*MS*	*F*	*P-value*	*F crit*
Between Groups	3.631056	4	0.907764	1.847241	0.159399	2.866081
Within Groups	9.82832	20	0.491416			
Total	13.45938	24				

Interpretation: In ANOVA Analysis, it has been observed that the calculated value (1.84) is lower than the critical value (2.86) at a 5% level of significance in Table 8, the null hypothesis (H_{04}) is failed to reject and it is concluded that there is no significance difference in interest coverage ratio between the selected companies. Hence, HDFC has the best solvency position in terms of interest coverage ratio among the sample companies.

ANALYSIS OF LIQUIDITY

Current ratio: The current ratio is a liquidity ratio that measures a company's ability to pay its short-term obligations (debts and payables) with its current assets (cash, inventory, and receivables). It is calculated by dividing current assets by current liabilities.

Table 9: Current Ratio

	2018-19	*2019-20*	*2020-21*	*2021-22*	*2022-23*	*Mean*	*S.D.*	*C.V.*	*Rank*
HDFC	4.9	4.26	4.67	3.98	1.21	3.804	1.49	39.25%	2
LIC Housing Fin	5.02	4.14	3.4	3.07	1.1	3.346	1.46	43.71%	3
PNB Housing Fin	2.86	2.3	2.24	2.15	2.1	2.33	0.30	13.14%	4
APTUS Value	0.5	1.9	1.86	1.48	1.74	1.496	0.58	38.79%	5
AAVAS Financers	68.81	49.06	1.8	1.72	1.56	24.59	32.12	130.62%	1

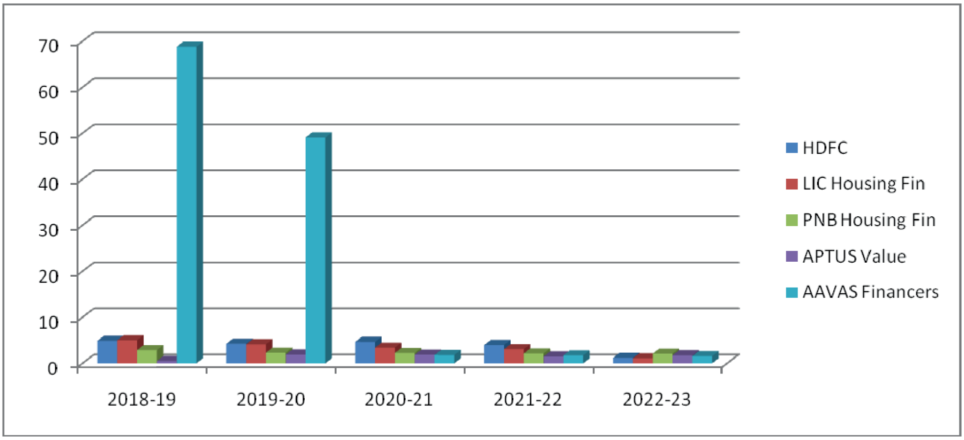


Table 9 shows the different years' current ratios of selected housing finance companies. AAVAS Financers has the highest average current ratio (24.59) whereas the least found in the case of APTUS value. AAVAS Financers ranks first and APTUS value last due to their respective ranks. It is also observed that AAVAS Financers has the highest variability and lowest observed in PNB housing finance.

PNB housing finance has the least variability in its current ratio implying that it is very much centered around its average of 2.33. Now, it can be tested whether there is a significant difference between the current ratio of sample companies on the basis of the following ANOVA table:

Table 10

ANOVA						
Source of Variation	*SS*	*Df*	*MS*	*F*	*P-value*	*F crit*
Between Groups	924.8774	4	231.2193	0.898571	0.483296	2.866081
Within Groups	5146.377	20	257.3189			
Total	6071.255	24				

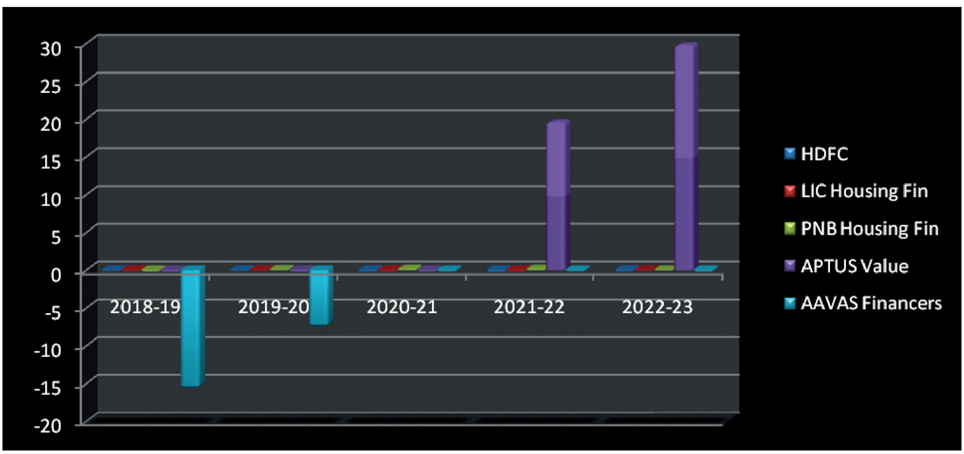
Interpretation: In ANOVA Analysis, it has been observed that the calculated value (0.89) is lower than the critical value (2.86) at a 5% level of significance in Table 10, the null hypothesis (H_{05}) is failed to reject and hence it is concluded that there is no significance difference in current ratio between the selected companies. Hence, AAVAS Financers has the best liquidity position in terms of the current ratio among the sample companies.

Operating Cash Flow Ratio: The operating cash flow ratiois a financial metric that measures a company's ability to generate enough operating cash flow to cover its total debt obligations. This ratio is particularly useful for assessing a company's short-term financial health and its ability to meet its debt repayment obligations.

Operating cash flow ratio: Cash flow from operation / Current Liabilities

Table 11 : Operating Cash Flow Ratio

	2018-19	*2019-20*	*2020-21*	*2021-22*	*2022-23*	*Mean*	*S.D.*	*C.V.*	*Rank*
HDFC	-0.11	-0.1	-0.23	-0.28	-0.19	-0.18	0.07	-42.45%	4
LIC Housing Fin	-0.12	-0.07	-0.16	-0.2	-0.07	-0.12	0.05	-45.83%	3
PNB Housing Fin	-0.22	0.13	0.21	0.2	-0.05	0.05	0.18	343.11%	2
APTUS Value	-0.31	-0.29	-0.22	19.63	29.78	9.7	14.14	145.54%	1
AAVAS Financers	-15.73	-7.58	-0.21	-0.17	-0.22	-4.7	6.90	144.37%	5



It has been observed that APTUS value has the highest average operating cash flow ratio whereas the least is found in the case of AAVAS Financers. Due to this APTUS value ranks first and AAVAS Financers ranks last. It is also observed that PNB Housing finance has the highest variability and lowest observed in HDFC.

HDFC has the least variability in its operating cash flow ratio implying that it is very much centered around its average of -0.18. Now, it can be tested whether there is a significant difference between the operating cash flow ratio of sample companies on the basis of the following ANOVA table 8:

Table 12

ANOVA						
Source of Variation	*SS*	*Df*	*MS*	*F*	*P-value*	*F crit*
Between Groups	289.7192	4	72.4298	1.144053	0.364609	2.866081
Within Groups	1266.197	20	63.30984			
Total	1555.916	24				

Interpretation: In ANOVA Analysis, it has been observed that the calculated value (1.14) is lower than the critical value (2.86) at a 5% level of significance in Table 12, the null hypothesis (H_{06}) is failed to reject and hence it is concluded that there is no significance difference in operating cash flow ratio between the selected companies. Hence, AAVAS Financers has the best liquidity position in terms of operating cash flow ratio among the sample companies.

CONCLUSION & FINDINGS

The following study is based on the financial performance analysis and economic value added by the Housing Finance Companies in India. From the above analysis, it can be observed that different companies show different trends in ratios. HDFC performs well according to the return on equity ratio but on the other side according to return on asset, APTUS value performs bestin overall selected companies. In solvency analysis, it is concluded that the debt-equity ratio shows that LIC housing finance operating better than other companies. According to the interest coverage ratio, HDFC is performing well in comparison to its peer companies. The current ratio showed that AAVAS Financers' liquidity position is best among all other companies. According to the operating cash flow ratio, APTUS value showsthe best liquidityperformance.

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