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IMPACT OF COVID – 19 ON REAL ESTATE SECTOR IN INDIA

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ABSTRACT

Corona virus pandemic has hit over millions of people in the world and definitely not the first epidemic the world is witnessing. In fact, the world has seen at least five such epidemics, namely, SARS (Severe Acute Respiratory Syndrome), Avian Influenza, Swine Flu, Ebola and Zikain last one decade or so. All of these had a significant impact on the global as well as domestic share markets. It was observed that nifty 50 up to 15 % during these difficult times, but also recovered over 90% return in the next following year. The impact of this pandemic is felt by all sector of the economy. The real estate industry in India is no exception to this. The article aims to examine the performance of real estate industry in India by taking five sample companies, namely, DLF, Phoenix Mills, Godrej Properties Ltd., Oberoi Realty and Prestige Estate on the basis of key parameters like Net Revenue, Net profit margin, Return on equity, Earning per share, interest coverage ratio June, 2019 to June, 2020.

Key words: Net Profit Margin, Return on Equity, Earning per Share, Real Estate, Net Revenue

INTRODUCTION

The outbreak of Covid-19 has completely disturbed the social, political, religious, economic, and financial system of the entire world community. Top most economies of the world such as the United States, China, UK, Germany, France, Italy, Japan and many others economies are staring at the collapse. Besides this, Stock Markets in the entire world are going through panic and oil prices fell to new lows. In order to contain the spread of corona virus, several countries around the world resorted to lockdowns which led to confining millions of people to their homes, closing down business activities and ceasing each and every type of economic activity. International Monetary Fund (IMF) anticipates the global economy to fall by more than 3 % in 2020. This will be the probably steepest shutdown since the Great Economic Depression of the 1930s. This pandemic has pushed the world economy already into a recessionary phase, which means the economy starts declining and growth stops. IMF estimates the world economy to grow at -3% in 2020. This is “far worse” than the global 2009 financial crises. Top most economies such as the US, Japan, the UK, Germany, France, Italy and Spain are forecasted to decline this year by 5.9%, 5.2%, 6.5%, 7%, 7.2%,

9.1% and 8 % respectively as per the estimates of IMF. Developed economies have been hit even harder, and together they are expected to register a growth are of -6 % in 2020 where as emerging markets and developing economies around the world are expected to register a fall by -1%. If China can be excluded from this list of countries, the growth rate for the year 2020 is expected to come down to -2.2 %. As a result of the fall in travelling activities, industrial activity across the globe has also been affected adversely. Oil prices has fallen further during the month of march because the transportation sector, which is estimated to account for 60 % of the oil demand, was hit hard due to many countries in the entire world imposing lockdowns. Not only oil, as a result of Covid-19 containment measures, the demand of natural gas also fell early the current year in China.

This led to many Chinese buyer of LNG halting their imports as storage tanks got filled. As per an estimate by the World Economic Forum (WEF), one of the most crucial step for the purpose of maintaining employment and financial stability would be lending support to SMEs and larger businesses. In India, Ministry of Finance has announced special package known as “Atmanirbhar Bharat Abhiyan package” in order to

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provide immediate relief to Medium, Small and Micro Enterprises (MSMEs) in the form of guaranteed increased flow of credit. Many developed economies across the world have announced several support packages. While economic stimulus package of India is estimated to be around 10% of its Gross Domestic Product, that of Japan's is 21.1%, followed by the United States (13%), Sweden (12%), Germany (10.7%), France (9.3%), Spain (7.3%) and Italy (5.7%). (Source: www.magicbricks.com)

Real estate sector comprising of four sub sectors, namely, hospitality, housing, retail, and commercial is one of the most recognized sectors in the world. It is expected that the real estate industry will grow to an expected amount of Rs 65,000 crore (US\$ 9.30 billion) in 2040 from Rs 12,000 crore (US\$ 1.72 billion) in 2019 and will start to contribute almost 13% to the country's GDP by the year 2025. Housing sales stood at 2.61 lakh units in the financial year 2018-19 across seven top cities in the country. With the increase in demand for official and residential spaces, Indian real estate industry has been witnessing high rate of growth in the recent times. Real estate could attract almost an amounting equal to Rs 43,780 crore (US\$ 6.26 billion) in the form of investment in 2019. According to the estimates of Department for Promotion of Industry and Internal Trade Policy (DPIIT), the construction industry is ranked as the fourth largest industry in terms of the inflow of Foreign Direct Investment (FDI). FDI in the construction industry (including development of construction and construction related activities) was estimated at US\$ 42.50 billion from April, 2019 to March, 2020. (source: magicbricks.com)

The reforms introduced in the real estate industry in various form like REIT (Real Estate Investment Trust), Benami Transaction Amendment Act and Pradhan, RERA, GST, Mantri AwasYojana have has been very significant in improving the sector and made the sector much more transparent with financial discipline and increased efficiency. Affordable housing has been the main area of focus from the view point of both buyers and sellers in 2019, but as a result of the implementation of new policies, several developers are diversifying and exploring new arenas.

These is expected to provide solutions to specialized segments like senior citizen living communities, co-living and co-working spaces, student housing options, healthcare facilities and many other segments which includes townships and plotted developments. Sales of houses are estimated to have fallen by 67% at 21,294 units across nine major cities during

April-June due to outbreak of the coronavirus pandemic and nationwide lockdown. If we analyze the city wise date, except Noida, all other eight cities witnessed a decline in sales.

In Gurugram, there was a fall of 79% to three hundred sixty one units for the time period April-June, 2020 as compared to one thousands seven hundred seven units during same period last year. Sales of houses in the cities like Chennai and Hyderabad fell 74% at 996 number of units and one thousand five hundred twenty two units, respectively. Bengaluru saw a dip of 73% to two thousand eight hundred eighteen units from 10,583 units, whereas Kolkata witnessed a 75% fall to one thousand forty six units from four thousand one hundred fifty two units.

In Maharashtra, in Mumbai alone, the sales of properties in residential segment witnessed a decline of 63% to two thousand two hundred six units. The demand went down by 56% and 70% in the places line Pune and Thane at almost 5,169 and 5,999 units respectively. However, Noida city in the market of the national capital region did not follow the trend and registered a 5% growth rate in sales volume to one thousand one seventy seven units during April-June, 2020 from 1,123 units during the same time period of the previous year.

New launches also have fallen by 78% to 11,967 units, while unsold inventories went down 5% to 6,07,665 units during the period April - June, 2020. Large developers with low debt leverage will be able to come out the storm and can be expected do reasonably well going forward within the new normal context. It is possible that there may be some changes like resizing of units, discounts offers, amenities and special payment schemes to be offered by developers to create demand, especially during the upcoming festive season. (Source: PropEquity survey). The impact of the Covid-19 on Indian real estate has really been unprecedented.

In the first 3 months of the outbreak of pandemic, it has brought a complete halt to construction activities and significantly destroyed the market share of its potential customer-base. As the property transactions dipped to almost zero level during the lockdown in the entire nation between periods from March to June 2020, it is the real estate segment in India which has faced some of the most difficult and challenging times ever.

The interdependence among supply chains, migration of construction workers, cost overruns, and cash constraints were some of the significant challenges faced. The second quarter of the financial year 2020-21 also witnessed a serious blow of unexpected and unprecedented nature in the industrial

activities in general and real estate industry in particular. The sudden shutdown of construction activities made it certain that business houses are going to suffer huge losses, but the scale of the loss was completely uncertain. As per an estimate made by an in-house research report released by 99acres, sales of property has fallen by 80% in eight significant market for real estate in India during April and May 2021, as compared to a year before. New launches witnessed a decline of more than 75 % when compared to the timer period between January and March 2020.

If the markets for property of the cities like Delhi, Mumbai and Hyderabad are to be studied, launches of new project declined by 80% to 95% percent each on quarterly basis. According to a report released by India Ratings and Research (Ind-Ra), this ongoing COVID-19 is expected to push down overall residential demand by 25%, in comparison to the previous year 2019. Maximum fall in sales can be seen in the segment affordable housing, i.e. houses priced below Rs 50 lakh.

According to the latest report released by real estate consulting firm JLL, the Indian real estate industry is currently sitting with unsold inventory of almost worth Rs 3,70,000 crore. The first three months of the financial year 2020-21 has witnessed a noteworthy rise in the unsold inventory as new launches exceeded sales by a noteworthy number. The unsold inventory has gone up from 4, 42,228 units in fourth quarter of financial year 2019-20 to 4,55,351 in first quarter of the financial year 2020-21. (Source: www.magicbricks.com)

As per the report released as the 'India Residential Market Update Q1 2020', real estate market in Mumbai has surpassed that in NCR region around Delhi in terms of unsold inventory. The report has also given a hint at a significantly increasing time to sell in the quarters to come. In this context, the article attempts the study the performance of real estate segment in India during the times of Covid- 19.

LITERATURE REVIEW

Aggarwal (2003) in his paper tried to present the problems of developing and less developing economies in coming days in real estate sector. He identified that the deficiency of resource shortage which will be major challenges in the real estate sector. He also emphasized the negative environment impact on the environment. Singh and Komal (2009) presented the psychological behaviors of a customers in real sector market. He describes the various market factors which impact the customer behaviour. He also discussed about present scenario in real estate segment of our country India. Rao and Seetharaman (2006) on examining the shortfall of rural

housing in India have made two suggestions on building houses under Indira Awas Yojana.

Firstly, the emphasis on building houses under this scheme must be on using raw materials available in rural area, which are more environment friendly and would generate substantial employment in those areas too. Secondly, houses must be built in line with the specific needs of the various occupational groups inhabiting the villages.

Vimala (2007) has made a study on housing finance extended by commercial banks in Kerala and reveals that there is no significant difference in the growth rate of housing advances by different bank groups in the state. This reflects that the different bank groups were able to attain uniform growth rate in their advances to the housing sector.

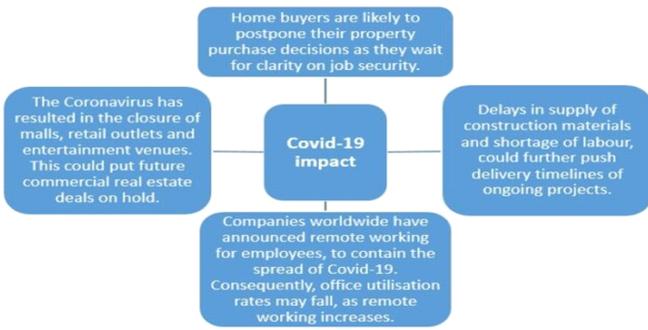
She concludes that commercial banks with their vast branch networks throughout the length and breadth of the country have played an important role in providing credit to the housing sector. According to Ammannaya (2008), affordability and lack of institutional finance are the major causes of housing shortage in India. He has suggested that the vast network of branches of commercial banks including Regional Rural Banks (RRB) and Housing Finance Corporation (HFC) could be utilized for the provision of affordable housing to the weaker sections of the 78 society and low income categories of people through the route of Micro Housing Finance.

Savills India Research reports that office market in 6 Indian cities could be severe to moderate. Absorption of office spaces had already fallen by 30% in a quarter compared to 2019, which was a great year for office space real estate and fresh office space supply would be delayed. Also on a positive side the density of the office space may be reconsidered from with increased per capita per person for space optimization. Residential rentals also showed a decline in occupancy and price. Anarock Property Consulting company study of the residential market report for 2 Quarters of 2020 reveal that this period is worst since 2013 and the new launch is almost declined by 97%.

Also states that financially strong companies would occupy 75-80% of the market share hereafter who could withstand the hard hit by the present scenario. Dhruv Agarwala, group CEO, Housing.com, Makaan.com and PropTiger.com said that the sales of the housing units had standstill due to the lockdown across country. Niranjan Hiranandani, national president, NAREDCO said that the slow construction activity had

impacted 250 plus allied sectors along with mass unemployment.

ICRA, a rating agency states that the lock down had a strong effect on the cash flows and the delivery abilities of the property developers. Ramesh Nair, CEO & Country Head of JLL India said that the 3.74 lakh crore by RBI liquidating their markets and moratorium will be a big relief for both buyers and developers.



From a survey conducted by Housing.com along with NARECCO reported that 53% respondents have postponed and deferred the plan of buying a property due to the uncertainty in the job market.

Blackstone Group, which is considered to be the one of the largest office space owners in India, the outbreak of COVID-19 has resulted in a delay in the completion of project timelines, reduction in demand and softened rentals deals, at least for the next few couple of months. Liases Foras, prices of commercial property may witness a fall of 10% to 20%, whereas land prices are expected to register an even higher reduction of 30% by the end of this financial year. (Source: www.housing.com)

OBJECTIVES OF THE STUDY

The main objective of the study is as below:

- 1) To analyze the performance of the real estate industry in India during last five quarters starting from June, 2019 to June, 2020
- 2) To compare the performance of the sample companies over the period of study.
- 3) To identify the areas of concern, if any.

METHODOLOGY OF THE STUDY

Research Methodology

The sample companies, which represent the top 5 real estate companies in India on the basis of market capitalization, are DLF, Phoenix Mills, Godrej Properties, Oberoi Realty and Prestige Estate. The ratios which are considered for the

purpose of the analysis are Net Sales Revenue, Earning before Interest and Taxes (EBIT), Net profit Margin, return on equity, Earning per share, and interest coverage ratio and growth rate in quarter end stock prices. The source of the data is the annual reports of the company. The study covers a period of last five quarters starting from financial June, 2019 to June, 2020 The statistical tools used for the study are mean, standard deviation, and one way ANOVA.

The study is based on the following hypotheses:

- H₀1:** There is no significant statistical difference in quarterly net revenues among the Sample Units as well as within the sample units during the period of study.
- H₀2:** There is no significant statistical difference in return on equity between the Sample Units as well as within the sample units during the study period.
- H₀3:** There is no significant statistical difference in the net profit margin between the Sample Units as well as within the sample units during the study period.
- H₀4:** There is no significant statistical difference in earning per share between the Sample Units as well as within the sample units during the study period.
- H₀5:** There is no significant statistical difference in interest coverage ratio between the Sample Units as well as within the sample units during the study period.

Data Analysis and Interpretation

The necessary data for the analysis is compiled from the annual reports of the respective companies.

Net Revenue: Profit is the difference between total revenue and total cost. Higher the net revenue, higher will be profit. The table 1 gives an idea about the quarterly revenue of the sample companies:

From this table it can also be seen that the average revenue is highest in case of Prestige Estate followed by DLF. Highest variation was noticed in case of Godrej Properties followed by DLF. Now whether these differences are statistically significant or not can be tested with the help of following One-Way ANOVA Table 2. As the null hypothesis (H₀1) stated that there is no significant difference in the quarterly revenues between the Sample Units and within the sample units during the study period and the calculated value (7.02) is greater than the tabulated value of 2.87, null hypothesis is rejected. It can be claimed that quarterly net revenues of the sample companies differed significantly. Prestige Estate and DLF had significantly higher revenue compared to other sample companies. Hence, it can be claimed that net revenue differed significantly among sample unit.

Table 1 : Net Sales of Real Estate Companies in India

	JUN ,2020	MAR, 2020	DEC,2019	Sep-19	JUN, 2019	Mar, 2019	Average	S.D	C.V
DLF	270.05	884.72	451.23	529.26	504.74	943.24	597.21	262.26	43.92
Phoenix Mills	147	409	525	434	630	723.23	478.04	200.85	42.02
Godrej Properties	52.27	780.83	275.54	80.62	610.06	951.65	458.50	377.19	82.27
Oberoi Realty	63.41	113.48	179.42	126.65	200.1	180.14	143.87	51.84	36.03
Prestige Estate	685.1	926.3	1,019.70	637.5	772.3	852.4	815.55	145.53	17.84

Table 2: One Way - ANOVA -Net Revenue

Source of Variation	SS	df	MS	F	P-value	F crit
Between Groups	1250058.57	4.00	312514.64	7.02	0.00	2.87
With in Groups	890146.47	20.00	44507.32			
Total	2140205.05	24.00				

Table 3: Net Profit of Real Estate Companies in India

Quarters	JUN, 20	MAR, 20	DEC, 19	Sep-19	JUN, 19	Mar, 19	Average	S.D	C.V
DLF	-40	-1,076.98	601.72	1,956.92	782.65	253.33	412.94	1000.67	242.33
Phoenix Mills	-50	48	96	64	146	273.19	96.20	108.20	112.48
Godrej Properties	6.39	95.59	69.67	17.56	130	188.47	84.61	69.00	81.55
Oberoi Realty	31.72	46.91	75.84	121	71.1	63.11	68.28	30.54	44.73
Prestige Estate	46.6	-42.2	72.4	152.1	80.1	137.6	74.43	69.91	93.92

Net Profit Margin (NPM): Net profit margin is the percentage of revenue left after deducting all expenses from sales. The measurement shows the amount of profit which a business entity can extract from its total sales. The table 3 gives an idea of NPM of real estate companies in India over last five quarters. From this table it can be seen that the average net profit of DLF is highest followed by Phoenix Mills and lowest in case of Oberoi Realty. The maximum variability also was noticed in case of DLD followed by Phoenix also. Now whether these differences are statistically significant or not can be tested with the help of One-Way ANOVA Table 4. As the calculated value (0.70) is lower than critical value (2.87), null

hypothesis (H_0) is rejected and it can be concluded that there is no significant difference in the net profit margin of sample units. Hence, it can be claimed that net profit of sample companies were not found to vary significantly.

Return on Equity: This ratio measures how much a company earns in relation to the amount invested by the owners of the business. It is calculated as earning after tax divided by owner's equity. Higher return on net worth is desirable by equity shareholders. The table 5 gives an idea about the return on net worth of the sample companies.

Table 4: One Way ANOVA - Net Profit

Source of Variation	SS	df	MS	F	P-value	F crit
Between Groups	674305.42	4.00	168576.36	0.70	0.60	2.87
Within Groups	4836424.64	20.00	241821.23			
Total	5510730.07	24.00				

Table 5: Return on Equity of Real Estate Companies in India

Quarters	JUN, 20	MAR, 20	DEC, 19	Sep-19	JUN, 19	Mar, 19	Average	S.D	C.V
DLF	-8.08	-217.55	121.54	395.29	158.09	57.39	84.45	262.26	43.92
Phoenix Mills	-162.92	156.40	312.91	208.67	476.04	891.03	313.69	200.85	42.02
Godrej Properties	5.07	75.86	55.29	13.94	103.17	164.37	69.62	377.19	82.27
Oberoi Realty	8.72	12.90	20.86	33.28	19.55	17.36	18.78	51.84	36.03
Prestige Estate	11.62	-10.53	19.31	40.56	21.36	36.69	19.84	145.53	17.84

Table 6: One Way ANOVA - Return on Equity

Source of Variation	SS	df	MS	F	P-value	F crit
Between Groups	1869526.29	4.00	467381.57	23.79	0.00	2.87
Within Groups	392866.17	20.00	19643.31			
Total	2262392.46	24.00				

From this table 5, it can be seen that the highest average return on equity capital is found in case of Phoenix Mills followed by DLF whereas least was observed in case of Oberoi realty and Prestige Estate. Now whether these differences are statistically significant or not can be tested with the help of One-Way ANOVA Table 6. As the calculated value (23.79) is greater than critical value (2.87), null hypothesis (H_0) is rejected and it can be concluded that there is a significant difference in the return on equity capital of sample units.

Hence, it can be claimed that real estate companies like Phoenix mills and DLF has higher return on equity capital compared to other sample companies.

Earnings per Share: It refers to a value which describe profit per outstanding share of a company. EPS is calculated at by taking a company's quarterly or annual net income and dividing by the number of its shares of stock outstanding. The following table gives an idea about the earning per share of sample real estate companies in India.

Table 7: EPS of Real Estate Companies in India

Quarters	JUN, 20	MAR, 20	DEC, 19	Sep-19	JUN, 19	Mar, 19	Average	S.D	C.V
DLF	-0.16	-4.35	2.43	7.91	3.45	1.41	1.78	4.06	227.67
Phoenix Mills	-2.76	3.04	5.99	4.29	8.5	14.91	5.66	5.89	104.01
Godrej Properties	0.25	3.79	2.76	0.7	5.66	0.25	2.24	2.22	99.37
Oberoi Realty	0.87	1.29	2.09	3.33	1.96	1.74	1.88	0.84	44.76
Prestige Estate	1.16	-1.07	1.93	4.06	2.14	3.67	1.98	1.85	93.55

Table 8: One Way ANOVA - EPS

Source of Variation	SS	df	MS	F	P-value	F crit
Between Groups	104.53	4.00	26.13	2.55	0.07	2.87
Within Groups	204.63	20.00	10.23			
Total	309.16	24.00				

From the above table 7, it can be seen that Phoenix Mills has highest earning per share followed by Godrej Properties. The least was seen in case of DLF. The maximum variability in EPS was found in case of Phoenix Mills and DLF. Now whether these differences are statistically significant or not can be tested with the help of One-Way ANOVA Table 8. As the calculated value (2.55) is lower than critical value (2.87), null hypothesis (H_0) is accepted and it can be concluded that there is no significant difference in the earning per share of sample units. Hence, it can be claimed that all the sample real estate companies have not found to differ significantly on the parameter of earning per share.

Interest Coverage Ratio: The interest coverage ratio indicates how many times a company is able to cover its current interest payment with its available earnings, The ratio is calculated by dividing earnings before interest and taxes (EBIT) by the interest expenses for a company for the same

period. Higher interest coverage ratio is an indicator of better ability of a company to meet its interest obligations. The following table gives an idea about the interest coverage ratio of sample companies during the period of study.

From the table 9, it can be seen that Oberoi Realty has highest interest coverage ratio followed by DLF. The maximum deviation also was noticed in case of Oberoi Realty followed by DLF. Now whether these differences are statistically significant or not can be tested with the help of One-Way ANOVA Table 10. As the calculated value (25.82) is greater than critical value (2.87), null hypothesis (H_0) is rejected and it can be concluded that there is a significant difference in the interest coverage ratio of sample units. Hence, it can be claimed that interest paying capacity of companies like Oberoi Realty and DLF is significantly better than that of other sample companies.

Table 9: Interest Coverage Ratio of Real Estate Companies in India

Quarters	JUN, 20	MAR, 20	DEC, 19	Sep-19	JUN, 19	Mar, 19	Average	S.D	C.V
DLF	0.67	1.98	1.73	16.75	1.26	1.89	4.05	6.24	43.92
Phoenix Mills	0.38	1.90	2.51	2.15	2.95	4.34	2.37	1.30	42.02
Godrej Properties	1.36	3.71	2.60	1.44	4.01	5.04	3.03	1.48	82.27
Oberoi Realty	31.17	42.03	63.74	34.83	24.64	34.49	38.48	13.60	36.03
Prestige Estate	1.36	1.23	1.43	1.94	1.66	2.25	1.65	0.39	17.84

Table 10: One Way ANOVA - ICR

Source of Variation	SS	df	MS	F	P-value	F crit
Between Groups	5442.46	4.00	1360.61	25.82	0.00	2.87
Within Groups	1054.05	20.00	52.70			
Total	6496.51	24.00				

FINDINGS

The statistical analysis of the sample companies shows the significant difference in their performance on the basis of many parameters. Of course, it will be too early to assess the complete impact of the Covid -19 pandemic on the performance of the real estate companies. The article attempts to see the impact on the basis of some key financial variable for last five quarters. The statistical analysis has shown that net revenues of quarter end of the sample companies differed significantly. In fact, companies like Prestige Estate and DLF had significantly higher revenue compared to other sample companies.

However, there was no significant statistical difference found in the net profit margin of sample units. This implies that net profit in absolute terms did not vary significantly among sample companies. Significant statistical difference were observed in the return on equity capital of sample unit and the real estate companies like Phoenix mills and DLF has higher

return on equity capital compared to other sample companies. But earning per share of sample companies did not vary significantly during the period of study. The study observed that interest paying capacity of companies like Oberoi Realty and DLF is significantly better than that of other sample companies.

REFERENCES

1. Aggarwal, S. (2003). Challenges for Construction Industries in Developing Countries, Proceedings of the 6 th National Conference on Construction, 10-11, New Delhi, CDROM, Technical Session 5, Retrieved From: http://shodh.inflibnet.ac.in/bitstream/123456789/303/3/03_literature%20review.pdf
2. Ammannaya K.K (2008) "Inclusive Housing and Housing Micro Finance", Southern Economist, Vol47, September, Pp.5-7.
3. Bansal A., Sirohi R. and Jha Manish (2011). International

Research Journal Of Finance and Economics Prospects and Problems of Real Estate in India, Abhinav National Monthly Refereed Journal of Research in Commerce and Management, Volume No-2, Issue No-2, Retrieved From: https://www.abhinavjournal.com/images/Commerce_&_Management/Feb13/9.pdf

4. Commerce and Management, Volume No-2, Issue No-2, Retrieved From: https://www.abhinavjournal.com/images/Commerce_&_Management/Feb13/9.pdf
5. Rao and Seetharaman (2006) "Rural Housing in India", Kurukshetra, May-June, p20.
6. Singh, V. and Komal (2009). International Research Journal Of Finance and Economics- Prospects and Problems of Real Estate in India, Abhinav National Monthly Refereed Journal of Research in Commerce and Management, Volume No-2, Issue No-2, Retrieved From: https://www.abhinavjournal.com/images/Commerce_&_Management/Feb13/9.pdf
7. Vimala (2007) "Housing Advances and Commercial Banks; A Review", Southern Economist, Vol. 46, May, Pp.65-66.
8. <https://www.savills.in/blog/article/184509/india-articles/impact-of-covid-19-on-the-commercial-real-estate-sector.aspx>
9. <http://www.businessworld.in/article/COVID-19-Impact-On-Real-Estate-Industry-In-India/27-08-2020-313687/>
10. <https://housing.com/news/impact-of-coronavirus-on-indian-real-estate/>
11. <https://www.99acres.com/articles/impact-of-coronavirus-outbreak-on-indian-real-estate.html#hashtag34>