



## Impact of RERA on financial performance: A study for selected real estate companies in India

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### Abstract

The main objective of the study is to check the impact of RERA on the financial performance of real estate companies. The data has been collected from the selected top five BSE listed companies. The study has been carried out for eight years including pre and post period of RERA. For analysis total, five variables have been taken. The major findings of the study say that there is a significant difference found in pre and post share price and the net profit ratio of the company. For all other variables, the null hypothesis fails to reject. It is inferred in the company-wise analysis that there is a significant difference found in the solvency ratio of DLF, Godrej, and Prestige industries. In Godrej Properties Ltd. and Prestige Estate Projects a significant difference has been found between pre and post period with the liquidity position of the companies. In Oberoi Realty Ltd. and Phoenix Mills, the share price increased during the post-period as compared to the pre-period. Companies are required to focus more on liquidity as the idle funds are more in the post-period. Effective utilization of idle funds needs to be managed by the companies.

**Keywords:** RERA, (Real Estate (Regulation and Development) act, financial performances, real estate companies, pre and post analysis

### Introduction

The real estate sector plays a vital role in the development of an economy. The increase in housing projects, real estate services, trading places, and construction projects will lead to an increase in revenue for the country in the form of tax. The emergence of nuclear families, rapid urbanization, and an increase in household income are the key reasons for the development of the real estate sector. According to IBEF, the Indian real estate sector will be expected to grow to the US \$ 1 trillion by 2030. It is also expected that the real estate sector will generate around 70% of India's GDP from urban areas. The Real Estate (Regulation and Development) Act, 2016 developed to protect home buyers and to boost investments in the real estate industry. The motive of implementing RERA is to give relief to home buyers from any malpractices of builders. To maintain transparency and accountability this Act will affect the disclosure requirement and which leads to being impacted in its financial performances of real estate companies. The financial performances can be measured by ratios, cash flows, market capitalization, fundamental and technical analysis.

### Review of Literature

(S.V.S., 2019) <sup>[5]</sup> measured the efficiency of real estate companies in the pre and post-demonetization period. His aim was to understand the effect of demonetization on the performance of Indian real estate firms. For the study, he has selected eight listed real estate companies and ranked on the basis of efficiency score. DEA technique has been adopted to measure the efficiency of multiple input and output of data. It has been found that there is a significant difference between the ranks of the firms during the period of the pre and post demonetization. The findings say that demonetization has an impact on the performances of the firms.

(Meghwant Singh Thakur, 2018) <sup>[4]</sup> studied the RERA impact on the revenue of Indian real estate developers for the year 2017-18. He focused to check short term impact on revenue by collecting the data of the top ten listed companies according to market capitalization. For analysis purposes, he applied a one-tailed paired t-test. In this study, he found that RERA has a negative impact on the profit margin of real estate developers.

(Dalayeen, 2017) <sup>[1]</sup> studied the financial performance of real estate companies influenced by seven factors. For the study, he found the best indicator of financial performance was ROA, sales, equity, and other financial variables. He focused to identify the relationship between the various aspects of financial performance. Multiple regression model has been applied for analysis. There was a significant impact of financial ratio on financial performances of all selected companies of Jordan.

(Magdalena KAPELKO, 2015) <sup>[3]</sup> studied technical efficiency in the Spanish construction sector pre and post-financial crisis. He focused on examining the impact of a socio-economic factor on technical efficiency. Data envelopment analysis was used for medium and large construction firms over the period of 2000 to 2010. The efficiency scores were regressed by using bootstrap truncated regression and the result showed that the technical efficiency was very low and it lowered significantly after the starting of crisis. The analysis showed that efficiency was higher for the firms that export, were highly leveraged, and integrated into the form of Joint Stock Company. The technical efficiency decreased with age for new firms and eventually increased in old firms.

(Zhiping, 2014) <sup>[7]</sup> conducted a study to analyze the financial position of real estate enterprises by taking into account solvency, profitability, operational capacity,

growth, and share index analysis. He selected only one listed company Vanke from China’s real estate industry, which is the first rank in the industry. A total of eight years of data were collected from 2008 to 2013 and taken for analysis.

(ZAITON ALI, 2008) [6] analyzed the relation between corporate real estate strategy and the financial performances of selected from the main indices of UK markets having large-capitalization for two time periods. They have covered a total of eight CRE strategies for the study. To check the financial performance they have covered EPS, Current Ratio, Dividend Payout, interest cover rate, solvency, etc. The findings of the study included that financial performance influenced CRE strategies.

**Research Gap**

The impact of RERA has been measured by Meghwant Singh Thakur in his two research papers one of considering the profit margin and another one of the effects on revenue. Both the papers included short term analysis and applied only two variables. The further scope of these papers includes the analysis of medium-term and long term impact of RERA on financial performance and suggested taking more financial parameters for the study.

**Objectives of the Study**

1. To check the impact of RERA implementation on financial performance of real estate companies
2. To analyze the financial performance of listed real estate companies

**Hypotheses**

H0- there is no significant relation between pre-RERA

profitability and post-RERA profitability.

H0: there is no significant difference between the pre-RERA liquidity and post- RERA liquidity

H0: there is no significant difference between the pre-RERA solvency and post-RERA solvency

H0: there is no significant difference between the pre-RERA efficiency and post-RERA efficiency.

H0: there is no significant difference between the pre-RERA share price and post- RERA share price.

**Methodology**

The data collected for the study is secondary in nature. The RERA act is applicable to real estate companies. A total of five companies were selected on the basis of market capitalization and listed in BSE. The financial data is collected from BSE India. The total data period is of 8 years (2012 to 2019) divided equally in pre and post. For data analysis profitability, liquidity, solvency, Activity / Efficiency ratios, and share price are considered.

The list of companies selected for the study was DLF, Godrej Properties Ltd., Oberoi Realty Ltd., Prestige Estate Projects, and Phoenix Mills.

**Variable of the Study**

Profitability: Net Profit Ratio, Return on Assets and Return on Equity

Solvency: Debt-Equity Ratio

Liquidity: Current Ratio and Quick Ratio

Activity/ Efficiency: Asset Turnover Ratio and Inventory Turnover Ratio.

Share price: yearly closed price

**Overall Analysis**

**Table 1:** Overall result of t-test with Mean values and significance value of the Real Estate Companies

Variable	Mean	Sig.	Variable	Mean	Sig.	Variable	Mean	Sig.	Variable	Mean	Sig.
<b>Profitability Ratio</b>			<b>Solvency Ratio</b>			<b>Liquidity Ratio</b>			<b>Activity Ratio</b>		
NP_Pre	33.23	0.024	DE_Pre	0.457	0.068	CR_Pre	1.739	0.204	ATR_Pre	14.72	0.872
NP_Post	26.92		DE_Post	0.622		CR_Post	2.762		ATR_Post	14.95	
ROA_Pre	4.654	0.159	<b>Market Value</b>			QR_Pre	1.251	0.347	ITR_Pre	0.629	0.125
ROA_Post	4.009		SP_Pre	2.203	QR_Post	1.874	ITR_Post		0.503		
ROE_Pre	8.11	0.266	SP_Post	3.718							
ROE_Post	7.243										

From the table-I, it can be seen that the data of Net profit is part of the profitability ratio which has been considered for analysis. The p-value of Pre and Post net profit is less than 0.05. It concludes that the hypothesis is rejected. The other variables of profitability don’t show the same result in the case of Pre and Post ROA and ROE. The p-value is more than 0.05, it means the hypothesis fails to reject. The mean value of post period is less in all profitability criteria, it states that the overall profitability of the real estate sector reduced after the implementation of RERA.

For the solvency analysis, Debt - equity ratio of pre and post RERA applicability has been considered. The p-value is more than 0.05 thus the alternative hypothesis is accepted in this case. The real estate sector post-period the debt increases, which means the company is levered.

For liquidity ratio, it can be seen that the hypothesis fails to reject as the p-value is more than 0.05. From the pre and post mean it can be seen that post liquidity is more as compared to pre liquidity of the selected companies. The ideal ratio for the current and quick ratio is 2:1 and 1:1.

More liquidity shows the proper movement of working capital which is good for the company for day to day operations but the idle fund is not good for any industry.

For activity ratio, the asset turnover ratio doesn’t show more changes in pre and post applicability of RERA. The p-value of asset turnover ratio and inventory turnover ratio is 0.872 and 0.125 means the hypothesis fails to reject. An increase in ATR shows the optimum utilization of assets.

The share price mean score of the post-period is high it means the share prices increase in the post-period as compared to the pre-period. The significance value is 0.002, thus the hypothesis is rejected.

Overall the financial performances of companies don't show the difference between pre and post period of selected companies. Only the difference can be seen in net profit where the mean value reduced as compared to the pre-period and share price value increased in the post-period. Profit increase or decrease doesn’t show any effect on the share price.

**Company Analysis**

**Table 2:** Company wise result of t-test with Mean values and significance value.

Variable	DLF		Godrej Properties Ltd.		Oberoi Realty Ltd.		Prestige Estate Projects		Phoenix Mills	
	Mean	Sig.	Mean	Sig.	Mean	Sig.	Mean	Sig.	Mean	Sig.
NP_Pre	26.60	0.49	25.80	0.29	52.78	0.14	17.48	0.58	43.50	0.62
NP_Post	22.56		17.09		40.80		15.08		39.05	
ROA_Pre	2.06	0.53	3.95	0.34	8.3	0.63	4.27	0.31	4.69	0.76
ROA_Post	2.52		2.50		7.74		2.90		4.37	
ROE_Pre	4.80	0.81	8.46	0.73	11.36	0.24	9.58	0.58	6.33	0.86
ROE_Post	5.11		7.49		9.36		8.15		6.10	
DE_Pre	0.69	0.009	0.80	0.03	0.01	0.15	0.57	0.04	0.20	0.31
DE_Post	0.38		1.49		0.09		0.86		0.27	
CR_Pre	1.91	0.75	1.86	0.06	2.27	0.10	1.17	0.03	1.47	0.15
CR_Post	2.05		1.29		8.54		0.99		0.96	
QR_Pre	1.19	0.05	1.46	0.06	1.47	0.13	0.65	0.008	1.47	0.15
QR_Post	0.77		0.87		6.36		0.4		0.96	
ATR_Pre	7.55	0.09	14.70	0.78	15.98	0.44	24.45	0.44	10.89	0.58
ATR_Post	10.82		13.84		19.13		19.77		11.20	
ITR_Pre	0.33	0.89	0.86	0.40	1.03	0.66	0.91	0.29	0	0
ITR_Post	0.34		0.55		0.99		0.63		0	
SP_Pre	2.15	0.37	2.79	0.15	2.62	0.09	1.76	0.11	2.68	0.01
SP_Post	1.76		5.34		4.01		2.51		4.96	

**DLF**

From the table-II, it can be seen that the profitability ratio of DLF pre and post effect from the mean value of NP the pre net profit is more as compared to post-implementation of RERA. The return on assets and return on equity is increased during post-RERA as compared to pre-RERA. The p-value of NP (0.49), ROA (0.53), and ROE (0.81) this compel us to accept the alternative hypothesis.

Debt -Equity ratio shows the solvency position of the company. The significance value is 0.009 and the hypothesis is rejected. The decrease in the mean value during post-period shows the reduction in risk to shareholders.

The liquidity ratio shows different views in the current ratio and in the quick ratio. The mean difference between the current ratio is less in Pre and Post analysis. The p-value is 0.75, this compelling us to accept alternative hypothesis. The mean difference of quick ratio is more, before the implementation of RERA the company is having highly liquid funds as compared with the implementation of RERA. The p-value is 0.05 which means the null hypothesis is rejected.

The increase in mean of the post-period compared to the pre-period means the asset has been transferred and converted to liquidity. The p-value is 0.09, the null hypothesis fails to reject. The mean inventory turnover ratio doesn't show much difference and the p-value is 0.89, the null hypothesis fails to reject. The asset turnover ratio of the post-period increased means the effective utilization of assets as compared to the pre period.

The market value is based on the share price of the company. The share price of the company in the post period shows the decrease as compared to the pre-period. It means after implementing RERA there is no positive increase in the share price of the company and the significance value is 0.37, so, the null hypothesis fails to reject.

**Godrej Properties Ltd.**

In net profit, ROA, and ROE the mean score in the post-period are less means there is a decrease in profitability as compared to the pre-period. The implementation of RERA

shows a negative impact on profitability. The significance value is more than 0.05 in all three variables, the null hypothesis fails to reject.

The solvency ratio increased in the post period and the significance value is 0.03, the null hypothesis is rejected. The debt increased in the post-period which may create risk for the investors.

The mean score of quick ratio reduced in the post-period which is good for the company as in the pre-period there are more idle funds that are not properly utilized. The current ratio is good in the pre-period which is near to the standard ratio. The p-value is 0.06, the null hypothesis fails to reject.

The mean value of asset turnover ratio and inventory turnover ratio doesn't show a significant difference in pre and post data, the p-value is 0.78 and 0.40 respectively; the null hypothesis fails to reject.

There is an increase in share price in the post-period as compared to the pre-period. The significance value is 0.15, so the null hypothesis fails to reject.

**Oberoi Realty Ltd.**

Profitability, liquidity, solvency, and activity ratio doesn't show the difference in the mean score of all the p-value is more than 0.05 in all cases so the null hypothesis fails to reject.

The significance value of the share price is 0.09, the null hypothesis fails to reject. There is no relationship found between all the variables in the Pre and the Post implementation of RERA.

**Prestige Estate Projects**

The profitability and activity ratio doesn't show much difference in the mean score of the two periods. The p-value of all variables is more than 0.05, the null hypothesis fails to reject. In the case of solvency and liquidity ratio, the mean value increased in the debt-equity ratio and reduced in both the liquidity ratio which is not good for the company's financial position. The company is having lesser liquid funds for working capital as compared to the pre-period. The significance value of the D/E ratio (0.04), CR (0.03), and QR (0.008), the null hypothesis is rejected. The share

price significance value is 0.11, the null hypothesis fails to reject.

### Phoenix Mills

The financial performance of the company does not show the difference between the pre and the post RERA implementation impact. The profitability, solvency, liquidity, and efficiency ratio the p-value is  $> 0.05$ , the null hypothesis fails to reject. The mean score of share price in the post-period Increased which means the market value of the company increased after the implementation of RERA. The p-value is 0.01 and the null hypothesis is rejected and it compels that there is relationship between the pre RERA and post RERA share price of the company.

### Conclusion and Suggestions

The real estate market experienced the effects of the implementation of RERA on its financial performances. The solvency position and share price of the sector and the selected companies show a better impact. The financial performance does not show major change according to the profitability, liquidity, and efficiency ratio. The findings of the study also suggest that many companies are not maintaining the ideal position of liquidity of funds, which results in poor working capital management. In the sector analysis, the profitability reduces during the post period and share prices increase during the post period. It also suggests that investors are ready to invest in the real estate sector.

### Practical Implications of the Study

**Management:** The Company requires to focus more on the profitability of the company as it is reduced after the implementation of the RERA. The idle funds are more in the industry which has been not utilized effectively for working capital. So the management needs to keep an eye on these crucial issues. Proper disclosure is required according to the RERA implementation.

**Society:** The RERA is implemented for the benefit of the society, as the transparency of the real estate companies increased after the implementation of RERA. The estates must be registered according to RERA and the timely delivery of estate is required.

**Academician and Researcher:** Non- financial performance analysis can be carried out in future studies.

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