European Journal of Molecular & Clinical Medicine

ISSN 2515-8260 Volume 10, Issue 01, 2023

Impact of COVID on Real Estate Business in the Context of India

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Abstract
In the present article analysis of COVID on real estate in the Indian context has been developed. It has been detected that 53% of real estate investments fall during the phase of COVID. Here in the current analysis objective has been set for evaluating the impact of COVID on housing prices and equity share crunch. Primary data collection has been used for the data collection process. 100 Indian real estate owners and industrialists have been selected by using simple random sampling. From the data analysis, it has been noticed that developed policies and poor resources makes pressure on the real estate market in the Indian context.

Keywords: Indian real estate, COVID impact, equity, real estate market

Introduction

From the observation of the real estate business of India, it has been detected that in the first phase of 2021 around $2.4 billion was invested. From this investment value, it has been understood that growth is happening. It has been noticed that from the previous year's investment, the increased value of real estate investment is approximately 53% (Singh and Neog 2020). If the inflow has been monitored, it can be seen that the construction industry has been recognised as the third largest sector of India. From previous 2020 to current market activities, it has been noticed that US$54.16% is increased.

If the focus has been developed on the increased return and the growing transparency, it has been noticed that approximately US$6 billion was the value of an investment in 2020. Attracted private equity in this real estate sector has been detected that it is approximately 24,947 crore. Observing the value of an investment and the growing market contribution it has been understood that it plays a contributory role in the Indian economy. If the impact of COVID-19 has been analysed it has been detected that the real estate economy gets increased from the previous year. Saling value during the phase of COVID has been noticed near about 5%. As per Biswas (2021) supply-side growth has been noticed for 53038unit from which the identified growth is approximately 43%.

On the other hand, it has been detected that this declining rate presents the chances of developing the price range for housing in Ahmedabad is approximately 7%, for Bangalore it becomes 8% (Rao and Mamillapaui 2020). Different market value has been noticed which creates an impact on the growth of property increasing. It has been noticed that real estate market demand gets off-tracked which needs to be controlled after the planning has been executed for Indian real estate.

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Significance of the Study

The impact of COVID has been discussed and highlighted through current research. It has been detected that during the phase of COVID property transactions get downward which showed the slow down phase of the Indian real estate economy. Yadav and Yadav (2021) mentioned that housing demand and selling profile both get affected with the COVID phase. Through the current research discussion, the focus has been developed on the specification economy affected factors. It has been noticed that growing regulation and severity increase the stability of property transactions. If the causes of developing risk from COVID have been identified then the chances of risk management become easier.

It has been detected that near about 1 crore loss has been noticed that the real estate sector needs to overcome this loss. The liquidity crunch has been noticed as the impact of COVID (Verma et al. 2020). Through the research, it has been noticed that around 4 to 2.9 lakh unit loss has been faced by real estate which results in credit shortage. Sarkar (2020) stated that around 39% of real estate demand decline has been noticed which needs to be recovered to make the increasing scope for the recovery stage. Different affecting areas and the cause of the real estate market has been presented in this current study.

Objective of the study

- To analyse the COVID impact on the real estate economy of India.
- To analyse the equity state from the developing COVID regulation and limitation over Indian real estate.
- To analyse the market demand loss consequences severity for continuing the business of the real estate.
- To analyse the impact of share crunching which causes the limited return of investment for Indian real estate.
- To analyse the policy support and the returning favourability chances for the Indian real estate sector.

The hypothesis of the study

H01: The impact of COVID may reduce the stable equity share for Indian Real estate.

H10: The impact of COVID may not reduce the stable equity share for Indian Real estate.

H02: Market demand loss may affect the smooth investment security gain for Indian real estate.

H20: Market demand loss may not affect the smooth investment security gain for Indian real estate.

H03: Share crunching may affect revenue growth and market stability for real estate in India.

H30: Share crunching may not affect the revenue growth and market stability for real estate in India.

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Methodology

For the current research, primary data collection has been used to better understand the COVID impact on real estate in the Indian context. It has been detected that using closed-end questionnaires makes a time-saving data collection process (Rani et. al. 2022). For the developed questionnaire, research has been developed for the existing information about the impact of COVID on the real estate business. It has been detected that the application of relevant information for research questionnaires improves the gathering data quality.

Sampling design

For the sampling process, real estate business owner and industrialists have been selected as the population. The population of 100 samples has been selected by using simple random sampling. The survey process has been applied to the data collection process (Shah 2020). For the research progression, all of the information has been collected in the Indian context.

Data collection Techniques

For the selected sample used data collection technique is a Google link which has been created using Google docs. The closed-end questionnaire has been used before and ethical consent has been used for the data gathering process.

Results of the data tables

How far do you agree that due to COVID's impact on reducing housing price market near to 8% in Indian real estate?

Opinion	**Respondents**
Strongly disagree	13
Disagree	7
Neutral	2
Agree	45
Strongly agree	33

Table 1: Respondent's responses for house market pricing decreases
(Source: Created by Author)

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From the above table respondents' responses regarding the impact of COVID on the house pricing decline has been noticed. It has been detected that around 45% of respondents agree with the fact that the impact is there for house pricing reduction (Nautiyal and Prakash Mani 2021). The reason for this decline is because of market fluctuation and increasing pressure of unemployment.

How far do you agree that till now pandemic struck caused loss for real estate in India?

Opinion	Respondents
Strongly disagree	10
Disagree	4
Neutral	1
Agree	40
Strongly agree	45

Table 2: Respondent's responses for loss impact in Indian Real Estate

(Source: Created by Author)

From the above table presentation has been done for the loss phases for Indian real estate. It has been detected that 45% of respondents strongly agree with this fact.

How far do you agree that the selling profile gets reached down from the pandemic regulation?

Opinion	Respondents
Strongly disagree	4

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Disagree	5
Neutral	1
Agree	40
Strongly agree	50

Table 3: Respondent's responses sell profile reaching down in Indian Real Estate

(Source: Created by Author)

From the above presentation impact over real estate selling profile reach down has been evaluated through respondents' responses. It has been detected that 50% of respondents strongly agree with the fact that from the pandemic regulation real estate selling gets disrupted (Balemi et al. 2021). The reason for selling profile reach down is because of closing normal transportation and the limited affordability has been detected.

How far do you agree that equity crushing is noticed due to the impact of COVID?

Opinion	Respondents
Strongly disagree	9
Disagree	9
Neutral	2
Agree	43
Strongly agree	37

Table 4: Respondent's responses for equity crushing from COVID in Indian Real Estate

(Source: Created by Author)

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From the above table impact of COVID for equity crushing has been analysed which showed the responses from the involved respondents. It has been detected that 37% of strong responses have been received regarding this context.

10. Analysis of the data

Descriptive Statistics:

Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation	Variance	Skewness		Kurtosis	
	Statistic	Statistic	Statistic	Statistic	Statistic	Statistic	Statistic	Std. Error	Statistic	Std. Error
PEOPLE	150	1	5	3.82	1.129	1.287	-1.042	.198	0.523	.394
GROWTH	150	1	5	4.09	1.058	1.123	-1.290	.198	1.182	.394
SUSTAINABLE	150	1	5	4.00	1.115	1.244	-1.228	.198	1.116	.394
LOWER COST	150	1	5	4.08	1.085	1.178	-1.352	.198	1.321	.394
FASTER DELIVERY	150	1	5	4.07	1.125	1.268	-1.355	.198	1.172	.394
AFFECT IN EXPORTS	150	1	5	4.08	1.051	1.109	-1.308	.198	1.336	.394
LEAN	150	1	5	4.13	1.053	1.112	-1.452	.198	1.749	.394

From the above figure, it has been noticed that here different variables have been used for developing analysis. For the selected variable people's estimated mean statistics is 3.82. From which the evaluated std deviation value is 1.129. Singh (2020) mentioned that using the analysis process of Skewness and Kurtosis showed the value differences. Estimated std error is noticed for 394. Growth has been used as another evaluation area just because of presenting the different variables and their impact on the real estate from COVID impact. It has been detected that for growth estimated mean value is 4.09 and the detected std deviation is 1.058.

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Sustainable has been considered and used as a variable for conducting statistical analysis. It has been detected that the estimated mean deviation is 4.00 and the evaluated std deviation is 1.115. From the use of Skewness detected statistics value is (-1.228) and std error is 198. On the other hand Kurtosis statistics is 1.116 and the estimated value is 394 (Majumder and Biswas 2022). The impact of COVID has been observed for the impact of faster delivery. The estimated mean deviation for faster delivery is 4.07 and the estimated std. deviation is 1.125. Skewness and kurtosis both have been used for statistical analysis. From Skewness developed std error is 198 and the identified value is 1.172.

Factor Analysis:

KMO and Bartlett's Test[a]		
Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.653
Bartlett's Test of Sphericity	Approx. Chi-Square	76.769
	df	10
	Sig.	.000

From the above figure factor analysis has been developed for the current research. Detecting sampling adequacy for kaiser Meyer olkin is 653. Sphericity of Bartlett's test has been used from which detected chi-square approximate is near about 76.769 and the estimated df value is 10 and the detected sig is 0 (Sethi and Mittal 2020). The below figure has been attached to show the value of weights, covariances, variances, means and intercepts.

	Weights	Covariances	Variances	Means	Intercepts	Total
Fixed	36	0	0	0	0	36
Labeled	0	0	0	0	0	0
Unlabeled	25	0	32	0	27	84
Total	61	0	32	0	27	120

Variances: (Group number 1 - Default model)

Iteration		Negative eigenvalues	Condition #	Smallest eigenvalue	Diameter	F	NTries	Ratio
0	e	11		-.3	9999.0	1362.8	0	9999.0
1	e	5		-.2	1.7	1115.7	21	.7
2	e	2		-.1	1.7	955.9	5	.7
3	e	1		.0	.6	909.4	5	.9
4	e	0	21441.9		1.0	876.5	7	.9
5	e	0	4506.5		.5	869.6	2	.0
6	e	0	15704.1		.6	864.2	1	1.1
7	e	0	3710.5		.5	863.3	1	1.1

Model	NPAR	CMIN	DF	P	CMIN/DF
Default model	84	863.2	321	.0	2.7
Saturated model	405	.0	0		
Independence model	54	1268.7	351	.0	3.6

Model	NFI Delta1	RFI rho1	IFI Delta2	TLI rho2	CFI
Default model	.3	.3	.4	.4	.4
Saturated model	1.0		1.0		1.0

Here is the used model for the descriptive analysis including the default model, saturated model and independence model. Using the default model NPAR value is 84, the CMIN value is 863.2 and 327 is the DF value (Kumar et al. 2020) The reason for using three different models is to create comparing scope for the detected value from the used models. From the used independent model detected value of NPAR is 54, 1268.7 is the value for CMIN and the Detected value of DF is 351. CMIN/DF is estimated near about 3.6.

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Model	RMSEA	LO 90	HI 90	PCLOSE
Default model	.1	.1	.1	.0
Independence model	.1	.1	.1	.0

Model	AIC	BCC	BIC	CAIC
Default model	1031.2	1070.0		
Saturated model	810.0	997.4		
Independence model	1376.7	1401.7		

Model	ECVI	LO 90	HI 90	MECVI
Default model	6.9	6.4	7.5	7.2
Saturated model	5.4	5.4	5.4	6.7
Independence model	9.2	8.5	10.0	9.4

Model	HOELTER .05	HOELTER .01
Default model	63	67
Independence model	47	49

Different value has been detected and presented here for developing statistical analysis. It has been detected that AIC, BCC, BIC and CAIC values have been analysed by using the default, saturated and independent models. From the use of the default model, it has been detected that the AIC value is 1031.2, for the saturated model using detected AIc value is 810.0 and 1376.7 is the AIC value has been detected through using the Independence model. ECVI, LO90, HI90 and MECVI value has been analysed by using three types of models (Walter 2020).

By using the default model detected ECVI value is 6.9, detected LO90 is 6.4, 7.5 is HI90b and MECVI is 7.2. A saturated model has been used for detecting values which showed 5.4 ECVI, LO90 is 5.4, and MECVI 6.7. From the independent model, 10.0 is the value of HI90, LO90 value is 8.5 and 9.2 is the value of ECVI. Hoelter value has been analysed for the default and independence models. At the .05 detected Hoelter value is 63, and at .01 detected values is 67 for the default model.

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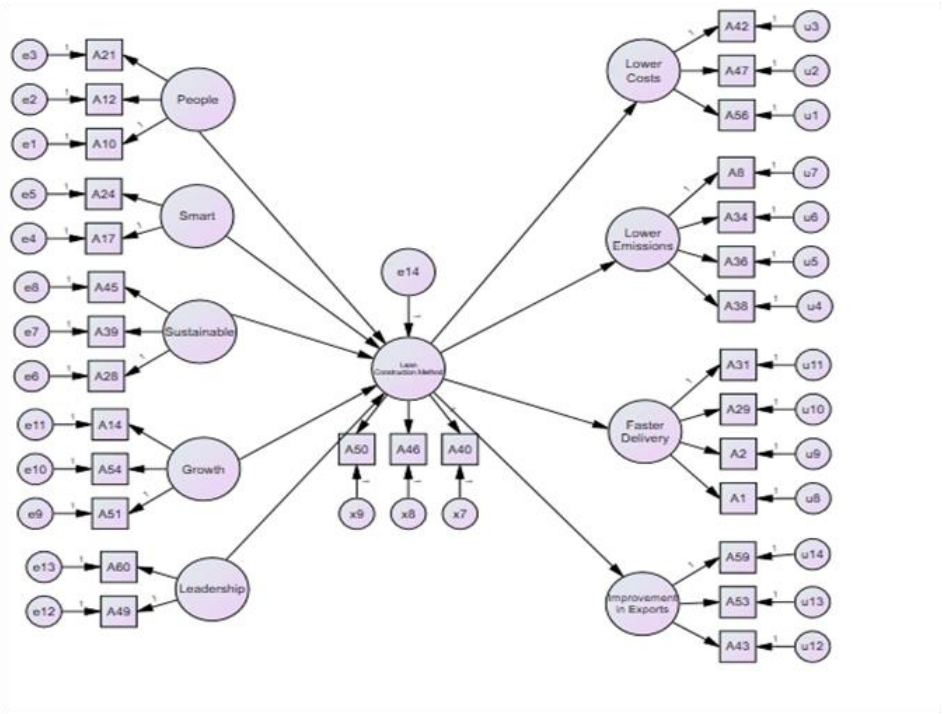

Fig 5: Relationship among the variables i.e. dependent, independent and mediating

Model Fit Summary

CMIN

Model	NPAR	CMIN	DF	P	CMIN/DF
Default model	65	887.30241372	400	.00000000	2.21825603
Saturated model	465	.00000000	0		
Independence model	30	1517.15362997	435	.00000000	3.48770949

From the above-presented model fit summary it has been detected that using three models makes the different values for NPAR, CMIN, DF, P and CMIN/DF. From the use of the default model, it has been detected that the NPAR value is 65, whereas the DF value is 400, and the value for CMIN/DF is noticed for 2.21825603. Using of saturated model it has been detected that 465 is for NPAR. From the use of the independence model it has been detected that NPAR is 30, DF is 435 and the CMIN/DF is 3,48770949.

RMR, GFI

Model	RMR	GFI	AGFI	PGFI
Default model	.17435951	.73208893	.68855338	.62975392
Saturated model	.00000000	1.00000000		
Independence model	.26101002	.39589771	.35423548	.37035592

Detected value of RMR, GFI, AGFI, PGFI has been developed by using three models. It has been detected that the applied default model showed the value of RMR is .17435951 and the value of GFI is .73208893 and .68855338 is the value of AGFI and PGFI value is .62975392 (Das and Das 2020). From the use of an independent model detected RMR value is.26101002 and the detected GFI value is .39589771 and .35423548 is the value of AGFI.

Baseline Comparisons

Model	NFI Delta1	RFI rho1	IFI Delta2	TLI rho2	CFI
Default model	.41515322	.36397913	.56380000	.51029007	.54969202
Saturated model	1.00000000		1.00000000		1.00000000
Independence model	.00000000	.00000000	.00000000	.00000000	.00000000

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From the application of independence model it has been detected that Delta 1 NFI value is .41515322 , RFI rho1 value is .36397913. The detected CFI value from the use of the default model showed .54969202.

Parsimony-Adjusted Measures

Model	PRATIO	PNFI	PCFI
Default model	.91954023	.38175009	.50546393
Saturated model	.00000000	.00000000	.00000000
Independence model	1.00000000	.00000000	.00000000

From the above figure parsimony-adjusted measures have been presented using three different models. It has been detected that the use of default model identifies the value of PRATIO is .91954023, for PNFI value dejected is.38175009 which seems to be .00000000 for used independence model. In the above figure, three models that used value for different factors has been analysed and presented.

NCP

Model	NCP	LO 90	HI 90
Default model	487.30241372	404.88817596	577.44217682
Saturated model	.00000000	.00000000	.00000000
Independence model	1082.15362997	967.29904938	1204.56832123

From the above figure NCP value has been analysed by using three models. It has been detected that for the use of the default model it has been detected that NCP value is 487.30241372, LO90 and HI90 detected values gradually include 404,88817596 and 577.44217682.

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FMIN

Model	FMIN	F0	LO 90	HI 90
Default model	5.95504976	3.27048600	2.71737031	3.87545085
Saturated model	.00000000	.00000000	.00000000	.00000000
Independence model	10.18223913	7.26277604	6.49193993	8.08435115

RMSEA

Model	RMSEA	LO 90	HI 90	PCLOSE
Default model	.09042243	.08242224	.09843082	.00001737
Independence model	.12921315	.12216382	.13632577	.00001820

AIC

Model	AIC	BCC	BIC	CAIC
Default model	1017.30241372	1051.45495609	1212.99370784	1277.99370784
Saturated model	930.00000000	1174.32203390	2329.94541175	2794.94541175
Independence model	1577.15362997	1592.91634183	1667.47268879	1697.47268879

ECVI

Model	ECVI	LO 90	HI 90	MECVI
Default model	6.82753298	6.27441729	7.43249783	7.05674467
Saturated model	6.24161074	6.24161074	6.24161074	7.88135593
Independence model	10.58492369	9.81408758	11.40649880	10.69071370

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HOELTER

Model	HOELTER .05	HOELTER .01
Default model	76	79
Independence model	48	50

11. Findings of the study

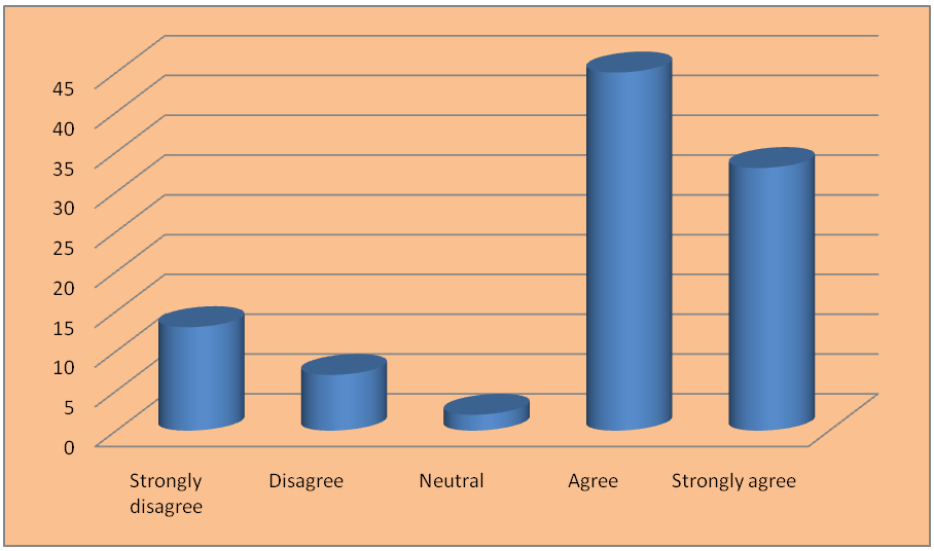

Figure 1: Respondent's responses for house market pricing decreases

(Source: Created by Author)

From the above figure it has been detected that a higher proportion agrees with the fact that marketing pricing falls during the initial phase of COVID. Spreading policy and safety measures framework makes pressure on the deciling of the house pricing. Around 41% price decline has been noticed in the Indian context. A recession of the market demand has been noticed from the initial period of break out. Parvathamma (2020) stated that if the reason for the housing decline has been analysed it can be noticed that 37% unemployment and growing pressure over affordability makes the consequences. It has been detected that transferring payment causes higher pressure over the per household income during the COVID phase.

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Market policy changes and lack of suitability of monetary policy make the increased susceptibility for per housing demand fall. It has been detected that a limited supply of homes as per the need makes the probability of losing the market price and increasing the risk of disruption of market growth (Nath 2020). It has been detected that breaking in the supply chain creates pressure on the supply of market demand and faces the issue of pricing fall.

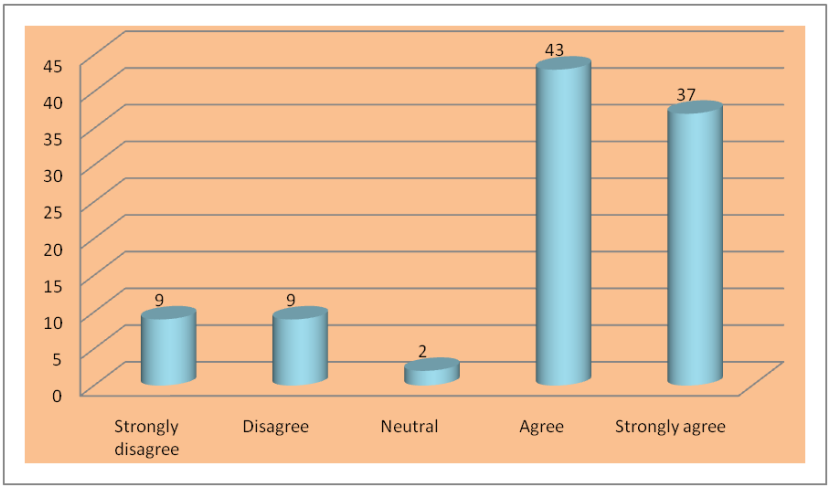

Figure 2: Respondent's responses for equity share pricing decreases

(Source: Created by Author)

From the above figure observation has been developed for the decline in equity share has been supported by the collected information from the industrialist. It has been detected that prices and GDP both started to fall during the phase of COVID. Increasing capitalization may create continuous pressure on property value. It has been detected that the need for a higher return value makes the concern developing risk probability. As per Gurbaxmi and Gupte (2021) cash flow gets affected during the phase of COVID. It has been detected that changes in policy and framework make the growing concern for the stability of real estate.

Cash flow declining is the result of the changes in the normal business process. Pressure over funding sources limitation and COVID regulation makes the concern for the increased capitalization rate (Mishra and Dhanerwal 2020). Rapid closure of the transportation and hotel industry makes an impact on the smooth growth of revenue. It has been detected that chances of regaining the market fluctuation stability chances become volatile for the changes in policy and accommodation. Close down hospitality and togetherness makes direct pressure on the real estate of India.

13. Conclusion

From the above analysis it has been detected that COVID impact is there for Indian real estate. Declining investment and increased market fluctuation create pressure on market growth. It has been detected that increasing unemployment, higher regulation for transportation and closing normal movement creates the market cash flow. From the used data collection process it has been detected that respondents also support the fact that from COVID an impact on equity crunch, price of market share fall has been detected.

14. Recommendations

- For the need for impact adjustment with real estate needs of knowledge and current market according to policy and framework need to be developed. From this, the scope of better stability and optimised market growth can be developed. Policy changes are required to make the cash flow smooth and regain efficiency.
- Market fluctuation needs to be adjusted by improving resourcing and the scope of improving the reliability of the external sources. Only by this chances of growth can be supported for Indian real estate. Market analysis and policy suitability is the matter of consideration while the plan is for real estate market support.

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