

To Identify Factors Affecting Redevelopment of Building

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Abstract- *The main objective of the redevelopment process there are various factors which are effect on the redevelopment of the building .Redevelopment of the building is beneficial for the both side. There are various factors are affecting on the redevelopment like present building construction and social factors which can effect on building.so for that collect the information from the various site of Ahmedabad so that can get some idea about the how benefit for stakeholder and makers.In this study making a data sheet for collecting the most important factor which effect on the Redevelopment process. There are mainly two type of the factors which present problems in the building like structure stability, parking space insufficient , improper maintenance etc. the other factor is social factor. In this social factor insufficient carpet area, site location, social factor and availability of public transportation are affect in the facility of the building. After the analyse the factors making a Google data sheet for collecting the information and collecting the review through the social media.in this goggle form I collect 304 stakeholders answers and their review how the most important factor which is the responsible Redevelopment. Getting the review of 304 stakeholders using the RII method there is found the most 5 important factors which is responsible for redevelopment*

Keywords- Redevelopment, Repair and stakeholder prospective.

I. INTRODUCTION

Redevelopment is the most important thing in the construction industry. There are many problems facing due to old construction building there are many problems occurs due to old construction or increase in population so for solving that problem redevelopment is the best solution and there are not much land also not available for constructing a new building.

To solve the problems of decentralization, population density and high growth rate of urbanization. There are two options.

1. Repair
2. Rebuilt

Redevelopment is best option for growth of construction industry and agriculture industry. Redevelopment solves the problems of decentralization, population density by reusing used land to give maximum output.In major cities like Mumbai, Delhi, Hyderabad, Ahmedabad etc. have not much land to fulfill the problem of decentralization. Redevelopment is the only way to make sustainable solution.

II. STUDY AREA

Ahmedabad is the largest city and former capital of the Indian state of Gujarat. Ahmedabad's population of 5,633,927 (as per 2011 population census) makes it the fifth most populous city in India. Ahmedabad is divided by the Sabarmati into two physically distinct eastern and western regions. The eastern bank of the river houses the old city, which includes the central town of Bhadra.

This part of Ahmedabad is characterized by packed bazaars, the pol system of closely clustered buildings, and numerous places of worship. The western part of the city houses educational institutions, modern buildings, residential areas, shopping malls, multiplexes and new business districts centred on roads such as Ashram Road, C. G. Road and Sarkhej-Gandhinagar Highway.Ahmedabad has a hot, semi-arid climate, with marginally less rain than required for a tropical climate.

Ahmedabad has emerged as an important economic and industrial hub in India. The effects of liberalization of the Indian economy have energized the city's economy towards tertiary sector activities such as commerce, communication and construction.



Figure: 2 Map of Ahmedabad

Ahmedabad's increasing population has resulted in an increase in the construction and housing industries resulting in recent development of skyscrapers. In 2010 Ahmedabad was ranked third in Forbes's list of fastest growing cities of the decade.

There are more than 100 projects in Ahmedabad city which are under construction. These under construction projects include Residential, Commercial, and Industrial, Recreational, Institutes and many other forms of construction project. Ahmedabad is a rapidly growing city in terms of urban physical growth. Majority of this urban growth is occurring around the city, in the outskirt area of Ahmedabad city. Also, majority of under construction projects are Residential project or Commercial project.

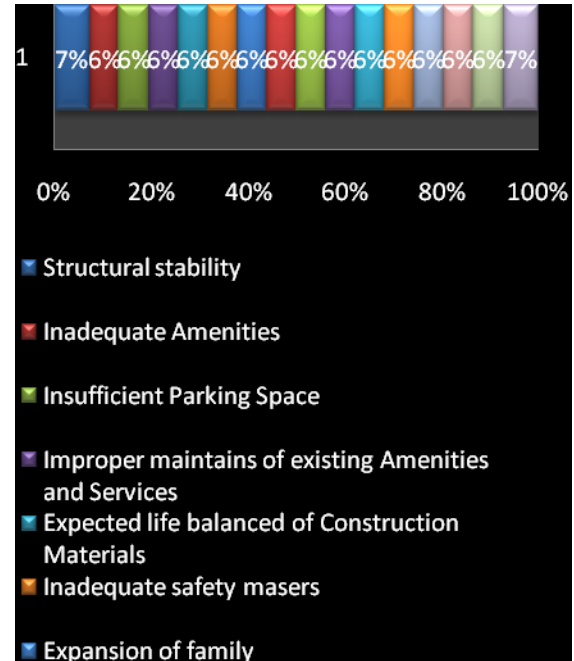
There are more than 50 projects in Ahmedabad city which is under redevelopment and more than 80 co-operative societies are planning for redevelop their societies. Redevelopment is more preferable to residential building than commercial building.

III. REDEVELOPMENT PROCESS

- Conveyance deed
- Society registration certificate
- General body resolution to go for redevelopment
- List of member with their respective carpet areas
- Revenue document of land
- Draft planning remarks, if the property is under town planning scheme then town planning remarks
- Copy of municipal approval plans.

IV. FACTORS AFFECTING REDEVELOPMENT

In this thesis Factors affecting redevelopment, data collection is done by help of data which is helpful for stakeholder which is interested to redevelop their society. This data will be helpful for selecting when their society should be going for redevelopment. So that stakeholders will receive most profitable deal form developer. After data collection, it will be easy to define major factors are affecting building to redevelop their society.



V. DATA ANALYSIS

Here is data collected by my survey which is held by in person survey. Here present some result which is collected by my survey. Thesis have two type of data analysis required one is cost model of redevelopment and other one is factors affecting redevelopment. My data analysis is carried out in two phases which is divided on sources of data.

- A. Factors affecting redevelopment
- B. Cost model of redevelopment

A. Factors affecting redevelopment

In data analysis is done with Relative Importance Index methodology. This method will be used to rate the various parameters. These ratings make it possible to compare the relative importance of the parameters as observed by the sets of respondents

- To compute RII, the formula is as under:

$$RII = \frac{\sum W}{A * N}$$
- Where,
 W = ratings provided to each parameters (Impact* Occurrence), A = Highest rating (i.e. 5 in this circumstance),
 N = Total respondents (i.e. 304 in this circumstance)
- Results** - The below RII results of the parameters indicates amount of possibility of happening the communication of the parameters with the respective responders. Top ten least communicated parameters can be obtained by these results which affect the success rate majorly and require solution too. The ascending order of these results is shown below in the table.

Sr. No.	Factors	RII
1	Structural stability	0.9487
2	Profitable Aspect	0.9125
3	Insufficient Parking Space	0.8151
4	Change in Use of building	0.8053
5	Quality of life index of area	0.7908

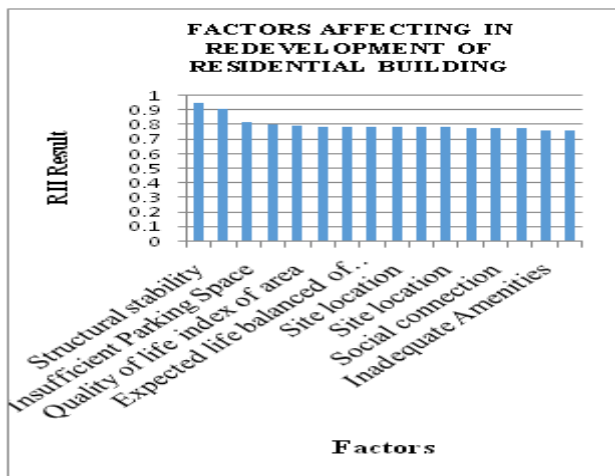


Figure 7.1 Factors affecting in redevelopment of residential building

VI. CONCLUSION

Structural stability

- Data analysis shows that the structural stability of building is the most important factors for stakeholders to go for redevelopment.
- Old building was constructed for 20 years of life span and building is in use after that life span. Structural members like beam, column and slab erode or cracks developed by life span of building. It can be repair but it's costing is too high.
- The result shows that structural stability of building is the basic need of stakeholders.

Factors affecting redevelopment

Insufficient Parking Space

- Most of older buildings haven't enough parking spaces for stakeholders. In present life one car is necessary for a family. So that
- parking area is the major problems in buildings
- New construction norms have enough parking spaces for stakeholders with calculating parking space for guest and handicap.

Quality of life index of area

- Stakeholders like surrounding physical environment like air quality, water availability, noise pollution etc. and staled down with around the building and social status of living.
- Stakeholders don't want to change their quality of life index. Stakeholders are connected with the site location due their connivance of cantered business park, market yard, school etc.
- Some stakeholders are emotionally connected with their property and they refused to shift any other property. And in some cases stakeholder's family or friends residing nearby so do not want to shift somewhere else.

Change in Use of building

- Old buildings are constructed in heart of the city area. Their locations are near to the central business areas. But in past residential building are constructed there but Neighborhood area has market center. So that the residential building is used as commercial building like offices, hospitals etc.

- But the old building is constructed for residential proposes so that it's failed to satisfy basic need of stakeholders for commercial use.

Cost model of redevelopment

- Carried out work needed to be more for accurate analysis form plot area, carpet area, investments, returns and FSI.
- Data is not enough for getting realistic result. At least 20-25 site data should be collected for realistic result.
- Data collected from different location of Ahmedabad, market value of land and unit are change with the location of site. Market value can be increase where availability of public transport, quality of life index, distance form central business center.
- For realistic result, data collection should be divided in smaller parts by valuation of land. That gives the accurate relations of plot area or built up area to return.
- From the chart, it is easily calculate that it gives high returns form low investment. It gives high return when numbers of old member's units is less than 50%.
- Investments can be minimizing by choosing redevelopment project which have minimum numbers of old members.
- Where the project has higher new permissible F.S.I. the return is increase.
- If developer has more than 50% units form the total project. It can increase the return.
- If the old building is legally approved by government or local body. The redevelopment process will be easy.

V. ACKNOWLEDGMENT

This is to place on record my appreciation and deep gratitude to the persons without whose support and guidance, this project would never been seen the light of the day. I am thankful to all them for their proper guidance and support during my entire thesis work. Among them, first I express gratitude to my guide Mrs Krupa Dave for her throughout guidance, advice and encouragement. I would like to thank all those who have directly or indirectly helped to accomplish my project successfully.

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B. COST MODEL OF REDEVELOPMENT

Present status	Occupied by Developers
Year of building construction	1982
Present structural status	Structure is in worst condition

1	Area Detail	Before Redevelopment	After Redevelopment
		Plot area	1220 m ²
	Construction area	1350 m ²	3035 m ²
	Parking area	General Provided	1140 m ²
	Common plot	N/A	N/A
	Floors	Ground floor + 3 floors	Ground + 7 floors
	Market value	₹ 8,10,00,000	₹ 30,00,00,000
2	Unit details		
	Total num of unit	18 Nos.	30 Nos.
	Room details	2 BHK	3 BHK
	Build up area	75 m ²	101 m ²
	Extra amenities	Nothing	2 Lifts, 1 allotted car parking, Re-creational area like Gym, Children play area, Indoor Games etc.
	Market value	₹ 45,00,000	About ₹ 1,00,00,000
3	Cost aspect		
	Construction cost	₹ 4,00,00,000	
	compensation	₹ 5,50,000/member	
	Rent per member	₹ 20,000/month	
	Government taxes & fees	₹ 1,00,00,000	