

## Review of Redevelopment Process of Old Dwellings

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### Abstract

Due to industrialization and growth of IT sector, Urbanisation has seen significant increase in cities like Pune, Mumbai, Bengaluru and Hyderabad. Due to migration for education and in search of job, cities are overburdened. Available land is not sufficient to accommodate these migrators. Due to gap between 'Demand and Supply for the homes', the real estate segment has seen an exponential growth. Old dwellings, constructed 30-40 years back, are now not in good condition. Old residents of it are not ready to go to outskirts due to emotional attachment and quick access to required necessities. So, its reconstruction is much needed. To construct such dwellings entrepreneur, who is known as Redeveloper, puts all his efforts, skill and knowledge. Redevelopers face different challenges in redevelopment process. They have to take care while accepting such project due to changing Government norms and obtaining consent of all members, are major obstacles in completing these projects. Massive capital requirement, shortage of raw material and red-tapism of local authority are some other challenges before them. For accepting Redevelopment project, Redevelopers may opt for self-initiative policy or society initiative policy or both. There are good number of examples of successful redevelopment projects as well as prolonged or incomplete redevelopment projects. Redevelopers, who try to complete the project with-in specified time, create trustworthiness among old residents as well as proposed owner-customers. Now, RERA acts as an adjudicating body for speedy dispute redressal and protect residents of prolonged or incomplete redevelopment projects. The purpose of this paper is to study, to review the process of redevelopment and make relevant suggestions to improve efficiency of completions.

**KEYWORDS:** Redevelopment, Wada, Tenants, Redevelopers, Owner-Customers, Local Authority, Green-Home.

### Introduction:

Due to industrialization and growth of IT sector, Urbanisation has seen significant increase in cities like Pune, Mumbai, Bengaluru, Hyderabad. With more youth migrating to these cities to pursue education and career, the real estate segment has seen an exponential growth. The new generation who are residents of old dwellings, are expecting modern facilities to their homes suitable to lifestyle.

Every year thousands of people are migrating to Pune for education and in search of job. Due to this Pune has overburdened. Available land is not sufficient to accommodate increasing demand of residential and commercial spaces in centrally located areas hence redevelopment is one of the best alternatives to provide modern homes. Old residents are attached emotionally to these houses while redevelopment provides them with the benefit of staying at the same place with modern facilities. To construct such buildings entrepreneur who is known as Redeveloper, puts all his efforts, skill and knowledge.

Construction projects involve risks due to requirement of massive capital investment, shortage of raw material, changing Government rules and redtapism of

local authority. Redevelopers face different challenges in the redevelopment process concerned with settlement with tenants, legal clearances from local authorities, dealing with owners related disputes, managing nearby residents and political pressures and compliances of new reforms by Government as applicable.

This paper deals with the challenges/problems faced during redevelopment process by redevelopers, tenants and owners. Researcher wishes to make suggestions to improve operational efficiency of such projects.

#### **Statement of Problem:**

Old dwellings, constructed before 30-40 years, are now not in good condition and increasing maintenance is a major issue and its difficult to provide modern amenities. Redevelopment of old dwellings become necessary. New construction is not possible due to unavailability of the land. Redeveloper plays important role in this redevelopment as decision regarding Redevelopment depends on acceptance of all owner-customers, legal document related to the status of the society or apartment, Government norms, location and size of the plot etc. For accepting Redevelopment project, Redevelopers may opt for self-initiative policy or society initiative policy or both. There are good number of examples of successful redevelopment projects as well as prolonged/incomplete redevelopment projects. Redevelopers have to take care while accepting the project as changing Government norms and non-consented members are major obstacles in completing the project. So, it is essential to study challenges and issues concern with Redevelopment projects.

#### **Review of Literature:**

Major reviews available are summarized here to understand basic concepts and challenges.

Project Management by Harvey Maylor (Third Edition-2011) gives thorough information about project management from 'Defining Project' to 'Project Completion and Review', 7-S framework of Project Management.

Articles on 'Real Estate Investment' in local Newspapers appeared talk about.:

- 'Know your rights before opting for redevelopment' by Yogini - Business Standard dated 19<sup>th</sup> May 2013- It throws light on rights of residents from society or apartment and role of Developer in Redevelopment.
- 'Should your housing society opt for self-redevelopment?' by Sanket Dhanorkar - Economic Times dated 28<sup>th</sup> January 2019. – It focuses on procedure of Self-Redevelopment process and why residents of society opt for it.
- New Norms related to Redevelopment of Society by Shriniwas Rao – Loksatta dated 9<sup>th</sup> September 2019- It throws light on role of society members in Redevelopment, Government's current rules regarding Redevelopment, importance of structural audit report in redevelopment, need of redevelopment.

Research Gap exist about integrated study of redevelopment issues and challenges of the stakeholders.

#### **Relevance of the study:**

The outcome of the study is useful to all stakeholders i.e. Prospective Customers, Redevelopers, to Prospective redevelopers, other Promoter-Builders and Government authorities to frame their policy for such much important issue in urban areas.

#### **Objectives:**

1. To review and assess the need of redevelopment.
2. To study the problems faced by Redevelopers.

3. To study the practices followed 'Before Redevelopment' by Redevelopers.
4. To study the benefits of Redevelopment project to Redevelopers.
5. To suggest measures to improve Redevelopment process.

### **Hypothesis 1:**

There is positive relationship between completed redevelopment projects and success of existing and proposed redevelopment projects.

To test above stated hypothesis, researcher selected different parameters like:

- Developers Experience
- Developers Initiative
- Society Initiative

H01: Working experience of redevelopers does not lead to success of redevelopment projects.

H11: Working experience of Redevelopers leads to compliance of redevelopment projects.

H02: Majority of the redevelopers adopt self-initiative policy to ensure success.

H12: Majority of the redevelopers do not adopt self-initiative policy to achieve success.

H03: Society initiative policy is adopted to ensure success by Redevelopers.

H13: Society initiative policy is not adopted to ensure success by Redevelopers.

H04: Redevelopers adopt both the policies (self or redeveloper and society initiative together) to achieve success

H14: Redevelopers do not adopt both the policies (self or redeveloper and society initiative together) to achieve success.

### **Justification of the Objectives:**

Researcher wishes to study and understand the challenges/problems faced during the process of redevelopment by Redevelopers. These are related with searching the societies/apartments/colony/bungalow/old buildings which are ready for redevelopment; obtaining acceptance of all for redevelopment proposal. Successful completion of the project provides benefits to redevelopers, owners and also to tenants. Making available homes in same place with modern facilities is an issue in almost all the cities in India, due to urbanisation. There are various factors affecting operational efficiency which needs to be studied.

### **Working Definitions of terms used:**

1. **Redevelopment:** It refers to the process of reconstruction of the residential/commercial premises by demolition of the existing structure and construction of a new structure”.

2. **Wada:** It is a traditional mansion or dwelling.

3. **Tenants:** A person who occupies land/house or property rented from a landlord.

4. **Redevelopers:** It refers to the promoter and builders who have entered into the redevelopment of old buildings/old societies.

5. **Owner-customers:** It refers to tenants/owner-members who are residents and have entered into the process of redevelopment.

6. **Green-Home:** It is a house focus on the efficient use of ‘energy, water and building material i.e. to utilize sustainably sourced, environmentally friendly and recycled building material.

5. **Local Authority:** An administrative body in local government.

**Research Methodology:**

Research Type: Descriptive, Qualitative

Sample Design: Non-Probability, Convenience Sampling

Sample size: 20 Redevelopers of Pune.

Research plan for data collection: Primary and Secondary

Primary source: Survey Method, Personal interviews of Redevelopers through questionnaire.

Secondary source: E-Journals, websites of redevelopers

Research Instrument: Structured Questionnaire

**Limitations:**

Study is restricted to Redevelopers of Pune City.

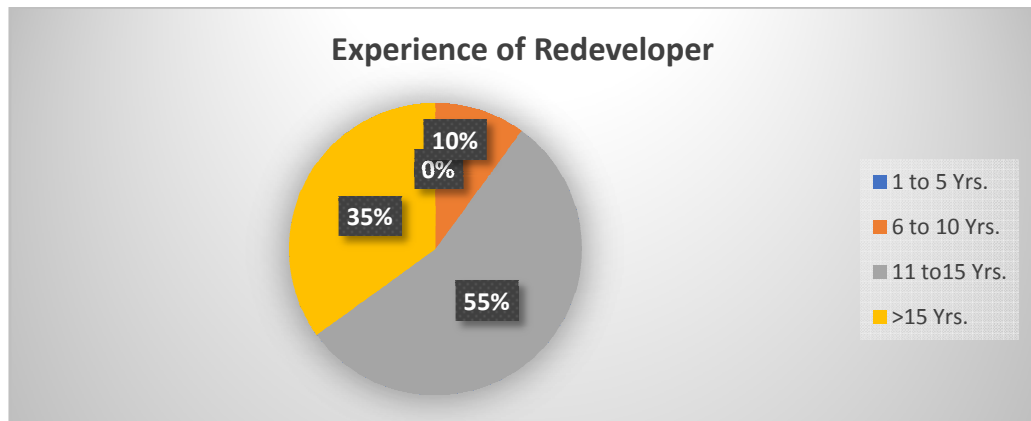
**Data Analysis and nterpretation-**

1. Experience of Redeveloper in the field of 'Redevelopment':

Table No. 1

No. of Years	1 to 5 Yrs.	6 to 10 Yrs.	11 to15 Yrs.	>15 Yrs.	Total
No. of Redevelopers	0	2	11	7	20
Percentage	0	10%	55%	35%	100%

Chart No. 1



35% of Redevelopers are working for more than 15 years in field of Redevelopment. 55% of them are working for more than 10 years and only 10% of them are working for more than 5 years in the field of Redevelopment which indicates need and necessity of redevelopment projects.

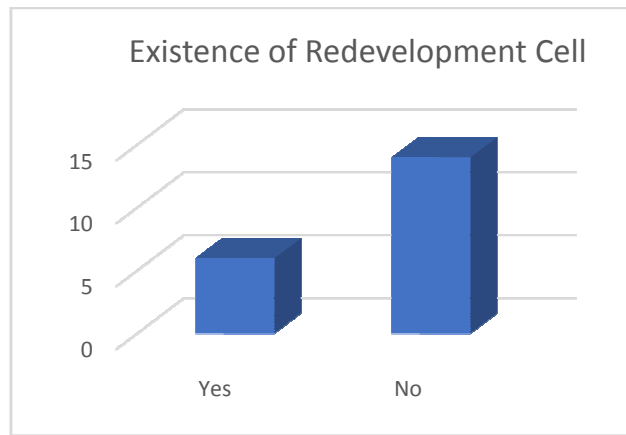
2. Existence of 'Redevelopment Cell':

Table No. 2

Separate Redevelopment Cell→	Yes	No	Total
No. of Redevelopers	6	14	20

Percentage	30%	70%	100%
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Chart No.2



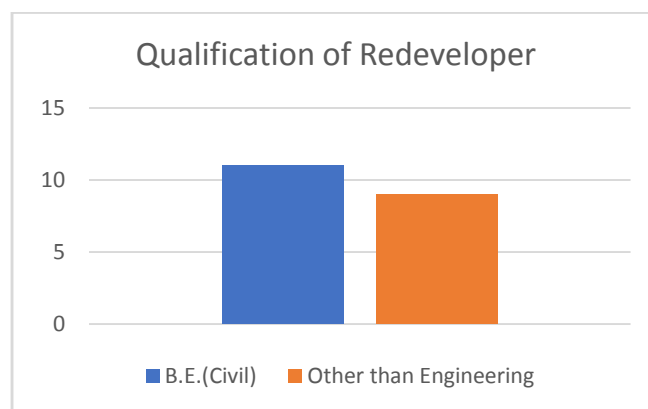
70% of the Redevelopers do not have separate Redevelopment Cell. Only 30% of the Redevelopers have separate Redevelopment cell. This indicates that there is market potential for Redevelopers but systematic efforts to complete the project needs attention.

3. Redevelopers' Educational Qualification:

Table No.3

Qualification→	B.E.(Civil)	Other than Engineering	Total
No. of Redevelopers	11	9	20
Percentage	55%	45%	100%

Chart No.3



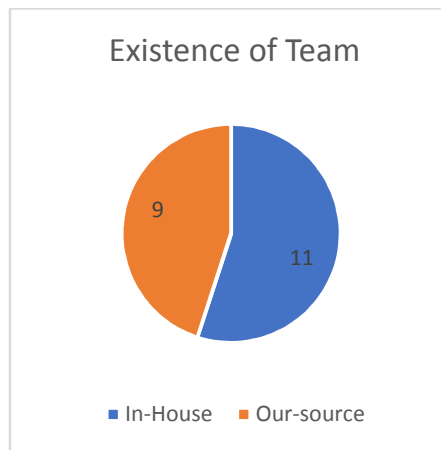
- 55% of the Redevelopers have completed Civil Engineering and 45% of Redevelopers are from other than civil engineering field.
- Though Civil Engineering qualification is useful, opportunities in redevelopment motivates others also to enter in this field. Negotiations skill, interpersonal relations and market goodwill matters a lot.

4. Existence of In-House Team (includes Architect, Lawyer & Co-ordinator) Status:

Table No.4

Existence of Team →	In-House Team	Our-source	Total
No. of Redevelopers	11	9	20
Percentage	55%	45%	100%

Chart No.4



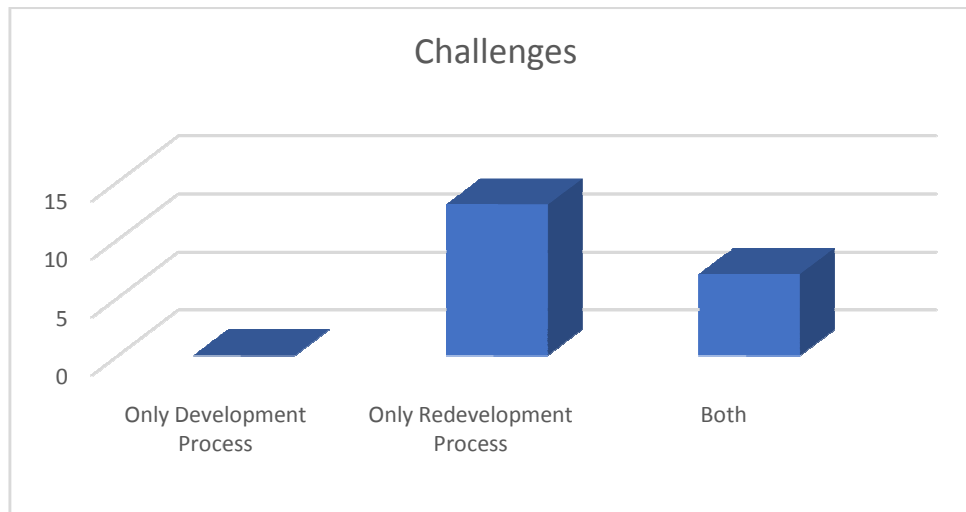
55% of the Redevelopers' have In-House Team consisting of Architect, Lawyer & Co-ordinator which reveals need and necessity of Redevelopment. Redevelopers are ready with their team to accept challenges of projects in given time and it also reveals that there is steady demand for such projects leading to establish such professional team to ensure speedy delivery of agreed services.

5. Nature of Challenges:

Table No.5

Challenges →	Only Development Process	Only Redevelopment Process	Both	Total
No. of Redevelopers	0	13	7	20
Percentage	0	65%	35%	100%

Chart No.5



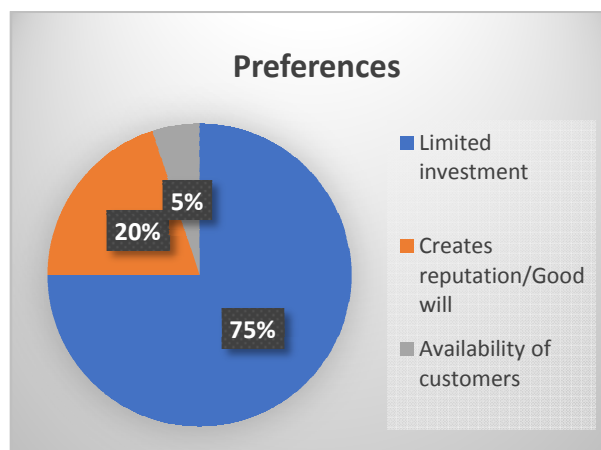
65% of the Redevelopers accept that Redevelopment Process is most challenging. It seems that within available space, accommodating increasing requirements with their expectations is more challenging. It also signifies that owner-customers and tenants are aware about their rights and demanding more facilities from redevelopers.

6. Reasons for Redevelopment preference:

Table No.6

Reasons	No. of Redevelopers	Percentage
Limited investment	15	75%
Creates reputation/Goodwill	4	20%
Availability of customers	1	5%
Total	20	100%

Chart No.6



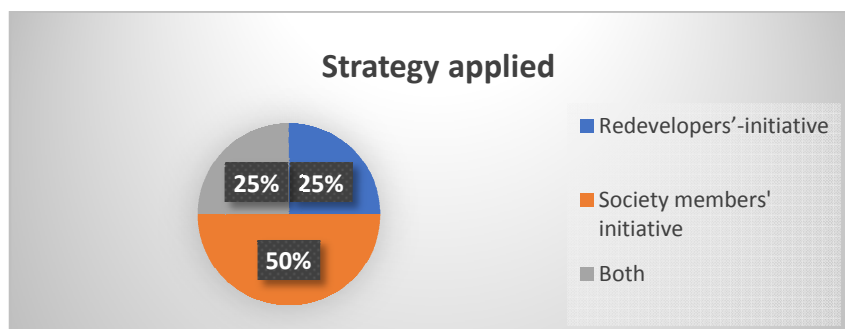
With Limited Investment one can undertake scheme of redevelopment which is confirmed by 75% of the respondents while 20% of the Redevelopers accept that it helps to create good reputation/Goodwill. It ensures future business also.

7. Strategy Application:

Table No.7

Strategy	No. of Redevelopers	Percentage
Redevelopers' -initiative	5	25%
Society members' initiative	10	50%
Bothparties' initiative	5	25%
Total	20	100%

Chart No.7



50% of the Redevelopers prefer Society members' initiative strategy to obtain new redevelopment project. 25% of the Redevelopers prefer Self-Initiative i.e. Redevelopers' initiative strategy and remaining 25% of the Redevelopers prefer (Redevelopers' as well as Society members' initiative) both parties' initiative strategy to obtain new redevelopment project.

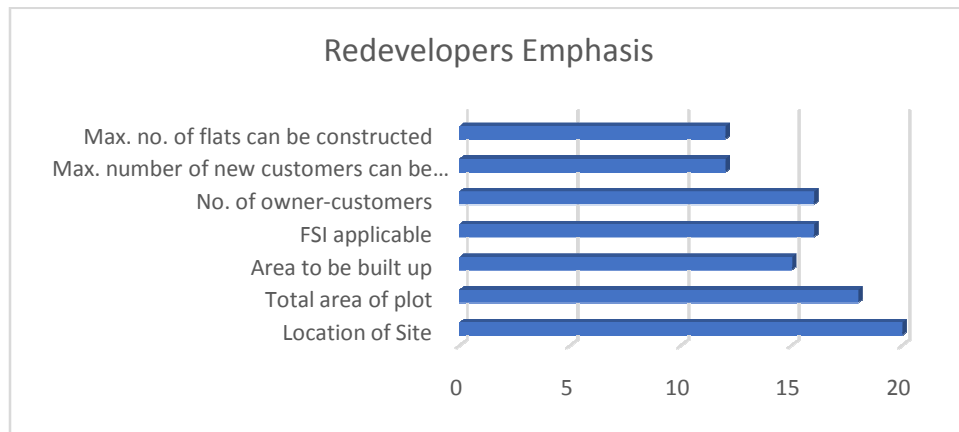
8. Redevelopers Emphasis:

Table No. 8

Aspects	No. of Redevelopers	%	Do Not focus	%
Location of Site	20	100	0	0
Total area of plot	18	90	2	10
Area to be built up	15	75	5	25
FSI applicable	16	80	4	20
No. of owner-customers	16	80	4	20
Max. number of new customers	12	60	8	40
Max. no. of flats can be	12	60	8	40



Chart No. 8



Before accepting redevelopment proposal, redeveloper focus on different aspects. 'Location of site' is important aspect considered by all redevelopers followed by 'total area of the plot', 'FSI applicable' in that area and 'No. of Owner-Customers i.e. No. of residents' of the old dwelling are other points considered. 'Maximum number of new customers can be attracted' and 'Maximum no. of flats can be constructed' are the last options considered by redevelopers.

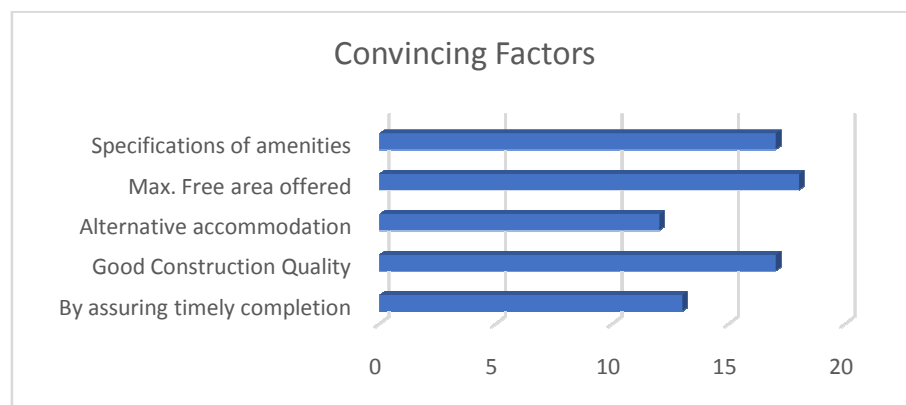
It seems that Location of the site, total area of the plot, FSI applicable, No. of old residents, area to be built are decisive parameters of Redevelopers.

9. Convincing factors:

Table No.9

Factors	No. of Redevelopers	%	Not considered	%
Timely completion	13	65	7	35
Construction Quality	17	85	3	15
Alternative accommodation	12	60	8	40
Max. Free area offered	18	90	2	10
Demanding Specifications and amenities	17	85	3	15

Chart No. 9



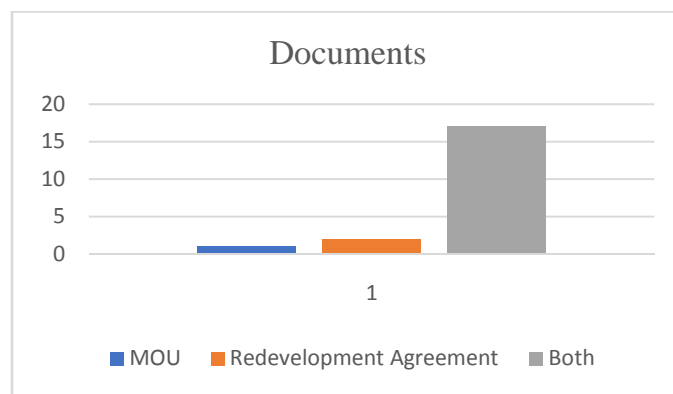
Redevelopers are adopting different policies to convince stakeholders for the project. Occupied area is provided without any charge is most favourable policy followed by Quality of Work and specifications. Alternative arrangement till possession of new home is provided by redeveloper is last technique used to convince proposed customers.

10. Document Authentication:

Table No. 10

Documents	No. of Redevelopers	%
MOU	1	5
Redevelopment Agreement	2	10
Both	17	85
Total	20	100

Chart No.10



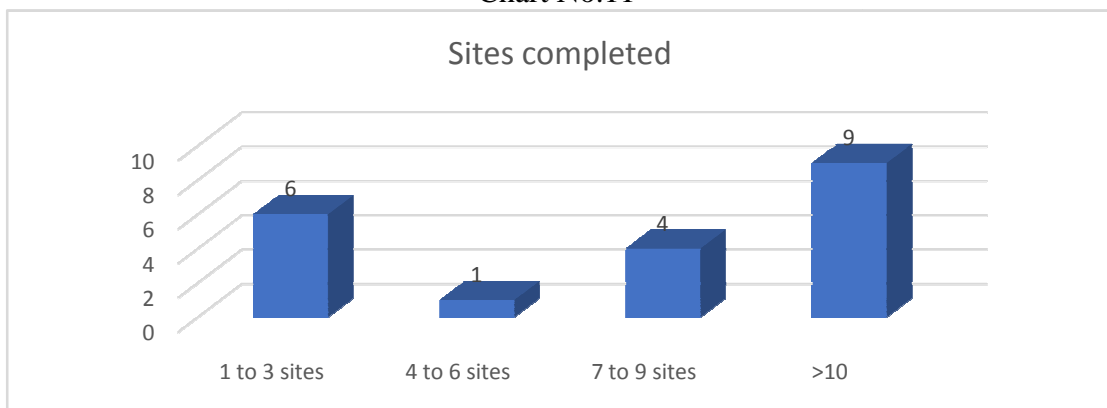
Signing MOU with Redevelopment agreement is preferred option over other options available. It indicates that redevelopers try to comply legal things due to risk involved and avoid uncertainty by fulfilling expectation of the agreement.

11. Redevelopment sites completed (Experience):

Table No.11

No. of Sites completed	No. of Redevelopers	%
1 to 3 sites	6	30%
4 to 6 sites	1	5%
7 to 9 sites	4	20%
>10	9	45%
Total	20	100

Chart No.11



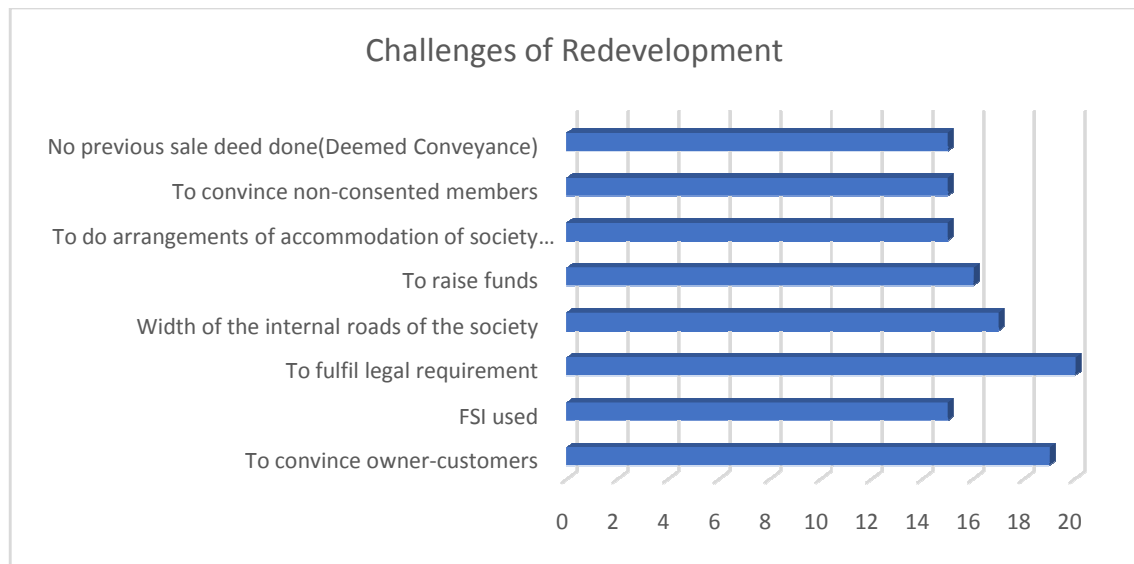
45% of the Redevelopers have completed more than 10 Redevelopment sites while 20% have completed 7 to 9 sites. It seems that 65% redevelopers are experienced due to which residents trust on them.

12. The challenges of the redevelopment process:

Table No.12

Challenges	No. of Redevelopers	%	Not considered	%
To convince owner-customers	19	95	1	5
FSI used	15	75	5	25
To fulfil legal requirements	20	100	0	0
Width of the internal roads of the society	17	85	3	15
To raise funds	16	80	4	20
To do arrangements of accommodation of society members	15	75	5	25
To convince non-consented members	15	75	5	25
No previous sale deed done (Deemed Conveyance)	15	75	5	25

Chart No.12



‘Fulfilling legal requirements’ is the major challenge before redevelopers to complete the redevelopment process. To convince Owner-Customers, Width of internal roads of the society and to raise fund, are other challenges before redevelopers. ‘FSI used previously, to make arrangements for accommodation of society members, to

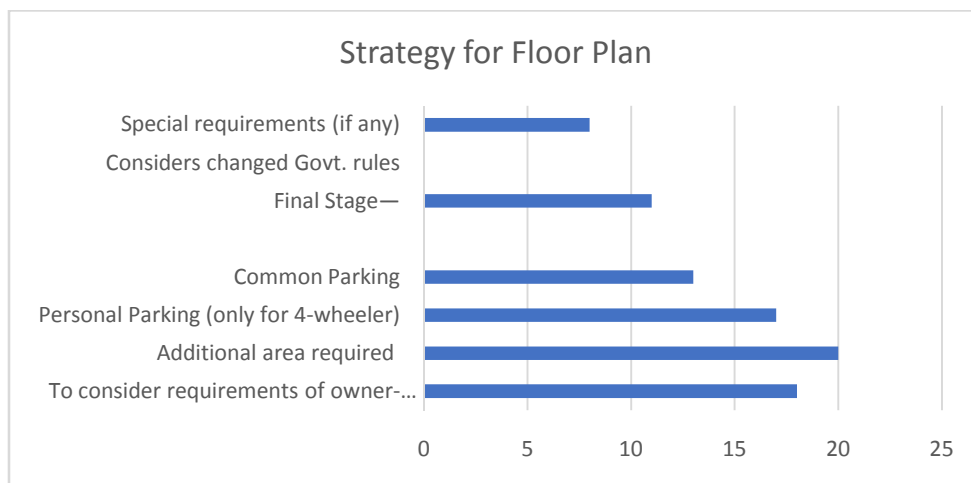
convince non-consented members and no previous sale deed (Deemed Conveyance) are other major obstacles which may delay the project.

13. Strategy for floor plan:

Table No.13

Strategy	No. of Redevelopers	%	Not considered	%
<b>Initial Stage—</b> To consider requirements of owner-customers	18	90	2	10
Additional area required	20	100	0	00
Personal Parking (only for 4-wheeler)	17	85	3	15
Common Parking	13	65	7	35
<b>Final Stage—</b> Considers changed Govt. rules	11	55	9	45
Special requirements (if any)	8	40	12	60

Chart No.13



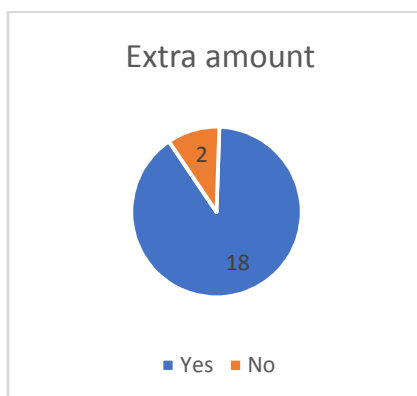
Even though 100% of the Redevelopers have accepted that ‘Additional area required’ is the main strategy followed by Redeveloper in preparing floor plan, they ‘consider requirements of owner-customers’. Arrangement of Personal Parking and Common Parking are other decisive parameters in preparing floor plan.

14. Extra amount for additional amenities:

Table No.14

Extra amount paid →	Yes	No	Total
No. of Redevelopers	18	2	20
%	90%	10%	100%

Chart No. 14



90% of the Redevelopers charge extra amount to the existing tenants or owners for additional facilities or amenities at concessional rate or market rate whichever is possible to provide best quality products. Only 10% of them do not charge extra amount to customer-owner.

15.Challenges for delay in completion:

Table No.15

Challenges	No. of Redevelopers	%	Not considered	%
Unavailability of workers	15	75	5	25
Shortage of raw material	17	85	3	15
Scarcity of funds	12	60	8	40
Negative change in market trends	12	60	8	40
Lack of infrastructural facilities (out of 10, 3 redevelopers faced problem due to load-shading)	12	60	8	40
Other than this----- --TDR Problem.	2	10	18	90
--LBT Problem.	1	5	19	95
--Govt. permissions.	2	10	18	90
--Impact of Demonetisation.	2	10	18	90
--Changed Govt. rules. (RERA/GST)	2	10	18	90

85% of the Redevelopers have accepted that ‘Shortage of raw material’ is the main challenge for delay of construction completion. 75% of the redevelopers have accepted that ‘Unavailability of workers’ is another challenge and 60% of the

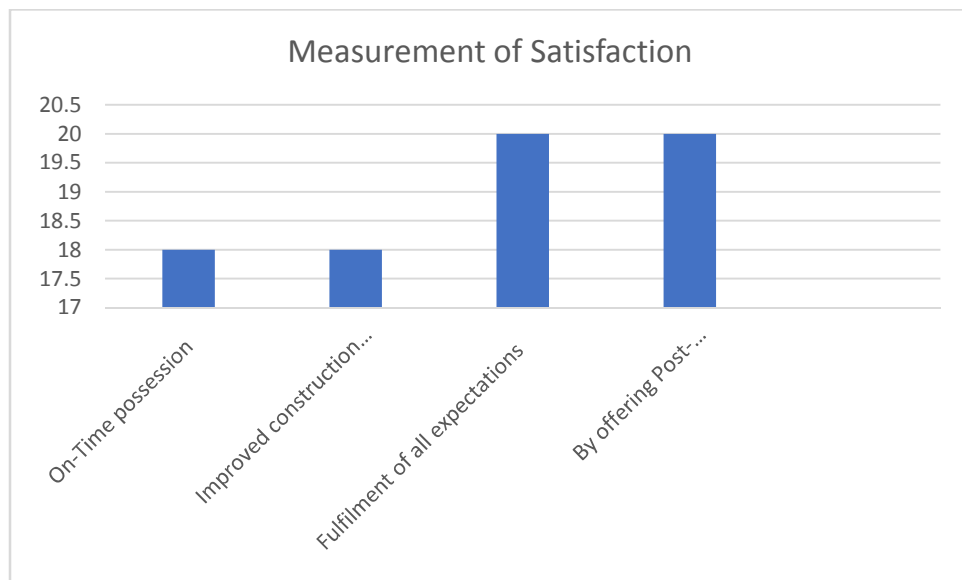
Redevelopers say that Scarcity of funds, Negative change in market trends and Lack of infrastructural facilities are other challenges for delay of construction completion.

16. Measurement of satisfaction:

Table No.16

Aspects	No. of Redevelopers	%	Not Considered	%
On-Time possession	18	90	2	10
Improved construction quality	18	90	2	10
Fulfilment of all expectations	20	100	0	00
By offering Post-redevelopment services	20	100	0	00

Chart No.15



100% Redevelopers measure satisfaction of owner-customer by 'Fulfilling all their expectations and by offering Post-Redevelopment services'. 90% of the Redevelopers measure satisfaction 'by giving on-time possession and by providing improved construction quality'.

**Testing of Hypothesis:**

Hypothesis: There is positive relationship between completed redevelopment projects and success of existing/new/proposed redevelopment projects.

To test above stated hypothesis, researcher used different parameters mentioned below:

H01: Working experience of redevelopers does not lead to success of redevelopment projects

H11: Working experience of redevelopers leads to compliance of redevelopment projects

Working experience (in years)	No. of sites completed		Total
	< 7	>= 7	
< 10	4	1	5
>=10	2	13	15
<b>Total</b>	<b>6</b>	<b>14</b>	<b>20</b>

Fisher’s Exact test is being used for testing the above hypothesis.

a	b	c	d	a+b	c+d	a+c	b+d	N	a+bCa	c+dCc	Nca+c	p	P cut off <=p
2	3	4	11	5	15	6	14	20	10	1365	38760	0.352167	FALSE
3	2	3	12	5	15	6	14	20	10	455	38760	0.117389	FALSE
<b>4</b>	<b>1</b>	<b>2</b>	<b>13</b>	<b>5</b>	<b>15</b>	<b>6</b>	<b>14</b>	<b>20</b>	<b>5</b>	<b>105</b>	<b>38760</b>	<b>0.013545</b>	<b>TRUE</b>
5	0	1	14	5	15	6	14	20	1	15	38760	0.000387	TRUE

$p = 0.013931889$

$\alpha = 0.05$

Since the p value is less than  $\alpha$ , we reject H0. i.e. There exists significant association between the 2 variables namely Working experience and number of sites completed which implies that working experience of redevelopers leads to success of redevelopment projects. Hence it can be stated that the redevelopers with ample experience in the field of redevelopment are able to achieve success.

**Data**

The data is categorical data with sample size being 20 due to which Chi square test is not applied.

**Why Fisher’s Exact test? – Justification**

Fisher's exact test is a statistical test used to determine if there are nonrandom associations between two categorical variables. When the conditions for Pearson’s chi-square test are not met, especially when one of more of the cells have  $exp_i < 5$ , an alternative approach with  $2 \times 2$  contingency tables is to use Fisher’s exact test. Since this method is more computationally intense, it is best used for smaller samples.

In the case of the  $2 \times 2$  matrix, the P-value of the test can be simply computed by the sum of all P-values which are  $\leq P_{cutoff}$ . If the P value is greater than or equal to the  $\alpha$  value we accept H0. i.e. there does not have any statistically significant association between the variables under study.

**Why t test? – Justification**

This analysis tool performs a two-sample student's t-test. This t-test form assumes that the two data sets came from distributions with unequal variances. For the unequal variance t test, the null hypothesis is that the two-population means are the same but the two population variances may differ. If the P value is large, you don't reject that null hypothesis, so conclude that the evidence does not persuade you that the two-population means are different. The researcher has selected t test with unequal variances for analysis:

- 1) To test the mean of the variables
- 2) The variances of the variables under study are not equal
- 3) The sample size is small
- 4) Observations within and between the sample are independent

**H02: Majority of the redevelopers adopt self-initiative policy to ensure success.**

**H12: Majority of the redevelopers do not adopt self-initiative policy to achieve success.**

To test the above hypothesis the T-test is performed where H0 is the mean of the variable under study (i.e. policy followed) is equal to 0.5 against the alternative H1 as mean of the variable under study is not equal to 0.5. Note that here majority is taken as 50% of the redevelopers.

Redeveloper's No.	Policy followed - self initiative
1	0
2	0
3	1
4	0
5	0
6	0
7	1
8	0
9	1
10	0
11	0
12	0
13	0
14	0
15	0
16	1
17	0
18	1
19	0
20	0

t-Test: Two-Sample Assuming Unequal Variances		
-	<i>Policy followed - self</i>	<i>Hypothetical</i>



	<i>initiative</i>	
<u>Mean</u>	0.25	0.5
<u>Variance</u>	0.19737	0
<u>Observations</u>	20	20
<u>Hypothesized Mean Difference</u>	0	
<u>df</u>	19	
<u>t Stat</u>	-2.51661	
<u>P(T&lt;=t) one-tail</u>	0.0105	
<u>t Critical one-tail</u>	1.72913	
<u>P(T&lt;=t) two-tail</u>	0.02099	
<u>t Critical two-tail</u>	2.09302	

The above table shows that the absolute T stat value (7.55) is greater than the critical value (2.09). Also, the p value for the tables is less than 0.05 which proves that the H0 is rejected. Hence, we accept the alternative that Mean of the variables is not equal to 1 which means that majority of the redevelopers do not adopt the merely self-initiative policy to achieve the success.

**H03: Society initiative policy is adopted to ensure success by Redevelopers.**

**H13: Society initiative policy is not adopted to ensure success by Redevelopers.**

To test the above hypothesis the T-test is performed where H0 is the mean of the variable under study (i.e. policy followed) is equal to 0.5 against the alternative H1 as mean of the variable under study is not equal to 0.5. Note that here majority is taken as 50% of the redevelopers.

Redeveloper's No.	Policy followed – society initiative
1	1
2	0
3	0
4	0
5	0
6	1
7	0
8	0
9	0
10	0
11	0
12	0
13	0
14	1
15	1
16	0
17	1
18	0
19	0
20	0

t-Test: Two-Sample Assuming Unequal Variances

	<i>Policy followed - self</i>	
	<i>initiative</i>	<i>Hypothetical</i>
Mean	0.25	0.5
Variance	0.19737	0
Observations	20	20
Hypothesized Mean Difference	0	
df	19	
t Stat	-2.51661	
P(T<=t) one-tail	0.0105	
t Critical one-tail	1.72913	
P(T<=t) two-tail	0.02099	
t Critical two-tail	2.09302	

The above table shows that the absolute T stat value (7.55) is greater than the critical value (2.09). Also, the p value for the tables is less than 0.05 which proves that the H0 is rejected. Hence, we accept the alternative that Mean of the variables is not equal to 1 which means that majority of the redevelopers do not adopt merely the society initiative policy to achieve the success.

**H04: Majority of the redevelopers adopt both the policies (self or redeveloper and society initiative together) to achieve success**

**H14: Majority of the redevelopers do not adopt both the policies (self or redeveloper and society initiative together) to achieve success.**

To test the above hypothesis the T-test is performed where H0 is the mean of the variable under study (i.e. policy followed) is equal to 0.5 against the alternative H1 as mean of the variable under study is not equal to 0.5. Note that here majority is taken as 50% of the redevelopers.

<b>Redeveloper's No.</b>	<b>Policy followed - both</b>
1	0
2	1
3	0
4	1
5	1
6	0
7	0
8	1
9	0
10	1
11	1
12	1
13	1
14	0
15	0
16	0

<b>17</b>	0
<b>18</b>	0
<b>19</b>	1
<b>20</b>	1

t-Test: Two-Sample Assuming Unequal Variances

	<i>Policy followed -</i>	
	<i>both</i>	<i>Hypothetical</i>
Mean	0.5	0.5
Variance	0.26316	0
Observations	20	20
Hypothesized Mean Difference	0	
df	19	
t Stat	0	
p value = P(T<=t) one-tail	0.5	
t Critical one-tail	1.72913	
p value = P(T<=t) two-tail	1	
t Critical two-tail	2.09302	

The above table shows that the absolute T stat value (0) is less than the critical value (1). Also, the p value for the tables is greater than 0.05 which proves that the H0 is accepted. Hence, we accept the null hypothesis that mean of the variable is equal to 0.5 which means that Majority of the redevelopers do adopt both the policies (self and society initiative) to achieve the success.

<b>Policy followed</b>	<b>Redevelopment sites completed</b>		
	<b>&lt;7</b>	<b>&gt;=7</b>	<b>Total</b>
Self-initiative	2	3	5
Society Initiative	2	3	5
Both	2	8	10
<b>Total</b>	<b>6</b>	<b>14</b>	<b>20</b>

From the above frequency count table, it is observed that 10 redevelopers out of 20 have adopted both the policies for completion of the redevelopment projects. Out of these 10 redevelopers, 8 have completed more than 7 sites i.e. 80% of the redevelopers have completed more than 7 sites by adopting both the policies. Hence it can be stated that the redevelopers adopt both the policies to achieve success.

**Findings and Conclusions-**

- Experienced Redevelopers complete their projects successfully.
- ‘Separate Redevelopment Cell’, is essential to redeveloper to concentrate more on redevelopment schemes, to solve their issues in time bound period, enhances the goodwill in market and which in turn provides new opportunity for business.

- Majority of redevelopers are Civil Engineers which ensures construction quality, well-designed flat and good natural ventilation.
- In-house team of Lawyer, Architects and Project Co-Ordinator provides best, on-time services which has increased marketability of the firm.
- As compared to development process, redevelopment process is more critical and complex which requires unique skills.
- Redeveloper prefers redevelopment of old dwelling due to limited investment and it is easy to attract new customers due to prime location.
- Redevelopers always try to maintain good relations with their stakeholders. It is not important who takes initiative for process. They are interested in timely completion with assured quality.
- Economically viable projects are only accepted by redevelopers.
- Redevelopers attract owner-customers or residents by offering maximum carpet area and maximum amenities, by assuring good construction quality and timely completion with provision of alternative accommodation.
- Redevelopers follow maximum rules and regulations prescribed in MOU and agreement.
- Due to ever changing Government rules, 'Fulfilling legal requirements' has become main challenge before redevelopers.
- Due to limited profit margin expectation, redevelopers charge owner-customers concessional rate or market rate as per customer profile.
- Shortage of raw material, Scarcity of funds, Unavailability of workers are the main reasons for completion delay.
- Redevelopers try to measure satisfaction of owner-customers by fulfilling their expectations and by offering post-redevelopment services.

#### **Suggestions:**

- Redevelopers are suggested to maintain In-House Team of Lawyer, Architect and Project Co-Ordinator team to facilitate the work. It is suggested to share such expertise with other small redevelopers as they can't afford it.
- Redevelopers are suggested to form 'Separate Redevelopment Cell' which facilitates qualitative completion redevelopment work.
- It is suggested to appoint women counsellor to ensure effective convincing, to understand residents requirements, alternative accommodation and timely completion of the project.
- Local Authorities are suggested that rules regarding FSI, TDR, construction design requirement, width of internal roads of the society, etc. should be kept unchanged for approved projects and changes should be introduced every three or five years as policy.
- Redevelopers are advised to adjust and update themselves with new challenges like implementing RERA, GST, Government permissions (newly introduced rule of Aviation), changing FSI rules, new rules of Metro, BRT related projects and newly introduced 'Self-Redevelopment support by State Government'.
- To create trust worthiness, Redevelopers are suggested to inform Owner-Customers about their profile consisting of experience, financial sources etc.
- Redevelopers are suggested to maintain good rapport with stakeholders including all residents who help them to obtain new projects.
- All Redevelopers should ensure timely possession with assured quality. They should focus on eco-friendly constructions. 'Green Home' is the new concept.

Use of it in redevelopment process will give benefit to all residents, to the society, to the environment. 'Smart City' development and 'Make-in India' will help to create goodwill in the market.

**References:**

- Mc Clelland D.C. & Winter D.G., 'Motivating Economic Achievement', The Free Press, New York, 1969.
- Ram K. Vepa, "Entrepreneurship for Development of Backward Areas," National Productivity Council, New Delhi, 1973
- Indian Consumer Complaint Forum
- <https://vimadalal.in/redevelopment-of-housing-societies>
- <https://en.wikipedia.org/wiki>
- [https:// Shodhganga.inflib](https://Shodhganga.inflib)
- <https://m.timesofindia.com/city/pune>
- 'Housing in Private, Public and Co-op. Sectors' - by Dr. V.V. Ghanekar
- Research Methodology and Project Work- by Dr. P.M. Herekar
- Report of the STEERING COMMITTEE ON URBAN DEVELOPMENT- GOVERNMENT OF INDIA Planning Commission, New Delhi.
- Web sites like Google.com, Yahoo.com., Developers' web sites.
- Articles of Leading Redevelopers in Pune City.
- PMI's A Guide to the Project Management Body of Knowledge (PMBOK® Guide)
- <https://www.hindustantimes.com/pune-news>