

Project Management in Real Estate Development

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Abstract- *Managing a real estate project is a complicated process. In India, the real estate sector has grown at a rapid rate over the last decade. Many factors, both primary and secondary, have a place to play an important role in the success of a project. This study will look at a variety of real estate management research papers and analyse the methods used by reputable authors. The results are presented using the relative importance index method to comprehend the major determinants of project success.*

Keywords- Real Estate, Project Management, Real Estate Development, Managing a real estate project.

I. INTRODUCTION

A project is a discrete package of investment or endeavor aimed at achieving a specific goal or set of goals. A project is simply defined as a series of events or a process that entails the gathering of various resources in order to achieve a specific goal. Management literally translates to "getting things done through and with people," and it refers to the planning and coordination of efforts toward a common goal. The traditional project manager or owner responsibilities include managing, planning, making decisions, organizing, staffing, leading, motivating, and controlling. The project can be found in every field of human endeavor, including Event Planning and Control.

Project management is the careful selection, coordination, programming, budgeting, and monitoring of the activities of professionals and non-professionals. A project is considered successful if it is completed on time and on budget within a predetermined scope. Most projects fail, collapse, or are abandoned because of the inherent flaws in building development, the entire construction industry, and the production sectors of the economy. The project manager's concept on staff appointments and control, as well as strict monitoring of time, cost, material, quality, and environmental constraints, are critical to the success of any project.

1.1 Aim

The goal of this study is to investigate and comprehend the project management process in real estate

development. In addition, the study aims to identify various risks associated with the overall development process.

1.2 Objective

The research's objectives can be broken down into the following categories:

- To understand the process of residential real estate development from the developers perspective by dividing the various activities into the phases.
- The objectives of this study is to various factors which are influencing the real estate development process.
- The objective of this study is to gain insight of the risk characteristics of real estate development.
- To identify the various risks involving the overall development process

II. OVERVIEW ON LITERATURE REVIEW

A study shows how a developer goes through the process of residential real estate development. The author concludes that there are no hard and fast rules in the business. Critical success factors in construction projects have different priorities and weights. It is suggested construction companies try to implement these success factors to increase the performance of project.

Ben Bulloch (2010) studied the applicability of design structure matrix methodology to the real estate development process. Developers will need to continue to be innovative in finding ways in which to make money in a world where new construction barely exists. Transferring development skills and knowledge such as project management, working with public officials, green building and energy efficiency, and creative problem solving into less traditional areas will enable developers to do business.

Risk Management in the Dutch real estate Development sector. Chinedu Chidinma Nwachukwu (2010) emphasizes on building construction project management success. Russell D. Archibald (2012) suggested The Six-Phase Comprehensive Project Life Cycle Model. Property development is inherently risky, with a number of risks

evident throughout the property development process. Graeme Newell conducted a survey of leading property

III. METHODOLOGY

The proposed research is primarily concerned with gaining a better understanding of the residential real estate development process as well as the factors that influence it. To conduct the research, the literature on the process of residential real estate development and factors influencing the process is reviewed, and a questionnaire survey is conducted based on these factors, with the results represented using the relative importance index method.

PROCESS OF RESIDENTIAL REAL ESTATE DEVELOPMENT

It is not as simple as it appears to become a property developer, even if you are considering it as a sideline to a more passive property investment career. Even before the first clump of soil is turned on site, new construction necessitates extensive legwork and preparation. The visible construction period on site accounts for less than half of a project's total duration. Planning, approvals, documentation, and financing consume the majority of time. It is critical for the developer to maintain flexibility and the ability to problem solve and think on their feet at all times.

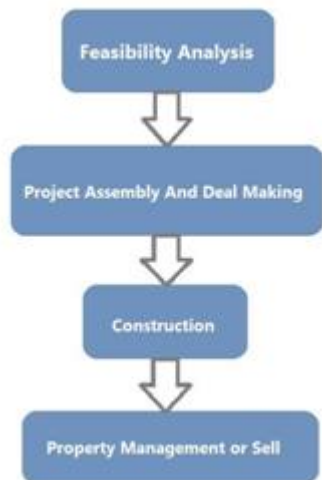


Figure 3.1: The flow of the process of real estate development Project

3.1 Feasibility Analysis

The feasibility of the project is assessed in the first phase, which is carried out by various entities within the organization, by stakeholders, and with the assistance of

consultants. The end result is either a positive affirmation of the project moving forward, a negative affirmation of the project being rejected, or a positive affirmation of the project being redesigned to meet approval. This section is all about evaluation, depicts the various activities involved in the process.

- **Market Study**
 - a) Market Assessment for Selling
 - b) Market Assessment for Renting
- **Financial Management**
 - a) Equity Financing
 - b) Debt Financing
- **Stake Holder Management**
 - a) Communication & Reporting
 - b) Making Support Through the Project

3.2 Project Assembly and Deal Making

This stage of the real estate development process entails a variety of activities such as site selection and acquisition, followed by the hiring of various project professionals, and finally the planning and design process for the entire project.



Figure 3.2: Flow of the activities in Project Assembly and Deal Making.

3.4 Construction

Construction is probably the most straightforward of all the development steps in terms of the various methods that can be used. The result will usually be forthcoming if the project has been properly planned and contract drawings drawn up. Construction can still cause numerous issues,

including delays, poor workmanship, and other issues. It is common practice to subcontract for the majority of the required construction unless a developer has a full construction company associated with him. Follow the further process:

1. Working with the contractor
2. Finance- Draw requests
3. Change order
4. Construction schedule
5. Marketing office

3.5 Property Management on Sale

Upon receiving notice from the developer that the property has been completed the Home Buyer or the Rental Project Owner should conduct a walk-through prior to closing, they should note in writing any concerns over workmanship and list all items that need further work. There should be the checklist for performing such inspections which is listed in an Annexure. The General Contractor should respond prior to the closing or turnover and make repairs. The Buyer or Rental Property Owner should go through the property again to determine if the work has been completed to their satisfaction. If not, a list of unfinished work should be brought to the closing or upon turnover and a cost to finish the work should be determined with funds held in an escrow account to insure completion and payment.

Following are some documents which are important in this phase of real estate development.

- Escrow Agreement
- Lien Waivers
- Deed of Declaration

IV. FACTORS INFLUENCING THE INFLUENCING THE PROCESS OF RESIDENTIAL REAL ESTATE DEVELOPMENT

Real estate projects that strike a balance between the four core principles of cost, time, quality, and safety are successful. Cost is still the most important factor for most developers, and it is frequently used as a yardstick by which success is measured, as it has a direct impact on the return on investment. Real estate developers must therefore keep costs under control while staying on schedule and maintaining quality and safety standards. While project risk and some decision-making factors can jeopardise the success of any real estate project at any point in its life cycle. Because the ability to mitigate these risks diminishes over time, establishing a project planning and monitoring process from

the start is critical. The risk that a real estate project will face over the course of its development life cycle will vary in nature, but it will always threaten to upset the balance between the four principles of cost, time, quality, and safety.

The pre-construction, construction, and post-construction stages of the real estate development lifecycle have been broadly identified. In each of these stages of real estate development, there are key risk and decision-making factors that influence the project's development and, ultimately, the developer's return on investment. The following are the factors that have been identified:

- Pre-Construction stage
- Construction stage
- Post-Construction stage

V. ANALYSIS RESULT AND DISCUSSION

5.1 Survey Construction

Following a review of the literature on property development, 17 factors that affect the property development process were identified across the Chronological stages of the process, namely:

- Pre-construction stage: 6 risk factors
- Construction stage: 6 risk factors
- Post-construction (completion) stage: 6 risk factors.

The questionnaire (see annexure A) is based on the identified factors that influence the real estate development process. The respondents were Amravati's well-known residential real estate developers. Under the questionnaire survey, the opinions of the total of 20 respondents were recorded. Respondents were asked to check the most important risks and rank the factors that are highly prioritised in the questionnaire survey. On a 4-point scale ranging from 1 to 4, respondents were asked to rate each property development factor. The following is the scale:

1 = Insignificant, 2 = Minor, 3 = Moderate, 4 = Major.

After the getting data in terms of all the rankings the multitude of each factor in calculated in terms if parentage and the relative importance of the all the factors is calculated by relative importance index method, the formula is given as,

$$\text{Relative Importance Index (RII)} = \frac{W_1 + W_2 + \dots + W_n}{A \times N}$$

Where ,

$W1 \dots n$ = Weightage of Rankings.
 A = Maximum Weightage of rankings.
 N = Total No. of Respondents.

5.2 Result

Results are shown by the table or graphically.

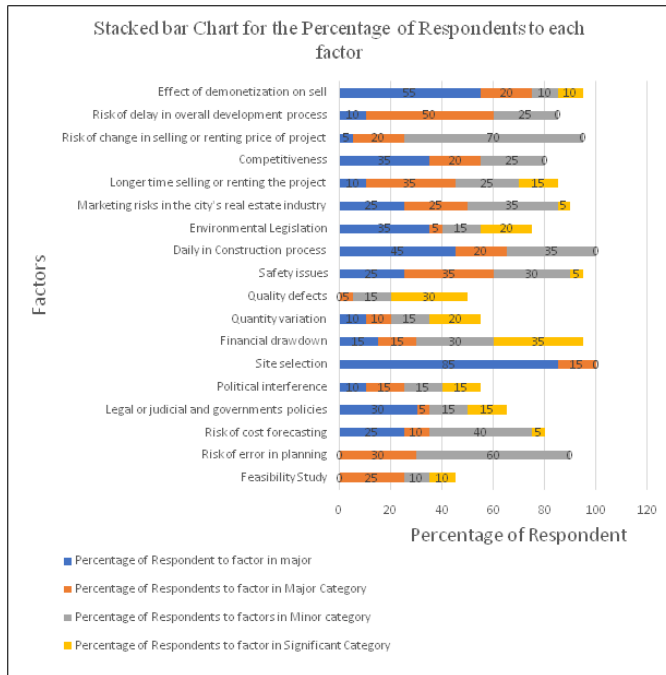


Figure 5.2.1: Stacked bar chart for the percentage of each factor.

A stacked bar chart representing the relative percentage of each factor influencing the real estate development process is created using the tables showing the percentage of respondents who responded to each factor. Figure 5.2.1 depicts a stacked bar chart depicting the relative percentage of respondents in each category of the rankings who responded to each factor. The relative important index for each factor influencing the development process is calculated using the relative important index formula, which is shown in table 5.2.2.

Sr. No.	Name of Factors	RII
1	Feasibility study	0.812
2	Risk of error in planning	0.525
3	Risk in cost forecasting	0.537
4	Legal or judicial and government's policies	0.45
5	Political interference	0.325
6	Site selection	0.962
7	Financial drawdown	0.5
8	Quantity variation	0.3
9	Quality defects	0.187
10	Safety Issues	0.675
11	Delay in construction process	0.775
12	Environmental legislation	0.512
13	Marketing risks in the city's real estate Industry	0.625
14	Longer time selling or renting the project	0.562
15	Competitiveness	0.625
16	Risk of change in selling or renting price of Project	0.55
17	Risk of delay in overall development process	0.6
18	Effect of demonetization on sell	0.775

5.3. Discussion

Site selection is the most important factor, followed by feasibility study and site selection. The study also discovered a safety risk due to hazardous working conditions or labour who are not insured by the contractors. Delays in the overall development process can be caused by a variety of factors, including construction delays, safety issues, and delays in the decision-making process. Financial drawdown can occur due to the slow release of funds from the developer's various sources of funding. Marketing risk is also significant in this set of factors. The development process is also influenced by various government rules and policies. Other factors such as quality defects and political interference have a much smaller impact on the development process. Developers in the Amravati region rarely face issues related to these factors. The post-construction phase is more influenced by the factors, which primarily consist of factors related to marketing risks.

VI. CONCLUSION RECOMMENDATION AND FUTURE SCOPE

The buying, planning, designing, construction, and selling of the final product are all part of the real estate development process. This overall development process is influenced by a number of factors. Cost, time, quality, and safety are all affected by these factors. These elements are extremely important to the majority of developers. As a result, the above research is being carried out to examine the overall development of the residential real estate industry as well as the factors that influence the development process. The above research aids in comprehending the actual process used by

developers to develop any project all the way through to product sale. The development process can be divided into four stages. Also identified during the development process are some risk and decision-making process factors that are influencing the project. The residential real estate developers in Amravati are surveyed using an offline questionnaire based on the factors. The relative important index method is used to simplify the survey results. The results are divided into two categories based on how they were observed.

- By factor wise relative importance index.
- By stage wise relative importance index.

According to the factor wise relative importance index, the feasibility study and site selection or location are the two most important factors influencing real estate developers' projects in the Amravati region. Furthermore, the most important factors cited by the majority of developers in relation to the risk they face are:

- Longer time to sell or rent their project.
- Safety related issues.
- Quality defects
- Changes in selling price
- Financial drawdown
- Delay in construction

And, based on the average importance index of each factor, it can be concluded that the post-construction stage, which primarily consists of property management, i.e. selling or renting, has the most risk factors. The first stage of property development, which includes factors that influence decision-making, is influenced less. Among all the stages, the construction stage has the least impact on the developer.

6.2. Recommendation

- It is suggested that decision-making factors such as feasibility and site selection be carefully considered.
- Checklists for analyzing these factors should be created and implemented.
- Laborers, contractors, and developers should adhere to safety measures, and strict regulations should be implemented in this section.
- Quality inspections should be conducted on a regular basis in all of the developers' construction projects.
- A separate study of marketing risks should be conducted, which includes factors such as changes in selling or renting prices, marketing risks, reasons for the risk of renting or selling projects for a longer period of time, and so on.

- To keep up with marketing trends, real estate developers should employ creative marketing strategies.

6.3. Future Scope

Further research should be carried out to examine risk analysis techniques and make recommendations to developers in the real estate industry. Future research is also needed to determine housing demand and supply, which will help mitigate post-construction or property management risks in real estate development projects.

VII. ACKNOWLEDGMENT

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REFERENCES

- [1] **Andrea Caputo, (2013)**. Vol. 5, pg.no.1 Systemic Stakeholders' Management for Real Estate Development Projects. *Global Business and Management Research: An International Journal Department of Studies on Business, Government and Philosophy University of Rome "Tor Vergata" School of Economics, Rome, Italy.*
- [2] **Ben Bulloch, (2012)** volume 8, 78- 87 issue 1 Information – The Key to the Real Estate Development Process. *Cornell Real Estate Review.*
- [3] **Ellen Gehner (2005)** Real Estate Development Strategies and Their Impact on The Risk Profile of a Project *ING Real Estate Development / Delft University of Technology, The Netherlands.*
- [4] **GRAEME NEWELL (2001)** Vol 12, No.1, Assessing the importance of property development risk factors. *University of Western Sydney Pacific Rim Property Research Journal.*
- [5] **Julie Serote (2010)**. volume. 4, pg. no. 3. Developers use creative strategies to Keep the lights on *Center for Real Estate Quarterly Journal* Portland State University.
- [6] **Russell D. Archibald, (2012)** The Six-Phase Comprehensive Project Life Cycle Model. PhD. (Hon) ESC-Lille (Fr), M.Sc. (U of Texas) & B.S. (U of Missouri) Mechanical Engineering.

ANNEXURE

SURVEY QUESTIONNAIRE

G. H. Rasoni University, Amravati.

Survey for dissertation report on

“Project management in real estate development”

Respondent Information

Name of Respondent: _____

Agency/Organization: _____

Address: _____

Mobile Number: _____

E-mail Address: _____

Date: _____

The aim of this research is to understanding the process of project management in real estate development. Also, the research aims to identify the various risks involving the overall development process.

Scale ranging from 1 to 4. The scale is as follows,

1 = Insignificant, 2 = Minor, 3 = Moderate, 4 = Major.

<u>PRE-CONSTRUCTION STAGE</u>				
Sr.no.	Questions	Yes	No	Rank
1	Do you think feasibility study should be done before starting the project? if yes then what is its degree of significance?			
2	Do you think there may be the risk of error in planning? if yes then what is its degree of significance?			
3	Do you think is there any risk in cost forecasting? if yes then what is its degree of significance?			
4	Do you think legal or judicial government’s policies affect the project?			
5	Do you think is there any political interference in development process? if yes then what is its degree of significance?			
6	Do you think site selection affect the project and what is its significance? if yes then what is its degree of significance?			
<u>CONSTRUCTION STAGE</u>				
7	Do you think is there any possibility of financial drawdown while construction process?			

8	Do you think is there any possibility of quantity variation? if yes then what is its degree of significance?			
9	Do you think is there possibility of quality defects? if yes then what is its degree of significance?			
10	Do you think there would be issue related to safety? if yes then what is its degree of significance?			
11	Do you think delay in construction process affect the overall development process? if yes then what is its degree of significance?			
12	Do you think there would be risk of environmental legislation? if yes then what is its degree of significance?			
<u>POST CONSTRUCTION STAGE</u>				
13	Do you think there are marketing risk in the city's real estate industry? if yes then what is its degree of significance?			
14	Do you think is there any risk of longer time selling or renting the project? if yes then what is its degree of significance?			
15	Do you think there is competitiveness in real estate industry in Amravati? if yes then what is its degree of significance?			
16	Do you think there is risk of change in selling or renting price of project? if yes then what is its degree of significance?			
17	Do you think there is risk of delay of overall development process? if yes then what is its degree of significance?			
18	Does the demonetization affect the sells? if yes then what is its degree of significance?			
<i>Thanks for your cooperation and assistance!!!</i>				
Signature of Respondent				