Factors Influencing the Buying Decision of the Consumers of

Low-Cost Houses in Mumbai Metropolitan Region

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In partial fulfilment of the requirements for the award of the degree of

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In

MANAGEMENT

By

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Acknowledgement

I humbly dedicate my work to my parents, whose unwavering belief in the power of education has been a driving force in my personal and professional growth. Despite initial doubts about pursuing a PhD due to my professional commitments, their relentless encouragement and motivation propelled me to embark on this journey. Their conviction that this endeavour would not only advance my career but also nourish my intellect has proven to be profoundly accurate as I've progressed through the process of writing my thesis.

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ABSTRACT

INTRODUCTION

The desire to own a house is a universal aspiration for many people around the world, including in India. Owning a house provides a sense of security, stability, and accomplishment, and is often viewed as a symbol of success and financial stability. Additionally, owning a house can provide a source of long-term financial security through the potential for property value appreciation.

In India, the desire to own a house is particularly strong due to a variety of factors. One key factor is the rapidly growing population, which has led to an increasing demand for housing. Another factor is the cultural importance placed on homeownership as a means of establishing social status and fulfilling traditional expectations.

Despite the widespread desire to own a house in India, many people face significant challenges in achieving this goal. High property prices, a lack of affordable housing options, and limited access to credit are some of the key obstacles that make it difficult for many Indians to buy a house.

Overall, the wish to own a house is a deeply ingrained aspiration in Indian society, and it reflects the importance that many people place on financial stability, social status, and long-term security.

However, despite such a strong fundamental need for housing in India, the lower income group and the middle-income group that form the substantial part of the population are deprived of suitable housing accommodation due to high property prices and lack of affordable housing supply. Due to the lack of proper understanding of the homebuyers' needs the developers have been launching projects that do not meet the needs of most of the buyers. Although the government has been trying to promote low-cost housing for the target population group through Pradhan

Mantri Awas Yojana (PMAY), its effectiveness and awareness has not been measured by any government agencies or through any study.

This research seeks to identify and analyze the factors affecting a buyer's house purchase decision, given that housing market results are based on a wide range of circumstances. Private developers and the government both have a role to play in ensuring that people can afford to buy homes and that projects run smoothly so that people may achieve their long-term housing and financial goals. This is analogous to the significance of learning what influences purchasers' perceptions of a home's suitability and whether they are happy with its current condition. The various factors affecting consumer buying behaviors for houses in MMR also needs to be studied and documented so that it provides substantial insight to the developers who intend to undertake construction of affordable houses and ensure that it remains economically viable for them. In this backdrop the importance of understanding the factors that influence the buying decision of the customers becomes a critical factor. The following objective has been studied in this study.

OBJECTIVES

1. To identify the factors that a buyer considers before buying a low-cost housing unit and its impact on his buying decision.

2. To find out the level of awareness amongst the buyers about the various government schemes and incentives for promoting low-cost housing.

3. To find out whether the government's affordable housing schemes and incentives have an impact on the buying decision of the buyers of a low-cost housing unit.

4. To study the usefulness of the various Government incentives provided to the private developers for undertaking low-cost housing projects in MMR.

5. To study various factors that the banker considers before giving home loan to the buyers of a low-cost housing unit working in unorganized sectors.

HYPOTHESIS

Hypothesis 1: There is no significant influence of Builders Reputation of low-cost housing project on the buyer's decision.

Hypothesis 2: There is no significant impact of Location on the buying decision of the buyers of the low-cost housing units.

Hypothesis 3: There is no significant impact of Amenities at the low-cost housing project on the buying decision.

Hypothesis 4: There is no relationship between Buyers with family and preference towards gated township over the standalone tower.

Hypothesis 5: There is no relationship between quality of construction and amenities provided in the low-cost housing projects.

Hypothesis 6: There is no relationship between Level of awareness about Pradhan Mantri Awas Yojana (PMAY)schemes to PMAY helpful in fulfilling buyers wish to own a house.

Hypothesis 7: There is no relationship between Buyers who find the PMAY useful for buying affordable housing and decision for buying low-cost housing projects.

Hypothesis 8: There is no relationship between People who are aware of Pradhan Mantri Awas Yojana (PMAY) and buyers inclined towards buying low-cost housing projects.

Hypothesis 9: There is no relationship between Government Incentives and the developer's intention to launch low-cost housing projects.

Hypothesis 10: There is no relationship between availability of low-cost funds for land acquisition and builder's intent to launch low-cost housing projects.

Hypothesis 11: There is no relationship between Government's effort towards making land available within the city limits of MMR will encourage the developers to launch low-cost housing projects.

Hypothesis 12: There is no relationship between single clearance window for providing all the regulatory approvals required will encourage the private developers to launch low housing projects.

Hypothesis 13: There is no relationship between the profitability of the home loan towards low-cost housing and banks decision to sanction home loan to the buyers of low-cost housing unit.

Hypothesis 14: There is no relationship between a borrowers' education level and Lack of fixed income source of borrower in the banker's decision to lend**.**

Hypothesis 15: No relationship exists between 'Income profile of the borrower" and "The CIBIL Score of the borrower "in the bank's decision to lend a borrower working in unorganized sector.

RESEARCH METHODOLOGY

A quantitative methodology was employed in this study to collect reliable data from a larger sample size in order to draw valid conclusions. Since a quantitative research strategy provides a numeric basis for the correct analysis of facts, it is ideally suited to the current study, which aims to identify the factors impacting customer buying behavior for low-cost houses in the Mumbai metropolitan area (Allwood, 2012). Due to the inferential nature of quantitative research, we were able to learn about the characteristics of the sample population and hence assess how well they were informed about government programs designed to increase access to affordable housing. The impact of housing market conditions in the Mumbai area is the subject of this investigation. Homebuyers' decisions about the purchase of a low-cost house are analyzed in this study. The study's data was gleaned from a mix of an online and in-person survey designed to probe the perspectives of homebuyers, builders, and lenders on the variables that influence their decisions to buy and their familiarity with the PMAY programme. A total of 350 buyers' participants, both male and female, were included in this study's sample size. Participants were homeowners and slum residents in the Mumbai Metropolitan Area, ranging in age from 21 to 60. For the sake of facilitating focused group discussions, the sample also included developers, planning authorities,

and financial institutions. There were 350 buyers, 25 developers, and 10 bankers who filled out the survey. Questionnaires were modified based on the suggestions by using Likert scaling. For data analysis mean, median, mode, standard deviation, correlation, regression, ANOVA, and factor analysis have been used.

DATA ANALYSIS AND INTERPRETATION

Research was done to determine the importance of each component in the decision-making process of potential buyers of low-priced homes. Homebuyers' decisions are affected by a variety of variables, including age, income, marital status, education level, employment status, race/ethnicity, sexual orientation, disability, and more. Insights from this study have provided the groundwork for housing market advancements. First, frequency distribution analysis was performed. Upon satisfactory results, the factor analysis of the collected data was conducted, followed by a reliability test and descriptive analysis. Consumer demographic profiles are vital to understand, particularly their economic and social circumstances, in order to evaluate their buying behaviors in low-cost housing projects. The consumption pattern for the low-cost housing project will be influenced by the consumer's cultural and societal values and obligations. Marketers employ demographic profiles to examine and analyze the market, allowing them to focus on the segments that require attention.

In this analysis we have taken sample size as 350 to collect the data according to our questionnaire with the aim of the buyers' decision towards low-cost housing projects to test hypothesis correlation analysis, t-test, ANOVA multinomial logistic regression, RII rank test was conducted. For all the tests SPSS 25.0 software is used, based on the test the relationships between the independent variables and dependent variables were estimated and hypothesis were tested. The analysis has divided in three sections that is Buyers(A), Builders(B) and Bankers(C).

By performing the factor test analysis and identifying several factors that have been separated into three components, the first objective has been accomplished.

Component 1- Builders Reputation, Structural Design, and approvals
Component 2- Amenities
Component 3- Location & Neighbourhood

By analyzing the builders' and buyers' knowledge using the Spearman's rho test for correlation and the analysis of variance (ANOVA), objectives 2 and 3 have been met. Various factors have been ranked based on the relative importance index which helps private developers for undertaking low-cost housing projects in MMR. The fifth objective has been achieved by showing the importance of various factors that the banker considers before giving home loan to the buyers of a low-cost housing unit working in unorganized sectors.

FINDINGS AND CONCLUSION

1. In order to make affordable housing projects a success, builders need to have a firm grasp on what is most important to potential purchasers. This research confirmed previous findings that housing costs are significantly impacted by factors related to geographical features such proximity to stores, public transportation, entertainment options, educational institutions, and places of employment. Buyers care about the builder's reputation, facilities, neighbourhoods' safety, and prosperity just as much as they do about the condition of the homes themselves while purchasing houses.

2. 72% of the respondents are looking to buy low cost in MMR region as per table 4.10. They want to purchase within 1-2 years of time. The respondents don't want to buy a very costly house. The house should be between 20 to 40 lakhs as 36% of the buyers expect a house in that range then they like to prefer between 40 to 60 lakhs of range from the table 4.12.

3. The categories of home-buying considerations outlined in this research could serve as the backbone of the home-buying process. As such, it is critical that those working in the housing industry fully grasp the weight that various elements have in influencing a consumer's final decision to acquire a home. They should prioritize and finance improvements to these areas of the home-buying process in order to attract more customers and stand out from the competition.

4. There is a significant moderate correlation between Buyers who find the PMAY useful for buying affordable housing and decision for buying low-cost housing projects. By analysing the builders' and buyers' knowledge using the Spearman's rho test for correlation and the analysis of variance (ANOVA) this conclusion was made. The government of India launched the Pradhan Mantri Awas Yojana (PMAY) programme to address the rising gap between housing demand and availability in metropolitan areas.

5. There is a significant strong correlation between Level of awareness about Pradhan Mantri Awas Yojana (PMAY)schemes to PMAY helpful in fulfilling buyers wish to own a house.

   Millions of first-time homebuyers in Mumbai city and the countryside can find relief from their housing problems if they have a thorough understanding of the scheme. In light of the nearing expiry date for MIG I and II categories, "knowledge is a serious issue, especially in urban areas" (found mostly in the urban areas).

6. 76% of the developers believe that easy funding for land purchase will encourage the developers to take up low-cost housing projects in MMR. Availability of low-cost land from the government for low-cost housing projects will encourage the developers to take up low-cost housing projects in MMR

7. Lack of document and credit history is the major challenges the bankers face while sanctioning the loan to the buyers. Table 4.88 shows how the researchers hope to deduce the borrower's income and credit worthiness from the borrower's CIBIL score.

8. The lack of affordable housing options and funding is a major factor in India's failure to meet the demand for housing. With the goal of helping the urban poor acquire or construct a home, the government established the Credit Linked Subsidy Scheme (CLSS) as part of the Pradhan Mantri Awas Yojana to subsidize housing loans.

9. There is a strong significant positive correlation between the profitability of the home loan and decision to sanction home loan to the buyers of low-cost housing units. Using the data in table 4.87, the researchers attempt to deduce how a borrower's degree of education and the availability of other income sources affect the lender's final choice to extend credit.

10. Especially for the low-income population, there is a severe lack of housing, leading to the proliferation of slums. According to PMAY's most recent projections, 11.2 million homes are needed in metropolitan areas to alleviate the housing crisis. The demand-supply imbalance also contributes to the upward pressure on prices. The poor and the low-income find themselves trapped in a downward spiral that forces them to resort to illicit means of subsistence.

11. In order to make their affordable housing projects a success, builders need to have a firm grasp on what is most important to potential purchasers. This research confirmed previous findings that housing costs are significantly impacted by factors related to geographical features such proximity to stores, public transportation, entertainment options, educational institutions, and places of employment.

12. Buyers care about the neighbourhood's safety and prosperity just as much as they do about the condition of the homes themselves. Prospective homeowners are partial to communities with 24-hour security and gated entry. Plus, it is determined that one's financial situation is a major element to think about while buying a home. When looking for an affordable house, most buyers are more concerned with the purchase price, interest rate, monthly payment, and term of the loan.

13. In order to ensure that projects are completed on schedule, state governments must ensure that funding is made available on time. In order to pay their portion of the beneficiary share, beneficiaries need help securing legal funding. Families without land ownership are among the worthiest groups to receive government assistance, so they must be included in the plan. Some parts of housing should be improved, and one way to do so would be to increase convergence with other central and state programmes.

14. The government's focus should shift from "land locked under slums" as a "monetizable" asset to "land availability to provide housing," or else the real beneficiaries will be builders who buy land at concessional prices under the scheme and use a large portion of it to build houses for middle- and high-income groups and make enormous profits under the guise of these schemes.

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CHAPTER 1: INTRODUCTION

CHAPTER 1: INTROUCTION

1.1 Overview

The most basic and the most important need of humankind has been very well captured in the title of an iconic Bollywood movie- "Roti, Kapda aur Maakan". For centuries this need has remained the prime focus, and most of the efforts of mankind have evolved around these three pillars. In India, the importance of securing a roof over our head occupies a central position, and a host of economic efforts revolve around it. India is a housing deficit country, and the rapid urbanization of the country post the liberalization of the Indian economy that started in the year 1991 has further created a skewed development of residential real estate. The early phase of the economic development and job creation was restricted primarily to the tier I cities of the country, leading to a mass migrating of people from tier II and tier III cities to the tier I cities either for higher education or a better carrier. As a result of this massive migration, the urban population of India has gone up from 25.78% in 1991 to 34.47% in the year 2019 (https://www.macrotrends.net/countries/IND/india/urban-population)

This increase in the urban population that was primarily concentrated in the metro cities of India has created a huge pressure on the infrastructure of these cities leading to an asymmetrical growth of residential real estate in these metro cities, causing the problem of urban housing shortage and urban slums. The migration of people from villages to cities in search of livelihood led to this rise in the urban population. As per estimates, urbanization in India is likely to reach 40% by 2030(Source: Report of the technical group on population projections, Census of India). People prefer to stay near to their work location as they do not want to spend time travelling. Though the peripheries of the metro cities like Mumbai have seen significant number of housing projects coming up, the response from the buyer have been not very encouraging because of lack of infrastructure and connectivity makes it very difficult for an individual to commute to work.

Hence, despite Government led housing projects that have sprung up in the outskirts of Mumbai, the problem of urban slums in the region of Mumbai Metropolitan Region (MMR) only increased in the last decade. The problem of uneven growth due to migration from tier II and tier III cities towards the metro cities is evident from the fact that there is currently housing shortage in urban areas is around 10 million units and most of the housing shortage lies in the Economically Weaker Section (EWS) and Lower Income Group Segment (LIG), totally accounting for around 96%. Slums constitute 17% of urban households in India, while in Mumbai itself, they make up 42% of the households (source: Ministry of Housing and Urban Affairs). This shortage of housing can only be met through the development of large affordable housing complexes. As per RICS, India needs an additional 25 million affordable houses by 2030.

1.2 Structure of the Indian Residential Real Estate Industry

The land in India is the matter of states, and hence the rules and regulation governing the land differs from state to state. As a result, the real estate in India is a highly localized business wherein the local rules, state of the local economy, local customer preferences, and other business dynamics of the state or a particular city has a great influence on the residential real estate of that area. Because of these highly localized factors the residential real business has been very fragmented in nature. The organized players account for just 10% of the overall market whereas the remaining 90% of the market is owned by small and unorganized developers. Considering the importance of residential real estate industry, it is very surprising that listed real estate developers hardly account for 5% of the Indian residential market. The overall share distribution of the Indian residential real estate is depicted in figure 1.

Figure 1: Overall share distribution of the Indian residential real estate
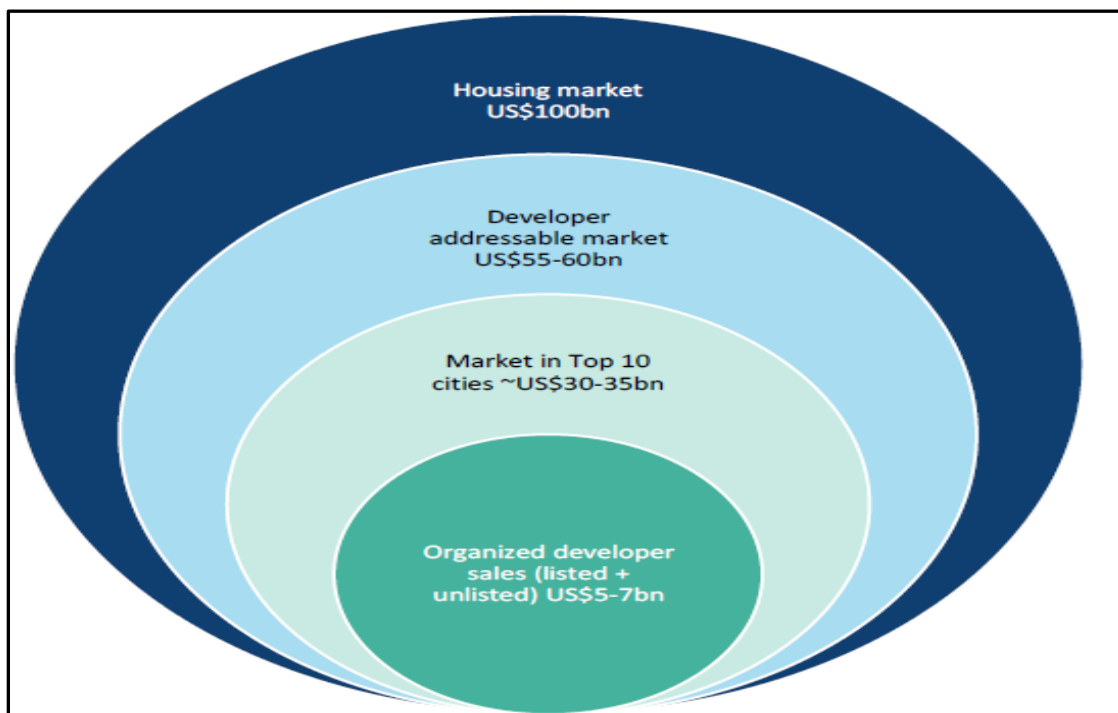
Source: Anarock Research Paper (2018)

The overall value of real estate under construction that includes residential and commercial real estate, has witnessed a significant increase from USD 94 billion in the year 2009 to USD 243 billion at the end of first half of 2020, recording a massive increase of 158%. It is interesting to note that until 2009 the share of commercial real estate was 51% of the value of real estate under construction while the value of residential real estate was 49%. However, the mix of share of the value of real estate under construction as of first half of 2020 completely reversed. Now residential share accounts for 88% of the value of real estate under construction while the share of commercial real estate has come down to 12%.

Table 1: Value of Real Estate Under Construction

	As of 2009		As of H1 2020	
Residential	USD 45 Bn	49%	USD 214 Bn	88%
Commercial	USD 49 Bn	51%	USD 29 Bn	12%
Total	**USD 94 Bn**	**100%**	**USD 243 Bn**	**100%**

Source: Anarock Research Residential Roundup (2020)

The reason behind this shift is because before the global financial crisis of 2008, most of the developers focused on building commercial offices as the demand for grade A offices were very high due to increase in outsourcing work from the developed countries. However, post the global financial crisis where the commercial sector took the most severe impact, the residential sector was quick to bounce back.

1.3 Journey of Residential Real Estate Industry in India

The early phase of Indian real estate was highly fragmented and driven by unorganized local developers. As a result, this phase was plagued with the issue of malpractices and non-ethical behaviors of the developers. Since there was no regulator to govern this sector, the buyers were left at the mercy of these developers, and the market was highly seller driven. Until 2008, most of the developers involved in real estate developments were local landlords with good political connections. The real estate sector at this stage was also notorious for the use of black money and saw a lot of participation from dubious buyers and speculators. In the absence of any regulatory body, the problem of uncompleted projects, delay in handover, developers disappearing overnight were common problems of this sector, thus leaving the genuine homebuyers in lurch. As the issue related with project delays and homebuyers being cheated kept on increasing exponentially, the government finally felt the need of regulating the real estate sector and bring some accountability on the developers. Finally, The Real Estate (Regulation and Development) Act, 2016 was passed in the parliament on India. The act established a Real Estate Regulatory Authority (RERA) in each state for regulating the real estate sector and acts as an adjudicating body for speedy dispute resolution of the homebuyers. RERA finally came in force on 1st of May 2016, bringing the much-needed relief to the buyers.

Figure 2: The Journey of Real Estate in India- 2008-2020 & beyond

Until 2008	2008-15	2016-20	Beyond 2020
• Unregulated	• Unregulated	• Regulated	• Regulated
• Highly localized	• Fragmented	• Consolidation in progress	• Consolidated
• Market primarily driven by landlords	• Highly inefficient	• Mildly efficient	• Efficient
	• Entry of corporate houses	• Scale-capped	• New breed of developers

Disrupted by a series of events such as:

• DeMo
• GST
• RERA
• Liquidity crisis
• Bank scams/defaults
• COVID-19 outbreak

Eliminated weaker players

Led to a large-scale consolidation

Accelerated entry of new corporate houses
(Hero Group, Raymond, Dabur, Bharti, TVS & Kirloskar)

Source: Anarock Research Report on Journey of Indian Residential Sector (2019)

Post implementation of RERA and other reforms like implementation GST and Benami property act, the sector slowly started to move towards a much cleaner operating environment. Post implementation of RERA, the period from 2016-2020 has seen started to become efficient and has seen the entry of various corporates like Hero Group, Raymonds, Dabur, Bharti TVS etc. into the real estate industry. Due to the entry of large such corporate players and Government's corrective measure taken to bring the errant developers to the books has slowly seen the revival of confidence of the homebuyers in the sector. Also, the stringent operating environment post implementation of RERA has made it very difficult for unorganized developers who used to thrive in the pre-RERA environment to operate now. Since RERA imposes strict penalties and imprisonment in case of violation of any of the RERA norms, many of the tier II and III developers are now either exiting the market or tying up with the bigger developers to stay afloat in the market. This has led to a massive consolidation in the sector which will eventually be good for this sector in the long term.

Figure 3:Share of Listed & Leading Unlisted Developers Vs Tier II & III Developers
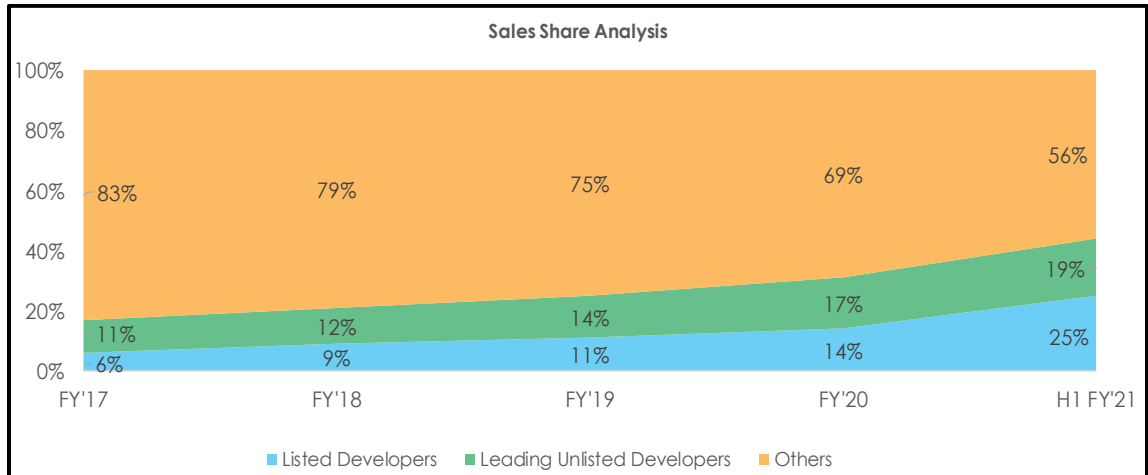
Source: Anarock Research Report on Consolidation (2021)

Post the structural changes, homebuyers' inclination towards organized and branded players has increased significantly. As per sales analysis, the share of listed and leading developers increased from 17% in FY17 to 44% as of H1 FY21. As per industry estimates, between 2012 to 2019, the number of developers reduced by 53% across India's top 14 cities.

The series of reforms in the sector led to a significant slowdown both in terms of new launches and sales. The situation was further accentuated by the outbreak of Covid-19 in the year 2020. The new launches declined by 67% in 2020 as compared to 2015. Similarly, the sales also plummeted by 55% in the year 2020 as compared to 2015. The massive fall in both the new launches and sales in 2020 signaled the bottoming of the residential real estate sector.

Figure 4:New Launch, Sales & Unsold Inventory- 20015-2020
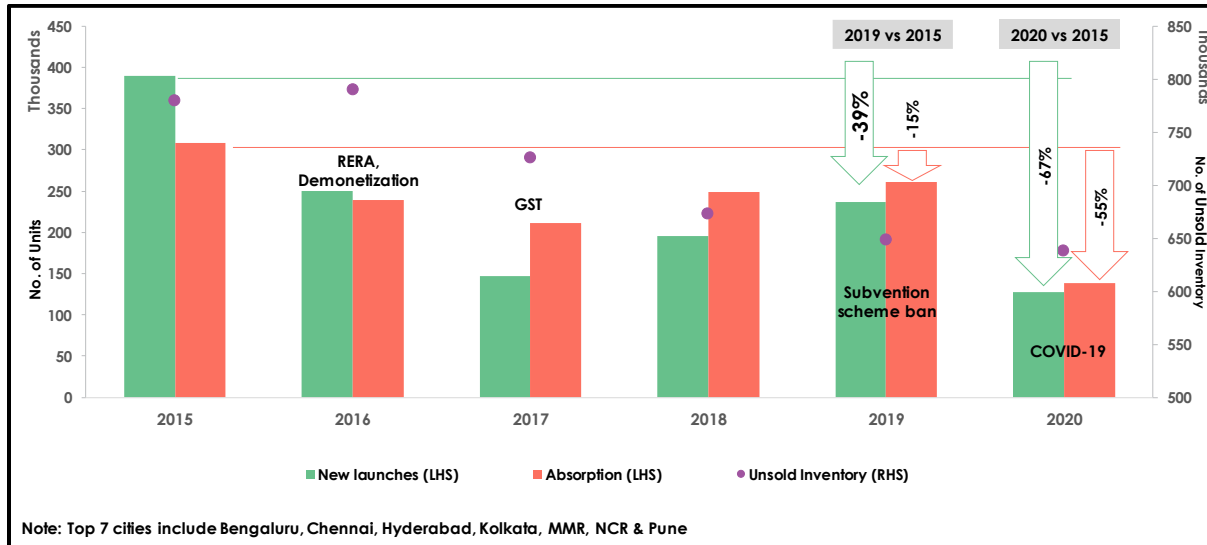
However, a notable trend during the period between 2015-2020 was that although the sales and new launch went down significantly, the drop in sales was lower than the drop in new launches. This helped the sector to marginally bring down the unsold inventory. It also highlights the fact that post RERA, the developers restricted the new launches and began to focus on completion of under construction projects.

1.5 Issues & Challenges Faced by Real Estate

The Indian real estate sector has a substantial influence on the overall economy of the country. As per IBEF India, it is the second-largest employment generator in India and employed approximately 5 Crores people by the end of 2018 and it is expected to go up to 6,7 crores by the end of 2022. The real estate sector also drives the demand for other 250 ancillary industries, thus having a multiplier effect on the GDP of the country. Despite being an important contributor towards the country's ambition of becoming USD 5 trillion economy by 2025, this sector still has not been given Industry status. Not having an industry status limits the ability of the real estate players to raise funds at competitive rates as well as deprives them of availing various government schemes that otherwise would be available to them.

Getting approvals for commencing the construction work is also a big challenge for the real estate players. The developer must secure approximately 30 approvals from various authorities right from the start to end of the projects. Getting these many approvals from various Government agencies has been a very daunting and time-consuming task for the developers. Sometimes getting the required approvals for commencing the work takes more than a year, resulting in project delays and cost overrun for the developers. Their demand for providing a single window clearance for all types of approvals has not been met as of now.

Access to funds for purchasing land has been a problem area for the developers. Most of the banks do not lend for land acquisition and only provide construction finance to the developers. For land acquisition the developers must either rely on private financiers or private equity funds and both the mediums are costly for them.

Availability of long-term funding remains one of the key challenges for this sector, and due to their dependency on private mode of funding the cost of land acquisition goes up for the developer that eventually escalates the overall cost of the project.

Figure 5: Investment Interventions
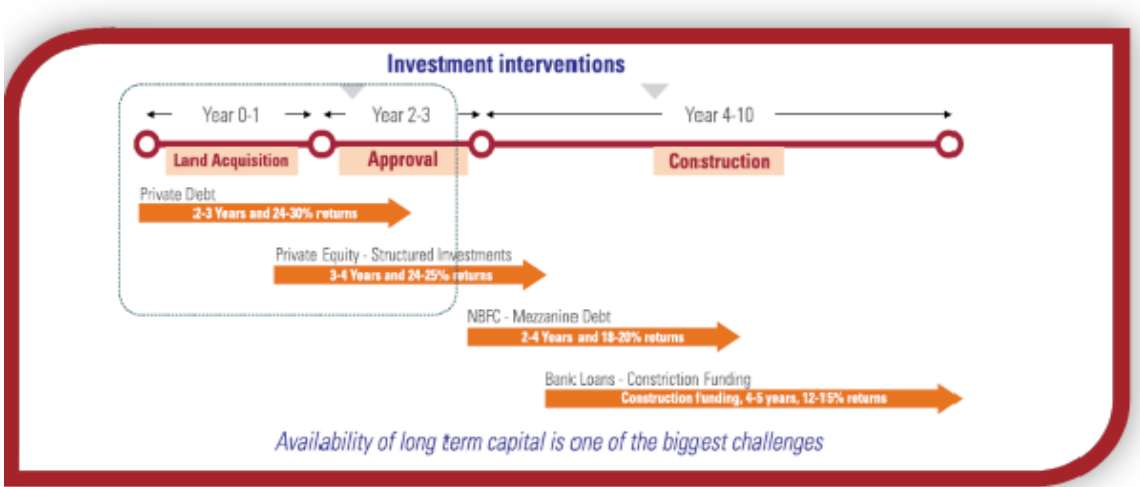
Source: Anarock Research Paper on RE Funding Scenario (2019)

The average cycle of a residential real estate project from land acquisition to handover is approximately 10 years. The process of land acquisition and approval takes 2-3 years and at this stage the developer must completely rely on private funding which costs him 24% to 30%. The developer gets access to funds from the banks in the form of construction finance only after commencement of construction at a rate of 12%-15%, which is much lower than the private source of funding for the developer.

1.6: Implementation of Real Estate Regulatory Authority (RERA)

Despite being such a large sector that has huge amount of money invested in it, the Indian real estate sector has been highly opaque and marred with unethical practices followed by the developers. False commitments to customers, construction delays, lack of clarity on the configuration of the property and poor construction quality are a few of the sore points of this industry. Due to lack of any regulators, the customers were left at the mercy of developers, and they hardly had any option to get their grievance addressed. There are examples where the buyers have booked the flats in 2010 and yet the construction has not started for these projects. As of 2020, approximately 5.76 lakh housing units worth Rs 4,64,300 crore are delayed in seven major cities of the country. In the absence of any regulator, the developers were rampantly launching projects just on paper and the money collected from the buyers were being diverted to either spent on accumulating land or were siphoned away to some other business verticals. Amidst these rampant malpractices, the ultimate looser was the common man who had put his hard-earned money at stake based on the false claims made by the developer.

To address the rampant malpractices in the residential real estate sector and protect the buyers' interest the Real Estate Regulatory Authority (RERA) was formed in 2016. RERA makes it mandatory for all commercial and residential real estate projects where the land is over 500 square meters, or eight apartments, to register RERA for launching a project. The main objective of this

act is to provide greater transparency in project-marketing, execution and provide a platform to the buyers for getting their grievances addressed in a time bound manner.

1.6.1 Real Estate Regulatory Authority

To bring transparency and protect buyer's rights in the Real Sector, the Central Government introduced The Real Estate (Regulation & Development) bill in Aug 2013. Later, it was passed in Lok Sabha and Rajya Sabha and came in force from 1 May 2016. The act proposes the establishment of Real Estate Regulatory Authority in each state. It specifies the responsibilities, functions & power of authority to supervise Real Estate transactions, appoint arbitrating officers for settlement of disputes and imposition of penalty.

RERA Rules

The broad objective of the act was to bring transparency in the real estate sector, fix accountability and provide time bound credible grievance resolutions to the home buyers. Buildings that are less than eight units or built on less than 500 square meters of plot are outside the purview of RERA. Projects that have received occupation certificate as on 1st May 2017 are not required to be registered under RERA. Apart from these two exceptions all the under construction residential projects will come under the purview of RERA. The broad rules are as follows:

➢ Developer cannot start to market a project before getting it registered with RERA- Developers needs to avail all the government approvals for the construction and submit the document to the respective state RERA authority. Post scrutiny of the documents by the RERA, the project will be registered and allotted a registration number. The developer needs to mention the allotted registration number in all the marketing documents of the projects.

➢ Builders as well as brokers who are dealing in the primary sales of the residential projects need to be registered with RERA- To bring in accountability and a level of filtration, RERA has mandated that the developers and property brokers have to get themselves registered authority

after providing the basic details like PAN card number, company names, details of their financial dealings.

➢ Builder has to disclose all the project related details- The builder has to mention all the project related details on the RERA website. The details include project plan, layout, all the approvals required to commence the construction, sanctioned floor space index (FSI), the number of buildings and wings, the number of floors in each building, etc.

➢ The builder needs to mention the price on carpet area- Earlier the builders used lot of different measures like built-up and super built-up, that use to confuse the buyers. Mentioning the price now only on carpet area will bring transparency in the pricing.

➢ Consent of 2/3rd of the buyers is required for any change in the sanctioned plan- This was quite common as a builder would sell a nine-floor building and then in the middle of the project, they would inform the buyers that now they will be building 15 floors as the permission has arrived. The buyers were left wondering that whether a 15 floors building can sustain on a 9-floor foundation. Now it is mandatory to have the consent of 2/3rd of the buyers of for making any such changes.

➢ Once a project has been registered the progress detail needs to be updated on RERA website on a quarterly basis- The builder must regularly update the construction progress details, as well as the number of units sold on the RERA website at the end of every quarter.

➢ Builders need to keep 70% of the funds in separate account opened in the name of the project- He cannot invest one projects money in another thereby causing a delay in the projects. If money is siphoned and builder is caught, he can be heavily penalized and jailed (max 3 years) too (the penalty clause is different for each state). So, expect more discipline in project completion on time.

➢ Provide five years guarantee for structural defects- In case any structural defect or deviation in provision of services or any other obligations of the builder as per the agreement for sale is brought to the notice of the builder within a period of five years by the buyer from the date of handing over possession, the builder shall be liable to rectify such defects without further charge, within thirty days.

➢ Builder will be held accountable for delay in handover of flats- If the builder delays the handover of the flat as per the agreement, he will have to compensate the buyer as per markets linked rates. It is fixed at 2% above SBI's lending rates (currently it is around 10%). The builder has to give the new date of project completion with the compensation.

➢ Strict penalty for builders who do not follow RERA guidelines- In case of non-compliance of the RERA guidelines by the builder, RERA recommends a fine of up to 10% of the estimated cost of the project or imprisonment up to three years, or both.

1.6.2 Grievance Redressal Mechanism under RERA

Prior to RERA, there was no time bound credible grievance redressal platform available to the buyers. Though they had the option of approaching a consumer forum, there was hardly any respite for them against the errant developers. In the absence of any dedicated regulator for the real estate sector, it was very difficult to penalize the builders for breach of contract and construction delays. However, the scenario has changed post RERA. Now the consumer can file the complaint with RERA against the builder, and it will get addressed in a time bound manner. The following exhibit describes the process of filing complaints and its resolution under the ambit of RERA.

RERA will handle all the complaints about the Promoter/Agents/projects under their jurisdiction. The process will be as mentioned in the diagram.

Figure 6: Grievance Redressal Mechanism under RERA

Source: https://maharera.mahaonline.gov.in/
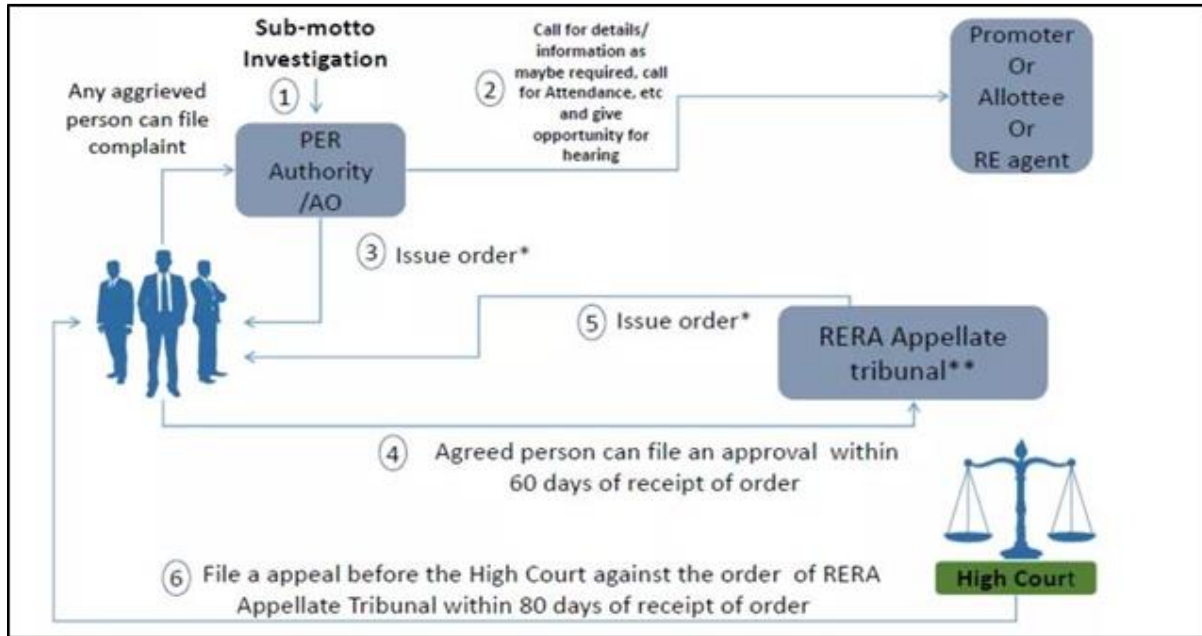
➢ The complainant can make a complaint by visiting the State RERA Office or file a complaint online on the RERA website.

➢ The RERA Office will conduct their investigation and call for documentary proof or records from all the parties involved. They will also hear the other side and give a fair chance to developers as well as buyers to prove their point.

➢ Post hearing all the stakeholders, RERA will issue an order of resolution.

➢ If the complaint is not satisfied, he can escalate the complaint to RERA Appellate Tribunal within 60 days.

➢ The Tribunal will hear the case and issue its order and resolve the issue.

➢ If the complainant is still not satisfied, he may appeal to the State High Court within 80 days.

Table 2: Progress Update on RERA Implementation Across India

Sl.	State/UT	General Rules	Establishment of Regulatory Authority	Establishment of Appellate Tribunal	Web Portal	Registrations Projects	Agents
1	Andaman & Nicobar Island	Notified	Permanent	Permanent	Setup	1	21
2	Andhra Pradesh	Notified	Permanent	Permanent	Setup	695	95
3	Arunachal Pradesh	Not Notified	Interim	Not Established	Not Setup		
4	Assam	Notified	Interim	Not Established	Not Setup	146	13
5	Bihar	Notified	Permanent	Permanent	Setup	874	275
6	Chandigarh	Notified	Permanent	Permanent	Setup	3	14
7	Chhattisgarh	Notified	Permanent	Interim	Setup	1109	463
8	Dadra & Nagar Haveli	Notified	Permanent	Permanent	Setup	84	2
9	Daman & Diu	Notified	Permanent	Permanent	Setup	23	0
10	NCT of Delhi	Notified	Permanent	Permanent	Setup	21	214
11	Goa	Notified	Permanent	Interim	Setup	524	186
12	Gujarat	Notified	Permanent	Interim	Setup	6758	1112
13	Haryana	Notified	Permanent	Permanent	Setup	761	1805
14	Himachal Pradesh	Notified	Permanent	Not Established	Setup	51	42
15	Jammu & Kashmir	Under Process					
16	Jharkhand	Notified	Permanent	Interim	Setup	178	4
17	Karnataka	Notified	Permanent	Permanent	Setup	3253	1795
18	Kerala	Notified	Permanent	Not Established	Setup	5	25
19	Ladakh	Under Process					
20	Lakshadweep	Notified	Permanent	Not Established	Not Setup		
21	Madhya Pradesh	Notified	Permanent	Permanent	Setup	2535	664
22	Maharashtra	Notified	Permanent	Permanent	Setup	24347	23109
23	Manipur	Notified	Interim	Interim	Not Setup		
24	Meghalaya	Not Notified	Not Established	Not Established	Not Setup		
25	Mizoram	Notified	Interim	Not Established	Setup		
26	Nagaland	Not Notified	Not Established	Not Established	Not Setup		
27	Odisha	Notified	Permanent	Permanent	Setup	350	54
28	Puducherry	Notified	Interim	Permanent	Not Setup	42	2
29	Punjab	Notified	Permanent	Permanent	Setup	840	1922
30	Rajasthan	Notified	Permanent	Permanent	Setup	1170	1293
31	Sikkim	Not Notified	Not Established	Not Established	Not Setup		
32	Tamil Nadu	Notified	Permanent	Permanent	Setup	1395	1111
33	Telangana	Notified	Interim	Interim	Setup	1638	1035
34	Tripura	Notified	Interim	Interim	Setup	6	
35	Uttar Pradesh	Notified	Permanent	Permanent	Setup	2785	3588
36	Uttarakhand	Notified	Permanent	Interim	Setup	269	292
37	West Bengal	Not Notified	Not Established	Not Established	Not Setup		
Total						49,863	39,136

Source: https://mohua.gov.in/cms/implementation-status.php

1.1. Factors Driving Growth of Residential Real Estate in India

India is primarily a housing deficit country and there is a huge shortage of housing units in the urban cities of the country. The huge influx of migratory populations to the urban centers of the country in search of livelihood has created an uneven growth of residential real estate development in the country, wherein few cities are overcrowded and face the issue of infrastructure breakdown and few cities are underdeveloped because of lack of economic growth. However, in the last decade we have seen a massive development across all the major cities in terms of infrastructure and economic progress. This has resulted in a robust growth in the real estate, and factors like growth in nuclear families, growing household income, increasing affordability, and rapid urbanization will further propel the growth of real estate in India.

I. **Growing Population base:** As per the census report of 2011, India's population stood at 1.21 billion and is projected to reach 1.52 billion by 2036. The country is already short of dwelling units for its residents, and with such a massive surge in population in the coming years the need for affordable housing is only expected to grow in the coming future.

Figure 7: Population (in billions)-Growth From 2011-36
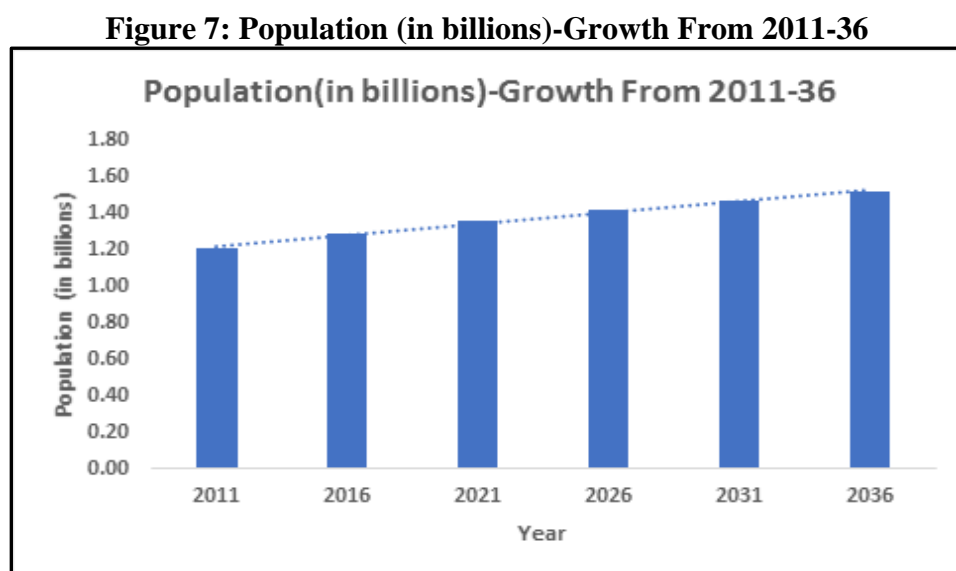
Source: Census Report 2011

II. **Rapid Urbanization**: Most of the projected population rise is expected to be concentrated in the urban areas of the country. As of 2011, the percentage of population living in the urban areas stood at 31% and is expected to grow to 39% by 2036. In pure number perspective, the number of people living in urban areas will increase from 377 million in 2011 to 594 million in 2036. Therefore, the need for housing units in the urban areas will increase in the coming future to accommodate the growing population in the urban areas.

Figure 8:Urbanization Rate

Source: https://thewire.in/government/india-population-growth-government-report-2036-projections-urban-migration
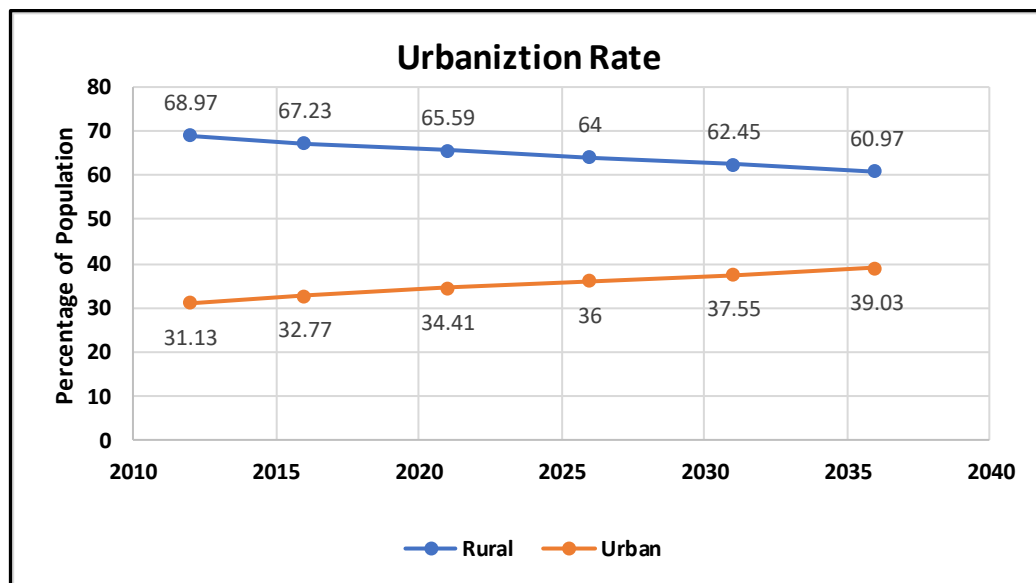
III. **Growth in household income:** Post the liberalization of the Indian economy the average household income has gradually gone up, making India as one of the most vibrant economies. As per the Ministry of Statistics and Programme Implementation, the per capita income of the country increased by 17% from FY 2010-2011and FY 2014-15. Increasing income and a growing economy coupled with a young population has always acted as a catalyst for an increase in the demand for housing. The same

phenomenon is expected to keep the residential housing market vibrant in the coming years as well.

Figure 9: Growth in household income
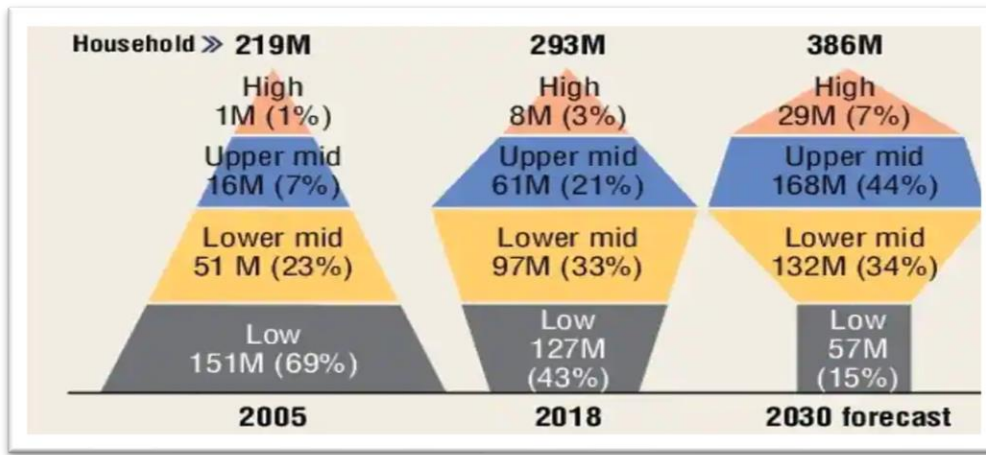
source: Ministry of Statistics and Programme Implementation

IV. **Increasing affordability:** The stagnant real estate prices for the last seven to eight years coupled with decadal low interest rates as well as improving per capita has improved the affordability ratio to be its best in FY21. The affordability ratio which is calculated by dividing home loan payment with the income is estimated to be at 27 in FY2021, back from 58 in FY2008.

Figure 10 :Affordability Ratio (Home loan payment/ income Ratio)
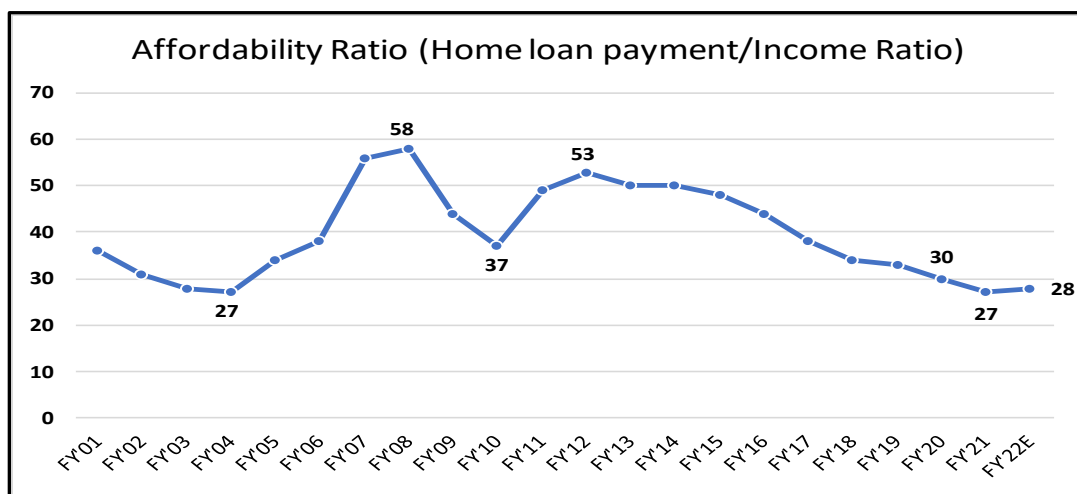
Source: (HDFC, RBI, 2021)

V. **<u>Housing Shortage in the Country:</u>** Considering the size and population of our country, one can easily say that India has a natural demand for housing. If we consider only the urban housing shortage, it currently has a housing shortage of around 10 million units and most of the housing shortage lies in the Economically Weaker Section (EWS) and Lower Income Group Segment (LIG), totally accounting for around 96%. Slums constitute 17% of urban households in India, while in Mumbai itself, they make up 42% of the households. This shortage of housing can only be met through the development of large affordable housing complexes. As per RICS, India needs an additional 25 million affordable houses by 2030.

1.2. <u>Housing for All Scheme- PMAY:</u>

The country's economic progress has primarily been concentrated in tier I cities of the country. This has led to an uneven migration from the smaller cities and towns towards the growth hubs, resulting in skewed growth and infrastructure overload in the tier I cities. Most of the tier I cities, especially Mumbai, face the problem of urban slums. The Government of India with an intention of providing affordable and descent dwelling for all its citizens launched the ambitious Pradhan Mantri Awas Yojana (PMAY) in the year 2015. The PMAY-Urban was launched in the year 2015 with a goal of providing 1 crore of dwelling units to the urban poor families by the end of 2022. This scheme was primarily aimed at urban poor families, however, in the year 2016 the rural areas of the country were also included in the scheme. This flagship project of Government of India falls under the jurisdiction of Ministry of Housing and Urban Affairs (MoHUA), and fundamentally rests on four modes of execution for achieving the mission of providing housing to all by the year 2022.

Figure 11:Execution Components of PMAY (U)

Source:(https://pmaymis.gov.in/)
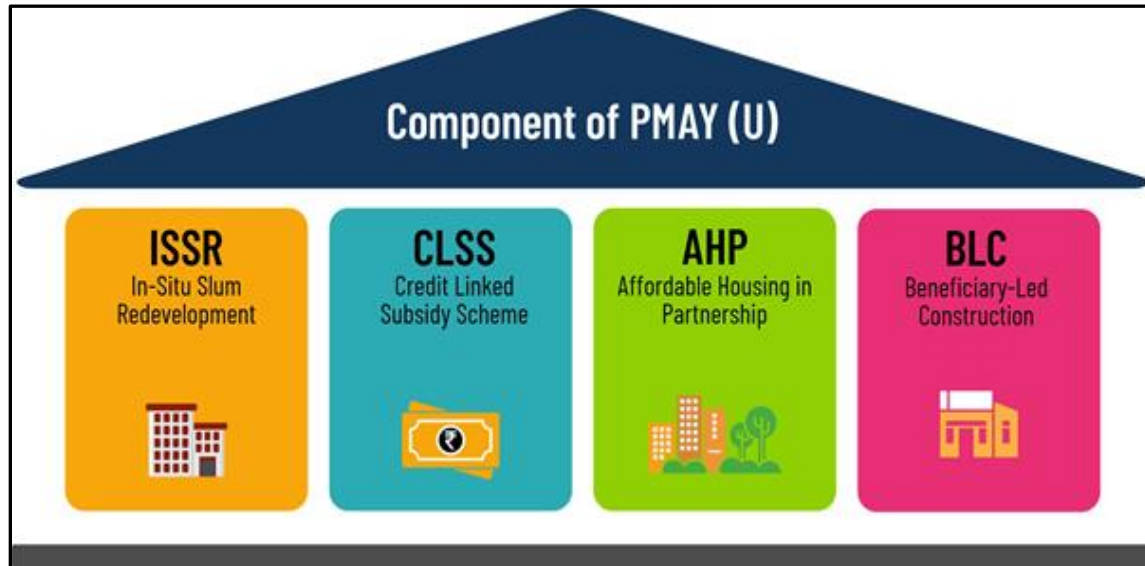
1. **<u>In-situ slum redevelopment (ISSR) with participation of private developers:</u>** Under this scheme, the government provides a concrete house to the slum dwellers. A private developer is involved in executing the project, and he gets compensated by the government through providing FSI/ TDR to him. This FSI or TDR can be utilized by the developer in any other project or micro-market. The Central government provides INR 1 Lakh per dwelling unit to the implementing authorities of the state or the union territories.

2. **<u>Affordable housing in partnership with public and private sector:</u>** The government has tried blend the private public partnership (PPP) model in this scheme for widening the participation from the private developers as well as for faster execution. Under this scheme the central government provides INR 1.5 Lakhs per economically weaker section (EWS) houses in the project to the developer. To avail this benefit, the builder must construct at least 250 units and 35% of units must be reserved for the EWS.

3. **<u>Affordable housing through credit-linked subsidy scheme (CLSS):</u>** This scheme is basically a demand side intervention by the government. Through CLSS, the government

encourages the buyers by providing interest subsidies to the weaker section of society. There is a provision providing an interest rate subsidy in the range of 3 to 6.5% for a maximum tenure of 20 years.

Table 3 : Eligibility Criterion for Availing CLSS Benefits

Particulars	EWS	LIG	MIG I	MIG II
Household Income (Rs.)	upto 3 Lakh	3-6 Lakh	6-12 lakh	12-18 Lakh
Carpet Area in sqm	30	60	160	200
Interest Subsidy (% p.a.)	6.5%		4.0%	3.0%
Maximum Loan Tenure	20 Years			
Eligible Loan Amount (Rs)	6,00,000/-		9,00,000/-	12,00,000/-
Discounted NPV Rate	9%			
Upfront amount (Rs) for Subsidy for a 20 Year Loan	2,67,280/-		2,35,068/-	2,30,156/-
Approx. monthly savings @ Loan Interest of 10%	2,500/-		2,250/-	2,200/-

Source: https://pmaymis.gov.in/

4. **Beneficiary-Led Construction Scheme:** The people living in the slums that are not undergoing the process of rehabilitation are encouraged to either construct their own homes or enhance their existing houses. The central government provides INR 1.5 Lakhs to each eligible EWS family as an assistance.

Figure 12: Progress of Pradhan Mantri Awas Yojana (Urban)

PMAY (U) Achievement (provisional)
[as on 22nd November, 2021]

Overall Sanctions for 1.14 crore Houses

Construction of Houses (Nos in lakh)

Demand	Sanctioned	Grounded	Completed/ Delivered
112.24	114.06	89.36	52.55

Financial Progress (₹ in Cr)

Committed	Released	Expenditure	UC Received
1,84,808	1,13,431	1,01,776	1,01,776

ISSR*
S- 4.58
G- 6.34
C- 4.55

AHP
S- 22.91
G- 12.76
C- 5.88

BLC
S- 69.22
G- 52.90
C- 24.77

CLSS
17.35

114.06 Lakh

Houses in verticals (Nos in Lakh)
S- Sanctioned   G- Grounded   C- Completed

State 1.41
Centre 1.85
Beneficiary...

7.52 Lakh Cr.

Investment Approved (Rs in Lakh Cr.)

MIG 6.15
EWS/LIG 11.20

17.35 lakh

Beneficiaries under CLSS (in lakh)

MIG ₹ 12.935
EWS/LIG 26,685

₹ 39,620 Cr

Interest Subsidy Released under CLSS (Rs in Cr.)

16 lakh houses are being constructed using New Technologies

Source: https://pmaymis.gov.in/

1. Research Motivation

Mumbai metropolitan region (MMR) being one of the most populous cities in India needs to address the problem of lack of low-cost affordable housing to address the problem of urban slums. Mumbai has become one of the most densely populated countries in the world due to rapid growth in the population of the city. While Greater Mumbai occupies approximately just around 10% of the total MMR land area, it accommodates more than 54% of the total population of MMR,

illustrating an imbalance of distribution. The gross population density of Greater Mumbai has doubled since 1971, increasing from 13,640 persons/sq.km. to 28,426 persons/sq.km. in 2011. As a matter of fact, a few wards in Greater Mumbai have the highest population density in the country.

Approximately 1.39 million families live in slums which is around 33% of total urban families in MMR. This highlights the massive requirement for low-cost affordable housing, specifically in the urban areas, without which people tend to opt for informal housing – leading to slums mushrooming in the city. In this backdrop, it is evident that the construction of low-cost affordable houses in MMR at a large scale needs to be undertaken. It is also clear that the success of low-cost housing depends on effective public private partnership (PPP), wherein the private developers are encouraged to take up affordable projects in the city as well as periphery.

The affordable housing segment is being considered as an important and effective means to address the problem of housing shortage in the Mumbai Metropolitan Region. The central government has also laid a strong emphasis on the effective implementation of the affordable housing project and made a significant budgetary allocation for it. Also, numerous policy measures have been announced to encourage private developers to expedite the mission of providing housing to all. In this backdrop, understanding the buyer's expectation from an affordable housing project and the factors influencing his buying decision becomes very important. A significant amount of public money is spent on the government led schemes to promote affordable housing, however, there has not been any concentrated effort or studies conducted to measure the effectiveness of such schemes. In this backdrop, the motivation to conduct research led study on this topic was primarily to explore the below mentioned points:

1. The expectation of the buyers of a housing project in MMR is not properly understood by the developers and the planning authorities.

2. While the Government has introduced numerous schemes and incentives to promote housing, the level of awareness amongst the target audience has not been measured as of now.

3. A huge number of houses remained unoccupied in the outskirts of MMR, while the city centers are facing the problem of urban slums.

4. Most of the target customers of the housing units work in the unorganized sectors, and financial institutions are reluctant to provide home loans to them.

5. There is a lack of participation from the private developers in the housing space.

2. Objective of the Research

Low-cost housing is being aggressively implemented by the government to fulfill the need of affordable housing. A significant amount of investment is slated to happen in the affordable segment in the coming years. However, still there is a lack of understanding and clarity on the issues like how the land will be made available, what needs to be done at planning level. Also, the developers need to know how to construct low-cost houses at a large scale in a short time as well as sell them at a faster speed to ensure that their margins are met. Most importantly, the expectation of a home buyer from a low-cost housing project in the MMR region is not properly understood.

There is a need for a better understanding of constraints in the construction and marketing of affordable housing projects in the range of 25 lakhs to 40 Lakhs. In this context this research has been undertaken keeping the below mentioned research objectives:

1. To identify the factors that a buyer considers before buying a low-cost housing unit and its impact on his buying decision.

2. To find out the level of awareness amongst the buyers about the various government schemes and incentives for promoting low-cost housing.

3. To find out whether the government's affordable housing schemes and incentives have an impact on the buying decision of the buyers of a low-cost housing unit.

4. To study the usefulness of the various Government incentives provided to the private developers for undertaking low-cost housing projects in MMR.

5. To study various factors that the banker considers before giving home loan to the buyers of a low-cost housing unit working in unorganized sectors.

3. Relevance of the Findings

Affordable housing has been the focal point of the current as well as the past government. It has gained momentum primarily after 2014, when the NDA government made housing for all by 2022 as one of their flagship programs. The developers have also altered their launch strategy to cater to this emerging segment. However, there has been a very limited study done around affordable housing keeping the requirement of the actual homebuyers in mind. This finding of this research intends to bring the consumer's perspective and their expectation from an affordable housing project that will not only help the developers to formulate their project launch strategy but also formulate a better marketing and sales strategy as well. The finding of this will also help the government to gauge the effectiveness of their flagship program in MMR. Whether the various incentives and programs run by the government to promote affordable housing schemes are yielding the desired result will also be probed in the research. The financial institution might benefit by this study as it will give them a better understating of the profile of the customers and their exact requirement related to the affordable housing units and help the financial institutions to these buyers in a much more effective manner.

4. Challenges & Limitations

The target buyers and the probable customers of the affordable housing segment primarily work in the unorganized sector. Also, the awareness level regarding the ongoing projects is also very limited. Explaining to them the exact context and purpose of the survey was a challenging task. Since MMR is a very wide region, selecting the sample size was a challenge as the objective of this research was to cover maximum zones of MMR to reflect the true picture. The developers were also not very open to share their data and opinion related to this affordable project launch strategy due to fear of competition from the fellow developers. Also, the developers were not very open to giving any views on the government policies as they did not want to upset any planning authorities where their projects might be pending for construction approvals.

CHAPTER 2: REVIEW OF LITERATURE

2.1 Introduction

Literature review constitutes the most critical part of the research value chain and is the core of researcher's journey towards finalizing the research topic and instilling confidence about the relevance of the topic selected. A systematic literature review ensures that the research topic selected is not a repetitive study and adds to the knowledge pool. The objective of the thesis should be to create a new knowledge stream for all the stakeholders rather than just replicating existing studies that have already been done. In fact, the maximum amount of time that a researcher should spend on should be in going through the maximum number of literatures, articles, and reports. For this study the literatures, articles, reports, and websites that have been reviewed broadly revolves around understanding the residential real estate structure in the country with a special focus on the housing shortage in the country especially in Mumbai Metropolitan Region (MMR). Concentrated efforts have been taken to undergo through the literatures and studies conducted around understanding the reasons for proliferation of urban slums, and the role of rapid urbanization in the deterioration of urban infrastructure. The existing studies on the efforts made to date to tackle the problem of urban slums and the various government schemes and policies have been studied to understand the gaps. Literatures pertinent to the implementation affordable housing schemes implemented in few other countries have been done to draw a better understanding on how other countries have solved or are still trying to solve the challenge of providing descent dwelling units to their population.

One cannot ignore the importance of understanding the consumer buying behaviors and decision-making approach while buying high-ticket items like housing units. Hence, the literature review also focuses on reports, articles, studies conducted around consumer buying behavior and decision-making models. A preliminary literature review shows that past studies are primarily focused on the government's definition of affordable housing and completely ignores the end-user's

perception of affordable housing. While there are ample studies done on the reasons for proliferation of urban slums, there is lack of research materials that can act as a guideline for the stakeholders to ensure that the affordable housing becomes a viable business opportunity and not just a government led social scheme. For developers this segment is also a new segment that requires a different approach towards project planning and execution. Also, an affordable project needs to be marketed in a different way as compared to mid and luxury projects. Currently, no such major study is done in that direction.

Assessing the buying pattern of customers towards the purchase of affordable houses is necessary. Here, the review has specified the factors that have the major potential to influence the buying trend of homes in the metropolitan region of Mumbai. Moreover, major emphasis has been on the government scheme and the ease of loans available for the economically weaker segment and poor segment of the Indian population. This has not only helped to understand the pattern but also helped to get a clear knowledge of the condition of the real estate industry of the nation. It would generalize the pattern of customers which triggers the buying trend with the consideration of important consumer buying models. The literature review also covered the reports and studies conducted by renowned International Property Consultants (IPCs) operating in India, as they are a very active industry participants and their studies provide the relevant updates on the progress made in the direction of progress made towards execution of affordable housing in India. Their perspective is also important as they interact with the developers, governments, municipal authorities, and customers on a regular basis either as consultants or business partners. Hence the articles and reports published by them bring in input from all the stakeholders for a better understanding of the real estate ecosystem of the country.

2.2 Understanding the housing shortage in India.

India is relatively younger nation in terms of demography as compared to the other countries of similar size. The country is still in a developing stage, and we as a country have charted out very ambitious growth targets for our future growth. Looking at the progress that we have made so far, it seems that we are well on track to achieve our growth milestones. However, the job creation and large-scale employment generation opportunities are still restricted to a handful of metro cities and few tier I cities. Still, most of the tier II and tier III cities are facing a dearth of employment opportunities, and hence much of the population has to head towards these big cities in search of better employment prospects as well as higher education. This skewed development and migration towards bigger cities creates a huge social and infrastructural pressure on the cities that majorly translates into the problem of lack of proper dwelling units. As per the census of 2011, the India's urban population will grow from 377 million in 2011 to 594 million in the year 2036, translating into a massive growth of 57% from 2011 levels (**Report of the technical group on population projections, Census of India,2011**). Thus, migration is clearly on of the most factors behind the massive housing shortage in most of the metro cities of India and this more evident in the MMR region.

Mumbai's problem of housing shortage emanates from the fact that this city, being the financial capital of the country, receives the maximum number of migratory populations. Also, the fact that India has one of the most restrictive floor space indexes (FSI) in the world limits the supply of new units. The FSI is the measure of the maximum permissible construction allowed on a piece of land. For example, a FSI of 2 means that on 1000 Square feet of a land parcel the maximum construction allowed would be 2000 square feet.

Figure 13 : Maximum free FSI permissible for Indian cities vs global cities

City	Maximum permissible free FSI
Singapore	25.00
Tokyo	20.00
Denver	17.00
New York	15.00
Los Angeles	13.00
Chicago	12.00
Hong Kong SAR	12.00
San Francisco	9.00
Shanghai	8.00
Vancouver	8.00
Sao Paulo	4.00
Bengaluru	**4.00**
Surat	**4.00**
Delhi	**3.50**
Patna	**3.50**
Paris	3.00
Kolkata	**3.00**
Bhubaneswar	**2.75**
Chennai	**2.50**
Kanpur	**2.50**
Lucknow	**2.50**
Venice	2.40
Ahmedabad	**2.00**
Indore	**2.00**
Bhopal	**2.00**
Ludhiana	**2.00**
Jabalpur	**2.00**
Kochi	**2.00**
Jaipur	**2.00**
Amsterdam	1.90
Guwahati	**1.75**
Vadodara	**1.60**
Nagpur	**1.50**
Coimbatore	**1.50**
Mumbai	**1.33**
Pune	**1.25**
Udaipur	**1.20**
Thane	**1.00**

Source: India Infrastructure Report, 2018, IDFC

The restrictive and a low FSI has an adverse impact on the overall housing supply. Because of the restriction on the amount on the construction on a given piece of land, the price of the housing unit goes up as restricts the supply. As per study of Alain Bertaud, Urban Planner and Scholar (2012), Mumbai's FSI of 1.33 is too less for a city that is land locked and attracts the maximum amount of migratory population in the country. The extremely low FSI has resulted in very limited housing supply in the city at reasonable prices, thus leading to proliferation of slums and shanties in the

city limits. The situation has been worsening continuously over a period, especially in the greater Mumbai area. Out of approximately 28.5 lakhs families in Greater Mumbai nearly 11.5 families are forced to live in slums (The State of Affordable Housing in Mumbai, 2014). Madhu Mehta Foundation & Ford Foundation observed that apart from 28.5 lakhs families living in the slums, approximately 15,500 families in Mumbai are homeless and are forced to spend their life on the pavement, railway stations, under flyovers, and pipes lying on the roadsides. This inhumane living conditions of such a fast number of households need to be addressed on a priority basis, if Mumbai must retain its tag of the financial capital of the country and fulfil its goal of becoming one the most prominent financial hub of the world.

Khan et al., (2012) commented that housing or shelter is one of the three fundamental necessities of human beings apart from proper nutrition and access to healthcare which is still unfulfilled. Besides being a measurement of social welfare, housing has a significant economic and socio-cultural importance. The need for housing must be fulfilled on a priority basis. However, the absence of adequate housing in developing nations of the globe has emerged to be a basic concern for the governmental authority for more than a century. The study highlights a high extent of housing shortage in states like Assam, Bihar, UP, Orissa, Gujarat, WB, Andhra Pradesh, Tamil Nadu, and Maharashtra. Also, there is reduced housing efficiency in states of north-western, south-western, and north-eastern India.

As per the statement of Shirgaokar & Rumbach (2018), providing the provision of housing for the poor people of urban regions has been a core issue for foreign-based development institutions and governments for over 50 years. When the concern of housing inadequacy is discussed, the key issue depends on the availability of affordable housing in most of the cities. In the situation of "economic liberalization" which tends to boost the privatization of the housing industry and the withdrawal of the state from programs of public housing, a huge count of urban poor depends on

informal housing as the viable choice within the market of urban housing. Besides, the study specifies that urban and housing development policies need to be improved for meeting the necessities of the urban poor (Shirgaokar & Rumbach, 2018).

The high prices of the housing units in Mumbai have resulted in an astronomically high price to income ratios as compared to the other cities of the world (India Infrastructure Report 2018: Making Housing Affordable). The price to income ratio tells us the number of years of income it would take a person to purchase a median-priced house in that city.

Figure 14 : Price to Income Ratio for Indian cities vs global cities

	City	Price-to-Income Ratio 2017			City	Price-to-Income Ratio 2017
1	Shenzhen	39.76		17	Sydney	11.95
2	Hong Kong	38.61		18	Chennai	11.92
3	Beijing	37.80		19	Cairo	11.21
4	Shanghai	36.91		20	New York	10.32
5	Mumbai	31.58		21	Mexico City	10.14
6	London	24.16		22	San Francisco	9.53
7	Singapore	22.18		23	Frankfurt	9.13
8	Moscow	20.47		24	Pune	8.47
9	Sao Paulo	19.40		25	Ahmedabad	8.13
10	Seoul	19.17		26	Bengaluru	7.96
11	Tokyo	17.49		27	Hyderabad	7.17
12	Paris	16.44		28	Cape Town	6.92
13	Delhi	15.07		29	Los Angeles	5.77
14	Kolkata	13.28		30	Dubai	5.40
15	Buenos Aires	13.14		31	Chicago	3.38
16	Istanbul	12.35				

Source: https://github.com/IDFCInstitute/housing

From the above given figure, it's clear that Mumbai has one of the highest price-to-income ratios in the world. Mumbai's price to income ratio of 31.58 means that if a person must buy a house in Mumbai, it would take approximately 32 years of income. This payout obviously will be spread over multiple years in the form of home loan payouts.

2.3 Measures taken to address the need for housing.

Housing is a fundamental necessity for the wellbeing of society and inclusive growth of the country. The government at each phase is trying to find means and ways for providing enough reach to proper housing for every Indian citizen. The necessity of affordable housing is specified in the statement by the AHI (Affordable Housing Institute) for ensuring economic success and national competitiveness in the future. Housing Affordability (HA) is described in distinctive ways. As per the Indian Government, affordable housing is the housing that tends to attain certain criteria of affordability in the context of the ratio of home cost to animal income and EMI size. Moreover, the provisions of affordable housing are necessary at the city level, individual level, and national level. Cities are at the core of economic development, and hence require a very focused approach towards solving the problem of urban slums. The affordability of a medium-wage earner in getting dwelling space in the city is the prerequisite and necessary for the authority of that city for retaining and attracting labour needed for economic success. Currently, the Government is taking steps to promote affordable housing since they have accepted the fact that affordable housing is linked with the individual's wellbeing. Besides, Kingsley (2017) stated that there is a positive externality to wellbeing and health if proper AH-based provisions are provided. It has major health effects due to employment stability and helps to reduce the number of crimes. The Indian Government has adopted different measures for fulfilling the need for affordable housing especially for the economically weaker segments of the global population. Besides, RBI has taken initiatives to build effective housing schemes for the provision of 'housing for all' (Somasundaram, 2020). Even though the covid-19 crisis has slowed down the growth rate of the Indian RE (Real Estate) sector, the extended guidelines of RBI has helped in the context of affordable housing and have made way for some cessation to the developers as well as buyers. RBI has made it mandatory for increasing the limits of 'affordable housing" eligibility. As per the guidelines framed by RBI, the rates of affordable houses need not go beyond INR 45 lakh in

metropolitan cities such as Mumbai, Bangalore, Delhi and others and INR 40 lakhs in all non-metropolitan cities. On the other hand, the GST Council has cut the rate of GST from about 8 per cent to only 1 percent at the rate ceiling of INR 45 lakhs. Due to this move of the government the transaction cost for the buyer has come down. In 2015, the government of India launched the scheme of "Housing for All". It aims to attain the objective of providing affordable homes for every family irrespective of their income by 2022 (Daud et al., 2017). The scheme falls under the PMAY (Pradhan Mantri Awawas Yojna) scheme. Moreover, the government has increased the completion period of the construction project. These projects, particularly for affordable homes, need to be completed within 5 years, an extension of 2 years has been provided compared to the previous scheme. They also made way for the provision of infrastructure status to affordable housing, once it can help developers associated with these obstructions to accumulate funds from distinct ways like ECB (External Commercial Borrowings), FPIS (Foreign Portfolio Investors) and FVCI (Foreign Venture Capital Investors) (Fernandez & Aalbers, 2020). Also, the government extended aid to developers in the sector of affordable housing. Several incentives like tax benefits, institutional funding and subsidies have been provided. Supportive measures have been included in the 2019 budget like a release from paying IT (Income tax) on notional rent while owning a house for the second time and increased INR 2,40,000 for the TDS threshold particularly on rent.

Gopalan & Venkataraman (2015) stated that the policy system for affordable homes is rendered by the NUHHP-2007 (National Urban Housing & Habitat Policy) and with the JNNURM-2005 (Jawaharlal Nehru National Urban Renewal Mission). Also, by the BSUP (Basic Services for the Urban Poor), IHSDP (Integrated Housing & Slum Development Programme) and the RAY (Rajiv Awas Yojana). Several objectives have been listed in the NUHHP 2007 including land availability, urban planning, special facilities for the MIS (Management Information system), PPP (Public-Private Partnerships), women and others.

In the last few years, the government has taken a string of measures to expediate the reach of affordable housing in the country. The table below (Anarock research) captures the key measures taken by the government since 2015.

Table 4 : Key Policy Measures Taken by the Government

Sr. No.	Month, Year	Policy/Initiative
1	June 2015	Launched Pradhan Mantri Awas Yojana (PMAY) to achieve 'Housing for All by 2022' **Verticals of PMAY (U)** - 'In-Situ' slum redevelopment, Credit Linked Subsidy Scheme (CLSS), affordable housing in partnership, beneficiary led construction of enhancement
2	Jan 2017	Cabinet approved increase in carpet area of houses eligible for interest subsidy under the CLSS for the Middle-Income Group (MIG) under PMAY. **MIG I** – Increased maximum size from 90 sq mt to 120 sq mt **MIG II** – Increased maximum size from 110 sq mt to 150 sq mt
3	Jun 2017	Revision of carpet area of houses eligible for interest subsidy under the CLSS for the Middle-Income Group (MIG) under PMAY. **MIG I** – Increased maximum size from 120 sq mt to 160 sq mt **MIG II** – Increased maximum size from 150 sq mt to 200 sq mt
4	Jul 2017	GST implemented. 12% with ITC on affordable housing projects
5	Feb 2018	GST lowered to 8% with ITC on affordable housing projects
6	Apr 2019	GST lowered to 1% without ITC on affordable housing projects Tax holiday of 100% for developers on profits from affordable housing projects An additional deduction of interest amounting to INR 1.5 lakh for a loan taken to purchase an affordable house

7	Apr 2020	Extension of tax holiday of 100% for developers on profits from affordable housing projects for 1 year Extension of an additional deduction of interest amounting to INR 1.5 lakh for a loan taken to purchase an affordable house by one more year
8	Feb 2021	Affordable Rental Housing Scheme (ARHC) in India gets a boost in Budget 2021
9	Apr 2021	Extension of tax holiday of 100% for developers on profits from affordable housing projects for 1 more year Extension of an additional deduction of interest amounting to INR 1.5 lakh for a loan taken to purchase an affordable house by one more year

Source: Policy Report on Affordable Housing, ANAROCK Research, 2022

In the last few years, most of the policymakers have realized that providing an affordable rental housing to the urban poor and migrant workers can be a very effective solution to tackle of lack affordable housing and control the proliferation of slums in the cities (The Working Peoples Charter & The Centre for Policy Research). Affordable rental housing will yield a better result in a city like Mumbai where the property prices are too high for a low-income person to buy a house. To make affordable rental housing a part of the government's scheme of providing housing for all, the Ministry of Housing & Urban Affairs (MOHUA) launched the "Affordable Rental Housing Complexes (ARHCs) in the year 2020. It is a sub-scheme under Pradhan Mantri AWAS Yojana-Urban. The ARHC has been planned to be implemented through two approaches. The first approach is through using the existing housing stock that has been funded by the central and state governments and converting it into ARHC. These ARHC can then be either managed through public private partnership of completely through public agencies. The second approach is through allowing public or a private entity to build, operate, and maintain ARHCs on their own vacant

land. They will be incentivized by the government in the form of subsidized loans and tax holidays for coming up with ARHCs on their vacant lands.

The government has made it very clear that these ARHCs will be exclusively meant for urban migrant workers and people belonging to EWS or LIG categories. The objective is to provide a decent dwelling environment for the urban poor and people belonging to the lower strata of the population.

Figure 15 : Broad Objective of ARHC

Source: http://arhc.mohua.gov.in/

Figure 16 : Targeted Beneficiaries of ARHCs

Source: https://pmay-urban.gov.in/about

2.4 Policy measures under the Housing for all Scheme and the flagship Pradhan Mantri Awas Yojna (PMAY)

Gohil & Gandhi (2019) commented on the PMAY scheme and regarded it to be an emerging scheme of low-budget or affordable housing in India. This housing scheme considers the objective of housing for every household of urban regions. It has been observed that several housing policies have been framed in India since the period of independence by several local ruling authorities. However, these programs and policies lack interconnectedness and continuity which has demanded the formation of more effective housing programs and policies in India. In 2015, MoHUPA (Ministry of Housing and Urban Poverty Alleviation) of India launched the scheme intending to make the nation slum-free by the end of 2022. However, the scheme has several

shortcomings, particularly from the perspective of common people as the initial awareness of the scheme was low and most of the people initially had a perception that this is also just like the other government schemes that were launched in the past and did not yield the desired result. A few sections of the experts feel that there are limited measures of empowerment in the schemes, beneficiaries are considered passive, long-term impacts are neglected and access to opportunity is exclusive. However, the government has been very articulate in conveying the objective and mission of PMAY, and it has gained good traction over a period.

Figure 17: Overall share distribution of the Indian residential real estate

Source: https://pmay-urban.gov.in/about
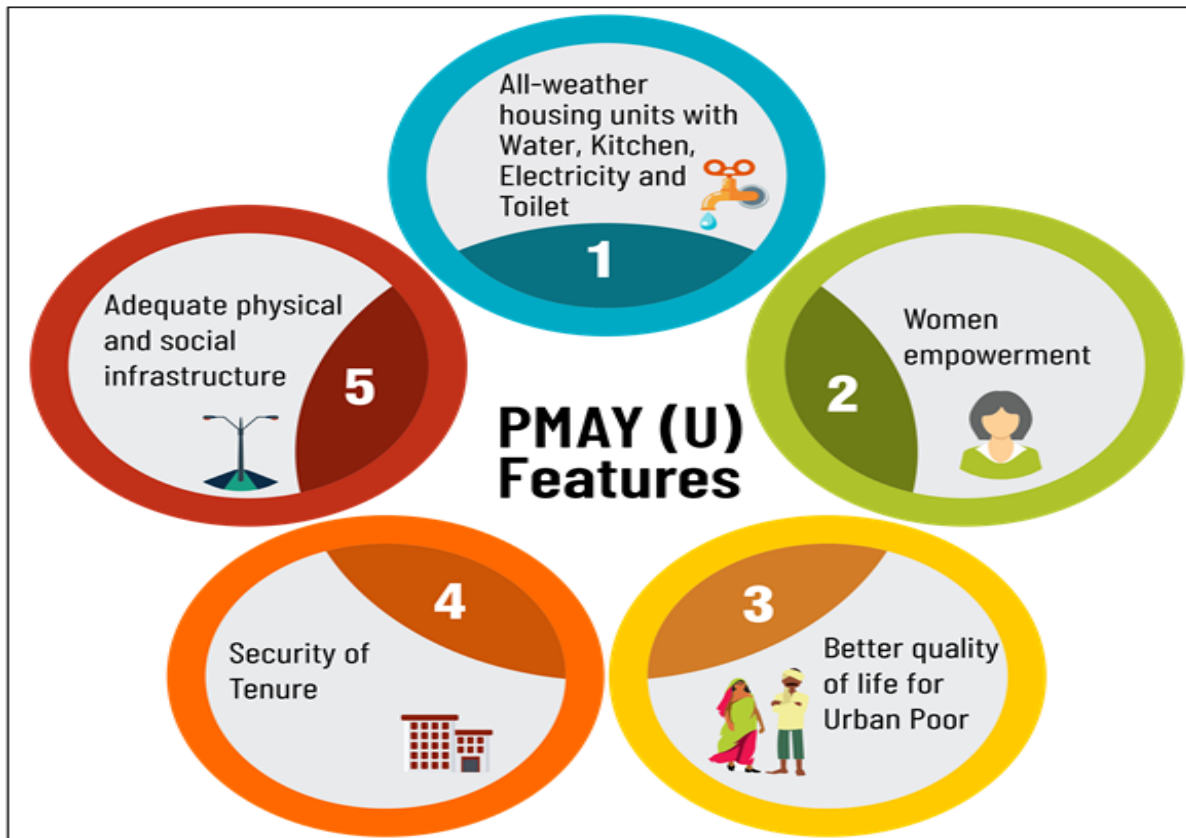
On the contrary note, according to Shinde & Darade (2017) slums can be a locale with the population residing in a below-standard dwelling that lacks scientific and basic required amenities. Migration, growing population, and urbanization pressure on the cities have also resulted in overflowing infrastructure, haphazard expansion of cities and deteriorating urban status. Thus,

planned slum rehabilitation is necessary to produce a real and meaningful impact for the urban poor and migrants who reside in the slums due to lack of any other better options. In this situation of inadequate affordable housing, the beneficiaries provided by PMAY are effective. Despite the operational challenges faced the PMAY has made significant progress and has attracted a good number of private developers to consider affordable housing as a product offering in their portfolio.

Figure 18: Progress Report of PMAY (Urban)

Source: https://pmay-urban.gov.in/

2.5 **Challenges faced in launching a housing project by a builder.**

Ram & Needham (2016) commented that in most of the developing nations, inadequate facilities of affordable homes for a fast-developing urban population is making way for informal squatter slums and settlements. One strategy of boosting the availability of housing for poor families requires private sector developers to build decent and simple homes for sale at a rate which most of these families can afford. However, the study highlighted certain constraints associated with land availability, credit, length approvals of construction from bureaucrats and others which are not allowing developers to take up the project of affordable or low housing. As per the developers or builders, the government needs to ease or lift these barriers to enable the housing sector to manage the huge shortage of housing.

On the contrary, Patel et al., (2018) stated that to get all the required approvals for launching a housing project, developers need to meet a huge minimum cost set by mandatory standards. Most of these standards thrust high rates on building construction; thereby making the houses less affordable for poor families, limiting their access to affordable housing, and increasing the number of slums. Development regulations comprise planning for land usage, zoning, building standards and site planning. Regulations directly influence the rate of construction and the land consumed for building housing. With the mandate of higher standards, development and municipal authorities provide inadequate consideration for the fiscal effect of regulations, and hardly assess their effect on space consumption or building intensity and overlook the consideration of affordability to low-budget housing and household incomes.

The participation of the private sector real estate developers is one of the most important pre-requisites for ensuring the supply of a right priced dwelling units in the market. (Deloitte Report-Mainstreaming Affordable Housing in India, 2016). The entire ecosystem of the affordable housing system is very complex and needs very good coordination amongst all the concerned authorities.

Figure 19 : Affordable Housing Value Chain from a Builder's Perspective
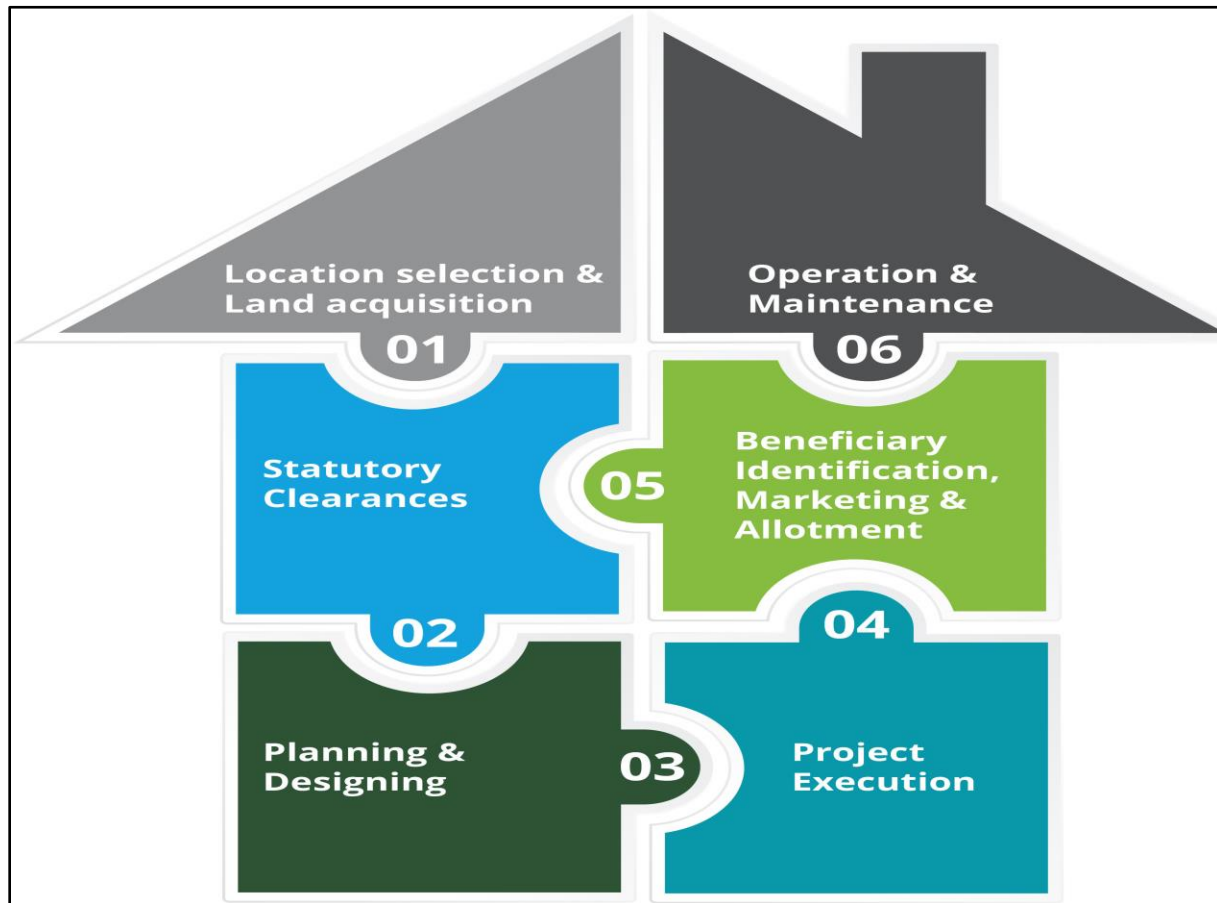
Source: Deloitte Report- Mainstreaming Affordable Housing in India, 2021

Though the private developers find affordable housing as an attractive business proposition, they find the entire ecosystem plagued with heavy bureaucracy and time-consuming outdated process which is a big deterrent for them. A developer must get approximately 30 approvals from various agencies for launching a project. This entire process of getting approval from all the agencies involved takes almost 2-3 years. Such a long timeline escalates the entire cost of the projects and compresses the margin, thus rendering the projects less lucrative for the private developers.

Table 5 : Approvals Required by a Developer at Various Stages of a Project's Lifecycle

S. No.	Type of approval	Approving Authority	Time
Approvals for obtaining License		
1	Ownership Certificate (Patta Copy/Patta Sheet/mutation etc.)	Tehsildar	15 days - 60 days
2	Land use Conversion	Development Authority/Municipality	6-8 months
3	30 years titles and mutations verification and title pass on	Patwari/Tehsildar	15 days - 180 days
4	Non-Encumbrance	Registration Department	Up to 15 days
5	NOC from Pollution Control Board/ Environment Clearance	State Pollution Control Board & Ministry of Environment, GoI	9-12 months
6	NOC from Forest Department	Forest Department	1-2 months
7	NOC for CRZ (if near coastal area)	Coastal Zone Management Authority	6-12 months
8	Development License	Development Authority/Municipality	12-18 months

Table 6: Approval of Building Plans and other Clearances before Start of Work at Site

Approval of Building Plans and other Clearances before Start of Work at site			
S. No.	Type of approval	Approving Authority	Time
1	Ancient Monument distance Clearance (if required) before building plan approval	Archeological Survey of India	6 months
2	Road Access Clearance before building plan approval	NHAI/PWD	4-6 months
3	AAI Height NOC (before building plan approval)	Civil Aviation Department.	3-5 months
4	Building Layout Approval	Development Authority/Municipality	45 -60 days
5	Intimation of Disapproval (IOD)	Development Authority	30-45 days
6	Infrastructure Layout Approval	Development Authority/Municipality	60 days
7	Other Common facilities Approval	Development Authority/Municipality	30 days
8	Commencement Certificate	Development Authority/Municipality	2-6 months
9	Consent to Operate (for earthquake resistance	Development Authority/Structural Engineer Certificate	2 months
10	Site Office Approval	Municipality	15 days

11	Service Plan Estimates	Development Authority/Municipality	21 days
12	Firefighting scheme Approval	Fire dept.	15 days
13	Lift Escalator Installation	Development Authority/Municipality	30-45 days
14	Electric substation NOC (for all substations	Electric Distribution Authority	2-3 months
15	DG Sets installation approval	Electrical inspectorate	2 months
16	Certificate of clearance of all electrical installations in the building	Electricity Distribution Authority	30 days
17	Registration with Labour Welfare	Labour Department	15 days

Table 7: Approvals before construction- independent of Building Plan approval

Approvals before construction- independent of Building Plan approval			
S. No.	Type of approval	Approving Authority	Time
1	Tree cutting	Forest Deptt.	1-2 months
2	Environment Clearance (for 125 acres project with built up area above 20,000 sq. metres)	Ministry of Environment	12-18 months
3	NOC from Labour Cess Department	Office of labour Commissioner	15 days
4	Borewell Registration Certificate	Central Groundwater Authority	6 months

Table 8: Approvals During Construction

S. No.	Type of approval	Approving Authority	Time
Approvals During Construction			
1	Electrical Load / Electric connection	Electricity Distribution Company	45 days
2	Permission for Sewer connection	Municipal Authority	30-45 days
3	Permission for Water Connection	Municipal Authority	30-45 days
4	Consent to Establish work at site	Pollution Control Board	2 months

Source: NAREDCO Suggestions Paper Submitted to The Ministry of Housing and Urban Affairs

Apart from the humongous number of approvals required by the developers mentioned in the table above, the builders are also required to take occupancy certificate for the building before they can hand it over to the buyers for occupancy. Getting an occupancy certificate for the building itself requires more than 6-8 approvals from various authorities. The approval process involves various authorities at central government level, state government level and at municipal levels. When so many agencies are involved in the process, then the entire system becomes fraught with loopholes, complexity, and corruption.

The operational challenges, coupled with the challenging environment post the pandemic has made it very challenging for the developers to launch affordable housing (Anarock report 2020-Residential Real Estate Roundup). The share of affordable housing as a percentage of total new launches in the top seven cities have significantly come down from a peak of 44% in 2017 to 30% in the year 2020.

Figure 20 : Budget Segmentation of Supply 2015- 2020
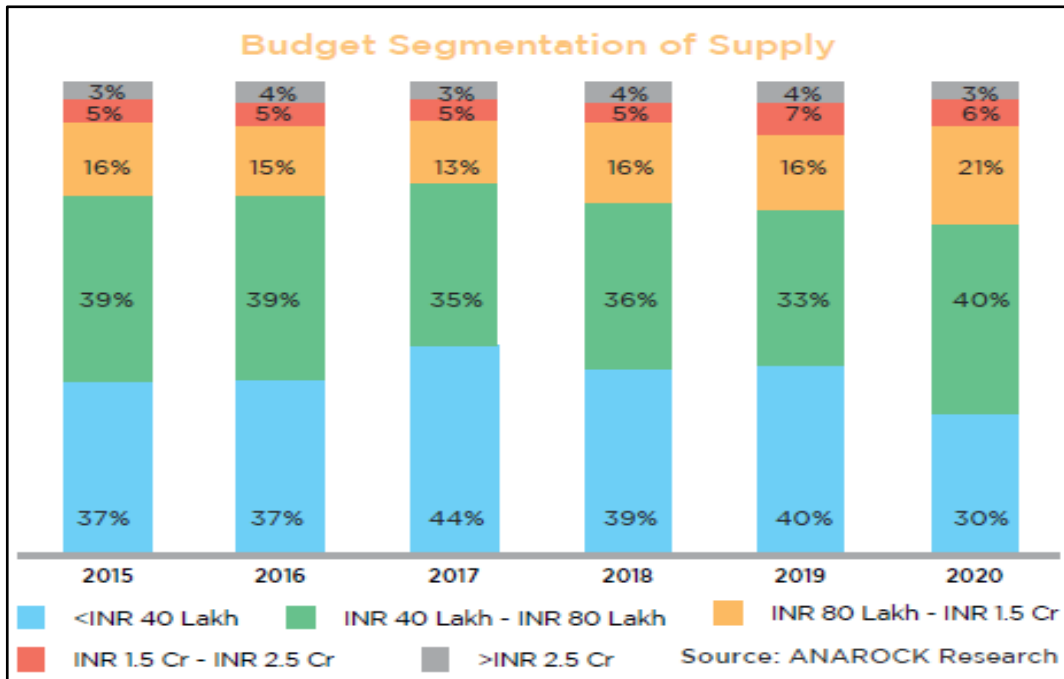
Source: ANAROCK Annual Residential Report 2020

The developers initially got attracted towards launching affordable housing to avail themselves of the various incentives that the Government had announced to promote affordable housing. However, once the operational challenges confronted the developers as well as the subdued demand post the pandemic forced the developers to cut back on their affordable housing launches.

2.6 Housing models of other countries

As per the study of Ramalhete et al., (2015) the degradation of the urban environment is associated with the absence of infrastructures and resulting precarious and informal housing. This situation is due to the absence of sufficient housing programs linked with the territorial contexts such as geographical and climatic features and economic and social characteristics, paving the way for increasing inequality and poverty. Dealing with this, several regions have taken up housing schemes or models. For instance, housing-based initiatives for adapting to the frequent natural disaster in Banda Aceh in Indonesia. The housing approach was adopted after the 2004 tsunami

that wrecked the entire coastal area of Banda Aceh (Vale et al., 2014). This initiative focused on increasing the sea level, boosting community involvement and usage of local materials. On the other hand, incremental housing policies have been taken up in Mexico and Chile based on adaptability to economic and social features. The key basis is to give a lot of infrastructure with shelter-based housing. In the process of incremental construction, the house is secured with the most fundamental materials and is upgraded afterwards based on financial capabilities of households through micro-loans, self-help or savings.

On the other hand, Lozanovska (2019) identified that majority of the homeless people of Poland, after World War II, started to use the outskirts of the region as hazardous shelters like shanties and shacks built with the remaining materials and resources. During this time, the NHP (National Housing Program) has planned to formulate a housing policy based on the self-building and incremental process utilizing the left-over from destroyed houses not only to provide homes but also to make the city clean. In this period, housing models like Grow Houses, Grass-Root Houses and Evolutive housing models were observed. However, an optimum framework of LCH (housing) provides low-earning urban households with great scope for obtaining a house at accepted indoor-thermal criteria and affordable price. In the study, the operation and design of a low-range housing have been statistically optimized considering the simulation-based mode in which EnergyPlus (a dynamic housing simulation program) was linked with the GenOpt (optimization engine) (Waibel et al., 2019).

However, Jamaludin et al., (2018) specified that developing nations such as Malaysia have started to assess the demands of sustainable and housing development. Most of the population still intend for a safe, reasonably priced, and comfortable house. Middle and low-income families experience challenges in finding homes as per their budget and needs. Most of the housing development policies focus more on affordability and not on sustainability criteria. Further, developers or

builders neglect issues of sustainability and focus more on making profits. Also, developers experience problems while obtaining green or sustainable products in the regional market due to the unacceptance of regional building products by the purchasers. They are inclined to buy green products from foreign nations since it indicates higher quality. However, the inadequate cessation for importers of building goods results in the additional cost for importing the materials.

On the contrary, the study of Shen & Burhan (2020) highlights that the price of housing in Malaysia, particularly in urban regions, have increased over the several past years and influenced the living standards of middle-income working classes to buy or rent houses away from the core cities. Further, the study has highlighted the issues and challenges of PR1MA (1Malaysia People's Housing Program) projects. Developer's approvals, margin and land banking are certain concerns the responsible corporation needs to cope with while developing PR1MA projects. Moreover, developers often are not tested in taking up these projects based on affordable housing since the margin of the projects are low and they have to bear several costs like increasing the land price and high cost of instruction.

2.7 Unravelling the Consumer Buying Behavior

Ramya & Ali (2016) commented that buying behavior of customers is defined as the context which drives the intent of consumers to buy any products or services. There are several characteristics, factors, and peculiarities that influence consumers in their shopping habits, the retailers or the brands preferred, purchasing behavior, and related deciding criteria. Decisions associated with the purchase are the outcome of each of these components. A consumer and an individual are led by their subculture, culture, membership groups, family, personality, social class, psychological factors, and others. The societal and social environment along with cultural trends also impacts the decisions. By understanding and identifying the aspects that impact their brands and customers they have the opportunity in developing a marketing message, marketing campaign, and an

effective strategy more efficiently and more in the context of the ways and demands of the potential customers. Buying a particular good or service requires motivation by the consumers to train their satisfaction level. Buerke et al., (2017) stated that motive is the inner need or urge that influences an individual to consider purchase action for satisfying two types of ways such as secondary wants and core wants. This is one of the crucial internal factors which influence the behaviour of consumers. A motive is also the need that adequately drives the individual to act. On the other hand, consumer behaviours are also driven by economic factors such as consumer credit, family income, personal income, income expectation, liquid assets of consumers, and savings.

The context of cognitive dissonance also plays a crucial role in influencing the behaviour of consumers. As per the study of Sharma (2014), individuals tend to look for consistency in their perceptions and beliefs. The word cognitive dissonance is applied for describing the sense of discomfort that occurs because of holding two contrasting beliefs. A discrepancy between behaviours and beliefs indicates the need to change something for reducing or eliminate the dissonance. A company needs to analyze the behavior of buyers to assess their reactions towards the company's marketing strategy as this has a significant influence on the company's success. The context of marketing focuses on the fact that a company needs to create a MM (Marketing Mix) that provides utility to or satisfies consumers. Thus, there is a necessity to understand and determine where, when, how, and what consumers buy. The matter of Cognitive Dissonance (CD) contributes a crucial part in several decisions, evaluations, and value judgments. Getting familiar with contrasting beliefs and perceptions that influence the process of decision-making is a great way to improve the ability to make more accurate and faster-buying choices. CD can be seen in different phases of life; however, it is specifically evident in circumstances where a person has conflicting beliefs and interests with those that are integral to their self-identity. Moreover, Panwar et al., (2019) commented that consumer buying decisions are determined by the degree of

involvement and participation in purchasing decisions, intensity, and importance of belief in a product or service in a specific situation.

Bagga & Bhatt (2013) opined that it is quite challenging for large enterprises in maintaining an established position in the market by sticking to the conventional mode of marketing which is the B and M (Brick and Mortar) system. Companies have to expand their online channels and presence to keep up with the fast-paced changing preferences of consumers and also with advanced technology. Now assessing and targeting buying patterns of consumers have changed. The arrival of internet marketing is the main reason behind this major change. The change has been significantly evident in distribution strategy, website design, communication strategy, and payment security and options. The commercial development of the world wide web (WWW) has led to an environment and circumstances where customers are involved with business operations in multiple ways starting from the establishments of regular B and M to micro-blogging and social networking channels. These demands for an effective marketing plan from the end of the marketer for engaging customers in the best possible method and a need to develop a favorable image of the organization and its effort and existence in the minds of customers. As per Hartini & Mardhiyah (2020), the process of the purchase decision is the phases a consumer passes through in framing choices about what services and products to purchase. The stages include problem familiarity, information search, and evaluation of substitutes, purchase decision, and PPB (Post Purchase Behavior). The market stimulant plays an important role in each phase of the decision-making and is considered to be a significant aspect of consumer buying satisfaction and behaviour.

These days the concept of sustainability has become popular while discussing consumer buying intent. As per the study conducted by Buerke et al., (2017), the high significance associated with the idea of sustainability revolves around the unresolved consumer in this globalized era like the availability of natural resources, environmental pollution, climate change, and poverty. For several

years, researchers and scientists have stressed the fact that most of these concerns are the direct result of today's way of leading life. The main question in this regard is about how to meet the demand of sustainability in increasing buying intent of consumers for a particular service of products. On this note, businesses and corporations bear a major share of the blame for the prevailing unsustainable life. They are made responsible for making profits and earning revenues at the cost of sustainable development. Leckie et al., (2021) indicate that corporations have a major role to play in shaping the pattern of life in contemporary society. It is them and their actions towards an unsustainable fashion for instance, in terms of over-exploitation of resources, corruption, violation of human rights, environmental pollution, and practices of unfair marketing and promotion. Buying decisions of buyers also influences the pattern of new product and service innovation. Thus, the purchasing intent of buyers needs to be prioritized to create a sustainable business environment.

Every business operation looks to gain a competitive edge in the operating market by meeting what consumers are looking for. In the marketing term, the component of what may drive the buying pattern of customers is important. Making a vague perception about their needs and demands would not allow business operators to target their potential consumers. The study of Rather et al., (2019) revealed that business benefits can be long-term if consumer needs are identified and studied. What becomes challenging is the different perspectives of distinctive consumers towards a brand. Emotional belief is also a determining factor in assessing the needs of buyers. However, it is an abstract and unconscious aspect that the customer relates with the intent of purchasing. Thus, assessing the buying pattern of consumers becomes more challenging when they attach their emotional beliefs with their buying preferences.

Ashraf et al., (2014) commented that marketing activities associated with sales promotion improve the performance of retailers or intermediate and cooperation and increase the value of consumer

purchases. Moreover, the context of testing and buying consumer products is directed towards objectives that can be attained via efforts in improving sales criteria in the short term. It can also be achieved through the implementation of customers in shops, encouraging physical buying of goods, and consideration of the point of RSD (Retail Sale Displays). However, motivating behaviors, like switching the preference of brands enhance the number of purchased units. Companies often spend a major portion of their budgets on marketing and sales promotion. The key objective is to provide the merchandise with great value and attractive deals. This indicates that business institutions tend to manipulate the purchasing activities and patterns of customers and thus they start with effective promotional changes or campaigns rejecting key measures including pricing structure. A consistency in buying patterns of customers does not exist due to family circumstances or changes in health and lifestyle behaviors. On this note, sales promotion is seen as an effective tool where marketers and business operators seek to intrude into the preference of their consumers.

2.8 Comprehending the various Decision-Making Models

The model of buying behavior of consumers or models related decision making is of major importance for marketers for assessing the psychology of consumers while purchasing products. The flexibility of brands in the current competitive and fragile environment has stressed the strategic significance of prominent branding. This is since string brands promote customer retention, profitability, market share, and customer acquisition. Moreover, a strong brand can appeal to consumers effectively. In this note, TRA (Theory of Reasoned action) and TPB (Theory of Planned Behavior) make a way for how a consumer may perceive the promotion and presentation of services or products. The principles of TRA and TPB make way for the formulation of different decision-making frameworks or models. Rambocas et al., (2018) opined that a Linear Value-based model includes four key phases. Initially, the owner of a brand should frame top-of-mind awareness or brand salience. Secondly, the owner needs to make way for key meaning via

favourable, unique, and strong brand associations for a strong performance and imagery. The succeeding step includes cultivating a favourable brand via quality judgment, superiority, emotional appeals, and credibility. Lastly, effective brands create strong associations with consumers via attachment, community, active and loyal engagement. On the other hand, Bellini et al., (2017) stated that implementation of structural equation models can also help in this context. It presents marketing activities in a way that can either harm or build a brand. For example, continuous promotions and low prices will have a significant impact on consumers' perception of the brand. In this context, the consumers either consider the brand to be of low quality or consider these marketing tactics as the brand's strategic way of pulling customers. Besides, distribution intensity tends to improve quality and brand image.

On the other hand, although not a decision-making model, impulse buying has gained significant attention in the context of customer research. As per the suggestion of Iyer et al., (2020), the concept is interesting since internal psychological components are not the only factor, but the criteria of impulse buying are also driven by market-related and external stimuli. Motives such as hedonic and utilitarian, traits such as the tendency of impulse buying and sensation-seeking, marketing stimuli, and consumer resources such as money and time provide the main trigger towards impulse buying. Most specifically, the criteria of impulse buying are seen in the purchase of clothing, household items, shoes, and food in recent days, it may be evident in some other big purchases. Thus, there is a need to assess what drives consumers to experience a powerful, persistent, and sudden urge to purchase something immediately. Differentiating consumers in terms of spontaneous buying behaviours and impulse buying intent is quite challenging for marketers. Considerable study has identified the particular influences on distinctive kinds of resources comprising time, money resources, and psychics with the anticipation that resource-based urge, constraints, and availability influence impulse buying of buyers (Ahmad et al., 2019). The application of SEM (Structural-Equation Model) is beneficial to assess the impulsive nature

of customers while buying. However, the context of IBB (Impulse Buying Behavior) has become confusing and riddle for business operators. As per the study of Pramestya & Widagda (2020) positive mood, impulse buying, and fashion involvement play a crucial role since they encourage people to make spontaneous purchases. Thus, there is a need to stress the strategies and techniques which can instill positivity in emotional situations through concentrations on consumer's entertainment and interest.

As commented by Hentschke et al., (2019) Mass Customisation (MC) can improve and pave the way for generating value for consumers through offering a variety of products, maintaining delivery time and cost to an acceptable degree. However, a key concern considering this technique in the sector of house building is the range or variety of product alternatives that are offered. This study has considered the application of conjoint analysis for identifying the preference of consumers regarding customizable aspects in the projects of housing. Moreover, it has also been assessed that the technique of MC in the housing sector increases the prospect of housing through providing projects or buildings as per the unique necessities and demands of individual consumers. This criterion of customization is attained via organizational structures and flexible processes with costs and delivery time related to mass production. However, buyers need not be confused and overwhelmed with a wide range of choices since this may result in customer dissatisfaction as they will look for more options and choices. In this regard, Conjoint Analysis (CA) can be applied for modifying aspects of prevailing services or products, designing modern versions of a service or product targeting a particular set of audience, and defining features of the market like brand, promotional, and packaging combinations. On the other hand, Kulshreshtha et al., (2018) argued that CA has certain limitations. The approach of decomposition may not be appropriate to every service and product, particularly those where substitutes cannot be provided by attributes. In the housing sector, implementation of CA results leads to the concern of double-edge of the number

of levels and attributes and the utilization of factorial research while describing housing alternatives.

Benda-Prokeinová et al., (2017) stated that the wealth of consumers such as resources and income and their preferences are considered exogenous components in the new-classical theory. Rational behaviour, methodological individualism, equilibrium, and proper information of customers are the important aspects of this concept. Simple approaches are the required conditions for the application of a model. Methodological individualism considers that the criteria of the individual subject's behaviour are the determining attributes of the model functioning. The criterion of equilibrium is stagnant and constant. On the other hand, the precondition of perfect information is not required to be necessarily attained since the modern concepts of customer behaviour operate in the direction of uncertainty and risk. Moreover, consumer preferences are driven by the consumer's position in the social hierarchy and through the firm's activity. While assessing the preferences of buyers, related models can assist. The Black-box model takes the criteria of external-stimulus response into consideration. It implies that certain factors such as marketing message, product availability, sampling, price, and promotions trigger buyers to make purchasing choices. Besides, personal variable models also play a crucial role since this covers the internal factors triggering the preferences of customers. These internal components comprise belief systems, personal opinions, traditions, values, internal motivators, and personal goals. When marketers seek to understand both external and internal attributes, consider complex model work. On the contrary, Good (2019) commented that Demand Response (DR) is categorized to be a cost-effective process to provide an increased degree of flexibility. However, prevailing techno-economic aspects for the modelling of flexible power systems do not consider that demand response is influenced by the preferences and biases of consumers. This indicates that DR is modelled on the fact that end-users are active and rational economic agents.

Ferasso & Bergamaschi (2020) opined that reason or rationality plays a crucial part in philosophical tradition. The context of rationality is also required in assessing consumers' preference of buying. Some of the models like the Bounded Rationality Model (BR Model) help in this regard. At the stage of decision-making techniques, there is the BR Model. This model comprises the limitation of reason or rationality when a person makes decisions or undergoes the process. A specific organization has unique decision-makers who can engage in the analysis of substitutes through evaluation of projects in a provided time. Thus, decision-makers consider a joint mode for the next choices and overlook the criteria of optimal choices. This is due to the unavailability of resources, brief time, and limited options for deciding and evaluating as well as the absence of cognitive ability. It has been argued in the study that shared decision-making on a specific project is regarded to be a general practice in form as a technique to deal with the cognitive shortcomings of alternative selection and evaluation. These collected decisions need to be linked to limit the bias to which BR can direct and guide a decision-maker. On the other hand, Lorkowski & Kreinovich (2018) commented that individuals often make irrational decisions particularly when they are required to make them urgently. Thus, they possess a limited ability in processing information. In this note, the concept of BR proves an effective observation that if given more time to a decision-maker, the decisions can be more logical and rational. Besides, under the circumstances of bounded resources, people can make distinctive decisions.

2.9 Outlining the factors considered by consumers while buying houses.

House is one of the essential needs for people which also plays an important role in the sustenance and protection of household living. Buying a personal house is the foremost dream of every family man and woman. However, purchasing it takes various factors into account. As per the study of Hassan et al., (2021) the housing industry is implementing various innovations and developments to meet the needs of potential consumers. Like other sectors, the housing sector has also undergone various changes in the context of consumer preferences. Despite the distinctiveness in housing

selection regarding category, location, size, cost, design, and materials, the home buying process is considered to be a challenging and confusing process. Housing preferences are related to certain elements that tend to influence the decision-making of a person. Understanding the housing preference of the buyers is necessary since it predicts housing demand and provides indirect support for the regional government in promoting house ownership and stabilizing housing policies. For first-time purchasers, understanding of housing choice is important. Essential elements that drive housing preferences include RP (Relative Price) of ownership over rent, salary, fortune, destination, house category, household features, credit constraints, cost, product facilities, and distances from service, open space, and accessibility. Other aspects comprise adequate reach to public transport, nearness to commercial space and school. Moreover, Zyed et al., (2016) opined that factors that influence housing affordability include household salary, housing selection, and house cost. Along with this, construction standards, design features, and security also matter. Like brand image, a developer's reputation is another factor that buyers consider while purchasing the residential property.

The buying intent of customers has a significant impact on the operations of the business. Their purchasing decisions rely on several components like social factors, psychological factors such as internal motivation, and demographic factors such as gender, age, and income. As per the study of Singh et al., (2018) five-stage model includes components like problem search, identification, evaluation of substitutes, buying of goods, and after buy-analysis also triggers the decision-making of consumers. This buying pattern is the direct outcome of the wants and needs of customers which they look to attain. On this note, consumers' wants are different from their needs. A need is defined as a customer's desire towards any service or product whereas a want is the customer's desire towards a specific product. With a proper assessment of consumers' intent to buy, it is also possible to know their mood and behavior for developing a strong association with them. This indicates that the real estate industry is similar to that of other sectors. The more a business operator stresses

consumer retention and satisfaction, the more they will be able to maintain long-term profit within business operations. Since the contemporary market is consumer-centric, these criteria and their assessment are vital. On the other hand, Amoako et al., (2017) opined that in the housing industry, the components of 4P (Price, Product, Promotion, and Place) play an important role in influencing consumer behavior. Apartments or houses are similar to a product that the buyer intends to purchase. Home, flats, or apartments is a lifetime investment for a consumer and hence this also implies that customers make their real estate and housing purchase decisions based on their income constraints and given price. Thirdly, the location or place of the house is also necessary. Moreover, Clemens et al., (2019) stated that the price is in direct proportion to the place. Lastly, the element of promotion is the combination of public relations, sales promotions, advertising (online and traditional), and personal selling to a wide extent. Each criterion of 4P is considered as a catalyst in influencing the behaviour of consumers.

Rachmawati et al., (2019) commented that property development is regarded to be the crucial activity that enhances the lifestyle of human beings and influences stability. These days, while buying residential property, individuals not only focus on the context of price but also prioritize components like building environmental perspectives and location. The huge number of goods that have similar usability and form make it challenging for buyers to make a distinction between various commodities. Thus, it is important to locate distinct attributes which can motivate and encourage consumers to intuit the purchase process in real estate. Proper marketing is the primary tool for increasing the sales of property. Thus, marketing executives, managers, and business owners should be able to develop and design the most appropriate offers with consideration of market demand. Moreover, marketing should apprehend the characteristics and nature of key market segments while coping with strategies to promote their services and products in the operating market. Nowadays, consumers have become selective and need a considerable period for coming to a final purchase decision due to the presence of several opportunities related to sales.

There is a distinct journey that a home buyer follows (roofandfloor.thehindu.com) when he initiates his home buying process. Understanding this structured process followed by the buyer he might follow consciously as well as subconsciously is very critical for the developer to effectively tap the buyer's attention and convert it into a sale.

On the other hand, Kamaruddeen et al., (2015) stated that an imbalance in the property market and overbuilding can pose a threat to the overall economy and destabilize the financial system. The study revealed that the high extent of unutilized and unsold areas is due to discrimination practiced by the private developers, lack of financial feasibility research, and market studies. This indicates that while buying houses, besides the criterion of price, there are other important factors whose misinterpretation might not help builders to assess the buying pattern of potential consumers.

Figure 21: Steps Followed by a Homebuyer

Source: https://roofandfloor.thehindu.com/
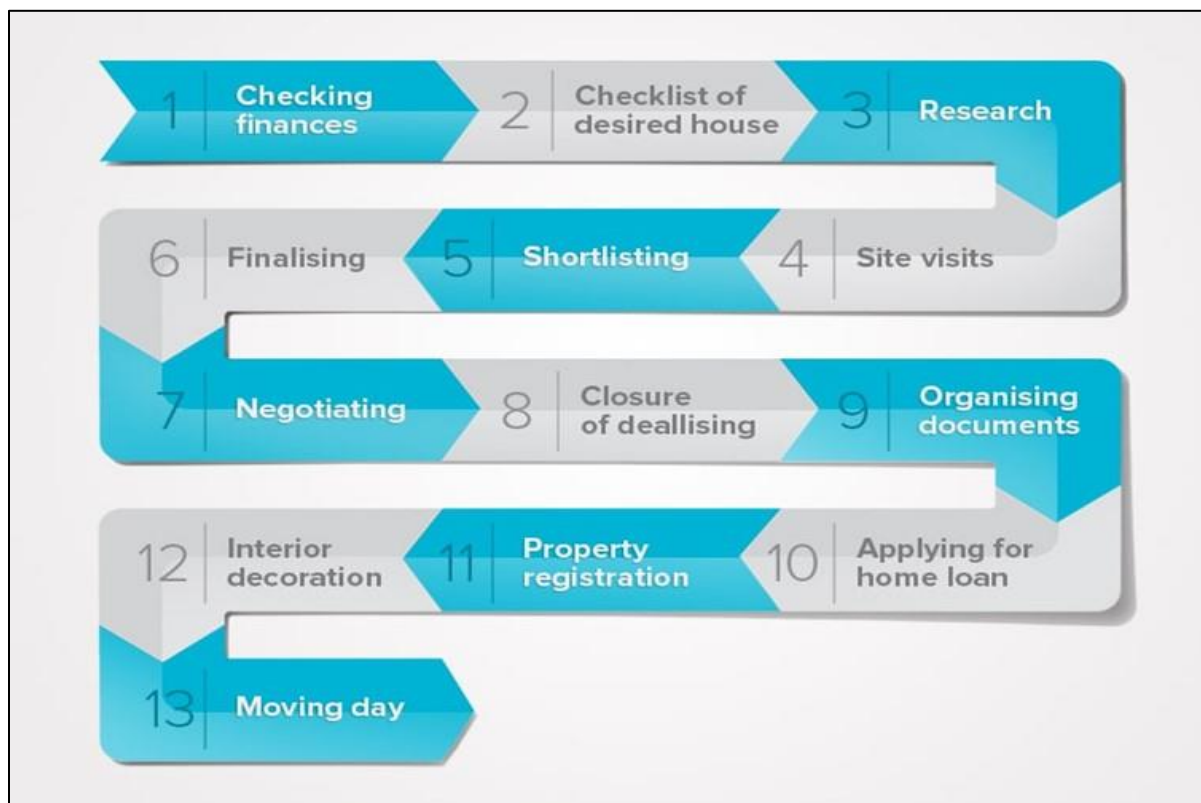
Buying a house is regarded as a key to securing the future through wealth accumulation. This applies to most of the middle-income households in India. It is correctly argued that owning or possessing a personal house indicates the financial stability of families. It also makes way for the proper health of the neighborhood, finance, viability, and employability. Sughana & Sheela (2021) opined that good housing is a much-needed factor for human welfare and development. Individuals cannot acknowledge their full stability and full potential if they don't have good housing accommodation. In this fast-paced lifestyle, young people particularly from middle-income families look for owning a dream house which is regarded to be a basic prerequisite for leading a healthy life. With the increase in cost, there has also been a reduction in the consumer's purchasing power. On the other hand, it gets challenging for middle-class households to save funds from their income. This indicates the ease of getting a loan sanctioned for the house also influences consumers' behaviour.

Senthilmurugan et al., (2020) stated that consumers' wants and needs vary from one to another. They are dissimilar in the context of their needs and desire to buy a house. And have distinct purchase behaviour and consumption patterns. The marketers need to assess their wants and needs for providing a potential offer and service accordingly. In India, parents' decision is also an influencing factor that derives their child's decision in buying a house. Children face influences from their parents in two distinctive ways. Firstly, parents' influence on spending behaviour and secondly through the fact that parents tend to control consumption and spending of children. Moreover, financial status is the main concern when purchasing the first home. There needs to be a lot of planning and saving to take this significant stride. Earlier, parents used to have their attitude and preferences of buying a home and not renting. Thus, the belief or attitudes of parents insist their children purchase their first dwelling space. On the other hand, social factors also influence the buying attitude of customers. Chaudhary & Gupta (2012) stated that human beings are considered to be social animals. They require someone to discuss and talk to various issues to get

better ideas and solutions. Thus, they must comply with the regulations and laws of society. The vital social components include family, status, and family groups. It is also assessed that personal and social commonality also influences a buyer's thought process while purchasing a home. Thus, in hand allow builders and developers to compete in the existing market with the rivalries to reach the maximum hearing in the housing sector.

The Indian real estate industry assumed significant importance with the economic liberalization since the increase in labour migration and business opportunities has resulted in rising demand for housing and commercial space. Currently, the construction and real estate sectors are in a crucial position in the overall development of the nation's care infrastructure. The study of Manivannan & Somasundaram (2014) revealed that the buying pattern of houses will depend on the proximity to the workplace and on environmental quality. Moreover, these factors (environmental quality and closeness to the workplace) trigger consumers to buy houses to create the main market value of the residential property.

2.10 Understanding the impact of government schemes by Maharashtra Government

Government schemes and policies for housing are formulated to make sure that every citizen of India has a safe shelter of their own. The ancillary bodies of the Indian government are responsible for introducing various housing schemes. Given the increasing cost of the real estate industry and adverse economic scenarios, consumers can be positively motivated in taking part in the purchase of houses. Moreover, the efforts of our affordable housing will also allow consumers to overcome the high process of property and experience a high quality of construction. For the citizens and residential individuals of Mumbai, there is the MHADAS (Maharashtra Housing and Area Development Authority Scheme). Khan et al., (2019) commented that it operates via a lottery system. Some houses are held under this scheme and are allocated based on income. For instance, MHADA Mumbai has about 1300 houses under the range of INR14.6 lakh and INR 5.8 crore. In 2019, about 63 houses were under INR 20 lakh and those were particularly reserved for the Economically Weaker Section (EWS) applicants. 201 apartments under INR 60 lakh were

dedicated to MIG (Middle-Income Group) applicants, 126 flats within a range of INR 20 lakh and INR 30 lakh were specifically for LIG (Low-Income Group) applicants, and some of the flats (194) with the rate of up to INR 5.8 crore for the HIG (High-Income Group) applicants. Despite the existence of this scheme, several people are homeless or dwell in severe living conditions.

Table 9: Key Schemes of Maharashtra Government for Growth of Affordable Dwelling Units

Policy Measures by Maharashtra Government	
Policy Measure	**Purpose of the Measure**
Special Township Policy	Encourage the private participation from the developers to build affordable housing by providing additional 20% FSI over the ongoing limit of the zone. To avail the incentive the developer must allot 20% of the total built up area for EWS and low-income housing.
Cluster Redevelopment	Under this scheme the government encourages redevelopment to be undertaken by MHADA, Developers, or the building Societies themselves. A group of old projects can be clubbed to create a cluster of a minimum size of 4,000 Sq. m - 10,000 Sq. m for the purpose of the scheme.
Development/Redevelopment MHADA owned land	Through this scheme the government of Maharashtra encourages private developers and even registered housing societies to undertake development or a redevelopment work on the land owned by MHADA by providing various incentives.
Redevelopment of old & decaying buildings	Most of the building in the south-central part of the Mumbai are in a dilapidated condition. Under the DCR 33(7), FSI of 3 is allowed for redevelopment of these old buildings.
Slum Rehabilitation Scheme (SRA)	To tackle the problem of urban slums, slum rehabilitation scheme has been working through Slum Rehabilitation Authority, MHADA and MMRDA.

Source: NAREDCO Suggestions Paper Submitted to The Ministry of Housing and Urban Affairs

Affordable housing specifically for low-income people of a region or those who live in the area of slums is a huge concern for cities in developing nations. Resorting to the policy of SRH (Slum

Rehabilitation Housing) can be a proper solution to these concerns in metropolitan cities like Mumbai. Rehabilitation implies an improved lifestyle that is a way to meet the criteria of consumer satisfaction. Residential contentment of slum rehabilitation dwellings is one of the major aspects in meeting sustainable housing developments. As per the study of Kshetrimayum et al., (2020), the rehabilitation compliance formulated in Mumbai is somewhat good; however, it needs to be improved. In this regard, it is necessary to take public participation on board from the planning and designing phase of the rehabilitation program. Since consumers' buying patterns are greatly influenced by their satisfaction and ease of accessing goods, improvement in government housing schemes can make a positive difference in the buying decision of consumers. On the other hand, easing the process of availing loans is also necessary to improve social interaction with neighbours and with regional community members. Besides, Yap et al., (2019) stated that ease of accessing an adequate scope of job in the nearby place is necessary for creating good community circumstances; thereby making a positive effect on consumer satisfaction. Thus, housing schemes and policies which prioritize a well-developed community environment have a significant impact on the quality and buying pattern and their decision towards making a house purchase. Moreover, initiation should be taken towards the attainment of energy reduction and housing affordability while meeting the expectations and needs of residents.

It is known that subsidies provided by the government make housing ownership affordable and also reduce the cost of housing. It is required to assess whether the buying rate of houses has increased with the implementation of government schemes and regulations. According to the study of Seshadhri & Paul (2017), any kind of infrastructure built is required to satisfy the key functions or objectives prioritizing which it has been created. The most prominent way to measure the performance of a provision, government subsidy of the extent of end-user satisfaction, determines the viability of the government effort in promoting houses. A quantified mode in evaluating the performance of an approach will allow a facility manager to assess the efficiency of the current

policies related to the maintenance and operation of the facility. Besides, it will also make way for valuable inputs to let policy managers undertake effective initiation towards attaining the desired goal of user satisfaction. Although measurement of housing schemes has key components namely functional, financial, and physical, the main concern is associated with the motivation and encouragement of consumers towards the purchase of houses. However, it is challenging to measure the performance and efficiency of the entire constructed building. Measuring the degree of consumer satisfaction is difficult and often it is confusing since everyone has their way of being content. Since the criteria of getting a house loan sanctioned are one of the main issues faced by consumers, governments and bank schemes in this regard can particularly help in driving consumer behaviour.

Nzau & Trillo (2020) opined that public-influencing attempts or initiation in providing proper housing to slum people in developing nations have attained limited output or failed when compared to the growing population of the slum. This has been specific particularly to the absence of public funds. Some urban regions in these nations show vibrant traits in the real estate sector that can bear the ability to regenerate slums. Since housing is required to be promoted to reduce the number of homeless and reduce the number of slums in the metropolitan region of Mumbai, slum upgrading is required, and the people of slums need to be motivated and work towards owning a house.

The adequate facility of housing for every household is the key behind the development of nations. Considering the long-standing development and progress of the nation, regional governments of every state in India have made their specific housing policies to develop and build at least houses for all. A study by Olanrewaju & Woon (2017) revealed that even though the Malaysian government has developed various schemes, regulations, and policies for increasing the housing supply, there has been dropping homeownership rates and outstripping inflation can be observed in housing prices. The concerns and unwillingness of Malaysian people to own a house are due to

a shortage in resource distribution. Besides, the concern of distribution of resources is readily addressable via choice reconciliation.

Moreover, poor legibility in the low-income neighborhoods is increasing due to the circumstances of unprecedented and unexpected urbanization which is expected to get a hike of about 70 per cent by the end of 2050. Moreover, the initiative to create a slum-free city and adopt the approaches of neo-liberal changed the structure of metro-cities into hyper-dense low-income towers and affordable housing authorities. However, Sarkar & Bardhan (2020) commented that the slum rehabilitation and resettlement policies did not make up for the poverty recycling and rebound phenomenon. In this scenario of urbanization, the built environment is a major parameter. This indicates that the influence of the built environment on the components of social livability like safety, security, social cohesion, and privacy quotient is required to be investigated. Disorganized dwelling communities and destroyed cultural identity, trade linkages, and dispersed kinship groups are the significant outcomes of involuntary displacement that result in the impoverishment of the displaced section of people.

The role of government schemes is indeed one of the significant components influencing the perception of consumers in owning a house. Propper housing not only reduces the extent of homelessness in a region but also improves the welfare of the region. In past years, across most of the Indian cities and particularly in Mumbai and Gurgaon, there was a halt in housing demand and an oversupply of housing units despite the efforts made by the regional government of the region. Here, the situation indicates a strict deviation from existing microeconomic theory. The study of Sinha et al., (2020) implies that the cost of housing units is not able to be measured with the implementation of the microeconomic theory. Rather the factor of price is reliant on attributes like prices of local land, geographic area of the city, changing local government scheme, and availability of housing resources. Moreover, Mumbai is one of the slowest growing cities in terms

of infrastructure and expensive cities in the nation since the constraints of geography have prohibited the easy expansion of the city. This requires the government not only to make way for easy availability of loans and ease out the process of giving house tax but also increase the access of the center of the city to other outlying regions.

2.11 Accentuating the challenges faced by the buyers in gaining home loans.

Average (2019) opined that applying for a house loan is a challenging task for consumers since they must undergo several formalities and wait for a long time to get the loan sanctioned. First-time applicants face major issues due to unawareness and lack of knowledge regarding the process of acquiring home loans. Finalizing a housing purchase is complicated for a general customer and even worse for the poor people who have no idea about the compliance and policies of home loans. Thus, the absence of well-defined knowledge is the foremost challenge experienced in getting their home loans. Moreover, there are several fraud people and fake institutions available that manipulate and wrongly direct the buyers to get a huge commission for the sake of getting their loan sanctioned. Commencing the quest for the ideal property and optimal location entails a multitude of challenges that consumers must surmount. Although buying or owning a house seems to be intimidating and overwhelming for homebuyers, they have to be aware of the possible obstacles and proper ways to deal with the concern. Checking the paperwork and conducting thorough searching for the residential property needs to be done, which takes a lot of time. Disputed property and reselling it is a significant issue while applying for home loans. Although not a direct challenge in the context of seeking a loan, getting a proper location for the dwelling space is also a complication for the buyers.

The concept of modern affordability takes various factors under consideration such as effective government schemes, availability of house loans, and others. In this sense, S-D (Smaller-Dollar) credit can support low-income families to meet their fundamental financial needs. It is also known

as microloans. There are personal loans that have a repayment period of short term. However, there is an acute shortage of the availability of these loans for a home buyer. Reaching the mortgage credit for the purchase is limited. Moreover, the standards and regulations of lending are unusually strict particularly in the context of BC (Borrower Credit) scores. McCargo et al., (2018) opined that housing challenges and affordability of the high-cost operating market have significant attention; however, there are some communities where a certain share of affordable and houses is still available. If creditworthy consumers are not able to access adequate financing for their purpose, they are in a challenging position that might not help them to get into the ladder of buying their dream home, acquire economic stability and start with the wealth-building criteria through ownership. Housing markets of a particular nation are considered to be efficient if they have a strong and convenient provision of accessing a home loan. Besides, as commented by Engel et al., (2016) there are specific characteristics and traits of S-D mortgage borrowers namely income and ethnicity or borrower race which are important to take under consideration. The limited reach to mortgage credit particularly for residential property has resulted in the increasing imbalance in different housing sectors such as that of America's housing industry that tends to influence both supply and demand.

The loans are provided to buyers based on affordability and their income. Moreover, as opined by Rani (2019) the volatile markets of India have also affected and influenced the fluctuation of the interest rates. This is the challenge that loan borrowers' experience. In this regard, consumers looking for home loans suffer the most since this kind of loan falls under the category of the biggest quantum wise. Besides, the discrepancy in the rate of interest between new borrowers and existing borrowers, stringent clauses, and compliance formulated by the lenders of home loans are the concerns faced by the potential homebuyers through house loans. In India, interest rates on house loans are associated with the benchmark of the bank. This rate of benchmark linked with the potential bank creates a significant discrepancy. It is due to this rate of benchmark, that a constant

amount is either marked up or deducted to reach the floating rate on the concerned loan. Any transition in this benchmark will automatically lead to a change in the rate of interest on the house loan. Tantri (2020) stated that frequent changes in the interest rate cannot motivate a consumer to buy their house. In current times, several consumers are switching banks to get the best rates; however, the prevailing borrower is being provided with a choice to avail the new rates and change the existing status of their loans in exchange for a certain fee as a conversion or switching fee. It is expected that the Government and RBI will take necessary steps in mitigating the issues of home purchasers while availing loans.

Ray et al., (2019) stated that microcredit and microfinance indicate the provision of small loans made available to the weaker section and women of every society. This tends to assist them in improving their livelihoods. In this regard, MFIs (Microfinance Institutions) are involved in providing loans and possessing a huge threat to conventional banking systems. They have implemented the strategy of group lending and joint liability. For several years, finance-based programs have been considered as the major key to eliminating poverty and introducing positive social change. Although the programs are effective, they are yet to provide easy home loans for the poor section of society. There are limited repayment problems due to the fact of group liability; however, the intentions are not capable enough to arrange for the huge funds required for house loans.

Banks and financial institutions are the lifeline of India's economy. Moreover, the adoption and implementation of advanced tools and technology have changed the outlook of providing financial and banking services. As per the opinion of Suvarchala & Narasimha (2018) financial institutions and banks are facing acute challenges in meeting the optimum degree of consumer satisfaction in the process of approaching loans. Although the national banks are trying to provide easy loans, there lies the risk of repayment that is the foremost concern for these institutions. Like the

unawareness of consumers in identifying the right track of acquiring loans, banks face a similar issue in reaching their potential consumers for house loans. Banks and governments looking to improve their association with consumers require constant tracking of internal processes and customer behaviour. Also, not every person in India has a proper bank account and due to the high illiteracy level in the nation, the situation has been worse.

On the other hand, Chatterjee et al., (2018) opined that woman in India are taking the lead in getting an easy house loan. Although purchasing a home is the most crucial financial choice in a person's life, countless women are leading the way since they are emerging as key stakeholders. This is possible due to consistent support and government allowance made applicable for the earning women. There are discounts in the stamp duty rate for both women and men when they seek to buy their first home. This compliance is under the central government's PMAY CLSS (Pradhan Mantri Awas Yojana Credit Linked Subsidy Scheme). Other advantages include tax benefits, ease in co-borrowing, change in outlook, and preferential rate of interest for the women borrower. Despite the presence of these provisions, it cannot be said that women of poor sections of society can avail themselves of these benefits. Since the main goal is to provide a home for all at a nominal cost, it is essential to limit the degree of difference between consumers. As per the comment of Bikker & Vervliet (2018), the situation gets more challenging since the interest rate fluctuates with the fluctuation in the rate of inflation of the nation.

2.12 Channelizing the importance of Financial Inclusion in buying affordable homes.

Financial Inclusion (FI) describes that businesses and individuals have enough reach for affordable financial services and products to meet their demands and needs. It ensures adequate access to needed financial services and products by every section of society in vulnerable and general groups like low-income groups and the weaker section of the population requires. The study of Hannig &

Jansen (2010) revealed that FI draws unbanked population into the system of formal finances to enable them to get an opportunity and access to financial services starting from payments, transfers, and savings to insurance and credit. It neither indicates that everyone has the need to make proper utilization of the available supply and nor that suppliers must disregard risks related to costs while deciding to provide services. Both unfavorable risk-return and voluntary exclusion may prohibit a small company or a household from using more than one service in the presence of unrestrained access. These results do not particularly warrant the intervention of policy. However, Waeyenberge (2018) commented that policy and schemes should focus on correcting market failures and cutting off nonmarket hindrance while accessing a wide variety of financial services. Despite the progress undertaken by credit unions, savings cooperatives, and microfinance institutions over the past 20 years, most of the globe's poor section of the population continues to remain on the dark side and are deprived of the services provided by FFI (Formal Financial Intermediaries) that can deal with huge cash and play an intensity between net borrowers and net savers.

More than about 2 billion adults do not have a proper reach to semi-formal or formal financial services. These groups of people are financially excluded in a globe where access to finance-based services implies the difference between thriving and surviving. About 72% of the adult population across the world or between 2.1 billion and 2.7 billion adults have hardly any bank account. This is the foremost parameter of their financial accessibility. Inoue (2019) stated that there is a limited number of people who have proper access to a wide range of finance-based services like micro-insurance and payment services. Since the cost of communications and information technology is shrinking, the implementation of technology can help consumers to be aware of the necessity of getting financially included for getting house ownership. Moreover, development in an inclusive financial industry considers two contributions to the alleviation of poverty. One of them includes FI as the key influencing factor towards attaining economic growth. Another one comprises the

fact that affordable and appropriate finance-based services for the weaker section of the population can help in improving the overall welfare. They are regarded to be complementary since FI ensures the connection of previously excluded groups with the formal economy and plays a crucial role in economic development. However, Park & Mercado jr (2018) opined that growth in the economy facilitates the involvement of more individuals in the financial system as well in the global economy. The major factor that is restricting the increase in FI is that the income of the deprived population is not only limited and meagre but also unreliable and irregular. In this backdrop, they cannot even think of buying their own house when they are struggling to meet their daily needs.

The fact that consumers are getting adequate access to house loans, and they are experiencing a financial inclusion to all the financial-based services would positively motivate them to own houses. Since one of the significant factors that hinder buyers while owning a personal house is the lack of funds and savings, financially included people face hardly any complications to arrange for the required funds for the purchase. Lal (2019) stated that easy banking positively empowers the psychology of consumers when they don't need to deal with any challenges. On this note, it is also necessary to plan for bank accounts for the poor people in the formal banking system.

When adequate financial services are accessible to every individual in society, they can get the scope of using and saving their funds wisely without any waste. This has fired a key concern for the policymakers and government due to its major impact on the social and economic implications. FI also relies on the financial literacy of individuals with which they can create enormous wealth and make decisions for future savings and investments. As per the study of KM & Raghunath (2018), the key idea and objective behind providing FI are to ensure equal opportunities for all the individuals of all sections of society so that they can get better welfare and a better standard of living. FI plays a crucial role in the development and improvement of households. They have the right to receive sufficient access to FI for consumption, emergency scenarios, housing, and proper

livelihood. Since the governments are trying to reduce the extent of differential in the context of housing provision, FI will also make way for the limitation of differentiation in accessing basic financial services and thereby paving the way for the arrangement of housing funds from banks at a nominal interest rate. Although the government is putting efforts in the best possible way, some improvements are yet to be made for the fulfilment of housing needs. Moreover, arranging funds from moneylenders for housing is a huge burden to the poor segments of a region. Thus, the inconvenience of getting an easy loan often makes the consumer unwilling to purchase their house.

According to the study of Jagtiani & Lemieux (2017) fintech is playing a major role in changing banking and financial landscapes. Banks are concerned about the 'not even' playing field since the lenders frame their oversight discriminately. This creates an ambiguity and also makes the situation worse for the consumers in purchasing their house. Unaware consumers often seek loans from money lenders at a high-interest rate and are not aware of the policies about house loans that are available at low rate of interest. This creates a neglected response for the consumers towards the provision provided by regional public banks and also for the government.

Mukherji (2014) opined that India has a dire need for financial enterprises that can provide loans to poor people and help them deal with sustainability, poverty, and housing problems. There cannot be a single solution for affordable housing. Joint interaction of national banks and regional governments can make for proper financial assistance to the poor and EWS of the globe. Moreover, the market mortgage is not adequately attired to provide loans to low-income service providers of society such as auto-rickshaw drivers and vegetable vendors.

D'souza (2019) opined that during the period of the 1970s and 1980s, policymakers and the housing department were more concerned about the association between the absence of employment opportunities and housing issues. Even in today's housing policies formulated by the government, there is a prominent absence of community participation in framing the measures and

further housing programs. Even though the finance market in the context of the housing sector has been expanded due to the establishment of HUDCO (Housing and Urban Development Corporation), NHB (National Housing Bank), and HDFC (Housing Development Finance Corporation), they have created the provision of FI majorly for the higher and middle-income people and have deprived the poor people of the same. Moreover, builders who are looking to work in the segment of affordable housing have to take the burden and pressure of a broken ecosystem. Not only the consumers who are on the challenging side and yet to secure their name in the list of people with proper housing, but housing developers are also at major risk due to the absence of FI. As commented by Ghumare et al., (2018) developers in the nation should prioritize each segment of the value chain and create a prominent government-based housing strategy. Moreover, there is a necessity to identify the contribution of the state in framing an affordable and robust housing ecosystem. The government should also measure the efficiency of the initiatives and create a better way for FI since all these criteria integrated empower consumers to own their house.

2.13 Research Gap

The detailed literature review done shows that past studies are primarily focused on the government's definition of affordable housing and completely ignores the end-user's perception of affordable housing. While there are ample studies done on the reasons for proliferation of urban slums, there is lack of research materials that can act as a guideline for the stakeholders to ensure that the affordable housing becomes a viable business opportunity and not just a government led social scheme. For developers this segment is also a new segment that requires a different approach towards project planning and execution. Also, an affordable project needs to be marketed in a different way as compared to mid and luxury projects. Currently, no such major study is done in that direction.

There is a significant gap in understanding the core factors that a buyer of affordable housing considers before taking the buying decisions. The perception of affordable housing itself was very subjective before it was formally defined by the government when they officially launched PMAY in the year 2015. While there are several studies done around providing housing to the weaker section of society, there was a lack of participation from the private sector. Most of the housing schemes were initiated by the government without proper analysis of the location and the target segment and hence most of the time it failed to meet the objective. Since most of the projects were government led, there was lack of detailed study done by an independent body with an intention of scaling up the efforts and taking the affordable housing to masses. However, post the launch of PMAY there is a huge emphasis laid on the private participation from the developers. The government is also incentivizing the developers to take up affordable housing projects and hence suddenly, this segment has become lucrative for all the stakeholders. However, there are still no major studies done towards understanding the core factors a buyer considers before buying a home. Also, lack of studies done towards helping the developers to understand the consumers psyche of affordable housing is also a deterrent in effective roll out of affordable housing units.

This study is an effort in the direction towards a better understanding of constraints in the construction and marketing of affordable housing projects in the range of 25 lakhs to 45 lakhs. Since MMR is the region that faces the most severe problem if urban slums, this study focuses on this region specifically to understand the factors that may influence the buying pattern of the region. All the existing studies done so far revolve around government policies and majorly focus on resolving the supply side issue of affordable housing and have ignored the demand side challenges of the ecosystem. More specifically, if we look at the studies done so far for the MMR there has been a huge gap in understanding expectation of the buyers of a housing project in MMR. Also, while the government has introduced numerous schemes and incentives to promote housing, the level of awareness amongst the target audience has not been measured as of now. The reason

for the huge number of houses remaining unoccupied on the outskirts of MMR also needs to be
understood.

Table 10: Brief Highlight of Research Materials Reviewed

Sl.No	Title Of the Study	Author	Scope Of the Study	Gaps Identified	Publication Year
1	An Inclusive Approach of Sheltering the Bottom of the Pyramid	JLL	Deep dive into the problem of urban household shortage. Relationship between income level and affordability	There is a mismatch between urban population growth and housing infrastructure Affordability has been perceived differently by different stake holders	2018
2	Affordable Housing in India- Budding, Expanding & Compelling	Indian Brand Equity Foundation	Covered the Indian real estate in depth Market potential & Growth drivers	This study was majorly skewed towards promoting affordable housing as an investment opportunity	2020
3	Decoding Housing for All by 2022	KPMG	Deep dive into housing needs Current policy and efforts towards affordable	Analysed current scenario PPP is key for the success Speedy approval	2019

			housing Key Challenges	process a bottle neck	
4	Funding the Vision for all by 2022	KPMG	Instruments and means to arrange funds PPP model of execution	The capital market in India is still not ready for efficiently arranging the mammoth funding required	2109
5	Government Gazette on RERA	Ministry of Law and Justice	Outlined the RERA Act. The various governing clause for developers and brokers	Provides in-depth understanding of RERA Act	2017
6	Development Plan for Greater Mumbai 2014-2034	Municipal Corporation of Greater Mumbai	The draft report on development plan till 2034 covers the options for identifying lands for residential development that would primarily focus on rejuvenating the city	The government has proposed various non development zone within city limits for residential construction	2020
7	The study of slums as social and physical constructs:	Andrew Crooks (Department of Geography,	The reason behind proliferation of slums and the	The skewed residential development not supported by	2015

	challenges and emerging research opportunities	George Mason University	imbalanced growth of cities	proper infrastructure is one of the core reasons for growth in urban slums	
8	A blueprint for addressing the global affordable housing challenge	McKinsey Global Institute	Definition of the affordable housing. How the problem of urban slum is being tackled by other countries	It's a challenge that most of the countries are facing. Massive capital outlay is required to address the problem of urban slums. PPP model is the key to success	2021
9	Mainstreaming Affordable Housing in India	Deloitte Research Centre	Need identification of the project, location selection to sustainability and maintenance, the value chain. Identifies all the stages of an Affordable Housing Project.	The Affordable Housing sector ecosystem Critical Issues & their significance Government of India Initiatives & Interventions	2020

10	Mumbai Redefined	Anarock	Fast-track Redevelopment & Slum Rehabilitation Land Unlocking & Change in Development Norms Implementing Sustainable Living Focus on Affordable Housing Projects Accelerate Private Participation	A more practical development plan for the city is required. Government land needs to be unlocked	2021
11	An exploration of determinants of affordable housing choice	Abdul Lateef Olanrewaju and Tan Chai Woon	The study has explored the determinants of adequate housing choice. The study has major scope since it has emphasized the need for housing sufficiency. Despite the various government regulations, schemes and policies, the rate of homeownership is	The study has found six important determinants for the household's preference for housing. The factors include financial factor, income factor, market factor, location factor, accessibility factor, building factor and general factor. Moreover, the concern of housing	2019

			declining along with the outstripping inflation of housing prices. Thus, discussing the determinants of the choice of housing is crucial which can be used in future studies.	distribution is highly addressable via choice reconciliations.	
12	User requirement related performance attributes for government residential buildings	Gopikrishnan Seshadhri and Virendra Kumar Paul	The study has focused on the user requirement-based performance characteristics for governmental residential buildings. It has high scope since it has rendered a comprehensive sequence of attributes for understanding performance from environmental, external and physical factors. Also, the study can be used all across the world	It has been identified from the study that customer satisfaction needs to be garnered and subsequent flexibility has to be carried out for a better evaluation of the housing needs.	2019

			and not specific to a confined region.		
13	Analyzing the desired quality of housing in the Klang Valley region, Malaysia	Jeffrey Boon Hui Yap, Pui Si Yong and Martin Skitmore	It is important to analyze the quality of housing. The scope of the study is significant since it has highlighted the crucial influence of housing accommodation on living standards. The influence of housing on "Quality of Life" is evaluated and explored in the context of potential Malaysian house purchasers' intent to the quality	It has been found that quality factors impact prices of housing and are inclined to pay a premium rate for most needed features that tend to significantly enhance their QoL. The five crucial features include ventilation, location choice, safety considerations, accessibility of transportation services and air quality.	2018

			characteristic of housing.		
14	Critical Evaluation of Housing Scenario in India	Yogesh M. Keskar, Binayak Choudhury and Nikhil Ranjan Mandal	The study has a major future scope since it has critically evaluated the housing scenario in India which may be necessary for the government to work on the housing market. Housing conditions of the nation comprise an unparalleled status in the nation's development trajectory and highlights the socio-economic integration of the nation's people. The study has also	It has been identified that the creation of adequate housing needs to encompass enabling individuals to rent and to buy and for the criteria institutional structure has to be built. The private industry which includes residential developers builds affordable p[rojects of housing and sell them in the open market.	2016

			highlighted that housing stock needs to be improved via urban renewal, in situ slum development and improvement of contemporary housing stock in new townships and existing cities.		
15	Structural, operational and market related features among housing developers in Malaysia	A.M. Kamaruddeen, N. Yussof and I. Said	The article has presented the attributes among housing builders and developers existing in Malaysia. Thus, it indicates that the paper has major scope. Also, it needs innovation in the context of the market, operational and structural related features to be successful and customer-oriented	The findings of the research focus that government support and formalization are low; however, adhocracy culture, environmental uncertainty, organizational learning and centralization have moderating contributions among the housing developers.	2019

			housing developers.		
16	Factors Influencing Housing Purchase Decision	Mohammad Mujaheed Hassan, Nobaya Ahmad and Ahmad Hariza Hashim	The article has focused on the components affecting purchasing decisions of housing. It has a significant scope since housing is one of the most crucial needs for human beings, the study has highlighted what factors can influence consumers to buy houses. Prominently, the article can be of high significance in the field of housing.	The study found that left unpurchased housing units within the country are the outcome of less appealing, inconsistent pricing and other different factors. The study identified nine factors related to housing buying decisions namely demographic background, finance, dwelling features, location, infrastructure facilities, neighborhoods, superstitious belief, developer	2020

				service quality and environment.	
17	Impulse buying: a meta-analytic review	Gopalkrishnan R. Iyer, Markus Blut, Sarah Hong Xiao and Dhruv Grewal	The study has a future scope since it has discussed the importance of impulse buying in consumer studies. It has not only focused on a wide range of internal psychological components but also taken market-related and external stimuli under consideration. Through the concept of impulse buying intent, the study highlights that customers experience a	The study found cognitive psychological and inner affective approaches to impulse purchasing and their connection. Industry as well as method moderators impact impulse buying.	2018

			powerful, persistent and sudden urge to purchase something immediately.		
18	Brand equity and customer behavioral intentions: a mediated moderated model	Meena Rambocas, Vishnu M. Kirpalani and Errol Simms	The study has examined the association between custom behavioural intent and brand equity to be willing for paying a premium price, providing and switching to a positive word of mouth and repeat purchases. Additionally, it explores the moderating effect of education of customers, their gender and age and mediating the contribution of customer	The findings of the study supported an established connection between the four dimensions of consumer behavioural intent and brand equity along with consumer satisfaction mediating the connection. Additionally, the findings supported the moderating impact of customer education and age	2012

			satisfaction on the stated relationships. Also, the study provides a distinct assessment of the impact of brand equity on the intentions of customer behaviour.	on the "customer satisfaction-switch" relationship.	
19	Consumer awareness and sustainability-focused value orientation as motivating factors of responsible consumer behavior	Anja Buerke, Tammo Straatmann, Nick Lin-Hi and Karsten Mu¨ller	The study has explored the antecedents and dimensions of responsible consumption from the perspective of psychology. The scope of the study is major since it highlights that responsible consumption needs to include an individual and societal dimension. It has also highlighted that responsible consumption and	The study found that responsible customer attitudes comprise both personal and societal dimensions. Moreover, the study found that the factor of sustainability is important to take into account to ensure a responsible customer-oriented market.	2015

			responsible corporate behaviour are the opposite faces of the same coin indicating the demand and supply sides of the operating market.		
20	Factors affecting consumer buying behavior	N Ramya and Dr. SA Mohamed Ali	CBB (Consumer Buying Behaviour) is the buying attitude of ultimate customers. Many characteristics, specifics and factors influence a person in what they are and the customer is their shopping habits, decision-making process and purchasing behaviour, the retailer they go to or the brands they buy. The study has significant scope since it	The findings focus that a consumer-oriented service provider needs to act as a psychologist to get the preference of consumers. Moreover, they also have to take the factors and criteria of customer satisfaction into account.	2016

			discusses the factors that may affect buying nature of consumers; thereby framing a clear image of what the service providing or product providing individual needs to focus on.		

CHAPTER 3: RESEARCH METHODOLOGY

3.1 Introduction

Research methodology is the process that is used for gathering and examination of facts at the time of conducting research. It includes the implementation of different techniques and approaches such as data collection, research design, research approach, and sampling so that there is a thorough investigation of the facts related to the research topic. Research methodology is considered a scientific method in which different processes such as qualitative, quantitative, or mixed are used to discover new facts or verify the old facts (Pandey & Pandey, 2021). The conduction of research methodology helps in getting familiarity with the research topic phenomenon so that new insights are gained about it. It helps in the accurate portrayal of the features of the research objectives and identified research problems. As a result, by conducting the research methodology processes there is the identification of solution of a problem by developing generalizations and theories. It is regarded as an observable experience that assists in collecting new information by making use of primary and secondary sources. The research is also conducted by using different design procedures such as descriptive, exploratory, or explanatory depending on the type and need of research (Nayak & Singh, 2021).

Research methodology is a step-by-step investigation process in which answers for unsolved problems are detected. It is an unhurried activity that involves careful recording and testing so that there is a collection of facts through validated procedures. It helps in the logical representation of facts by making use of either qualitative or quantitative research processes (Zangirolami-Raimundo, Echeimberg & Leone, 2018). In the present research which is factors influencing the buying decision of the consumers of low-cost houses in the Mumbai metropolitan region, different research approaches such as positivism paradigm, quantitative research approach, descriptive research design, and primary method of data collection are to be used so that there is collection of facts related to identification of the factors that buyer considers before buying a low-cost housing unit and its impact on his buying decision. This section of the research also provides an overview

of the different processes such as theories, population, pilot study, and data analysis that are to be included for the attainment of valuable insights about the level of awareness amongst the buyers about the various government schemes and incentives for promoting low-cost housing.

3.2 Statement of the Problem/Research Problem

Mumbai metropolitan region (MMR) being one of the most populous cities in India needs to address the problem of lack of affordable housing to address the problem of urban slums. Rapid population growth has transformed Mumbai into one of the most densely populated cities in the world.

As per the report titled States of Slums in India published by the Ministry of Housing and Urban Poverty Alleviation, nearly 1.39 million households live in slums, which is around one-third of total urban households in MMR. This underscores the massive requirement for affordable housing, specifically in the urban areas, without which people tend to opt for informal housing – leading to slums mushrooming in the city. In this backdrop, it is evident that the construction of affordable houses in MMR at a large scale needs to be undertaken. It is also clear that the success of the housing depends on effective public private partnership (PPP), wherein the private developers are encouraged to take up affordable projects in the city as well as periphery. However, there are few critical areas that need to be addressed for effective PPP, wherein the developers find it a lucrative business opportunity and not just another government led scheme. For developers the affordable segment is a comparatively new segment that requires a new approach towards project planning and execution. Also, the target segment for affordable category is also different and a good understanding of consumers' definition of affordable housing and their expectation needs to be considered. Factors affecting consumer buying behavior for houses in MMR also needs to be studied and documented so that it provides substantial insight to the developers who intend to undertake construction of affordable houses and ensure that it remains economically viable for them. In this backdrop the importance of understanding the factors that influence the buying

decision of the customers becomes a critical factor. More specifically, the following problem statements need to be probed thoroughly that would enable and encourage developers to take up housing projects in Mumbai Metropolitan Region (MMR)

1. The expectation of the buyers of a low-cost housing project in MMR is not properly understood by the developers and the planning authorities.

2. While the Government has introduced numerous schemes and incentives to promote low-cost housing, the level of awareness amongst the target audience has not been measured as of now.

3. A huge number of low-cost houses remained unoccupied in the outskirts of MMR, while the city   centers are facing the problem of urban slums.

4. Most of the target customers of the low-cost housing units work in the unorganized sectors, and financial institutions are reluctant to provide home loans to them.

5. There is a lack of participation from the private developers in the low-cost housing space.

3.3 Objective of the Study/Research Objectives

1. To identify the factors that a buyer considers before buying a low-cost housing unit and its impact on his buying decision.

2. To find out the level of awareness amongst the buyers about the various government schemes and incentives for promoting low-cost housing.

3. To find out whether the government's affordable housing schemes and incentives have an impact on the buying decision of the buyers of a low-cost housing unit.

4. To study the usefulness of the various Government incentives provided to the private developers for undertaking low-cost housing projects in Mumbai Metropolitan Region.

5. To study various factors that the banker considers before giving home loan to the buyers of a low-cost housing unit working in informal sectors.

3.4 Research Question

To accomplish the above-mentioned objectives of the study, the study will meet the answers to the following research questions:

The major research question that drives the current study is:

"What are the factors that influence the buying decision of consumers with regard to houses in the Mumbai Metropolitan Region?"

Based on the above research query, the following sub-queries have been formulated:

1. What are the factors that are considered by buyers before buying a housing unit?

2. What is the impact of these factors on buying decisions?

3. What is the level of awareness amongst the buyers about the various government schemes and incentives for promoting housing?

4. Do the government's affordable housing schemes and incentives have an impact on the buying decision of the buyers of housing units?

5. What is the effectiveness of the various Government incentives provided to the private developers for undertaking housing projects in Mumbai Metropolitan Region?

6. What is the direct and indirect impact of various variables on a bank's decision to give home loans to the buyers of a housing unit working in unorganized sectors?

3.5 Research Hypothesis

Hypothesis 1: There is no significant influence of Builders Reputation of low-cost housing project on the buyer's decision.

Hypothesis 2: There is no significant impact of Location on the buying decision of the buyers of the low-cost housing units.

Hypothesis 3: There is no significant impact of Amenities at the low-cost housing project on the buying decision.

Hypothesis 4: There is no relationship between Buyers with family and preference towards gated township over the standalone tower.

Hypothesis 5: There is no relationship between quality of construction and amenities provided in the low-cost housing projects.

Hypothesis 6: There is no relationship between Level of awareness about Pradhan Mantri Awas Yojana (PMAY)schemes to PMAY helpful in fulfilling buyers wish to own a house.

Hypothesis 7: There is no relationship between Buyers who find the PMAY useful for buying affordable housing and decision for buying low-cost housing projects.

Hypothesis 8: There is no relationship between People who are aware of Pradhan Mantri Awas Yojana (PMAY), and buyers' inclination towards buying low-cost housing projects.

Hypothesis 9: There is no relationship between Government Incentives and the developer intending to launch low-cost housing projects.

Hypothesis 10: There is no relationship between availability of low-cost funds for land acquisition and builder's intent to launch low-cost housing projects.

Hypothesis 11: There is no relationship between Government's effort towards making land available within the city limits of MMR will encourage the developers to launch low-cost housing projects.

Hypothesis 12: There is no relationship between single clearance window for providing all the regulatory approvals required will encourage the private developers to launch low housing projects.

Hypothesis 13: There is no relationship between the profitability of the home loan towards low-cost housing and banks decision to sanction home loan to the buyers of low-cost housing unit.

Hypothesis 14: There is no relationship between a borrowers' education level and Lack of fixed income source of borrower in the banker's decision to lend**.**

Hypothesis 15: There is no relationship exists between 'Income profile of the borrower" and "The CIBIL Score of the borrower "in the bank's decision to lend a borrower working in unorganized sector.

3.6 Theories/model adopted for the study.

The theory of the Nicosia model can be taken into consideration to acquire a better understanding of the factors influencing the buying decision of the consumers. The model has been introduced by Francesco Nicosia in the year 1976 so that learning could be gained about buying decision-making of the consumers at the time of purchasing a new product. The model highlights the attempts that are undertaken by the firm to interact with the end-user. It includes focusing on the end user's predisposition to ascertain how a consumer acts in a certain situation. These characteristics of the firm and consumer are known as field ones in which the attributes of the company manufacturing the product and the end-users of the product are taken into consideration (Lunn, 1974). In the second stage, there is the involvement of end-users in the search and assessment process that is impacted by their attitude and intent for buying the commodity. In field three, the actual process of purchasing takes place in which the customer buys the product and makes a payment against the purchased commodity. In field four, there is the execution of the feedback process in which the feedback from the customers or end-users is collected and sent to the manufacturers or firms for consideration and brings improvement in the product. However, initially, the model was criticized by scholars because it was not empirically tested. The variables in the model were also not clearly defined because of which it was not well accepted on a large scale (Zaltman, Pinson, and Angelman, 1973).

Figure 22: Nicosia Model of Consumer Decision Process
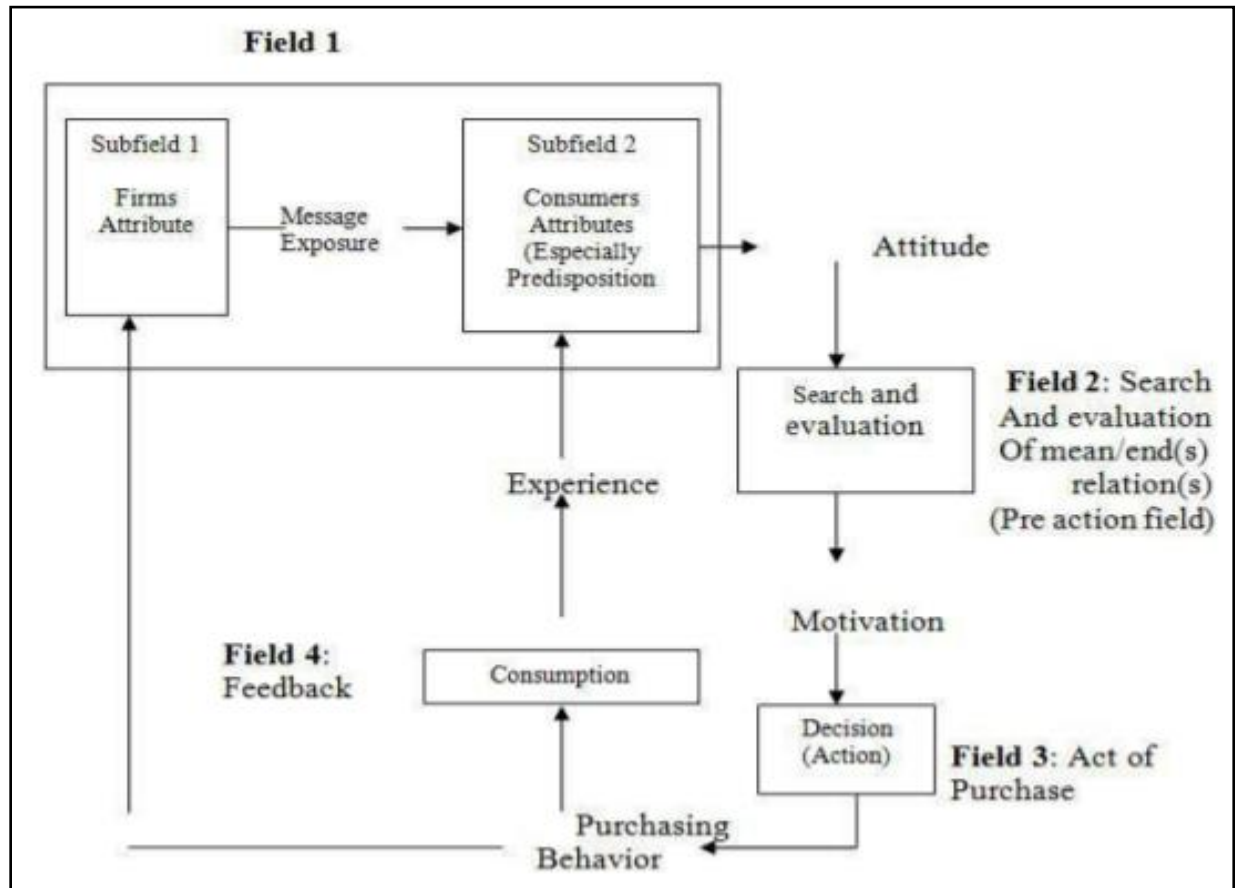
Source: Nicosia, (1976)

The model specifically highlights the association that exists between the enterprise and its potential clients or end-users. As per the model, the firm adopts different means of communication such as advertisement, campaigning, direct marketing, door-to-door selling, and pamphlet distribution to interact with the consumers and ensure that product information is available to them. The consumers react to these interactions by purchasing the product. Therefore, in the Nicosia model of Consumer Decision Process, the major focus is given on developing the connection between the firm and consumer so that there is a better understanding of the influence of consumer on firm and vice versa (Prasad & Jha, 2014).

The Nicosia Model of Consumer Decision Process model is one of the earliest models that were proposed by scholars in the segment of consumer buying decision and behaviorism. It explains the

complexity experienced by the consumers at the time of deciding on buying new products. In the model, Nicosia tries to explain the dynamics that are involved in deciding the place of focusing on the final verdict. Through the flow-chart representation, Nicosia presented that decision-making is not a one-way method and includes different factors that impact the decision-making process. The final decision or verdict that is made by the consumer is a result of a series of small decisions that are taken by the consumer one after the other. It includes consideration of several factors that are either dependent or independent. The consideration of feedback and direct logs are to be taken into account because they act as vital inputs for developing the association between the firm, product, and consumer. Based on Nicosia Model, it can be said that buying decision making is like a cyclic process in which the decision by the consumer is impacted by the marketer's action and the marketer's action is influenced by the consumer feedback (Nicosia Robert, 1976).

3.7 Research Paradigm

The research paradigm serves as a guiding framework for conducting research, emphasizing the application of the scientific method, and taking the researcher's perspective into account. This paradigm is anchored in three fundamental attributes: ontological, epistemological, and methodological considerations, all of which facilitate a systematic research process. Broadly, research paradigms can be categorized into two main types: positivism and interpretivism, as identified by Creswell and Clark in 2017.

In this study, the inclusion of the positivism research paradigm is justified due to its association with a hypothetico-deductive approach that aids in the development of testable hypotheses. It provides a foundation based on the concept of a single, objective reality, offering a scientific method for conducting research. The positivism research paradigm allows for a comprehensive examination of natural and social realities, facilitating the collection and analysis of empirical data. The methodological aspect of the positivism research approach centers on the use of mathematical and statistical tools and techniques for data assessment. This entails employing various

mathematical tools, such as equations and expressions, to evaluate factors influencing low-cost housing purchase decisions. Statistical tools, including Statistical Product and Service Solutions (SPSS), are employed to validate acquired insights accurately.

In summary, the positivism research paradigm is well-suited for the present study as it provides an environment conducive to controlling variables and analyzing causal relationships among study variables. This approach facilitates the generation of new hypotheses and research questions to uncover insights regarding the effectiveness of various government incentives for private developers undertaking low-cost housing projects in the MMR region. Additionally, it supports the estimation of internal validity by emphasizing causality over assessment validity. Therefore, the positivism research paradigm allows for the quantitative analysis of data related to buyers' perception of the PMAY's usefulness in affordable housing purchase, utilizing an appropriate sample size and statistical methodologies.

3.8 Research Method

The research method is the process that is used to collect facts from different sources so that there is the provision of quantitative and qualitative outcomes for the study. The research method can be categorized into two parts which are quantitative and qualitative that help in gathering facts for the study (Apuke, 2017). While focusing on the quantitative research method, it is based on statistical and arithmetic collection and assessment of facts by using numerical expression, and formulae. It includes using the inferential approach to understand the traits of the selected respondents. The quantitative research method also includes implementing an experimental approach so that there is the justification of proposed objectives (Arghode, 2012).

In the present research, there is the use of a quantitative research approach to gather authentic information and accumulate objective data through a wider sample size. The present research is related to determining the factors influencing the consumer buying behavior for low-cost houses in the Mumbai metropolitan region for which the best-suited method is the quantitative research

approach because it provides the numerical basis for the examination of facts accurately (Allwood, 2012). Since the quantitative research approach is based on the use of inferential approach, it allowed finding out the level of awareness amongst the buyers about the various government schemes and incentives for promoting low-cost housing by acquiring understanding about the traits of the selected respondents. It helped in collecting insights from the community that facilitated the conduction of the research process and ascertaining whether the government's affordable housing schemes and incentives have an impact on the buying decision of the buyers of a low-cost housing unit. The inferential approach based on quantitative research includes arithmetic means for data collection and estimation that helped in increasing the authenticity of facts.

The quantitative research is also based on the use of an experimental approach that allowed conducting investigations by reaching unexplored regions. It helped in the collection of facts related to the level of awareness about the various government schemes to promote low-cost housing is low amongst the buyers through generalizations and ascertaining the degree of certainty (Arcidiacono, Procentese & Napoli, 2009). A major aspect of quantitative research is determining basic questions so that they can be answered in the study. By considering this aspect of the quantitative research approach there was the development of basic questions such as what are the factors that are considered by buyers before buying a housing unit, what is the impact of these factors on buying decisions, and what is the level of awareness amongst the buyers about the various government schemes and incentives for promoting housing. The other questions such as what the effectiveness of the various Government incentives is that are provided to the private developers for undertaking housing projects in MMR and do the government's affordable housing schemes and incentives have an impact on the buying decision of the buyers of housing units were also framed in the study. The quantitative research approach is linked with the use of a descriptive research design that explains the events in their natural form without making any manipulations to the data. As a result, by using a quantitative research approach, there was the attainment of valuable

insights about connectivity from the city center influences the buying decision of the buyers of the low-cost housing units by making use of deductive methods of exploration. A deductive method is a top-down approach that helped in the execution of numerical assessment and provision of reliable insights about social infrastructure around the low-cost housing project influencing the buying decision. Hence, it can be said that the quantitative research approach is best suited for the current research because it allowed the adoption of different measures such as averages and variability for the collection of facts related to the role of a single clearance window for providing all the regulatory approvals required in encouraging the private developers to launch low housing projects.

3.9 Research Design

Research design is the most essential part of research methodology that provides a blueprint for the conduction of the research process. It provides the framework that is used for the conduction of the entire investigation process so that there is a justification of the research topic and identified research problem. Research design can be categorized into several parts which are descriptive, explanatory, and exploratory research design (Dulock, 1993). While focusing on the descriptive research design, it is based on the conduction of the research process without making any alterations in the current state of the research (Lans, & Van der Voordt, 2002). On the other hand, in explanatory research design, there is the development of a causal link between the research variables for the collection of facts. In the segment of exploratory research design, there is the development of an association between the investigating facts and the research questions for the collection of facts (Svensson, 1984).

In the present research, descriptive research has been included to justify the results of the study in a strategic manner. Descriptive research design is used for describing a phenomenon and its attributes by focusing on what aspect of the research is in place of why and how aspects are happening in the study. Descriptive research provides a blueprint to the research process that

allows the conduction of the research process systematically. It allowed the formulation of hypotheses and provided large volumes of data so that future investigations could be carried out appropriately (Siedlecki, 2020). It helped in collecting facts related to factors influencing the consumer buying behavior for low-cost houses in the Mumbai metropolitan region without any alteration that ensured the quality and integrity of the facts. The descriptive research design ensured that the facts related to the effectiveness of the various Government incentives provided to the private developers for undertaking low-cost housing projects in MMR were collected in an organized manner by structuring an outline for the entire research process. Additionally, by using descriptive research design there was explaining and examining of the current state of the situation without exercising any control over the variables (Thomlison, 2001). As a result, the facts related to the role of the Income profile of the borrower has more weightage than the CIBIL score of the borrower in the banks' decision to lend to a borrower working in an unorganized sector were gathered appropriately.

The descriptive research design included the use of a questionnaire survey and interview for collecting data that was categorized into two parts and based on a 5-point Likert scale. The research also included a literature review process in which a primary survey was conducted by including urban slum dwellers and general homebuyers in MMR. Apart from this, focused group discussions with developers, planning authorities, and financial institutions were also included in the research so that valuable insights could be gained about the level of awareness amongst the buyers about the various government schemes and incentives for promoting low-cost housing. A major reason behind including focused group discussion was that it helped in acquiring a 360-degree view of the stakeholder. It also facilitated the conduction of the research process and identification of the research gap by developing a conceptual framework that is related to the effective implementation of affordable housing in the Mumbai Metropolitan Region.

3.10 Data Collection

Data collection can be defined as the process that is used for the collection of facts by making use of two main processes which are the primary data collection method and secondary data collection method (Burkard, Knox & Hill, 2012). While focusing on the primary data collection method, it is known as the first-hand collection of facts that have not been collected before. It is collected by using different methods such as interviews, focus groups, surveys, and questionnaires in which the researcher personally reaches the respondents and collects insights from them. In the interview process, the information that is collected by the researcher is based on personal interaction with the respondent that could not be acquired from any other source. The responses that are given by the respondents are recorded in their original form and later transcribed for interpretation purposes (Dauter, 1999). On the other hand, in the case of the focus group, certain individuals are selected and grouped together and then a discussion is held to know their reviews on the specific conversation point. In the survey process, there is the use of a pre-set questionnaire to acquire the responses of the participants. It can be conducted orally or written based on the need of the research. In the questionnaire, there is the development of different questions based on the research topic, objectives, and research problem so that there is the attainment of reliable insights from the selected respondents (Gallagher, 2009). While considering the secondary method of data collection, it is known as a second-hand collection of facts in which insights about the research are collected by referring to the published information sources. It includes referring to books, journals, documentaries, articles, and newspapers that have already been published and authenticated by scholars and intellectuals as authentic work. The secondary data can also be collected by referring to the digital platform that is used as an important source to search for valuable information sources by using search engines like Google Search and Yahoo Search.

In the present research which is a factor influencing the consumer buying behavior for low-cost houses in Mumbai metropolitan region, the primary method of questionnaire survey and interview

has been used to collect the data. For carrying out the survey and interview, there was the development of a closed-ended semi-structured questionnaire that was based on a 5-point Likert Scale. The questionnaire was designed to collect data from prospective homebuyers, developers, and bankers. The Mumbai metropolitan region was considered for data collection related to the buyers of low-cost housing, while the developers consisted of the ones who were operating primarily in the MMR region. Separate questionnaire was also designed for the bankers to capture the data around financing criteria that they consider when it comes to sanctioning loan to the borrowers who intent to apply for home loan for the purpose of buying a low-cost housing unit. The questionnaire was categorized into parts which are the demographic section and research related section. In the demographic section, the major focus was given on acquiring insights about personal details of the participants such as questions were asked related to their name, age, gender, educational qualification, the experience. On the other hand, in the case of the research-related segment questions were asked based on current research topic, proposed objectives, and identified research problems. It included questions such as what the direct and indirect impact of various variables on a bank's decision is to give home loans to the buyers of a housing unit working in unorganized sectors and what are the factors that are considered by buyers before buying a housing unit. The questions were also based on the impact of these factors on buying decisions, level of awareness amongst the buyers about the various government schemes and incentives for promoting housing, and government's affordable housing schemes and incentives have an impact on the buying decision of the buyers of housing units. The questions related to the effectiveness of the various Government incentives provided to the private developers for undertaking housing projects in MMR and buyers finding the PMAY useful for buying affordable housing were also included in the research related section of the questionnaire. Once the questionnaire was prepared, it was distributed to the selected respondents through Google form or Survey Monkey and through personal interactions. The duration of the survey was 15-20 minutes in which the respondents had

to answer the questions that were arranged logically and rationally. Before distributing the questionnaire, the respondents were provided an overview of the research so that they do not get confused and provided their responses in a single attempt.

On the other hand, for the conduction of the interview process, an arrangement of table and chair was made at a calm place so that the participants felt comfortable while providing their responses. Each interview session was conducted for 15-20 minutes in which initially general questions were asked to the respondents followed by research-related questions. Before initiating the research process, it was informed to the respondents that they can leave the interview any time they do not feel comfortable. Additionally, the research also included a process in which a primary survey was conducted by including urban slum dwellers and general homebuyers in MMR. Apart from this, focused group discussions with developers, planning authorities, and financial institutions were also included in the research so that valuable insights could be gained about the level of awareness amongst the buyers about the various government schemes and incentives for promoting low-cost housing. A major reason behind including focused group discussion was that it helped in acquiring a 360-degree view of the stakeholder. It also facilitated the conduction of the research process and identification of the research gap by developing a conceptual framework that is related to the effective implementation of affordable housing in the Mumbai Metropolitan Region.

3.11 Population and Sampling

sampling is a fundamental process frequently employed by researchers to select a representative subset from a larger population. This process is typically divided into two main categories: probability sampling techniques and non-probability sampling techniques (Acharya, Prakash, Saxena & Nigam, 2013).

Within probability sampling, there are various methods to consider, including systematic sampling, multi-stage random sampling, simple random sampling, cluster sampling, and stratified sampling (Landreneau & Creek, 2009). Systematic sampling involves selecting every nth

individual from the population, while multi-stage random sampling combines multiple sampling techniques. Simple random sampling utilizes a number generator mechanism for selection, while cluster sampling makes selections without a predetermined order. Stratified sampling is further subdivided and implemented using simple random sampling for unit selection (Etikan & Bala, 2017).

In contrast, non-probability sampling techniques encompass convenience sampling, consecutive sampling, quota sampling, judgmental sampling, and snowball sampling. Convenience sampling is chosen based on investigator judgment, while quota sampling involves segmenting a larger population into subcategories. Judgmental sampling relies on the researcher's expertise, while snowball sampling employs a referral system (Barreiro & Albandoz, 2001).

In our current research, we have incorporated the simple random sampling method to ensure unbiased selection of the sample. This approach has enabled us to create a representative group from the broader population, shedding light on the factors that influence buyers' decisions when purchasing low-cost housing units (Otzen & Manterola, 2017). By employing simple random sampling, we selected a sample group whose data could be extrapolated to the entire population. This allowed us to gain dependable insights into the direct and indirect impacts of various variables on a bank's decision to grant home loans to buyers of low-cost housing units working in unorganized sectors among our chosen respondents. The simplicity of the simple random sampling method facilitated data collection, minimizing classification errors (Mujere, 2016).

3.12 Sampling Frame, Sampling Plan, Sampling design, sample size, etc.,

Sampling Frame: The sampling frame that was included in the research was urban slum dwellers and general homebuyers in Mumbai Metropolitan Region. The Mumbai Metropolitan Region (MMR), formerly known as the Greater Bombay Metropolitan Area, is an extensive urban landscape that includes Mumbai and its surrounding suburban towns in the northern Konkan division of Maharashtra, situated in western India. Spanning roughly 6,328 square kilometers (2,443 square miles) in size, this region is home to an astonishing population exceeding 26 million people, earning it a place among the world's most densely populated metropolitan areas.
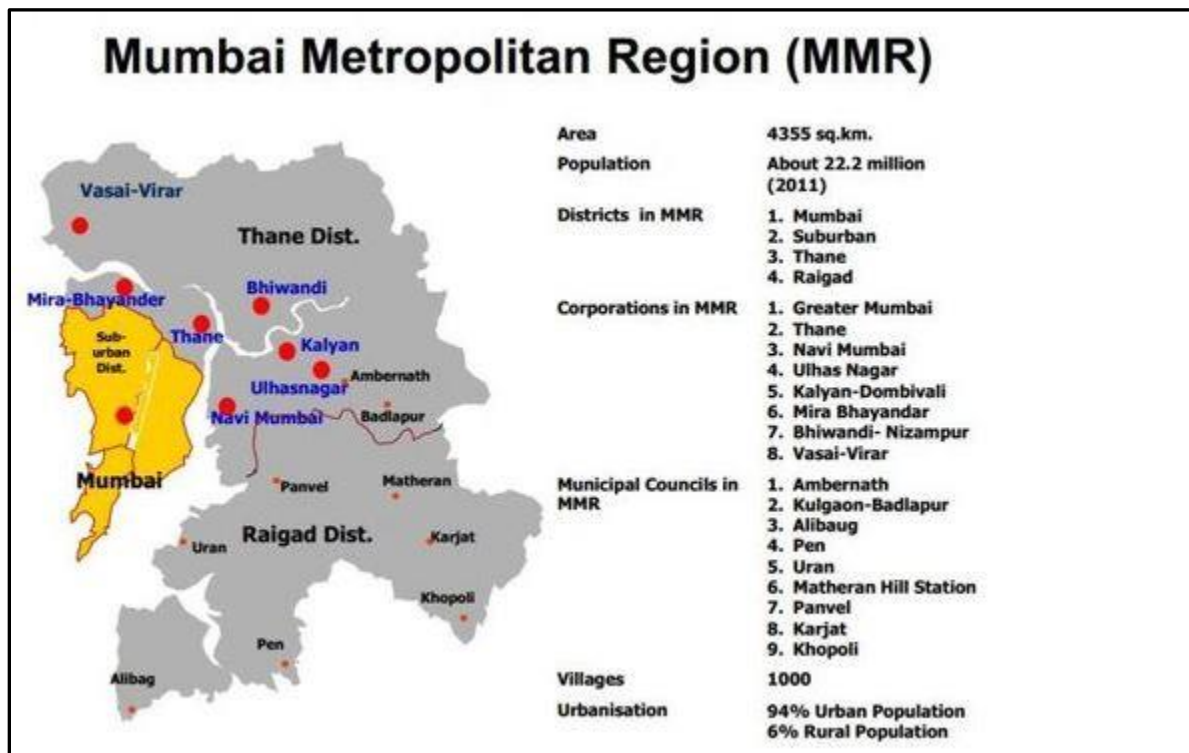
Sampling Plan: A sampling plan is described as the detailed outline of the sampling procedure in which focus is given on the identification of the factors that can be evaluated. It includes designing the sampling scheme and selecting sample sizes that are essential for designing the data storage formats so that all the questions that have been framed in the research are answered. In the present research probability sampling method based simple random sampling plan has been included so that the respondents are selected randomly without any discrimination.

Sampling design:

The sampling design methodology employed in this study plays a pivotal role in the selection of a representative sample of estimations from the population under examination. This methodology encompasses crucial elements, including the delineation of the population's geographical extent, the precise objectives governing the sampling process, and the identification of the specific units to be scrutinized.

In the context of this doctoral research, the focal point of investigation is the Mumbai Metropolitan Region (MMR). This study's geographical scope is deliberately confined to the Mumbai Metropolitan Region to enable a comprehensive assessment of stakeholders, the discernment of areas requiring attention, and the formulation of a conceptual framework tailored to the efficacious implementation of affordable housing initiatives within this specific region.

To elicit the perspectives of property developers, data collection efforts extended to encompass interactions with a carefully chosen cohort of 25 active developers operating within the MMR. Furthermore, the data collection phase also involved engaging with senior managers representing 15 distinct financial institutions. This judicious selection of respondents ensured a robust foundation for the empirical investigation conducted in this study.

Sample size:

The sample size was determined using the Slovin's formula (Tejero, 2011).

$n = N / (1 + Ne^2)$

Where: n = Number of samples

N = Total population

e = Error tolerance (level).

Rounded up to the nearest whole number, we would need a sample size of approximately 400 with an error tolerance of 5% to achieve our desired confidence level.

Based on this the sample size calculated are as follows and the survey was done on the numbers below.

- Buyers- 400
- Developers- 30
- Bankers – 12

However, the response received were as follows:

- Buyers – 350
- Developers – 25
- Bankers – 10

3.13 Pilot Study

A pilot study is a replica of the actual study that is carried out on a small scale to know the limitation and uncertainties that might be faced when conducting the actual research. The conduction of pilot research helps in refining the research process by revising the research questions. It helps in the attainment of reliable insights about research objectives by focusing on a larger version of research analysis. The pilot study is also beneficial in deducing the hypotheses by ascertaining the sampling population and data set (Morin, 2013). A pilot study has been included in the current research so that there was an examination of the research instruments like survey questionnaires and focused group discussion. As a result, through the pilot study, there was the determination of loopholes in the different instruments that were included in the research and ensured that they were rectified before initiating the actual process of the research for collection of facts related to the direct and indirect impact of various variables on a bank's decision to give a home loan to the buyers of a low-cost housing unit working in unorganized sectors (In, 2017).

3.14 Data analysis tools

Data analysis is the process in which different assessment tools such as quantitative and qualitative are used to examine the collected facts and provide précised outcomes. In the quantitative method of data analysis, there is the use of equations and formulae to examine the facts and provide accurate outcomes. It also includes using statistical tools so that the analyzed facts are represented through a pie chart, bar graph, and tables (Awang, 2012). On the other hand, in the qualitative data analysis, there is the use of subjective analysis methods such as literature survey and thematic analysis to examine the facts and provide précised outcomes (Krishnaswamy, Sivakumar & Mathirajan, 2006).

In the present research, Statistical Product and Service Solutions (SPSS) has been included that helped in analyzing the facts that were collated by using a questionnaire survey and interview. These methods provided quantitative as well as qualitative information which increased the need to use statistical analysis for conversion of the data. By using SPSS, there was the attainment of valuable insights about the level of awareness amongst the buyers about the various government schemes and incentives for promoting low-cost housing by using bivariate and descriptive statistical methods of evaluation (Chawla & Sodhi, 2011). The SPSS method also helped in the numerical assessment of the facts that provided valuable insights about the lack of participation from the private developers in the low-cost housing space. As a result, by using a data analysis process based on SPSS, there is the attainment of accurate facts about the preference of individuals for gated township over the standalone tower by the buyers. A major reason behind the inclusion of SPSS based data analysis method was that it was included implementation of mathematical techniques such as frequencies, cross tabulation, descriptive ratio statistics that helped in acquiring accurate insights about the role of a single clearance window for providing all the regulatory approvals required for encouraging the private developers to launch low housing projects. The data analysis process also included the use of literature review and thematic analysis so that there was

a determination of the qualitative aspects of the research (Rosenthal & Rosnow, 2008). It included carrying out the primary survey by focusing on the urban slum dwellers and general homebuyers in Mumbai Metropolitan Region. The qualitative facts were collected by using a focused group discussion process in which developers, planning authorities, and financial institutions were included for the identification of the gap areas. It also helped in acquiring a 360-degree look at all the stakeholders by developing a conceptual framework. It further helped in the implementation of affordable housing in the Mumbai Metropolitan Region. The conduction of thematic analysis led to the categorization of the collected facts into different parts that were based on the responses of the selected participants. By categorizing the different facts into different themes, there is the attainment of valuable insights about the direct and indirect impact of various variables on a bank's decision to give a home loan to the buyers of a low-cost housing unit working in unorganized sectors. Therefore, it can be said that the use of the different data analysis tools such as SPSS and thematic analysis helped in acquiring valuable insights about the research objectives and research problem by adopting quantitative and qualitative assessment procedures. The SPSS played a major role in quantitative analysis of facts while thematic analysis helped in acquiring qualitative facts that helped in determining the role of income profile of the borrower for providing weightage than CIBIL score of the borrower in the bank's decision to lend to a borrower working in the unorganized sector. For the data collection questionnaire survey and Likert scale were used for getting a response to questions. Questionnaires were modified based on the suggestions. For data analysis mean, median, mode, standard deviation, chi-square, correlation, regression, ANOVA, and factor analysis have been used. In order to identify patterns that meet all of the criteria in the data, a descriptive analysis must be performed to describe, display, or summaries the data points in a constructive manner. Frequency analysis, central tendency analysis, dispersion or variation analysis, and rank analysis are the four main classes of descriptive statistics. In most cases, these procedures perform best when applied to a single variable at a time.

Analysis of Variance (ANOVA):

The study used ANOVA for testing the variation in employee engagement with respect to demographic variables and firm characteristics. Age, education, position, and department in which employees work and activities of business, type of enterprise as independent variables.

Correlation:

The correlation test is used in statistics to establish a link between two independent variables. If the coefficient of correlation (r) is positive, then the relationship between the variables is direct, and if it is negative, then the relationship is inverse. The Pearson correlation coefficient was used to calculate the relative strength of relationships between variables in this research.

Factor Analysis:

It is a multivariate statistical technique mainly used for reducing data complexity, where the number of variables sharing similar properties narrowed down to certain constructs (factors). For this study, an initial number of variables were selected to measure employee engagement. The Sample's adequacy was checked through Kaiser-Meyer-Olkin (KMO). Researchers used factor analysis, a powerful data reduction technique, to explore abstract concepts that are difficult to measure directly. Because it reduces a huge number of variables to a small number of underlying factors, factor analysis yields information that is both understandable and usable. Using the approach of factor analysis, many variables can be broken down into a smaller number of factors. This method creates a common score by taking the most common variance out of all the factors.

 Chi square- The chi-squared test is done to check if there is any difference between the observed value and the expected value.

Spearman's rho- The Spearman's rank correlation coefficient (rs), which measures the degree and direction (positive or negative) of a correlation between two variables, is a statistical tool.

Multivariate analysis builds upon the foundation laid by linear regression. It's put to use whenever we need to guess at a variable's worth from knowing the worth of two or more others. The term "dependent variable" describes the variable whose value we wish to forecast (or sometimes, the outcome, target, or criterion variable). The term "independent variables" refers to the factors that are not part of the model but nonetheless affect the outcome of the analysis. It is a statistical process used for estimating a relationship between a dependent variable and one (simple regression) or more independent variables (multiple regression).

3.15 Ethical Considerations

Ethical considerations are the standards and protocols that must be considered when researching so that the entire investigation is conducted logically and rationally. It includes acquiring a permit from all the authorized organizations so that there is no interruption in the conduction of the research midway. While focusing on the current research, the researcher ensured that valid permits have been taken from the governing agency in Mumbai Metropolitan Region so that there is no offense in conducting the research in the segment of low-cost houses in the selected region (Choy, 2014). The researcher also acquired valid permits from the developers, planning authorities, and financial institutions that have been included in the research. It includes acquiring written consent letters from the organizations so that there is evidence for the attainment of the permit for investigation purposes. Additionally, the researcher ensured that written consent letters have been acquired from the participants that have been included in the research so that no issue or controversy arises later. It was ensured to the selected respondents that they will not be harmed (physically or mentally) during the investigation process and had the freedom to leave the survey or interview process whenever they felt uncomfortable. The respondents were ensured that the responses that were given by them would be kept confidential and not shared with any third party.

If at all it was required to be shared, permission would be taken from them, and if they deny it, no information will be shared with anybody.

3.16 Data Validity

Data validity facts have been taken into consideration by ensuring that the questionnaire is prepared by meeting the needs of the research topic, objectives, and research problem. It is ensured that the questionnaire that has been prepared for the investigation purpose is simple and logically arranged so that the respondents do not get confused at the time of responding to the questions. By ensuring the validity of the questionnaire, it is ensured that there is the elimination of error while collecting facts for the research. By using a valid questionnaire, it was ensured that there is an accurate collection of facts by recording sensitivity to change.

3.17 Reliability tests

Cronbach's alpha is used to assess the reliability, or internal consistency, of a set of scale or test items. The resulting α coefficient of reliability ranges from 0 to 1 in providing this overall assessment of a measure's reliability. If all the scale items are entirely independent from one another than $\alpha = 0$; and, if all the items have high covariance's, then α will approach 1. The higher the score, the more reliable the generated scale is. Nunnaly (1978) has indicated 0.7 to be an acceptable reliability coefficient.

The reliability of items in 3 components are tested with Cronbach's' alpha (Cronbach, 1951). If Cronbach alpha reliability coefficient is exceeding the suggested level of 0.70 (Nunnally, 1978) It suggests that the questionnaire is having reliability and can be used for further analysis.

Reputation component: Q10.1 Q10.2 Q10.3 Q10.24

Reliability Statistics	
Cronbach's Alpha	N of Items
.821	4

Amenities Component: Q10.4 Q10.5 Q10.9 Q10.10 Q10.11 Q10.12 Q10.13 Q10.14 Q10.15 Q10.16 Q10.17 Q10.18 Q10.19

Reliability Statistics	
Cronbach's Alpha	N of Items
.967	13

Location Component: Q10.6 Q10.7 Q10.8 Q10.20 Q10.21 Q10.22 Q10.23

Reliability Statistics	
Cronbach's Alpha	N of Items
.942	7

3.18 Summary

Based on the above facts, it can be said that the present research included a positivism research paradigm so that there is a quantitative analysis of facts by a presentation of facts numerically. The study included a quantitative research approach and descriptive research design so that there was the identification of unexplored facts systematically. The deductive research approach has also been included in the research that helped in developing and assessing the hypotheses that were based on predetermined facts related to factors that buyer considers before buying a low-cost housing unit and its impact on their buying decision. Additionally, primary data collection has been included in the research in which data is collected with the help of surveys, interviews, and focused group discussions. It included using a close-ended semi-structured questionnaire that was based on a 5-point Likert scale. The focused group discussion was conducted by developers, planning authorities, and financial institutions, while the primary survey was conducted with urban

slum dwellers and general homebuyers in MMR. The study included a simple random sampling method for the selection of the unit sample in an indiscriminative manner to represent the views of the large population. The ethical consideration, validity, and reliability aspects have also been taken into account to ensure that accurate and authentic facts are included in the study. Therefore, it can be said that the use of different research methodology tools such as research paradigm, approach, design, data collection, sampling, and data analysis has been highly beneficial in acquiring valuable insights about the level of awareness amongst the buyers about the various government schemes and incentives for promoting low-cost housing.

CHAPTER 4: DATA ANALYSIS AND INTERPRETATION

4.1 Introduction

The data analysis was conducted in a nine-stage process. First, frequency distribution analysis was performed. Upon satisfactory results, the factor analysis of the collected data was conducted, followed by a reliability test and descriptive analysis. To test hypothesis correlation analysis, factor analysis, ANOVA multinomial logistic regression, RII rank test was conducted. For all the tests SPSS 25.0 software is used, based on the test the relationships between the independent variables and dependent variables were estimated and hypothesis were tested.

The process of transforming unprocessed data into a structure that can be read, analyzed, and drawn conclusions from; this includes sorting, categorizing, and altering the data to reveal hidden patterns and trends. The analysis has divided in three sections that is Buyers(A), Builders(B) and Bankers(C).

(A)BUYERS DATA

Demographic Details

Consumer demographic profiles are vital to understand, particularly their economic and social circumstances, in order to evaluate their buying behavior in low-cost housing projects. The consumption pattern for the low-cost housing project will be influenced by the consumer's cultural and societal values and obligations. Marketers employ demographic profiles to examine and analyze the market, allowing them to focus on the segments that require attention. In this analysis we have taken sample size as 350 to collect the data according to our questionnaire with the aim of the buyers' decision towards low-cost housing projects.

Figure 23: Buyers Age Group
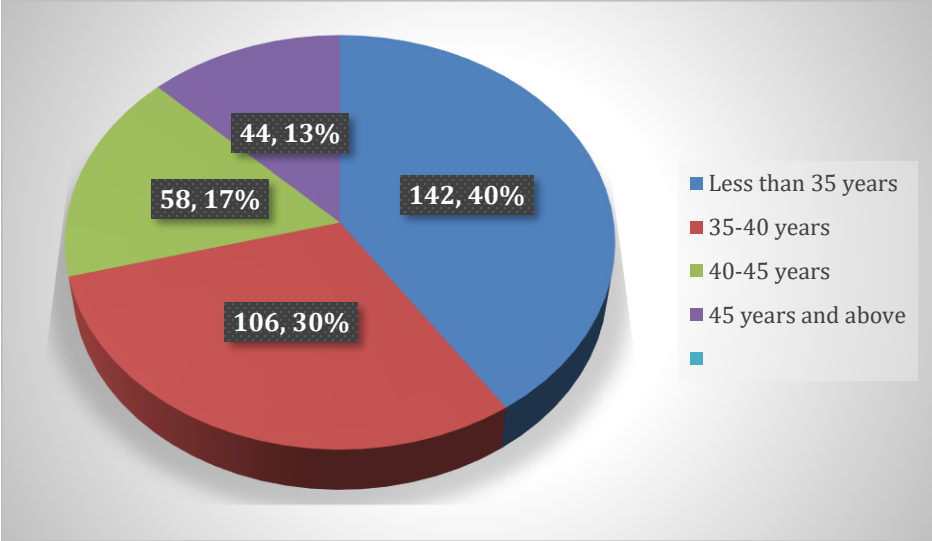
Table 11: Age Group

Age group	Frequency	Percentage
Less than 35 years	142	40%
35-40 years	106	30%
40-45 years	58	17%
45 years and above	44	13%
TOTAL	350	100%

From the above table we can interpret that among 350 respondents, 142 (41%) respondents are less than 35 years of age, and 106 respondents are from 35-40 years (30%).

Figure 24: Buyers Gender
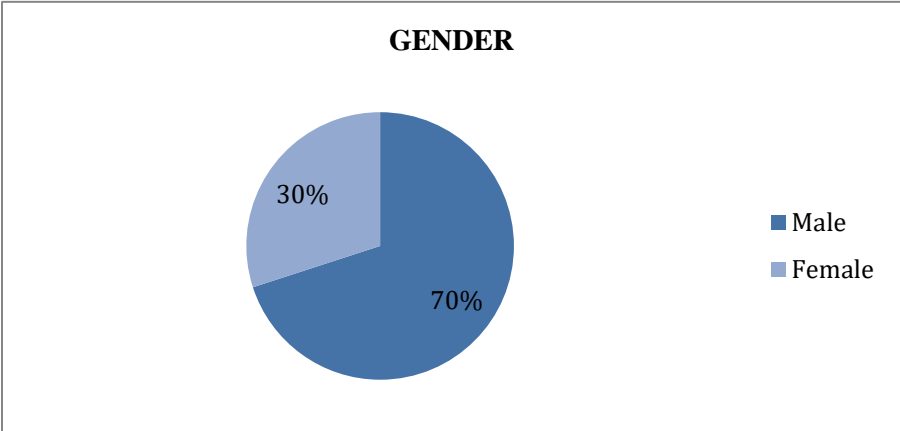
.
Table 12: Buyers Gender

Gender	Frequency	Percentage
Male	245	70%
Female	105	30%

Table 4.2

From the above figure we can interpret that from the 350 respondents there are majorly male respondents i.e., 70%. And only 30% respondents are female. It shows that male respondents are dominating.

Figure 25 : Buyer's Marital Status
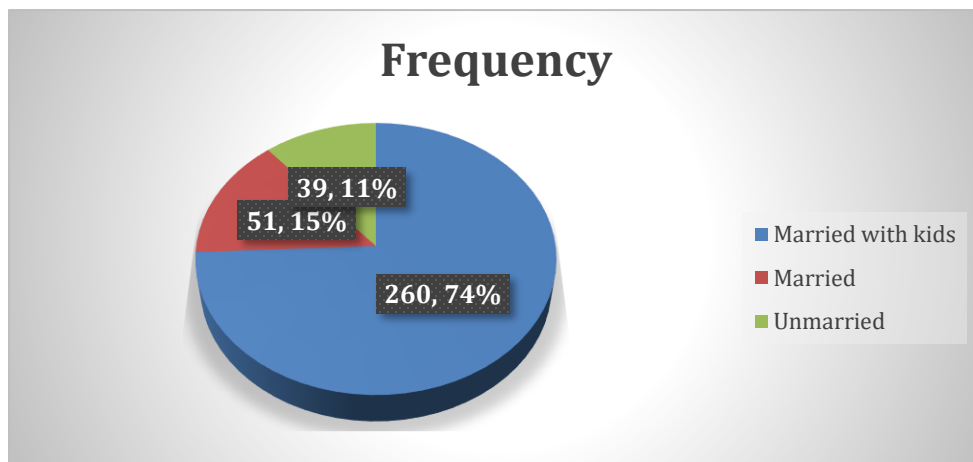
Table 13 : Buyer's Marital Status

Marital status	Frequency	Percentage
Married with kids	260	74%
Married	51	15%
Unmarried	39	11%

From the above figure we can interpret that from the 350 respondents 260 respondents got married with kids and 51 respondents got married and 39 respondents are unmarried.

Figure 26: Buyers If Married and Having Kids - No of Kids
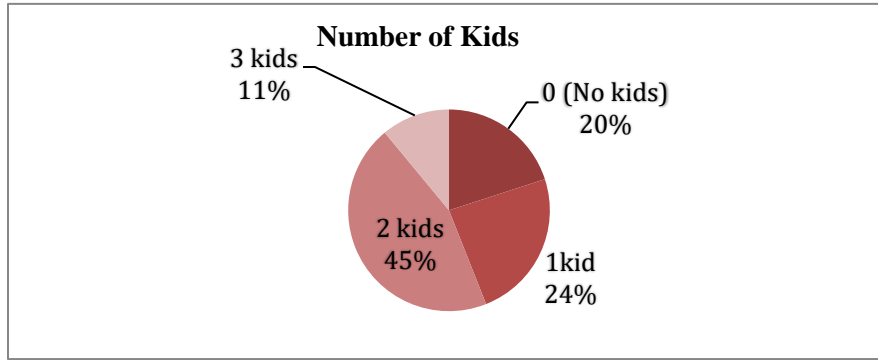
Table 14 : Buyers If Married and Having Kids - No of Kids

If Married with Kids - No of Kids	Frequency	Percentage
0	72	20%
1	84	24%
2	158	45%
3	37	11%

From the above figure we can see majority of the respondents among 350 are married with kids and here we can interpret that among them most of the respondents have 2 kids which is 45% and 24% has single kid.

Socio Economic Profile

Figure 27 : Buyers Education Level
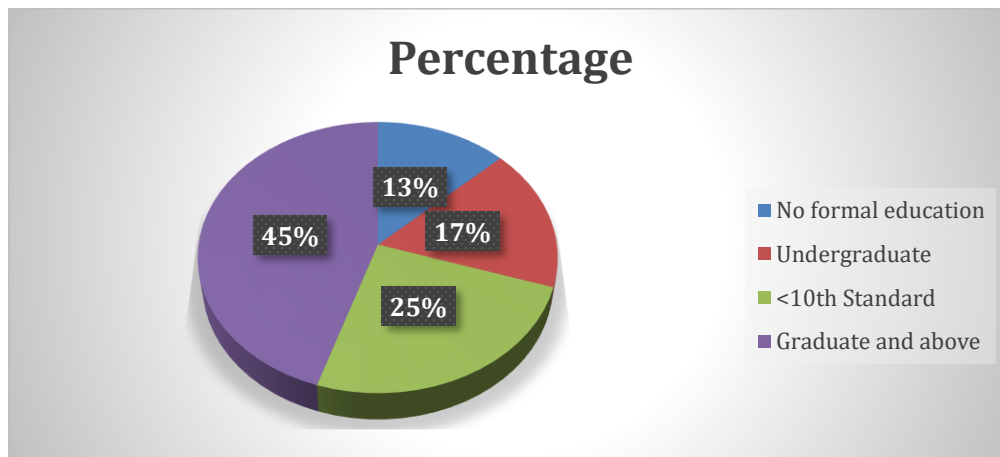
Table 15 : Buyers Education Level

Education	Frequency	Percentage
No formal education	47	13%
Undergraduate	60	17%
<10th Standard	87	25%
Graduate and above	156	45%

From the figure we can interpret that 45% (156) of the respondents among 350 have Graduate and above educational background and no formal education respondents are very few which is 13% (47) respondents.

Figure 28 : Buyers Occupation
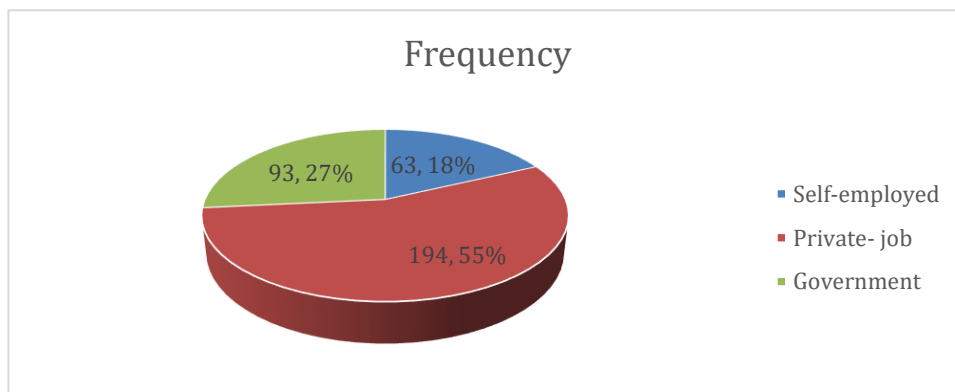
Table 16 : Buyers Occupation

Occupation	Frequency	Percentage
Self-employed	63	18%
Private- job	194	55%
Government	93	27%
Total	350	100%

From the above figure we can interpret that the occupation of the respondents is very important, and it also affects their budget for planning their house. Here from the data, we can check that 194

respondents among 350 have private –jobs and 63 respondents are self-employed and only 93 respondents are from Government jobs.

Figure 29 : Buyers Stay in Rented House or In Their Own House.

Do you stay in rented house or in there own house

7% 5%

88%

- Company Accommodation
- Rented House
- Own house
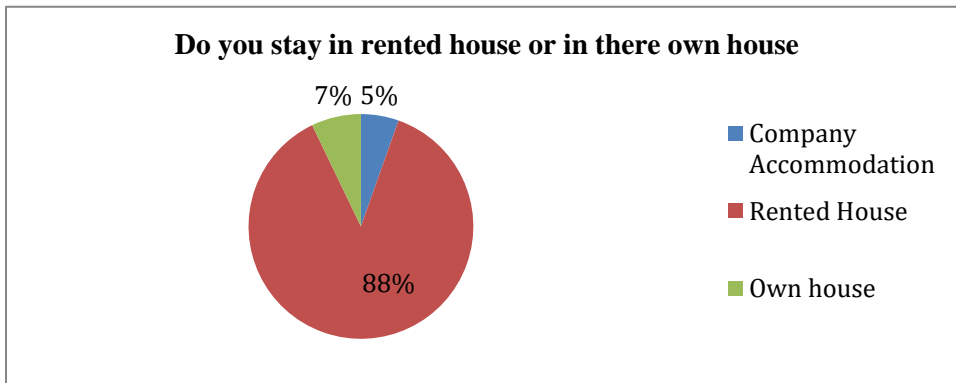
Table 17 : Buyers Stay in Rented House or In Their Own House

Do you stay in rented house or in your own house	Frequency	Percentage
Company Accommodation	19	5%
Rented House	306	87%
Own house	25	7%
Total	350	100%

From the above figure we can state that among 350 respondents only 7% have their own houses whereas 87% don't have their own houses and they are relying upon rented houses.

Figure 30 : Buyers a Domicile of MMR

Domicile of MMR

306

44

Yes   No
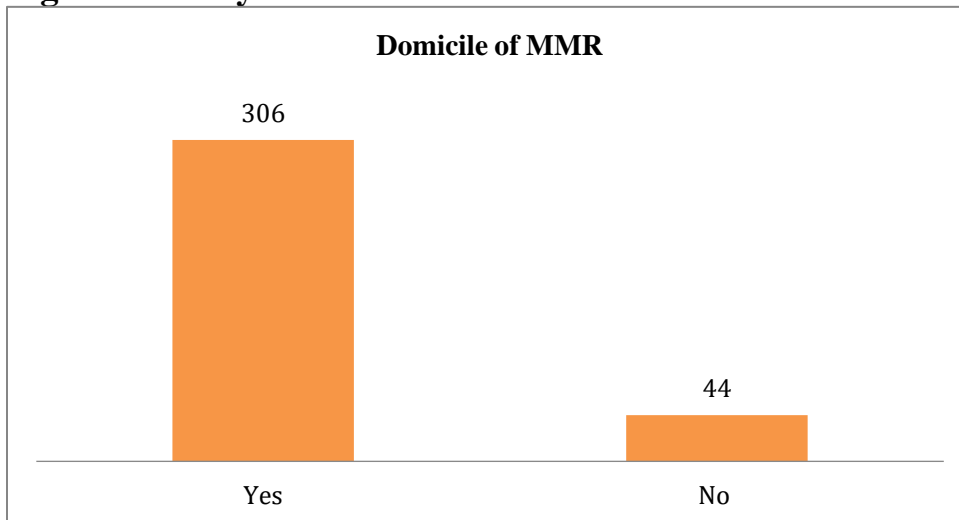
Table 18 : Buyers Domicile of MMR

Domicile of MMR	Frequency	Percentage
Yes	306	87%
No	44	13%
Total	350	100%

From the above figure we can conclude that among 350 respondents, 304 respondents are domicile of Mumbai Metropolitan region. Domicile in the sense permanent resident. Only 44 respondents are not dwelling.

Figure 31 : How Long Buyer Have Been Living in MMR
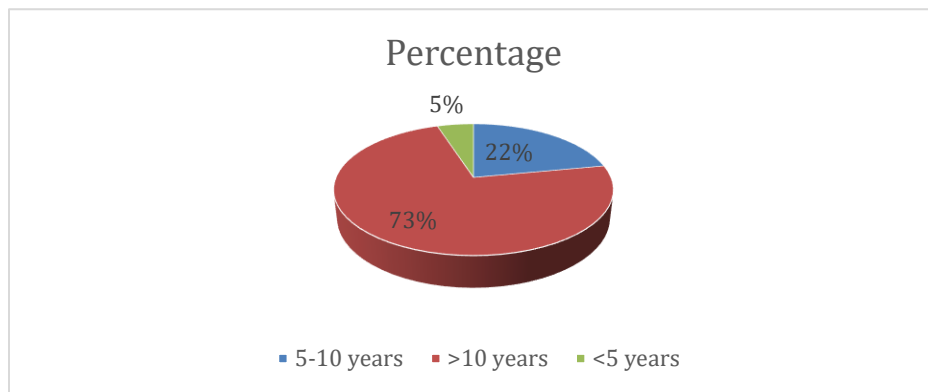
Table 19 : How Long Buyer Have Been Living in MMR

How long you have been living in MMR	Frequency	Percentage
5-10 years	76	22%
>10 years	257	73%
<5 years	17	5%
Total	350	100%

From the above table we can state that the respondents living in Mumbai metropolitan region for a period majorly 257 respondents are living greater than 10 years and 76 respondents are living from 5-10 years.

Figure 32 : Buyers Looking for a low - Cost house to Buy in MMR
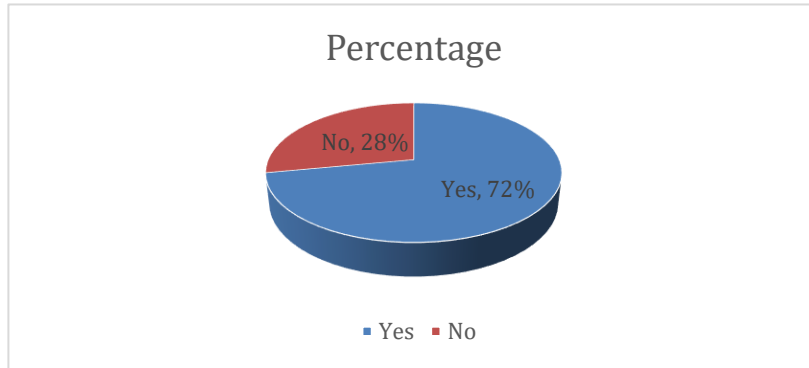
Table 20 : Buyers Looking for a low - cost House to Buy in MMR

Are you looking to buy a low-cost house in MMR	Frequency	Percentage
Yes	253	72%
No	97	28%
Total	350	100%

From the above figure we are trying to interpret the respondents looking to buy a low-cost house in Mumbai metropolitan region. And 253 respondents (72%) of the participants are willing to buy the low-cost houses in MMR and 97 are not they prefer to stay on rent.

Figure 33 : When Buyer Want to purchase the Low - Cost House
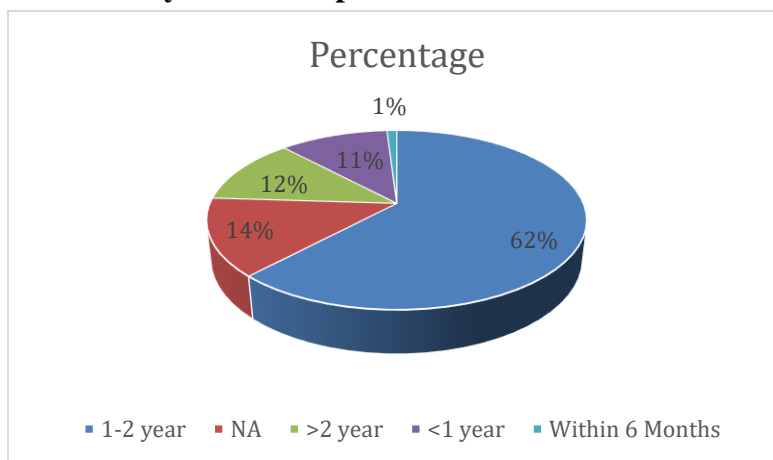
Table 21 : When Buyer Want to purchase the Low - Cost House

If looking to purchase by when you want to purchase	Frequency	Percentage
1-2 year	218	62%
NA	48	14%
>2 year	43	12%
<1 year	37	11%
Within 6 Months	4	1%
Total	350	100%

From the above table we tried to interpret those respondents who are looking to buy a house in MMR by which timeframe they are looking to buy it. From the results we can state that in <1 year time period 11% of the respondents are looking to purchase and in 1-2 year 218(62%) respondents are looking to purchase.

Figure 34 : Budget for Buying Home Low - Cost House
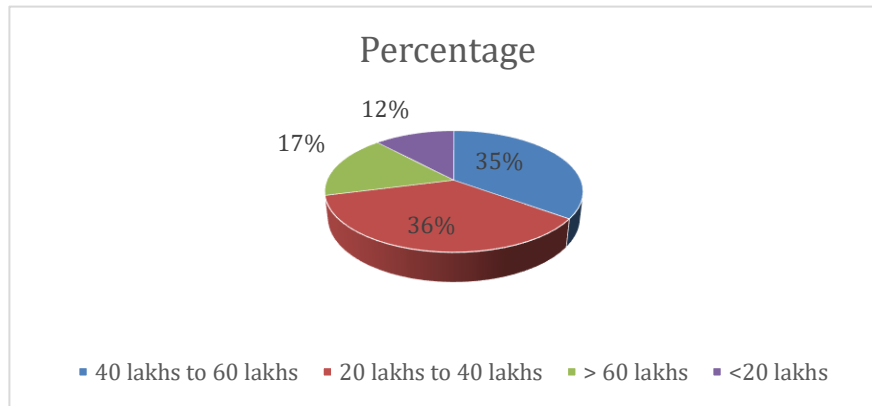
Table 22 : Budget for Buying Home Low – Cost House

Budget for buying home	Frequency	Percentage
40 lakhs to 60 lakhs	124	35%
20 lakhs to 40 lakhs	127	36%
> 60 lakhs	59	17%
<20 lakhs	40	12%
Total	350	100%

From the above figure 35% of the respondents have a budget of 40 to 60 lakhs and 36% have 20 to 40 lakhs. By which we can say that more than 75% of the Buyers have a budget of 20 to 60 lakhs to consider the low-cost housing projects.

Figure 35 : Which Kind of Housing Type Buyers Looking.
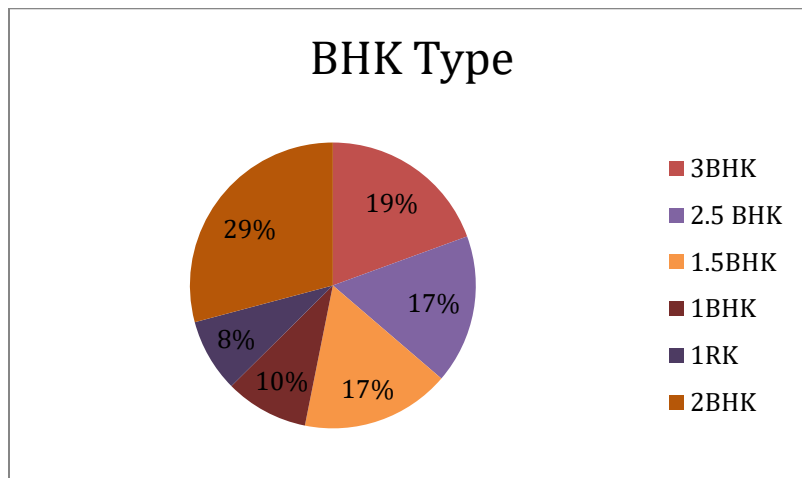
Table 23 : Which Kind of Housing Type Buyers Looking.

BHK Type	Frequency	Percentage
3BHK	68	19%
2.5 BHK	59	17%
1.5BHK	59	17%
1BHK	33	9%
1RK	29	8%
2BHK	102	29%
Total	350	100%

From the above table and figure states that the among 350 respondents what is the house type they are looking for most of the respondents 102 which is 29% states that they are willing to have 2BHK.And 19% are willing to have 3BHK and equally 17% are willing to have 2.5BHK and 1. 5BHK.It shows that respondents are preferring 2BHK house over others.

Figure 36 : Buyers Prefer Standalone Building or gated Community.

Standalone building or gated community?

20%

80%

- standalone
- gated community
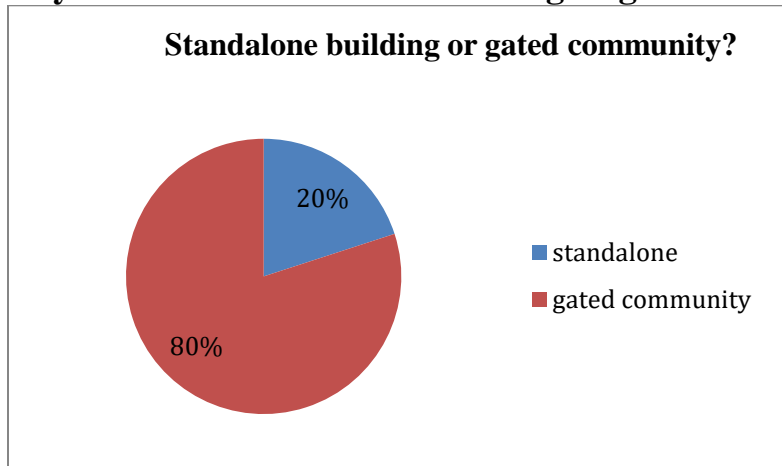
Table 24 : Buyers Prefer Standalone Building or Gated Community

Do you prefer a standalone building or gated community	Frequency	Percentage
Standalone tower	70	20%
Gated community	280	80%
Total	350	100%

From the above chart we can say that more than 80% of the 350 respondents are willing to have gated community rather than standalone building. Only 20% of the respondents prefer to have standalone buildings.

Figure 37 : Interested Size for the Home Buyers

Percentage

1% 8% 8% 19% 1%

29% 17%

9% 3%

- 1 - 2 - 3 - 4 - 5 - 6 - 7 - 8 - 9 - 10
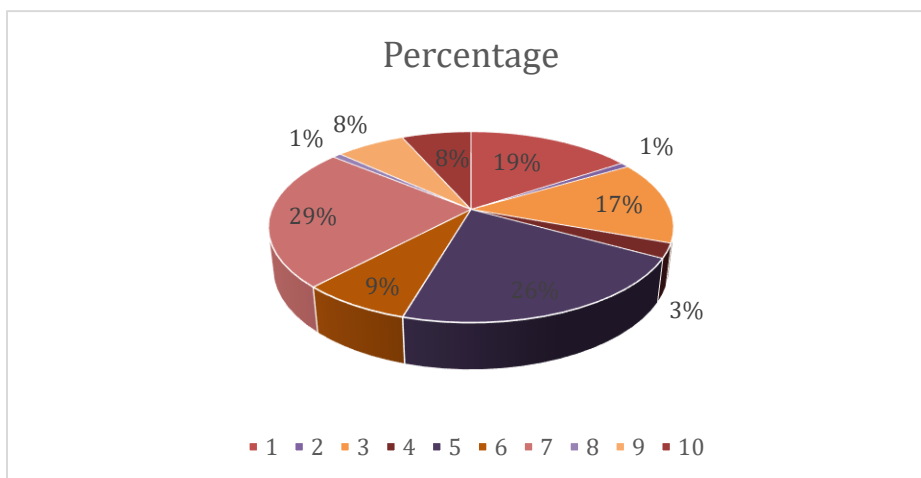
Table 25 : Interested Size for the Home Buyers

Si No	Size (In sqft on carpet area-SQFT)	Frequency	Percentage
1	800	65	19%
2	750	3	1%
3	700	59	17%
4	650	11	3%
5	600	91	26%
6	550	30	9%
7	500	8	29%
8	450	4	1%
9	400	29	8%
10	300	29	8%
	Total	350	100%

From the above figure we can interpret what size of house they are willing to buy and by that mostly 91 respondents are interested with 600 SQFT area and 65 respondents are interested to 700 SQFT area. As the size of the house is a personal choice so we can see variations in the percentages.

Table 26 : Looking to Buy for self - use or for Giving on rent.

Rent/Use	Frequency	Percent
For Rent	26	7.4
End Use	324	92.6
Total	350	100

As is evident from Table for self-use respondents are by far in the majority. However, this distribution is representative 92.6% of the population, whereas for rent is 7.4 %.

Table 27 : Reputation of the Builder

Reputation of Builder	Frequency	Percent
Not Important	53	15.1
Low Important	25	7.1
Neutral	33	9.4

Important	66	18.9
Very Important	173	49.4
Total	350	100

As is evident from Table the reputation of builder very important respondents is by far in the majority. However, this distribution is representative 49.4% of the population, whereas that is not important is 15.1%.

Table 28 : Quality of the Construction

Quality of Construction	Frequency	Percent
Not Important	32	9.1
Low Important	27	7.7
Neutral	55	15.7
Important	96	27.4
Very Important	140	40
Total	350	100

As is evident from Table the quality of the construction of respondents are by far in the majority. However, this distribution is representative 40% of the population, whereas important is of 27.4 %.

Table 29 : Vaastu Compliant

Vaastu Complaint	Frequency	Percent
Not Important	37	10.6
Low Important	36	10.3
Neutral	30	8.6
Important	91	26
Very Important	156	44.6
Total	350	100

As is evident from Table the Vaastu is very important of respondents are by far in the majority. However, this distribution is representative 44.6% of the population, whereas important is of 26%.

Table 30 : Two - Wheeler parking

Scale	Frequency	Percent
Not Important	60	17.1
Low Important	19	5.4
Neutral	37	10.6
Important	99	28.3
Very Important	135	38.6
Total	350	100

As is evident from Table parking is very important of respondents are by far in the majority.

However, this distribution is representative 38.6% of the population, whereas important is 28.3%.

Table 31 : Four - Wheeler Parking

Scale	Frequency	Percent
Not Important	40	11.4
Low Important	43	12.3
Neutral	61	17.4
Important	109	31.1
Very Important	97	27.7
Total	350	100

As is evident from Table the four-wheeler parking is important of respondents are by far in the majority.

However, this distribution is representative 31.1% of the population, whereas very important is of 27.7%.

Table 32 : Proximity to the City Center

Scale	Frequency	Percent
Not Important	42	12
Low Important 25	7.1	7.1
Neutral	57	16.3
Important	93	26.6
Very Important	133	38
Total	350	100

As is evident from Table the proximity to city very important respondents is by far in the majority. However, this distribution is representative 38% of the population, whereas neutral is 16.3%.

Table 33 : Proximity to the Bus Center

Scale	Frequency	Percent
Not Important	38	10.9
Low Important	29	8.3
Neutral	74	21.1
Important	115	32.9
Very Important 94	26.9	26.9
Total	350	100

As is evident from Table the proximity to bus stand is important respondents is by far in the majority. However, this distribution is representative of 32.9% of the population, whereas very important is of 26.9%.

Table 34 : Proximity to the Local Train Station

Scale	Frequency	Percent
Not Important	41	11.7
Low Important	36	10.3
Neutral	68	19.4
Important	106	30.3
Very Important99	28.3	28.3
Total	350	100

As is evident from Table the proximity to train station important respondents is by far in the majority. However, this distribution is representative of 30.3% of the population, whereas very important is of 28.3%.

Table 35 : Regular Water Supply

Scale	Frequency	Percent
Not Important	44	12.6
Low Important	30	8.6
Neutral	52	14.9
Important	108	30.9
Very Important	116	33.1
Total	350	100

As is evident from Table the water supply very important respondents are by far in the majority. However, this distribution is representative 33.1% of the population, whereas important is of 30.9%.

Table 36 : Presence of Clubhouse in the project

Scale	Frequency	Percent
Not Important	49	14
Low Important	26	7.4
Neutral	39	11.1
Important	108	30.9
Very Important	128	36.6
Total	350	100

As is evident from Table, the club house is very important respondents is by far in the majority. However, this distribution is representative 36.6% of the population, whereas important is of 30.9%.

Table 37 : Children Play Area

Scale	Frequency	Percent
Not Important	49	14
Low Important	28	8
Neutral	48	13.7
Important	98	28
Very Important	127	36.3
Total	350	100

As is evident from Table the child play area is very important respondents is by far in the majority.

However, this distribution is representative 36.3% of the population, whereas important is of 28%.

Table 38 : Gym

Scale	Frequency	Percent
Not Important	43	12.3
Low Important	16	4.6
Neutral	45	12.9
Important	91	26
Very Important	155	44.3
Total	350	100

As is evident from Table the gym area is very important respondents is by far in the majority.

However, this distribution is representative 44.3% of the population, whereas important is of 26%.

Table 39 : Swimming pool

Scale	Frequency	Percent
Not Important	47	13.4
Low Important	20	5.7
Neutral	53	15.1
Important	73	20.9
Very Important	157	44.9
Total	350	100

As is evident from Table 39 the swimming pool area is very important respondents is by far in the majority. However, this distribution is representative 44.9% of the population, whereas important is of 20.9%.

Table 40 : Full Power Backup

Scale	Frequency	Percent
Not Important	37	10.6
Low Important	27	7.7
Neutral	57	16.3
Important	102	29.1
Very Important	127	36.3
Total	350	100

As is evident from Table the power backup is very important respondents is by far in the majority.

However, this distribution is representative 36.3% of the population, whereas important is of 29.1%.

Table 41 : Partial Power Backup

Scale	Frequency	Percent
Not Important	46	13.1
Low Important	24	6.9
Neutral	68	19.4
Important	102	29.1
Very Important	110	31.4
Total	350	100

As is evident from Table the child play area is very important respondents is by far in the majority.

However, this distribution is representative 31.4% of the population, whereas important is 29.1%.

Table 42 : Visitors Parking

Scale	Frequency	Percent
Not Important	47	13.4
Low Important	44	12.6
Neutral	68	19.4
Important	109	31.1

Very Important	82	23.4
Total	350	100

As is evident from Table the child play area is important respondents is by far in the majority. However, this distribution is representative 31.1% of the population, whereas very important is of 23.4%.

Table 43 : Lift for Residents

Scale	Frequency	Percent
Not Important	56	16
Low Important	17	4.9
Neutral	55	15.7
Important	100	28.6
Very Important	122	34.9
Total	350	100

As is evident from Table the lift is very important respondents is by far in the majority. However, this distribution is representative 34.9% of the population, whereas important is 28.6%.

Table 44 : Sewage Treatment Plant

Scale	Frequency	Percent
Not Important	51	14.6
Low Important	44	12.6
Neutral	81	23.1
Important	87	24.9
Very Important	87	24.9
Total	350	100.0

As is evident from Table the sewage treatment plant is very important respondents is by far in the majority. However, this distribution is representative 24.9% of the population, whereas important is 24.9%.

Table 45 : Presence of School in the Locality

Scale	Frequency	Percent
Not Important	35	10.0
Low Important	31	8.9
Neutral	72	20.6
Important	108	30.9
Very Important	104	29.7
Total	350	100.0

As is evident from Table the child school is important respondents is by far in the majority. However, this distribution is representative of 30.9% of the population, whereas very important is of 29.7%.

Table 46 : Medical Facility in the Locality

Scale	Frequency	Percent
Not Important	46	13.1
Low Important	29	8.3
Neutral	67	19.1
Important	113	32.3
Very Important	95	27.1
Total	350	100.0

As is evident from Table, the medical facility area is important respondents is by far in the majority. However, this distribution is representative 32.3% of the population, whereas very important is of 27.1%.

Table 47 : Presence of shopping malls in the Locality

Scale	Frequency	Percent
Not Important	40	11.4
Low Important	26	7.4
Neutral	47	13.4
Important	108	30.9

Very Important	129	36.9
Total	350	100.0

As is evident from Table the shopping area is very important respondents is by far in the majority. However, this distribution is representative 36.9% of the population, whereas important is of 30.9%.

Table 48 : Restaurants Nearby

Scale	Frequency	Percent
Not Important	40	11.4
Low Important	19	5.4
Neutral	57	16.3
Important	135	38.6
Very Important	99	28.3
Total	350	100.0

As is evident from Table, the restaurants are important respondents is by far in the majority. However, this distribution is representative 38.3% of the population, whereas very important is of 28.3%.

Table 49 : RERA Approved

Scale	Frequency	Percent
Not Important	44	12.6
Low Important	35	10.0
Neutral	52	14.9
Important	99	28.3
Very Important	120	34.2
Total	350	100

As is evident from Table the RERA approved is very important respondents is by far in the majority. However, this distribution is representative 33.9% of the population, whereas important is 28.4%.

Table 50 : Are you aware of Pradhan Mantri Awas Yojana (PMAY) that has been Introduced to Promote Affordable Housing.

Scale	Frequency	Percent
Slightly aware	61	17.4
Moderately aware	189	54.0
Aware	100	28.6
Total	350	100.0

As is evident from Table the moderate aware respondents are by far in the majority. However, this distribution is representative 54% of the population, whereas aware is of 28.6%.

Table 51 : Do you find PMAY Helpful in Fulfilling your wish to own a house.

Scale	Frequency	Percent	Valid Percent	Cumulative Percent
somewhat helpful	110	31.4	31.4	31.4
Helpful	176	50.3	50.3	81.7
Very Helpful	64	18.3	18.3	100.0
Total	350	100.0	100.0	

As is evident from Table, the PMAY helpful respondents are by far in the majority. However, this distribution is representative 50.3% of the population, whereas very helpful is of 18.3%.

Factor Analysis

The Kaiser-Meyer-Oklin (KMO) and Bartlett's Test is used to test suitability of data for factor analysis. KMO value was 0.955 exceeding the recommended value of 0.70 which can be considered as adequate (Kaiser and Rice, 1974) while Bartlett's Test of sphericity reached statistical significance (Approx. chi-square 8112.789, df 276 and Sig .000) which signifies the data is good for conducting factor analysis.

Table 52 : KIMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.955
Bartlett's Test of Sphericity	Approx. Chi-Square	8112.789
	df	276
	Sig.	.000

Table 53 : Communalities (Factors)

	Initial	Extraction
Q10.1 Reputation of the Builder	1.000	.775
Q10.2 Quality of the Construction	1.000	.769
Q10.3 Vastu Compliant	1.000	.773
Q10.4 Two-Wheeler Parking	1.000	.755
Q10.5 Four-Wheeler Parking	1.000	.701
Q10.6 proximity to the city Centre	1.000	.756
Q10.7 Proximity to the bus stand	1.000	.692
Q10.8 Proximity to the local train station	1.000	.724
Q10.9 Regular Water Supply	1.000	.711
Q10.10 Presence of Clubhouse in the project	1.000	.772
Q10.11 Children play area	1.000	.785
Q10.12 Gym	1.000	.745
Q10.13 Swimming pool	1.000	.762
Q10.14 Full power backup	1.000	.777
Q10.15 Partial power backup	1.000	.736
Q10.16 Visitors parking	1.000	.632
Q10.17 Lift for residents	1.000	.787
Q10.18 Service lift	1.000	.672
Q10.19 Sewage treatment plant	1.000	.550
Q10.20 Presence of school in the locality	1.000	.725
Q10.21 Medical facility in the locality	1.000	.777
Q10.22 Presence of shopping malls in the Locality	1.000	.730
Q10.23 Restaurants nearby	1.000	.758
Q10.24 RERA Approved	1.000	.544

Extraction Method: Principal Component Analysis.

The 24 items were subjected to Principal Component Analysis (PCA) with Varimax Rotation Method Kaiser Normalization is used for factor analysis. The items having factor loading less than 0.50 should be eliminated (Hair et al, 1996). All items have factor loading more than 0.50 so no items are excluded from the analysis. So, all 24 items are accepted and PCA revealed that these 24 items are grouped into 3 components. The total percentage of variance is 72.534. The individual

dimensions of the proposed instrument explained total variance exceeding 60 percent, suggesting

the appropriateness of the process.

Table 54 : Rotated Component Matrix

	Component		
	1	2	3
Q10.1 Reputation of the Builder	.319	.398	.717
Q10.2 Quality of the Construction	.300	.490	.662
Q10.3 Vaastu Compliant	.357	.390	.703
Q10.4 Two-Wheeler Parking	.740	.362	.277
Q10.5 Four-Wheeler Parking	.735	.271	.296
Q10.6 proximity to the city Centre	.389	.764	.146
Q10.7 Proximity to the bus stand	.220	.800	.060
Q10.8 Proximity to the local train station	.312	.777	.151
Q10.9 Regular Water Supply	.740	.344	.212
Q10.10 Presence of Clubhouse in the project	.781	.332	.229
Q10.11 Children play area	.778	.374	.201
Q10.12 Gym	.752	.332	.265
Q10.13 Swimming pool	.786	.323	.199
Q10.14 Full power backup	.783	.289	.283
Q10.15 Partial power backup	.779	.344	.109
Q10.16 Visitors parking	.728	.286	.145
Q10.17 Lift for residents	.768	.365	.252
Q10.18 Service lift	.763	.281	.106
Q10.19 Sewage treatment plant	.725	.155	.023
Q10.20 Presence of school in the locality	.359	.758	.146
Q10.21 Medical facility in the locality	.363	.775	.209
Q10.22 Presence of shopping malls in the Locality	.358	.772	.080
Q10.23 Restaurants nearby	.361	.778	.149
Q10.24 RERA Approved	.100	-.138	.717

Extraction Method: Principal Component Analysis.

Rotation Method: Varimax with Kaiser Normalization.

a. Rotation converged in 5 iterations.

The items loading more than 0.5 are considered to group under the respective components. The

following 24 items have been grouped into 3 components.

Component 1- Builders Reputation, Structural Design, and approvals
Component 2- Amenities

Component 3- Location & Neighbourhood

Component 1: Q10.4 Q10.5 Q10.9 Q10.10 Q10.11 Q10.12 Q10.13 Q10.14 Q10.15 Q10.16 Q10.17 Q10.18 Q10.19
Component 2: Q10.6 Q10.7 Q10.8 Q10.20 Q10.21 Q10.22 Q10.23
Component 3: Q10.1 Q10.2 Q10.3 Q10.24

Table 55 : Component Transformation Matrix

Component	1	2	3
1	.745	.586	.320
2	-.598	.798	-.071
3	-.297	-.138	.945

Table 56 : Omnibus Test of Model Coefficients

Omnibus Tests of Model Coefficients		Chi-square	Df	Sig.
Step 1	Step	145.268	3	0
	Block	145.268	3	0
	Model	145.268	3	0

The omnibus test is **a likelihood-ratio chi-square test of the current model versus the null (in this case, intercept) model**. The significance value of less than 0.05 indicates that the current model outperforms the null model.

Table 57 : Model Summary

Model Summary			
Step	-2 Log likelihood	Cox & Snell R Square	Nagelkerke R Square
1	267.897[a]	0.34	0.49
a. Estimation terminated at iteration number 5 because parameter estimates changed by less than .001.			

Nagelkerke R Squared is **an adjusted version of Cox and Snell R Squared**. The range of values for Nagelkerke fall between 0 and 1. It measures the proportion of the total variation of the dependent variable can be explained by independent variables in the current model.

Table 58 : Hosmer and Lemeshow Test

Hosmer and Lemeshow Test			
Step	Chi-square	df	Sig.
1	9.773	8	0.281

The Hosmer–Lemeshow test is a statistical test for goodness of fit for logistic regression models. It is used frequently in risk prediction models. The test **assesses** whether the observed event rates match expected event rates in subgroups of the model population.

Table 59 : Have you Decided to buy low - cost housing units in MMR.

Classification Table[a]					
	Observed		Predicted		
			Q4, have you decided to buy low-cost housing units in MMR?		Percentage Correct
			No	Yes	
Step 1	Q4. Have you decided to buy low-cost housing units in MMR	No	57	40	58.8
		Yes	15	238	94.1
	Overall Percentage				84.3
a. The cut value is .500					

From the above table it can be observed that 94.1% of the respondents were willing to buy low-cost project houses in MMR.

Table 60 : Significance Between Builder Reputation, Amenities and Location

Variables in the Equation							
		B	S.E.	Wald	Df	Sig.	Exp(B)
Step 1[a]	Builders Reputation, Structural Design, and approvals	0.41	0.162	6.392	1	0.011	1.507
	Amenities	0.628	0.177	12.55	1	0	1.873

	Location & Connectivity	0.717	0.176	16.513	1	0	2.048
	Constant	-5.094	0.68	56.123	1	0	0.006
a. Variable(s) entered on step 1: Builders Reputation, Structural Design and approvals, Amenities, Location & Connectivity.							

Hypothesis 1: There is no significant influence of Builders Reputation of low-cost housing project on the buyer's decision.

From the above table it can be observed that the significant value for builder reputation is 0. 011. If the significant value is less than 0.05, then we reject the null hypothesis. There is significant influence of Builders Reputation of low-cost housing project on the buyer's decision.

Hypothesis 2: There is no significant impact of Location on the buying decision of the buyers of the low-cost housing units.

From the above table it can be observed that the significant value for amenities is 0. The significant value is less than 0.05, Hence we reject the null hypothesis. There is a significant impact of Amenities at the low-cost housing project on the buying decision.

Hypothesis 3: There is no significant impact of Amenities at the low-cost housing project on the buying decision.

From the above table it can be observed that the significant value for location and connectivity is 0. The significant value is less than 0.05, Hence we reject the null hypothesis. There is a significant impact of Location on the buying decision of the buyers of the low-cost housing units.

Hypothesis 4: There is no relationship between Buyers with family and preference towards gated township over the standalone tower.

Chi-Square test:

Table 61 : Standalone Building or Gated Community

Marital Status * Q8 Do you prefer a standalone building or gated community? Crosstabulation					
			Q8. Do you prefer a standalone building or gated community?		Total
			Standalone Towers	Gated Community	
Marital Status	Unmarried	Count	25	14	39
		% Within Marital Status	64.10%	35.90%	100.00%
	Married	Count	14	37	51
		% Within Marital Status	27.50%	72.50%	100.00%
	Married and having kids	Count	32	228	260
		% Within Marital Status	12.30%	87.70%	100.00%
Total		Count	71	279	350
		% Within Marital Status	20.30%	79.70%	100.00%

Table 62 : Chi- Square Test

Chi-Square Tests			
	Value	df	Asymptotic Significance (2-sided)
Pearson Chi-Square	58.157[a]	2	0
Likelihood Ratio	48.206	2	0
Linear-by-Linear Association	55.348	1	0
N of Valid Cases	350		
a. 0 cells (0.0%) have expected count less than 5. The minimum expected count is 7.91.			

From the above table it can be observed that the person chi-square sig value is 0.000 which is less than 0.05. Hence, we reject the null hypothesis. There is a relation between buyers with family

prefer gated community than standalone towers. Married and having kids prefer gated community 87.7% and unmarried prefer gated community only 35.9%

Hypothesis 5: There is no relationship between quality of construction and amenities provided in the low-cost housing projects.

Table 63 : Relationship between quality of Construction and amenities provided in the low- cost housing projects.

ANOVA Test

Scale	N	Mean
Not Important	32	1.6683
Low Important	27	2.7322
Neutral	55	3.2993
Important	96	3.9760
Very Important	140	4.0830
Total	350	3.6055

Table 64 : Anova Test

ANOVA					
Amenities					
	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	190.932	4	47.733	60.245	.000
Within Groups	273.347	345	.792		
Total	464.279	349			

In the above table the study is trying to understand the relationship between quality of construction and amenities provided in the low-cost housing projects. The sig value is 0.000 which is less than 0.05 Hence we reject the null hypothesis. If the quality of construction is very important, then they want more amenities.

Hypothesis 6: There is no relationship between Level of awareness about Pradhan Mantri Awas Yojana (PMAY)schemes to PMAY helpful in fulfilling buyers wish to own a house.

Table 65 : Relationship between Level of awareness about Pradhan Mantri Awas yojana (PMAY)

Correlations			Q11 Are you aware of Pradhan Mantri Awas Yojana (PMAY) that has been introduced to promote affordable housing?	Q12. Do you find PMAY helpful in fulfilling your wish to own a house?
Spearman's rho	Q11 Are you aware of Pradhan Mantri Awas Yojana (PMAY) that has been introduced to promote affordable housing	Correlation Coefficient	1	.791[**]
		Sig. (2-tailed)	.	0
		N	350	350
	Q12. Do you find PMAY helpful in fulfilling your wish to own a house	Correlation Coefficient	.791[**]	1
		Sig. (2-tailed)	0	.
		N	350	350
**. Correlation is significant at the 0.01 level (2-tailed).				

In the above table the study is trying to understand the relationship between Level of awareness about Pradhan Mantri Awas Yojana (PMAY)schemes to PMAY helpful in fulfilling buyers wish to own a house. If the sig value is less than 0.05, then reject the null hypothesis. In this case the sig value is 0.000 which is less than 0.05, Hence we reject the null hypothesis. There is a significant strong correlation between Level of awareness about Pradhan Mantri Awas Yojana (PMAY)schemes to PMAY helpful in fulfilling buyers wish to own a house.

Hypothesis 7: No relationship between Buyers who find the PMAY useful for buying affordable housing and decision for buying low-cost housing projects.

Table 66 : Relationship between Buyers who find the PMAY useful for buying affordable housing and decision low- cost housing projects.

Correlations			Q11 Are you aware of Pradhan Mantri Awas Yojana (PMAY) that has been introduced to promote affordable housing?	Q4 Have you decided to buy low-cost housing units in MMR?
Spearman's rho	Q11 Are you aware of Pradhan Mantri Awas Yojana (PMAY) that has been introduced to promote affordable housing	Correlation Coefficient	1	.499**
		Sig. (2-tailed)	.	0
		N	350	350
	Q4. Have you decided to buy low-cost housing units in MMR	Correlation Coefficient	.499**	1
		Sig. (2-tailed)	0	.
		N	350	350
**. Correlation is significant at the 0.01 level (2-tailed).				

In the above table the study is trying to understand the relationship between Buyers who find the PMAY useful for buying affordable housing and decision for buying low-cost housing projects. If the significant value is less than 0.05, then reject the null hypothesis. In this case the sig value is 0.000 which is less than 0.05, Hence we reject the null hypothesis. There is a significant moderate correlation between Buyers who find the PMAY useful for buying affordable housing and decision for buying low-cost housing projects.

Hypothesis 8: No relationship between People who are aware of Pradhan Mantri Awas Yojana (PMAY) and buyers inclined towards buying low-cost housing projects.

Table 67: Relationship between people who are aware of Pradhan Mantri Awas Yojana (PMAY), and buyers inclined towards buying low-cost housing projects.

Correlations			Q12. Do you find PMAY helpful in fulfilling your wish to own a house?	Q4. Have you decided to buy low-cost housing units in MMR?
Spearman's rho	Q12. Do you find PMAY helpful in fulfilling your wish to own a house	Correlation Coefficient	1	.516**
		Sig. (2-tailed)	.	0
		N	350	350
	Q4 Have you decided to buy low-cost housing units in MMR	Correlation Coefficient	.516**	1
		Sig. (2-tailed)	0	.
		N	350	350
**. Correlation is significant at the 0.01 level (2-tailed).				

In the above table the study is trying to understand the relationship between People who are aware of Pradhan Mantri Awas Yojana (PMAY) and buyers inclined towards buying low-cost housing projects. If the sig value is less than 0.05, then reject the null hypothesis. In this case the sig value is 0.000 which is less than 0.05, Hence we reject the null hypothesis. There is relationship between People who are aware of Pradhan Mantri Awas Yojana (PMAY), and buyers inclined towards buying low-cost housing projects.

(B) DEVELOPER DATA FREQUENCY DISTRIBUTION:

Table 68 : Do you have low - cost housing projects in your portfolio.

Opinion	Frequency	Percent
Yes	8	32.0
No	17	68.0
Total	25	100.0

As is evident from Table the no low-cost housing respondents are by far in the majority. However,

this distribution is representative 68% of the population, whereas with low-cost housing is 32%.

Table 69 : Do you intend to launch low - cost housing projects in the near future.

Opinion	Frequency	Percent
Yes	15	60.0
No	6	24.0
Not Sure	4	16.0
Total	25	100.0

As is evident from Table launch low-cost respondents are by far in the majority. However, this

distribution represents 60% of the population, whereas not wishing to is of 24%.

Table 70 : Do you do a market and consumer research before launching low- cost housing projects.

scale	Frequency	Percent
Never	13	52.0
Sometimes	9	36.0
Most of the times	2	8.0
Always	1	4.0
Total	25	100.0

As is evident from Table never market before launch low-cost respondents is by far in the majority.

However, this distribution is representative 52% of the population, whereas market before is of

36%.

Table 71 : Do you agree the Government is serious about promoting low - cost housing.

Scale	Frequency	Percent
Not at all serious	2	8.0
Less serious	4	16.0
Moderately serious	4	16.0
Serious	12	48.0
Very Serious	3	12.0
Total	25	100.0

As is evident from Table government is serious about promoting low-cost respondents is by far in the majority. However, this distribution is representative 48% of the population, whereas not serious is of 16%.

Table 71 Government has introduced various schemes and incentives for the developers to encourage them to take up low-cost housing projects. Do you find these incentives encouraging enough to take up low-cost housing projects?

Table 72 : Government has introduced various schemes and incentives for the developers to encourage respondents.

Scale	Frequency	Percent
Not at all encouraging	2	8.0
less encouraging	3	12.0
slightly encouraging	12	48.0
Encouraging	6	24.0
Extremely encouraging	2	8.0
Total	25	100.0

As is evident from Table Government has introduced various schemes and incentives for the developers to encourage respondents is by far in the majority. However, this distribution is representative 48% of the population, whereas encouraging to is of 24%

Table 73 : Tax Holiday - Claim 100% deduction on the profits from the affordable housing project.

Scale	Frequency	Percent
Moderately useful	2	8.0
Useful	16	64.0
Very useful	7	28.0
Total	25	100.0

As is evident from Table Claim, a 100% deduction on the profits is useful respondents is by far in the majority. However, this distribution is representative 64% of the population, whereas very useful is of 28%.

Table 74 : Granting infrastructure status to the affordable housing sector.

Scale	Frequency	Percent
Less useful	1	4.0
Moderately useful	12	48.0
Useful	9	36.0
Very useful	3	12.0
Total	25	100.0

As is evident from Table Claim 100% Granting infrastructure status is moderate useful respondents is by far in the majority. However, this distribution is representative 48% of the population, whereas useful is 36%.

Table 75 : Widening the area definition of affordable housing.

Scale	Frequency	Percent
Less useful	4	16.0
Moderately useful	10	40.0
Useful	9	36.0
Very useful	2	8.0
Total	25	100.0

As is evident from Table Claim 100% affordable housing is moderate useful respondents is by far in the majority. However, this distribution is representative 40% of the population, whereas useful is 36%.

Table 76 : Relaxing the ECB guidelines for affordable housing.

Scale	Frequency	Percent
Not at all useful	12	48.0
Less useful	10	40.0
Moderately useful	3	12.0
Total	25	100.0

As is evident from Table ECB guidelines is not useful respondents is by far in the majority.

However, this distribution is representative 48% of the population, whereas less useful is of 40%.

Do you believe that availability of easy funding for land purchase will encourage the developers

to take up low-cost housing projects in MMR.

Table 77: Availability of easy funding.

Scale	Frequency	Percent
Believe	6	24.0
Strongly believe	19	76.0
Total	25	100.0

As is evident from Table availability of easy funding strongly believes respondents is by far in the

majority. However, this distribution is representative 76% of the population, whereas believe is of

24%.

Do you believe that availability of low-cost land from the government for low-cost housing

projects will encourage the developers to take up low-cost housing projects in MMR.

Table 78 : Availability of low - cost land from the Government for Low - Cost housing Projects Strongly believes Respondents.

Scale	Frequency	Percent
Believe	5	20.0
Strongly believe	20	80.0
Total	25	100.0

As it is evident from Table 4.63 availability of low-cost land from the government for low-cost housing projects strongly believes respondents is by far in the majority. However, this distribution is representative of 80% of the population, whereas believe is of 20%.

Do you believe that Single clearance window for fast approvals will encourage the developers to take up low-cost housing projects in MMR.

Table 79 : Single Clearance window for fast approvals strongly believes Respondents.

Scale	Frequency	Percent
Somewhat believe	2	8.0
Moderately believe	7	28.0
Believe	7	28.0
Strongly believe	9	36.0
Total	25	100.0

As is evident from Table 4.64 Single clearance window for fast approvals strongly believes respondents is by far in the majority. However, this distribution is representative 36% of the population, whereas believe is of 28%.

Do you believe that low-cost housing projects can be a profitable business proposition in the coming future?

Table 80 : Low - cost Housing Projects can be profitable believes respondents.

Scale	Frequency	Percent
Somewhat believe	5	20.0
Moderately believe	3	12.0
Believe	9	36.0
Strongly believe	8	32.0
Total	25	100.0

As is evident from Table 4.65 low-cost housing projects can be profitable believes respondents is by far in the majority. However, this distribution is representative 36% of the population, whereas strongly believe is of 32%.

Hypothesis 9: There is no relationship between Government Incentives and the developer intending to launch low-cost housing projects.

Table 81 : Relationship between Government Incentives and the developer intend to launch low - cost housing projects.

Correlations			Q2. Do you intend to launch low-cost housing projects in the near future	Q5. Do you agree that Government provides incentives for the developers to take up low-cost housing projects?
Spearman's rho	Q2. Do you intend to launch low-cost housing projects in the near future	Correlation Coefficient	1	.586**
		Sig. (2-tailed)	.	0.002
		N	25	25
	Q5. Do you agree that Government provides incentives for the developers to take up low-cost housing projects	Correlation Coefficient	.586**	1
		Sig. (2-tailed)	0.002	.
		N	25	25
**. Correlation is significant at the 0.01 level (2-tailed).				

In the above table the study is trying to understand the relationship between Government Incentives and the developer intending to launch low-cost housing projects. If the sig value is less than 0.05, then reject the null hypothesis. In this case the sig value is 0.002 which is less than 0.05, Hence we reject the null hypothesis. There is a relationship between Government Incentives and the developer intending to launch low-cost housing projects.

Hypothesis 10: There is no relationship between availability of low-cost funds for land acquisition and builder's intent to launch low-cost housing projects.

Table 82 : Relationship between Availability of low - cost funds for land Acquisition and builder's intent to launch low - cost housing projects.

Correlations			Q2. Do you intend to launch low cost housing projects in the near future	Q7. Do you believe that availability of easy funding for land purchase will encourage the developers to take up low cost housing projects in MMR.
Spearman's rho	Q2. Do you intend to launch low cost housing projects in the near future	Correlation Coefficient	1	.762**
		Sig. (2-tailed)	.	0
		N	25	25
	Q7. Do you believe that availability of easy funding for land purchase will encourage the developers to take up low cost housing projects in MMR.	Correlation Coefficient	.762**	1
		Sig. (2-tailed)	0	.
		N	25	25
**. Correlation is significant at the 0.01 level (2-tailed).				

In the above table the study is trying to understand the relationship between availability of low-cost funds for land acquisition and builder's intent to launch low-cost housing projects. If the sig value is less than 0.05, then reject the null hypothesis. In this case the sig value is 0.000 which is less than 0.05, Hence we reject the null hypothesis. There is a strong relationship between availability of low-cost funds for land acquisition and builder's intent to launch low-cost housing projects.

Hypothesis 11: There is no relationship between Government's effort towards making land available within the city limits of MMR will encourage the developers to launch low-cost housing projects.

Table 83 : Relationship between Government's effort towards making land available within the city limits of MMR.

Correlations			Q2. Do you intend to launch low-cost housing projects in the near future	Q8. Do you believe that Government's effort towards making land available within the city limits of MMR?
Spearman's rho	Q2. Do you intend to launch low-cost housing projects in the near future	Correlation Coefficient	1	.803**
		Sig. (2-tailed)	.	0
		N	25	25
	Q8. Do you believe that Government's effort towards making land available within the city limits of MMR	Correlation Coefficient	.803**	1
		Sig. (2-tailed)	0	.
		N	25	25
**. Correlation is significant at the 0.01 level (2-tailed).				

In the above table the study is trying to understand the relationship between Government's effort towards making land available within the city limits of MMR will encourage the developers to launch low-cost housing projects. If the sig value is less than 0.05, then reject the null hypothesis. In this case the sig value is 0.000 which is less than 0.05, Hence we reject the null hypothesis. There is a strong relationship between Government's effort towards making land available within the city limits of MMR will encourage the developers to launch low-cost housing projects.

Hypothesis 12: There is no relationship between single clearance window for providing all the regulatory approvals required will encourage the private developers to launch low housing projects.

Table 4.69 Table 84 : Relationship between single clearance Window for providing all the regulatory approvals required.

Correlations			Q2. Do you intend to launch low-cost housing projects in the near future?	Q9. Do you believe that Single clearance window for fast approvals will encourage the developers to take up low-cost housing projects in MMR.
Spearman's rho	Q2. Do you intend to launch low-cost housing projects in the near future	Correlation Coefficient	1	.544**
		Sig. (2-tailed)	.	0.005
		N	25	25
	Q9. Do you believe that Single clearance window for fast approvals will encourage the developers to take up low-cost housing projects in MMR.	Correlation Coefficient	.544**	1
		Sig. (2-tailed)	0.005	.
		N	25	25
**. Correlation is significant at the 0.01 level (2-tailed).				

In the above table the study is trying to understand the relationship between single clearance window for providing all the regulatory approvals required will encourage the private developers to launch low housing projects. If the sig value is less than 0.05, then reject the null hypothesis. In this case the sig value is 0.005 which is less than 0.05, Hence we reject the null hypothesis. There is a relationship between single clearance window for providing all the regulatory approvals required will encourage the private developers to launch low housing projects.

(C) BANKERS DATA DESCRIPTIVE STUDY

Table 85 : Dou you find sanctioning home loan to the buyers of Low- cost housing units Profitable.

Scale	Frequency	Percent
Not at all profitable	1	6.7
Very little profitable	2	13.3
Somewhat profitable	9	60.0
Profitable	3	20.0
Total	15	100.0

As is evident from Table sanctioning home loan to the buyers of low-cost housing units profitable believes somewhat profitable respondents is by far in the majority. However, this distribution is representative of 60% of the population, whereas profitable is of 20%.

Table 86 : Annual Income

Scale	Frequency	Percent
Moderately important	1	6.7
Important	7	46.7
Most important	7	46.7
Total	15	100.0

As is evident from Table, annual income is important for bankers' respondents is by far in the majority. However, this distribution is representative of 90% of the population, whereas moderate is of 10%.

Table 87 : Education Level

Scale	Frequency	Percent	Valid Percent	Cumulative Percent
Less important	9	60.0	60.0	60.0

Moderately important	4	26.7	26.7	86.7
Important	2	13.3	13.3	100.0
Total	15	100.0	100.0	

As is evident from Table education is less important for banker's respondents is by far in the majority. However, this distribution is representative of 60% of the population, whereas moderate is of 26.7%.

Table 88 : Proof of income

Scale	Frequency	Percent
Important	3	20.0
Most important	12	80.0
Total	15	100.0

As is evident from Table proof of income is most important for banker's respondents is by far in the majority. However, this distribution is representative of 80% of the population, whereas moderate is of 20%.

Table 89 : CIBIL Score

Scale	Frequency	Percent
Less important	11	73.3
Moderately important	4	26.7
Total	15	100.0

As is evident from Table, CIBIL is less important for banker's respondents is by far in the majority. However, this distribution is representative 73.3% of the population, whereas moderate is 26.7%.

Table 90 : Nature of Job

Scale	Frequency	Percent
Less important	5	33.3
Moderately important	10	66.7
Total	15	100.0

As is evident from Table nature of job is moderate important for banker's respondents is by far in the majority. However, this distribution is representative 66.7% of the population, whereas less important is of 33.3%.

Table 91 : Sector of Employment

Scale	Frequency	Percent
Less important	3	20.0
Moderately important	7	46.7
Important	3	20.0
Most important	2	13.3
Total	15	100.0

As is evident from the Table sector of employment, moderate importance for banker's respondents is by far in the majority. However, this distribution is representative 46.7% of the population, whereas important is of 20%.

Table 92 : PAN card

scale	Frequency	Percent
Important	1	6.7
Most important	14	93.3
Total	15	100.0

As is evident from Table PAN is most important for banker's respondents is by far in the majority. However, this distribution is representative 93.3% of the population, whereas moderate is of 6.7%.

Table 93 : Aadhar card

Scale	Frequency	Percent
Most important	15	100.0
Not important	0	0

As is evident from Table 4.78 Aadhar is most important for banker's respondents is by far in the majority. However, this distribution is representative 100% of the population.

Table 94 : Ration card

Scale	Frequency	Percent
Moderately important	6	40.0
Important	6	40.0
Most important	3	20.0
Total	15	100.0

As is evident from Table Ration card is important for banker's respondents is by far in the majority. However, this distribution is representative 40% of the population, whereas moderate is 40%.

Table 95 : Existing bank account

Scale	Frequency	Percent
Less important	10	66.7
Moderately important	5	33.3
Total	15	100.0

As is evident from Table existing bank account is less important for banker's respondents is by far in the majority. However, this distribution is representative 66.7% of the population, whereas less important is of 33.3%.

Table 96 : Purpose of Buying

scale	Frequency	Percent
Moderately important	11	73.3
Important	4	26.7
Total	15	100.0

As is evident from Table purpose of buying is moderate important for banker's respondents is by far in the majority. However, this distribution is representative 73.3% of the population, whereas important is of 26.7%

Table 97 : Lack of Documents

Scale	Frequency	Percent
Moderately challenging	2	13.3
Challenging	8	53.3
Very Challenging	5	33.3
Total	15	100.0

As is evident from Table lack of documents is challenging for banker's respondents is by far in the majority. However, this distribution is representative 53.3% of the population, whereas very challenging is of 33.3%.

Table 98 : No Credit History

Scale	Frequency	Percent
Moderately challenging	8	53.3
Challenging	6	40.0
Very Challenging	1	6.7
Total	15	100.0

As is evident from Table no credit history is moderate challenging for banker's respondents is by far in the majority. However, this distribution is representative 53.3% of the population, whereas challenging is of 40%.

Table 99 : Record of default

Scale	Frequency	Percent
Challenging	4	26.7
Very Challenging	11	73.3
Total	15	100.0

As is evident from Table record of default is very challenging for banker's respondents is by far in the majority. However, this distribution is representative 73.3% of the population, whereas challenging is of 26.7%.

Table 100 : Lack of Fixed Income Source

Scale	Frequency	Percent
Moderately challenging	1	6.7
Challenging	8	53.3
Very Challenging	6	40.0
Total	15	100.0

As is evident from Table, lack of fixed income is challenging for banker's respondents is by far in the majority. However, this distribution is representative 53.3% of the population, whereas very challenging is of 40%.

Hypothesis 13: There is no relationship between the profitability of the home loan towards low-cost housing and banks decision to sanction home loan to the buyers of low-cost housing unit.

Table 101 : Relationship between the profitability of the home loan towards low - cost housing and banks decision to sanction home loan to the buyers of low-cost Housing units.

Correlations			Q1, do you find sanctioning home loan to the buyers of low-cost housing units profitable	Q8, do you sanction home loan to the buyers of low-cost housing unit
Spearman's rho	Q1. Do you find sanctioning home loan to the buyers of low-cost housing units profitable	Correlation Coefficient	1.000	.837**
		Sig. (2-tailed)	.	.000
		N	15	15
	Q8. Do you sanction home loan to the buyers of low-cost housing unit	Correlation Coefficient	.837**	1.000
		Sig. (2-tailed)	.000	.
		N	15	15
**. Correlation is significant at the 0.01 level (2-tailed).				

In the above table the study is trying to understand the relationship between the profitability of the home loan towards low-cost housing and banks decision to sanction home loan to the buyers of low-cost housing unit. If the sig value is less than 0.05, then reject the null hypothesis. In this case the sig value is 0.000 which is less than 0.05, Hence we reject the null hypothesis. There is a strong significant positive correlation between the profitability of the home loan and the decision to sanction home loan to the buyers of low-cost housing units.

Hypothesis 14: There is no relationship between a borrowers' education level and Lack of fixed income source of borrower in the banker's decision to lend.

Table 102 : Relationship between a borrower education level and lack of fixed income source of borrower in the banker's decision to lend.

Correlations			Q7 Lack of fixed income source	Q2.2 Education Level
Spearman's rho	Q7 Lack of fixed income source	Correlation Coefficient	1	0.321
		Sig. (2-tailed)	.	0.243
		N	15	15
	Q2.2 Education Level	Correlation Coefficient	0.321	1
		Sig. (2-tailed)	0.243	.
		N	15	15

In the above table the study is trying to understand the relationship between a borrowers' education level and Lack of fixed income source of borrower in the banker's decision to lend. If the sig value is less than 0.05, then reject the null hypothesis. In this case the sig value is 0.243 which is more than 0.05, Hence we accept the null hypothesis. There is no relationship between a borrowers' education level and Lack of fixed income source of borrower in the banker's decision to lend.

Hypothesis 15: There is no relationship exists between 'Income profile of the borrower" and "The CIBIL Score of the borrower "in the bank's decision to lend a borrower working in unorganized sector.

Table 103 : Relationship exists between " Income profile of the borrower" and "The CIBIL Score of the borrower.

Correlations			Q2.1 Annual Income	Q2.4 CIBIL Score
Spearman's rho	Q2.1 Annual Income	Correlation Coefficient	1	0.351
		Sig. (2-tailed)	.	0.199
		N	15	15
	Q2.4 CIBIL Score	Correlation Coefficient	0.351	1
		Sig. (2-tailed)	0.199	.
		N	15	15

In the above table the study is trying to understand the Relationship exists between 'Income profile of the borrower" and "The CIBIL Score of the borrower. If the sig value is less than 0.05, then reject the null hypothesis. In this case the sig value is 0.199 which is more than 0.05, Hence we accept the null hypothesis. There is no relationship exists between 'Income profile of the borrower" and "The CIBIL Score of the borrower "in the bank's decision to lend a borrower working in unorganized sector.

Table 104 : Descriptive Statistics

components	N	Minimum	Maximum	Mean	Std. Deviation
Builders Reputation, Structural Design, and approvals	350	1.00	5.00	3.7679	1.11476
Amenities	350	1.00	5.00	3.6055	1.15339
Location & Neighbourhood	350	1.00	5.00	3.6224	1.12112
Valid N (listwise)	350				

In the above table it can be observed that the (measuring scale 1 to 5) mean score is above 3 for all the three components which indicates that all the three components are having impact on purchase decisions of buyers for low- cost housing projects.

CORRELATIONS

Pearson correlation is used to quantify the association between two scale variables. A correlation coefficient is estimated in the correlation analysis. The correlation coefficient, r, ranges between -1 and +1 and quantifies the direction and strength of the linear association between the two variables. The magnitude of the correlation coefficient indicates the strength of the association. A correlation of $r^2 = 0.9$, nearly 1 suggests a Very strong association between the two variables, whereas a correlation of $r^2 = 0.1$ suggests a weak association. A correlation close to zero suggests no linear association between two continuous variables. Hence the correlation coefficient is a measure of linear association between two variables. If the sig value is less than 0.05 at 5% level of significant then the variables have significant association between them. In the below table all variables' correlations with other variables are significant.

Table 105 : Correlations

		Builders Reputation, Structural Design, & approvals	Amenities	Location & Neighbourhood
Builders Reputation, Structural Design, and approvals	Pearson Correlation	1	.639**	.585**
	Sig. (2-tailed)		.000	.000
	N	350	350	350
Amenities	Pearson Correlation	.639**	1	.726**
	Sig. (2-tailed)	.000		.000

		350	350	350
Location & neighbourhoods	Pearson Correlation	.585**	.726**	1
	Sig. (2-tailed)	.000	.000	
	N	350	350	350

**. Correlation is significant at the 0.01 level (2-tailed).

From the above table it is clear that all three components have positive correlation. There is a strong correlation between Location and Amenities factors.

Objective 4-To study the usefulness of the various Government incentives provided to the private developers for undertaking low-cost housing projects in MMR.

Table 106 : Relative Importance Index

Relative Importance Index:

	RII Score	Rank
1 Tax holiday - Claim 100% deduction on the profits from the affordable housing project	0.840	1
2 Granting infrastructure status to the affordable housing sector	0.712	2
3 Widening the area definition of affordable housing	0.672	3
4 Relaxing the ECB guidelines for affordable housing	0.328	4

In the above table relative importance score is highest (0.840) for Tax holiday therefore it has ranked first then granting infrastructure status score is 0.712 which has ranked second and after that 3rd rank is widening the area for affordable housing. Therefore, it can be said that Government incentives provided to the private developers for undertaking low-cost housing projects in MMR.

Table 107 : To study Various factors that the banker considers before giving home loan to the buyers of a low - cost housing unit working in unorganized sectors.

	RII Score	Rank
1 Annual Income	0.880	4
2 Education Level	0.507	10

3 Proof of Income	0.960	3
4 CIBIL Score	0.453	12
5 Nature of Job	0.533	9
6 Age	0.560	8
7 Gender	0.200	13
8 Sector of employment	0.653	6
9 PAN card	0.987	2
10 Aadhar card	1.000	1
11 Ration card	0.760	5
12 Existing bank account	0.467	11
13 Purpose of Buying	0.653	7

In the above table the study shows various factors that the banker considers before giving home loan to the buyers of a low-cost housing unit working in unorganized sectors. The RII score for Aadhaar card is 1.00 which is first rank and then PAN card (0.987) and proof of income (0.960). Therefore, it can be said that Aadhaar card, Pan card, proof of income, annual income and ration card are very important before giving home loan to the buyers of a low-cost housing unit working in unorganized sectors.

4.3 Summary

Objective1- To identify the factors that a buyer considers before buying a low-cost housing unit and its impact on his buying decision.

By performing the factor test analysis and identifying several factors that have been separated into three components, the first objective has been accomplished.

Component 1- Builders Reputation, Structural Design, and approvals
Component 2- Amenities
Component 3- Location & Neighbourhood

Objective 2- To find out the level of awareness amongst the buyers about the Pradhan Mantri Awas Yojana (PMAY) for promoting low-cost housing.

Objective 3- To find out whether the buyers of low-cost housing units find the Pradhan Mantri Awas yojana (PMAY) useful.

By analyzing the builders' and buyers' knowledge using the Spearman's rho test for correlation and the analysis of variance (ANOVA), objectives 2 and 3 have been met.

Objective 4-To study the usefulness of the various Government incentives provided to the private developers for undertaking low-cost housing projects in MMR.

Various factors have been ranked based on the relative importance index which helps private developers for undertaking low-cost housing projects in MMR.

Objective 5- To study various factors that the banker considers before giving home loan to the buyers of a low-cost housing unit working in unorganized sectors.

This objective has been achieved by showing the importance of various factors that the banker considers before giving a home loan to the buyers of a low-cost housing unit working in unorganized sectors.

Table 108 : Summary of Hypothesis

HO	Hypothesis	p- value	Result
1	There is no significant influence of Builders Reputation of low-cost housing project on the buyer's decision	**<0.05**	**Rejected**
2	There is no significant impact of Location on the buying decision of the buyers of the low-cost housing units	**<0.05**	**Rejected**
3	There is no significant impact of Amenities at the low-cost housing project on the buying decision.	**<0.05**	**Rejected**

4	There is no relations between Buyers with family preferring gated township over the standalone tower.	<0.05	**Rejected**
5	There is no relationship between quality of construction and amenities provided in the low-cost housing projects.	<0.05	**Rejected**
6	There is no relationship between Level of awareness about Pradhan Mantri Awas Yojana (PMAY)schemes to PMAY helpful in fulfilling buyers wish to own a house.	<0.05	**Rejected**
7	No relationship between Buyers who find the PMAY useful for buying affordable housing and decision for buying low-cost housing projects.	<0.05	**Rejected**
8	No relationship between People who are aware of Pradhan Mantri Awas Yojana (PMAY) and buyers inclined towards buying low-cost housing projects.	<0.05	**Rejected**
9	There is no relationship between Government Incentives and the developer intend to launch low-cost housing projects	<0.05	**Rejected**
10	There is no relationship between availability of low-cost funds for land acquisition and builder's intent to launch low-cost housing projects	<0.05	**Rejected**
11	There is no relationship between Government's effort towards making land available within the city limits of MMR will encourage the developers to launch low-cost housing projects.	<0.05	**Rejected**
12	There is no relationship between single clearance window for providing all the regulatory approvals required will encourage the private developers to launch low housing projects.	<0.05	**Rejected**
13	There is no relationship between the profitability of the home loan towards low-cost housing and banks decision to sanction home loan to the buyers of low-cost housing unit.	<0.05	**Rejected**

14	No relationship between a borrowers' education level and Lack of fixed income source of borrower in the banker's decision to lend.	>0.05	**Accepted**
15	No relationship exists between 'Income profile of the borrower" and "The CIBIL Score of the borrower "in the bank's decision to lend a borrower working in unorganized sector.	>0.05	**Accepted**

CHAPTER 5: RESULT, DISCUSSION AND CONCLUSION

5.1 Introduction

This chapter summarizes and concludes the study. The aspects which are studied in this study are factors affecting buyers' decision, builder's expectations regarding low-cost house and PMAY, and challenges faced by bankers while providing housing loan.

A home is a need because it provides shelter and security for its inhabitants. India is a developing country, so it's actively engaged in new technologies, especially those related to the housing market. These developments incorporate a wide range of novel structures and places where such structures are physically possible to go.

Even if there is a wide range of housing options available (Abdullah et al., 2012) in terms of size, kind, location, style, price, and materials, finding the right one might be difficult. Some factors that affect an individual's decision to buy a home are linked to the housing option that person chooses. Based on previous chapter analysis of three sections Buyers(A), Developers(B), Bankers(C) this chapter has been written.

5.2 Discussion on review of literature

According to research by Majid et al. (2012), demographic factors such as a buyer's gender, marital status, and employment all impact the criteria used to evaluate the alternatives when purchasing a home. Haddad et al. (2011) investigated the impact of social, economic, aesthetic, geographical, and marketing constructs on consumer behaviour in Amman. The sexes and age of customers make a difference, according to the results of this study. Homebuyers' decisions are influenced by structural characteristics, location, and finances, according to research by Saw and Tan (2014). Property purchasers are willing to pay a premium for a house located in a desirable area, according to research published by Tan (2011). According to Kulshreshtha et al. (2017a; 2017b), cost is one of the most considered factors when shopping for electronic goods.

According to research conducted by Choguill (2008), residential property values rise when situated in a gated, landscaped compound with security personnel. Consumers place a high value on aspects such as a home's lack of pollution, cleanliness, and security issues (such as the prevalence of crime) when deciding whether to purchase a house (Chapman & Lombard, 2006; Tan, 2011). According to one study by Tan (2011), high-income homebuyers care about intangibles including a neighborhood's ability to accommodate their preferred mode of living, its compatibility with its natural setting, and its safety. Researchers Hunter (1985) and Lang and Le Furgy (2007) found that gated communities command a premium because residents feel safer there.

Similarly, investors in real estate tend to favor purchasing properties in gated communities. A residence in a gated and guarded neighborhood is indicative of the owner's wealth and social standing, according to a study by Tan (2010). Homebuyers prefer gated and guarded communities because they satisfy their desire for exclusivity and prestige. Homebuyers who are weighing their options often prioritize accessibility and environmental friendliness (Tan, 2012). As the product progresses through its life cycle, certain criteria for success become more or less relevant, as stated by Ricardo et al. (2010). Someone looking to buy a property as a single professional could choose proximity to employment prospects, cultural amenities, and other services, while families with young children might prioritize a more natural setting. According to research by Kueh and Chiew (2005), the price of a home is the deciding factor for most buyers. The community's amenities, developer's reputation, and personal safety were also rated highly. It was also discovered that people's housing preferences may vary depending on their demographic status, with the single and married reporting distinct preferences from the widowed and divorced. Accessibility, environmental amenities, and available space are all factors to consider when deciding on a location (Fujita, 1989, quoted in Hurtubia et al., 2010).

Additionally, Yap et al. (2019) noted that having access to a sufficient scope of jobs in the local area is essential for fostering favourable community conditions, which in turn has a beneficial effect on customer satisfaction. As a result, the quality and buying pattern of prospective homebuyers are profoundly affected by housing plans and policies that value a well-developed community environment. Initiation should also be taken to meet inhabitants' expectations and needs for energy efficiency and low-cost housing. According to Hartini and Mardhiyah (2020), the purchase decision process is the steps a consumer takes to form a set of preferences before making a final decision about what goods and services to buy. Each phase consists of its own activities, such as becoming acquainted with the problem, gathering relevant data, weighing alternatives, making a final decision, and finally, using PPB (Post Purchase Behavior). A market stimulant's influence can be seen throughout the decision-making process and is widely recognized as a major factor in customers' happiness and behaviour when making purchases.

5.3 Methodology

The current study employs quantitative methodology to collect a larger sample of genuine information and more objective data. Quantitative research methods are well-suited to the current investigation because they supply a numeric framework for the evaluation of facts, which is especially useful for discovering the elements impacting consumer buying behaviour for low-cost dwellings in the Mumbai metropolitan region (Allwood, 2012). Due to the inferential nature of quantitative research, we were able to learn about the characteristics of the sampled buyers and so assess how well-informed they were about the government programs and incentives designed to increase the supply of affordable housing. It was useful for gathering information from locals that aided in conducting the research and determining whether buyers of low-cost housing units were influenced by government affordable housing programs and incentives. Inferential methods

grounded in quantitative research employ statistical tools for data collection and estimate, the reliability of the findings.

The quantitative study is founded on the same experimental strategy that enabled the investigation of hitherto uncharted territories. Through generalizations and determining the level of certainty, it aided in the collection of facts regarding the purchasers' low level of understanding of the numerous government plans to promote affordable housing (Arcidiacono, Procentese & Napoli, 2009). Responses from the sample size were 350 from the buyers, 25 from developers and 10 from bankers. For the data collection questionnaire survey and Likert scale were used for getting a response to questions. Questionnaires were modified based on the suggestions. For data analysis mean, median, mode, standard deviation, correlation, regression, ANOVA, and factor analysis have been used. The findings of this study are discussed in this chapter.

5.4 Findings of the study
Objective1- To identify the factors that a buyer considers before buying a low-cost housing unit and its impact on his buying decision.

Selection criteria of buyers were identified through surveyed, and the following criteria were evaluated in terms of their importance (referred from Table- 11 to 16): - 1. Age 2. Gender 3. Marital status 4. Having kids 5. Education level 6. Occupation

1. The buyer in this study belongs to middle income group.

2. Most of the buyers are below 35 years of age, that is 41%.

3. Male buyers are dominating as 70% respondents are male buyers.

4. Most of the respondents are mature and have families with kids looking to buy low-cost houses.

5. The respondents are well educated and 45% are undergraduates and above.

6. Most of the respondents are working in private jobs.

Factors that a buyer considers before buying a low-cost housing unit.

72% of the respondents are looking to buy low cost in MMR region. They want to purchase within a 1-2 years of time period. The respondents don't want to buy a very costly house. The house should be between 20 to 40 lakhs as 36% of the buyers expect a house in that range then they like to prefer between 40 to 60 lakhs of range from table 19 to 22.

The type of BHK is one of the important factors. The buyers who are with family and have kids prefer gated community house tables 23 and 24.

The buyers prefer to buy houses between 500-800 sq ft as in table 25.

Table 109 : Factors buyers consider in house selection.

1 Reputation of the Builder
2 Quality of the Construction
3 Vaastu Compliant
4 Two-Wheeler Parking
5 Four-Wheeler Parking
6 Proximity to the city Centre
7 Proximity to the bus stand
8. Proximity to the local train station
9. Regular Water Supply
10.Presence of Clubhouse in the project
11. Children play area
12 Gym
13 Swimming pool
14 Full power backups
15 Partial power backups
16 Visitors parking
17 Lift for residents
18 Service lift

19	Sewage treatment plant
20	Presence of school in the locality
21	Medical facility in the locality
22	Presence of shopping malls in the Locality
23	Restaurants nearby
24	RERA Approved

Reputation of builder is also one of the important factors when selection of the low-cost house. 40% of the respondents agree that they see quality of construction when selecting a house. Vaastu complaint, two-wheeler, four-wheeler parking and nearness to the city is also important factor in selection of the house. Children play area, transportation and school, hospital, mall, facilities are one other factor which decides in house selection stated in table 27 to 48.

By performing the factor test analysis and identifying several factors that have been separated into three components, the first objective has been accomplished.

Component 1- Builders Reputation, Structural Design, and approvals
Component 2- Amenities
Component 3- Location & Neighbourhood

From the above table it can be observed that the significant value for builder reputation. There is significant influence of Builders Reputation of low-cost housing project on the buyer's decision.

It can be observed that the significant value for amenities is 0. The significant value is less than 0.05, Hence we reject the null hypothesis. There is a significant impact of Amenities at the low-cost housing project on the buying decision.

It can be observed that the significant value for location and connectivity is 0. The significant value is less than 0.05, Hence we reject the null hypothesis. There is a significant impact of Location on the buying decision of the buyers of the low-cost housing units.

To make their affordable housing projects a success, builders need to have a firm grasp on what is most important to potential purchasers. This research confirmed previous findings that housing costs are significantly impacted by factors related to geographical features such proximity to stores, public transportation, entertainment options, educational institutions, and places of employment. Buyer's care about the neighborhood's safety and prosperity just as much as they do about the condition of the homes themselves. Prospective homeowners are partial to communities with 24-hour security and gated entry. Plus, it is determined that one's financial situation is a major element to think about while buying a home. When looking for an affordable house, most buyers are more concerned with the purchase price, interest rate, monthly payment, and term of the loan.

There was a statistically significant relationship between transportation costs (such insurance and tax and fuel costs) and housing costs. Given the weighty nature of transportation costs, municipal and state governments are urged to factor them in when making plans for low-cost housing.

Households in which married couples, or large families do not have separate rooms to live in and require a new house. The buyer should look for the house based on their requirement.

Objective 2- To find out the level of awareness amongst the buyers about the Pradhan Mantri Awas Yojna (PMAY) for promoting low-cost housing.

In 2015, the government of India rebranded the Indira Awas Yojana (IAY) as the Pradhan Mantri Awas Yojana (PMAY). With the revamped program, first-time urban Indian homebuyers can now get the same low-interest housing loans as their rural counterparts.

Awareness level was measured through interaction and survey towards the buyers about the Pradhan Mantri Awas Yojna (PMAY) for promoting low-cost housing.

Even though tax breaks for affordable housing were extended till FY22 in the Budget 2021, approximately half of current homeowners in this category are unfamiliar with the Pradhan Mantri Awas Yojana (PMAY) program.

Table 4.40 explains that the moderate buyers are aware about the **Pradhan Mantri Awas Yojna (PMAY)**. However, this distribution is representative of 54% of the population, whereas aware is of 28.6%.

In the table 49 to 51 the study is trying to understand the relationship between Level of awareness about Pradhan Mantri Awas Yojana (PMAY)schemes to PMAY helpful in fulfilling buyers wish to own a house. If the sig value is less than 0.05, then reject the null hypothesis. In this case the sig value is 0.000 which is less than 0.05, Hence we reject the null hypothesis. There is a significant strong correlation between Level of awareness about Pradhan Mantri Awas Yojana (PMAY)schemes to PMAY helpful in fulfilling buyers wish to own a house.

Millions of first-time homebuyers in Mumbai city and the countryside can find relief from their housing problems if they have a thorough understanding of the scheme. Considering the nearing expiry date for MIG I and II categories, "knowledge is a serious issue, especially in urban areas" (found mostly in the urban areas). With 3,410,000 urban households expected to be without a home by 2022, spreading the word about PMAY is more important than ever.

There needs to be a heightened awareness of the value of creative approaches, cutting-edge materials and design, and cutting-edge building technology. Climate-sensitive building practices can be expensive, but they are essential if we are to build sustainably while keeping costs low. Need to incorporate social audits and the feedback they provide into the design process for homes. Strategic actions are also needed to address lingering problems in the city's stock of unallocated buildings. Which gives more transparency to the buyers and develops a sense of encouragement towards housing projects.

Objective 3- To find out whether the buyers of low-cost housing units find the Pradhan Mantri Awas Yojna (PMAY) useful.

PMAY helpful respondents are by far in the majority. However, this distribution is representative 50.3% of the population, whereas very helpful is of 18.3%.

In the table 65 to 67 the study is trying to understand the relationship between Buyers who find the PMAY useful for buying affordable housing and decision for buying low-cost housing projects. If the significant value is less than 0.05, then reject the null hypothesis. In this case the sig value is 0.000 which is less than 0.05, Hence we reject the null hypothesis. There is a significant moderate correlation between Buyers who find the PMAY useful for buying affordable housing and decision for buying low-cost housing projects.

By analyzing the builders' and buyers' knowledge using the Spearman's rho test for correlation and the analysis of variance (ANOVA), objectives 2 and 3 have been met.

The government of India launched the Pradhan Mantri Awas Yojana (Pmay) program to address the rising gap between housing demand and availability in metropolitan areas. It can be beneficial for the buyer as the major goals of this program:

1. Use the expertise of private developers to revitalize slum areas.

2. The Credit Linked Subsidy Scheme aims to provide low-income individuals with access to quality housing.

3. To build low-cost homes alongside the public and private sectors.

4. The funding is intended to subsidize individual beneficiary housing development.

Objective 4-To study the usefulness of the various Government incentives provided to the private developers for undertaking low-cost housing projects in MMR.

Various factors have been ranked based on the relative importance index which helps private developers for undertaking low-cost housing projects in MMR.

1. Table 71 government is serious about promoting low-cost respondents is by far in the majority. However, developers who represent 48% of the population believe government is serious, whereas not serious is of 16%.

2. Table 72 explains that developers agree that Government has introduced various schemes and incentives for the developers to encourage respondents is by far in the majority. However, this distribution is representative 48% of the population, whereas encouraging to is 24%.

3. Tax holiday - Claim 100% deduction on the profits from the affordable housing project. 64% of developers believe it will be useful table 73.

4. Granting infrastructure status is moderate useful respondents is by far in the majority. However, this distribution is representative 48% of the population, whereas useful is of 36% table 74.

5. Table 76 most of the developers agree that ECB guidelines are not useful respondents is by far in the majority. However, this distribution is representative 48% of the population, whereas less useful is of 40%.

6. 76% of the developers believe that easy funding for land purchase will encourage the developers to take up low-cost housing projects in MMR.

7. Availability of low-cost land from the government for low-cost housing projects will encourage the developers to take up low-cost housing projects in MMR.

In table 81 the study is trying to understand the relationship between Government Incentives and the developer intending to launch low-cost housing projects. If the sig value is less than 0.05, then

reject the null hypothesis. In this case the sig value is 0.002 which is less than 0.05, Hence we reject the null hypothesis. There is a relationship between Government Incentives and the developer intending to launch low-cost housing projects.

In table 82 the study is trying to understand the relationship between availability of low-cost funds for land acquisition and builder's intent to launch low-cost housing projects. If the sig value is less than 0.05, then reject the null hypothesis. In this case the sig value is 0.000 which is less than 0.05, Hence we reject the null hypothesis. There is a strong relationship between availability of low-cost funds for land acquisition and builder's intent to launch low-cost housing projects.

In table 83 the study is trying to understand the relationship between Government's effort towards making land available within the city limits of MMR will encourage the developers to launch low-cost housing projects. If the sig value is less than 0.05, then reject the null hypothesis. In this case the sig value is 0.000 which is less than 0.05, Hence we reject the null hypothesis. There is a strong relationship between Government's effort towards making land available within the city limits of MMR will encourage the developers to launch low-cost housing projects.

The PMAY was introduced as a novel initiative to alleviate India's 'housing scarcity' by providing economically weaker section (EWS) and low-income groups with four distinct housing opportunities (verticals) (LIG). The scheme's rules were updated in 2017 to cover the middle-income group (MIG).

The following are the suggestions for the Government to improve the PMAY.

1. Better understand the policy ramifications and how to implement them. Start a hub where designers, consultants, contractors, government officials, and recipients can all meet and talk about the problems they're trying to solve. Addressing state and city-specific differences is also important, as is encouraging the creation of affordable housing beyond available Central plans to close the sizable demand gap.

2. Strategies by which cheap land could be made available/ land banked for affordable housing in cities must be imparted. Services must be provided to sites before affordable housing projects are undertaken.

3. Government employees need to be educated on cutting-edge tools and supported in creating novel policy structures like timetables and tender formats that encourage the use of creative approaches.

4. Housing for the low-income must be adapted to its environment, both in terms of design and delivery methods and climate-related operating considerations. In order to achieve this goal, it is necessary to consider factors such as the local climate, the layout of the site, cultural norms and practices, personal preferences, available resources, and vendor networks, among other things.

5. Better management of demand assessment is required because many recipients lack full details on the several sectors covered by PMAY.

6. A yearly tally of the government's territory and the number of illegal settlements therein is essential. To keep track of illegal shacks, a designated officer must be put in charge. The government should take deliberate steps to address the illegal slums.

Objective 5- To study various factors that the banker considers before giving home loan to the buyers of a low-cost housing unit working in unorganized sectors.

This objective has been achieved by showing the importance of various factors that the banker considers before giving a home loan to the buyers of a low-cost housing unit working in unorganized sectors.

Bankers consider these all are important points as sanctioning house loan.

1. Sanction of loan can be profitable.

2. Annual income

3. Education level

4. Proof of income

5. CIBIL score

6. Nature of job

7. Necessary documents of address, job, and income

As stated from table 86, annual income is important for bankers as it decides about the eligibility and amount of loan to be sanctioned. Table 92 to 94, bankers believe that Aadhar is most important for banker's respondents is by far in the majority with PAN card and Ration card as other important documents.

In table 101 the study is trying to understand the relationship between the profitability of the home loan towards low-cost housing and banks decision to sanction home loan to the buyers of low-cost housing unit. If the sig value is less than 0.05, then reject the null hypothesis. In this case the sig value is 0.000 which is less than 0.05, Hence we reject the null hypothesis. There is a strong significant positive correlation between the profitability of the home loan and the decision to sanction home loan to the buyers of low-cost housing units.

Using the data in table 102, the researchers attempt to deduce how a borrower's degree of education and the availability of other income sources affect the lender's final choice to extend credit. Do not accept the null hypothesis if the sig value is less than 0.05. The sig value of 0.243 is more than the significance level of 0.05, hence the null hypothesis is accepted. A borrower's lack of a stable income source and the borrower's level of education have no bearing on the bank's willingness to lend.

Various other factors which affect buyers for taking loan from the bank are

1. Lack of documents

2. No fixed income

3. Credit history

Lack of documents and credit history is the major challenges the bankers face while sanctioning the loan to the buyers.

Table 103 shows how the researchers hope to deduce the borrower's income and creditworthiness from the borrower's CIBIL score. The null hypothesis should be rejected if the significance level is lower than 0.05. Since the sig value of 0.199 is more than the significance level of 0.05, we reject the alternative hypothesis. If a borrower is employed in the informal economy, the bank will not base its lending decision on the applicant's CIBIL score or income profile.

The lack of affordable housing options and funding is a major factor in India's failure to meet the demand for housing. With the goal of helping the urban poor acquire or construct a home, the government established the Credit Linked Subsidy Scheme (CLSS) as part of the Pradhan Mantri Awas Yojana to subsidize housing loans.

Especially for the low-income population, there is a severe lack of housing, leading to the proliferation of slums. According to PMAY's most recent projections, 11.2 million homes are needed in metropolitan areas to alleviate the housing crisis. The demand-supply imbalance also contributes to the upward pressure on prices. The poor and the low-income find themselves trapped in a downward spiral that forces them to resort to illicit means of subsistence.

It's extremely challenging to break out of the cycle of poverty for those with low incomes. Due to financial constraints and a dearth of legal housing opportunities, they are forced to turn to less desirable, and frequently illegal, alternatives. However, they are still forced to pay exorbitant

interest rates to borrow money from the shadow economy to afford a place to live, as they are not creditworthy. So that more people will choose to get loans from banks, it is important for banks to educate potential borrowers on the numerous schemes they offer, and the simple lending process and eligibility requirements required to qualify for such loans.

5.5 Identification of Underlying Problems via Review of Related Literature

The following details come from a literature review conducted to evaluate the voids in the provision of affordable housing.

Attributes of homes will be used to determine which ones are preferred (Tan and Cheah, 2013). Previous studies have established that structural, locational, and neighborhood characteristics of houses are significant determinants of housing costs. No matter if the house is in a city or a rural area, its location features are strongly linked to its physical setting. A buyer's decision is heavily influenced by how far away the property is from their place of work, their children's schools, and their favorite stores or malls. (Sean and Hong, 2014).

Several empirical research have found that structural features are important to households when making a decision to purchase a home. Lot size, the number of bedrooms and bathrooms, and an attached garden are all structural features mentioned by (Teck-Hong, 2012) as influencing homebuyer choices.

When deciding whether to purchase a home, it is crucial for families to take their financial circumstances into account. Additionally, homebuyers' decisions to purchase a residential property are heavily influenced by purchasers' financial qualities (Sean and Hong, 2014; Thaker and Sakaran, 2016). Financial factors such as interest rate, home price, household income, and access to finance are all discussed by Mariadas et al. (2019). Financial aspects, such as the payment time, interest rate, and monthly payment amount, are the primary concerns when deciding on a home to

buy, as indicated by Li et al. (2014). Housing affordability was found to be positively impacted by financial factors, according to research by Zainon et al. (2017).

To entice real participation from the private sector, current policies and incentives are deemed insufficient. In addition, the extended schedules make it more important to keep an eye on expenses, and a scarcity of experienced labour slows down the use of cutting-edge building techniques. As of January 2018 (RBI)

The private sector is perceived as fragmented into regional enclaves with limited resources for expanding its involvement in the affordable housing market. Regulations such as RERA have also reduced the number of companies in the market (Deloitte 2016).

Inadequate investment in affordable housing's lifecycle costs and the beneficiaries' desire to live there is blamed on a lack of attention to sound design and technologies supporting construction. Current efforts are still directed towards mass-producing generic layouts that don't take into account regional factors like climate, culture, and goals (Tiwari and Rao April 2016).

The process of involving and choosing beneficiaries is recognized as a major issue. Both the process of listing beneficiaries and the distribution of funds are complicated by political involvement. Even if social auditing is required for PMAY-U, it's not clear what effect it will have on the initiative. As a result, those who are supposed to benefit from the system express feelings of exclusion or discontent (Deloitte 2016).

It's important to put more effort into the operationalization and maintenance of the homes that are actually delivered. There are already indications that this trend could lead to the proliferation of "new urban slums" or "vertical slums," neighborhoods where depressing housing conditions endure even when people move to a newer building (Gupta July-2018).

The potential for reshaping the low-cost housing market is hampered by systemic limitations, for example.

Neither governments nor private sector entities can quickly foresee or react to new practices because of the established culture of due procedures. Both academics and recipients have complained about being given too little room to have their voices heard (CRISIL 2018).

The absence of local capacity and technical experience has prevented many states and cities from maximizing available project money or enacting changes, according to a Working Group on Capacity Building in Urban Development (GOI 2017). It was pointed out that so far, Capacity Building has been given relatively little importance, and that much of the effort has been put towards administrative training. There is little indication of systematic demand, budget allocation, or implementation of skill enhancement projects. The private sector and civil society have inefficient lines of communication as well.

Designing an affordable housing market calls for well-considered strategies focused on reorganizing the framework of housing provision. When developing new markets, it is not enough to just identify and handle demand and supply limitations; rather, designers must also consider a wider range of structural limitations.

5.6 Implication of the study

India has a significant shortage of affordable housing in urban areas. According to a report by the Ministry of Housing and Urban Affairs, the urban housing shortage in India was estimated to be around 18.78 million units as of 2012, and it further increased to 34.5 million in 2022.

One of the main reasons for the housing shortage in urban areas is the lack of affordable housing options. The high cost of land, construction materials, and labour, along with limited access to financing, make it difficult for people to afford decent housing in urban areas. As a result, many people are forced to live in informal settlements or slums, where they face numerous challenges such as poor living conditions, lack of basic amenities, and limited access to healthcare and education.

Although the various governments be it in past or present have introduced numerous housing schemes to tackle the problem of housing shortage, we are still far away from the milestone of reaching a stage where every citizen has a decent accommodation for himself. The Pradhan Mantri Awas Yojana (PMAY) and the Housing for All scheme was launched with a very noble mission, but the implementation of these programs has been slow, and there are still significant challenges in providing adequate housing to all urban residents.

The urban housing shortage in India is a complex issue that requires a multi-faceted approach. It will require a combination of government initiatives, private sector participation, and most importantly a better understanding of what are the factors that the buyer of a low-cost house wants. community engagement to address the issue effectively. This study's main objective was to study the factors that are considered paramount by the buyers. Thus, the findings of this study provide significant insights for the developers, bankers, and the policy makers in the government regarding what is needed to make affordable housing a success in India.

Implication of the Study on Developers

Understanding the preferences of buyers of low-cost housing unit is critical for any real estate developer, and this is particularly true for Indian developers. India's real estate market is highly competitive, and developers must stay attuned to the changing preferences of buyers to stay ahead of the curve.

Here are a few benefits of the study to the developers:

1. **Meeting customer needs:** Understanding the key factors that buyers look for when buying an affordable house can help developers create properties that meet the needs of their target audience. By understanding what buyers value the most, developers can focus on creating properties that cater to those needs and desires, which can ultimately lead to higher customer satisfaction and loyalty.

2. **Market positioning:** Understanding buyer preferences can help developers to position their projects in the market. For example, if buyers are looking for properties that are environmentally friendly, developers can emphasize the sustainability features of their properties in their marketing and branding efforts.

3. **Risk mitigation:** By staying on top of changing buyer preferences, developers can mitigate the risk of building properties that are no longer in demand. This can help them avoid costly mistakes and minimize the risk of unsold inventory.

4. **Competitive advantage**: Knowing what buyers want can give developers a competitive advantage over their rivals. They can use this information to differentiate themselves from competitors and create properties that stand out in the market.

In conclusion, knowledge of the key factors that buyers look for when buying an affordable house is crucial for Indian real estate developers. By understanding their target audience, developers can create properties that meet their customers' needs and desires, giving them a competitive advantage in the market. This will also help them to tackle the problem of unsold inventory as a complete knowledge of the customer's preference will help the developers to launch the right projects that will be well received by the buyers.

Implication of the study on the bankers:

There are several reasons why Indian banks find it difficult to give home loans to borrowers of affordable home loans working in the unorganized sector.

1. **Lack of formal documentation:** Many individuals working in the unorganized sector do not have formal documentation of their income, which makes it difficult for banks to assess their creditworthiness.

2. **Unstable income:** People working in the unorganized sector often have unstable and irregular income, which increases the risk for banks to lend to them.

3. **Lack of collateral:** Banks typically require collateral to secure a home loan, but borrowers in the unorganized sector may not have sufficient assets to provide as collateral.

4. **Lack of financial literacy:** Many people in the unorganized sector may not have the financial literacy required to understand the terms and conditions of a home loan, which increases the risk of default.

5. **High-risk category:** Since people in the unorganized sector are considered high-risk borrowers, banks may charge higher interest rates to offset the risk, making it more difficult for them to afford a home loan.

Overall, the combination of these factors makes it challenging for Indian banks to provide home loans to borrowers in the unorganized sector. Despite the above-mentioned challenges the banks have to mandatorily lend to the affordable housing sector as the affordable housing sector falls under priority sector lending. In this backdrop, the key findings this study provide a framework to find out what are the most important parameters that banks consider before sanctioning home loans to borrowers of low-cost housing. The rank based on the RII score helps the borrowers, developers, and bankers to know the ranking of the lending parameters that have been arrived based on the RII score.

Sl.No	Parameters	RII Score	Rank
1	Annual Income	0.880	4
2	Education Level	0.507	10
3	Proof of Income	0.960	3
4	CIBIL Score	0.453	12
5	Nature of Job	0.533	9
6	Age	0.560	8

7	Gender	0.200	13
8	Sector of employment	0.653	6
9	PAN card	0.987	2
10	Aadhar card	1.000	1
11	Ration card	0.760	5
12	Existing bank account	0.467	11
13	Purpose of Buying	0.653	7

Implication of the study for Planning Authorities:

PMAY (Pradhan Mantri Awas Yojana) is a government scheme launched in India to provide affordable housing to the economically weaker sections of the society. As of September 2021, the total expenditure incurred under PMAY-U stood at approximately Rs 1.83 lakh crore (approximately 24.6 billion USD). This is a huge expense for any country and the Government must know about the awareness level of the beneficiaries. However, there is a lack of credential study or any method to measure the awareness of the PMAY program till date. This study brings some light in this direction by finding out the level of awareness about PMAY and its impact on their buying decision. Measuring the awareness of PMAY is important for several reasons:

1. **Reach and Effectiveness:** Measuring the awareness of PMAY helps to understand how far the scheme has reached its intended beneficiaries. It also helps to evaluate the effectiveness of the scheme in achieving its objective of providing affordable housing.

2. **Targeted communication:** By measuring the awareness of PMAY, the government can identify the gaps in communication and target its communication efforts towards the right audience. This can help to increase the reach and effectiveness of the scheme.

3. **Identifying challenges:** Measuring the awareness of PMAY can help to identify the challenges faced by the scheme in reaching its intended beneficiaries. This can help the government to address the challenges and make necessary changes to the scheme to make it more effective.

4. **Accountability and transparency:** Measuring the awareness of PMAY can help to ensure accountability and transparency in the implementation of the scheme. It can help the government to identify any irregularities or issues in the implementation of the scheme and take corrective measures.

Overall, measuring the awareness of PMAY is important for evaluating the effectiveness of the scheme, identifying challenges, and ensuring accountability and transparency in its implementation.

5.7 Limitation of the study

1. The study is limited to Mumbai Metropolitan Region (MMR) only.

2. The buyer opinion can vary from city to city, and it can be biased based on their observation and knowledge about government housing schemes and expectations.

3. The real estate rules and regulation varies in different states of the India as real estate is the subject of state. Hence, the observations made for MMR cannot be randomly replicated in other states.

4. This study is focused only on buyers' awareness towards PMAY and factors affecting their choice of choosing low-cost houses.

5. The data is collected for the present situation of buyers, development and bankers and things could be different in future. Thus, some of the findings of this study cannot be generalized for the distant future as things could change in coming years.

6. The data collected may not provide insights regarding domain specific about PMAY implementation as it covers only awareness about the program.

5.8 Scope of future research

This study is limited to the Mumbai Metropolitan Region only and hence might not fully capture the pan India findings. Since the other major cities of the country also face the problem of urban slums, there is a scope of a wider research mandate to cover the entire country. There is a scope for future research in Mumbai and other locations to study buyers' perceptions and expectations about the level of service provided by residential developers. The academicians and researchers can also study about the effectiveness of implementation of PMAY and bottlenecks in implementation. Since the government is targeting to provide suitable accommodation the entire MIG and LIG population, there is a future scope to extend the study to see if mix of construction affordable housing and creating an affordable rental housing schemes can solve the problem of urban slums.

5.9 Summary

India's housing crisis has been a persistent problem that has been exacerbated in recent years. Despite the country's growing economy and changing lifestyle, there is still a severe shortage of housing that is affecting both urban and rural areas. The issue is characterized by a lack of both quantity and quality of housing. In metropolitan regions, there is a shortage of housing units, while in rural areas, the quality of the existing housing is subpar.

The housing crisis is largely a result of unprecedented growth, migration, and concentration of human populations. This has put immense pressure on the housing infrastructure and led to a situation where inadequate housing has become a pressing issue in many parts of the world. A lower per capita income, the rise of the nuclear family, a lack of developed land, a rise in the price

of building materials, a lack of skilled labour, and a highly speculative trend in real estate company dealing with house-sites have only added to the problem.

To address the issue, there needs to be a greater understanding of the factors that influence consumers' purchasing decisions when it comes to residential apartments. Buyers need to consider a range of factors before and after buying an apartment, and developers and builders need to have a better grasp of the market and the needs of their customers. This will enable them to create more efficient and effective housing programmes.

This study has been conducted to identify the critical elements that influence the purchasing decision of residential apartments in MMR. This study will help developers and the government to better understand the needs of their customers and design housing programmes that meet their requirements. Additionally, awareness campaigns for the Pradhan Mantri Awas Yojana (PMAY) can be conducted to increase the availability of affordable housing for those who need it most. Overall, addressing the housing crisis in India requires a collaborative effort between government agencies, developers, and the general public.

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PUBLICATIONS AND PRESENTATIONS BY THE SCHOLAR IN THE RESEARCH AREA

1. Published a paper titled "A Study on The Contribution of the Real Estate Industry In The Overall Indian Economy", in Jamshedpur Research Review Journal. ISSN No. 2320-2750, month June 23.

2. Published a paper titled "A Study on the impact of Real Estate Regulatory Authority (RERA) on the Indian Real Estate". IUJ Journal of Management, ISSN No. 2347-5080, month Jul 23/

3. Published an article titled "Protech Boom – Real Estate-focused Startups Increase 200% Since 2016". Published in Business News This Week dated February 2023.

4. Keynote speaker and panel moderator in Asia Pacific Real Estate Association (APREA), March 2023. The topic of presentation was -. Impact of the recent banking crisis, prolonged high interest rate environment and slower economic growth for REITs"

5. Keynote speaker and contributor at the "Owner Development Program- ODPIII" conducted by The Real Estate Management Institute (REMI) in April 2022.

6. Published an article on "COVID-19 Era – Wellness-focused Real Estate in Focus" in Projects Mirror.

7. Keynote speaker and lead contributor on the topic "The challenges in construction of affordable housing and their resolution to the problems". Presented at Design and Build Summit, 30th October 2018.

CONSUMER RESEARCH STUDY: QUESTIONNAIRE

Name _____

Demographic Profile

Age Group ☐ 28 - 35 years ☐ 35 - 45 years ☐ 45 - 55 years ☐ > 55 years

Gender ☐ Male ☐ Female

Marital Status ☐ Married ☐ Unmarried ☐ Married with kids ☐ No. of kids ___

Socio–Economic Profile

Education ☐ No formal education ☐ <10th Standard ☐ Undergraduate
☐ Graduate and Above

Occupation ☐ Government ☐ Private-Job ☐ Self-employed
☐ Professional

1. Do you stay in rented house or in your own house?

   ☐ Rented House

   ☐ Own House

   ☐ Company Accommodation

2. Are you a domicile of MMR?

   ☐ YES
   ☐ NO

3. If not a domicile of MMR, since how long you have been living in MMR?

   ☐ < 5 Years

   ☐ 5 - 10 Years

   ☐ > 5 Years

4. Are you looking to buy a house in MMR?

   ☐ YES   ☐ NO

   ☐ Not decided   ☐ Prefer to stay on rent

5. If looking to purchase by when you want to purchase?

   ☐ Within 6 Months   ☐ < 1 Year

   ☐ 1 – 2 Year   ☐ > 2 Year

6. If looking for purchase, what is your budget for buying home?

   ☐ INR < 20 Lakhs   ☐ INR 20 Lakh to INR 40 Lakh

   ☐ INR 40 Lakh to INR 60 Lakh   ☐ INR > 60 Lakh

7. If looking for purchase, what type and size of home will you prefer?

   BHK Type

   ☐ 1RK   ☐ 1BHK   ☐ 1.5BHK

   ☐ 2BHK   ☐ 2.5BHK   ☐ 3BHK

   Size (in Sqft on carpet area) _____sqft

8. Do you prefer a standalone building or gated community?

   ☐ Standalone Tower

   ☐ Gated Community

9. Are you looking to buy for self-use or for giving on rent?

   ☐ For-Rent

☐ End-Use

10. Rate the importance of the following factors considered before buying a low cost housing unit on a 5-point scale. (Where 1- Not important, 2- Low importance, 3- Neutral, 4- Important, 5- Very important)

Factors	Rating (Scale 1-5)				
Reputation of the Builder	1	2	3	4	5
Quality of the Construction	1	2	3	4	5
Vastu Compliant	1	2	3	4	5
Two Wheeler Parking	1	2	3	4	5
Four Wheeler Parking	1	2	3	4	5
Proximity to the City Centre	1	2	3	4	5
Proximity to the bus stand	1	2	3	4	5
Proximity to the local train station	1	2	3	4	5
Regular Water Supply	1	2	3	4	5
Presence of Clubhouse in the project	1	2	3	4	5

Children play area	1	2	3	4	5
Gym	1	2	3	4	5
Swimming pool	1	2	3	4	5
Full power backup	1	2	3	4	5
Partial power backup	1	2	3	4	5
Visitors parking	1	2	3	4	5
Lift for residents	1	2	3	4	5
Service lift	1	2	3	4	5
Sewage treatment plant	1	2	3	4	5
Presence of school in the locality	1	2	3	4	5
Medical facility in the locality	1	2	3	4	5
Presence of Shopping Malls in the Locality	1	2	3	4	5
Restaurants nearby	1	2	3	4	5
RERA Approved	1	2	3	4	5

11. Are you aware of Pradhan Mantri Awas Yojana (PMAY) that has been introduced to promote affordable housing? Please rate your level of awareness of a 5-point scale. (where 1- Never heard, 2- Slightly aware, 3- Moderately aware, 4- Aware, 5- Fully aware)

☐ 1   ☐ 2   ☐ 3   ☐ 4   ☐ 5

12. Do you find PMAY helpful in fulfilling your wish to own a house? Please give you response on a 5-point scale. (Where 1- Not at all helpful, 2- Less helpful, 3-Somewhat helpful, 4- Helpful, 5- Very helpful)

☐ 1   ☐ 2   ☐ 3   ☐ 4   ☐ 5

Questions for Developers

Developers opinion on the Low Cost Housing Projects

Basic Information

Concerned Person Name_____

Concerned Person Designation _____

Name of the Developer _____

Number of Year in Business _____

Website_____

1. Do you have low cost housing projects in your portfolio?

   ☐ YES

   ☐ NO

2. Do you intend to launch low cost housing projects in the near future?

   ☐ YES

   ☐ NO

   ☐ Not Sure

   ☐ Might think of launching in near future

3. Do you do a market and consumer research before launching low cost housing projects?

    ☐ Never

    ☐ Sometimes

    ☐ Most of the times
    ☐ Always

4. Do you agree that Government is serious about promoting low cost housing? Please give your response on a 5-point scale. (where 1- Not at all serious, 2- Less serious, 3- Moderately serious, 4- Serious, 5- Very Serious)

    ☐ 1   ☐ 2   ☐ 3   ☐ 4   ☐ 5

5. Government has introduced various schemes and incentives for the developers to encourage them to take up low cost housing projects. Do you find these incentives encouraging enough to take up low cost housing projects? Please provide your answer on a 5-point scale. (Where 1- Not at all encouraging, 2- Less encouraging, 3- Slightly encouraging, 4- Encouraging, 5- Extremely encouraging)

    ☐ 1   ☐ 2   ☐ 3   ☐ 4   ☐ 5

6. Please rate the below mentioned schemes and incentives introduced by the Government to encourage the private developers to take up low cost housing projects on a 5-point scale.
(Where 1- Not at all useful, 2- less useful, 3- Moderately useful, 4- Helpful, 5- Very helpful)

Incentives & Schemes	Rating (Scale 1-5)				
Tax holiday - Claim 100% deduction on the profits from the affordable housing project	1	2	3	4	5
Granting infrastructure status to the affordable housing sector	1	2	3	4	5
Widening the area definition of affordable housing	1	2	3	4	5
Relaxing the ECB guidelines for affordable housing	1	2	3	4	5

7. Do you believe that availability of easy funding for land purchase will encourage the developers to take up low cost housing projects in MMR. Please provide your response on a 5-point scale. (Where 1- Do not believe at all, 2- Somewhat believe, 3- Moderately believe, 4- Believe, 5- Strongly believe)

☐ 1   ☐ 2   ☐ 3   ☐ 4   ☐ 5

8. Do you believe that availability of low cost land from the government for low cost housing projects will encourage the developers to take up low cost housing projects in MMR. Please provide your response on a 5-point scale. (Where 1- Do not believe at all, 2- Somewhat believe, 3- Moderately believe, 4- Believe, 5- Strongly believe)

☐ 1   ☐ 2   ☐ 3   ☐ 4   ☐ 5

9. Do you believe that Single clearance window for fast approvals will encourage the developers to take up low cost housing projects in MMR. Please provide your response on a 5-point scale. (Where 1- Do not believe at all, 2- Somewhat believe, 3- Moderately believe, 4- Believe, 5- Strongly believe)

☐ 1   ☐ 2   ☐ 3   ☐ 4   ☐ 5

10. Do you believe that low cost housing projects can be a profitable business proposition in the coming future? Please provide your response on a 5-point scale. (Where 1- Do not believe at all, 2- Somewhat believe, 3- Moderately believe, 4- Believe, 5- Strongly believe)

☐ 1   ☐ 2   ☐ 3   ☐ 4   ☐ 5

Questions for Bankers

Concerned Person Name

_____

Concerned Person Designation

_____

Name of the Bank

_____

Category of the
Bank_____

1. Do you find sanctioning home loan to the buyers of low cost housing units profitable? Please provide your response on a scale of 5. (Where 1- Not at all profitable, 2- Very little profitable, 3- Somewhat profitable, 4- Profitable, 5- Very profitable)

   ☐ 1   ☐ 2   ☐ 3   ☐ 4   ☐ 5

2. Please provide you response on a 5-point scale for the factors that a bank considers before sanctioning a home loan. (Where 1- Not important, 2-Less important, 3- Moderately important, 4- Important, 5- Most important)

Lending Parameters	Rating (Scale 1-5)				
Annual Income	1	2	3	4	5
Education Level	1	2	3	4	5
Proof of Income	1	2	3	4	5
CIBIL Score	1	2	3	4	5
Nature of Job	1	2	3	4	5
Age	1	2	3	4	5

Gender	1	2	3	4	5
Sector of employment	1	2	3	4	5
PAN card	1	2	3	4	5
Aadhar card	1	2	3	4	5
Ration card	1	2	3	4	5
Existing bank account	1	2	3	4	5
Purpose of Buying	1	2	3	4	5

3. Is lack of documents a challenge faced in underwriting home loan of an applicant working in an unorganized sector? (Where 1- Not a challenge, 2- Less challenging, 3- Moderately challenging, 4- Challenging, 5- Very Challenging)

   ☐ 1   ☐ 2   ☐ 3   ☐ 4   ☐ 5

4. Is no credit history a challenge faced in underwriting home loan of an applicant working in an unorganized sector? (Where 1- Not a challenge, 2- Less challenging, 3- Moderately challenging, 4- Challenging, 5- Very Challenging)

   ☐ 1   ☐ 2   ☐ 3   ☐ 4   ☐ 5

5. Is a record of default a challenge faced in underwriting home loan of an applicant working in an unorganized sector? (Where 1- Not a challenge, 2- Less challenging, 3- Moderately challenging, 4- Challenging, 5- Very Challenging)

   ☐ 1   ☐ 2   ☐ 3   ☐ 4   ☐ 5

6. Is applicant's old age a challenge faced in underwriting home loan of an applicant working in an unorganized sector? (Where 1- Not a challenge, 2- Less challenging, 3- Moderately challenging, 4- Challenging, 5- Very Challenging)

   ☐ 1   ☐ 2   ☐ 3   ☐ 4   ☐ 5

7. Is lack of fixed income source a challenge faced in underwriting home loan of an applicant working in an unorganized sector? (Where 1- Not a challenge, 2-Less challenging, 3- Moderately challenging, 4- Challenging, 5- Very Challenging)

☐ 1   ☐ 2   ☐ 3   ☐ 4   ☐ 5