

IMPACT OF RERA ON SMALL, MEDIUM AND LARGE SIZE CONSTRUCTION INDUSTRY IN INDIA

Kalpesh Amrut Sisodiya, Rupesh Radhesham Karwa, Dushant Devidas Ghadge, Nitikesh Pandurang Wanjale
BE Students, Department of Civil Engineering, RMD Sinhgad School of Engineering Pune,

Amol Pawar

Professor, Department of Civil Engineering, RMD Sinhgad School of Engineering Pune.

Abstract- A construction project is commonly accepted as a successful project when the aim of the project is achieved in terms of scheduled objectives of finishing the project on time, within budget and to the required quality standard. Delay in construction projects is considered one of the most common problems causing a multitude of negative effects on the construction projects. Construction delays can be minimized only when their cause are identified. a construction project is commonly accepted as a successful project when the aim of the project is achieved in terms of scheduled objectives of finishing the project on time, within budget and to the required quality standard. Delay in construction projects is considered one of the most common problems causing a multitude of negative effects on the construction projects. The Act came into force from 1 May 2016. Remaining provisions came into force from 1 May 2017. The objectives of this act are to Ensure Transparency & Efficiency in real estate sector in regards to sale of plot, apartment, building or real estate project; Protecting the interest of consumers in real estate sector; Establishing adjudicating mechanism for speedy dispute redressal and Establishing Appellate Tribunal to hear appeals from the decisions, directions or orders of the Real Estate Regulatory Authority. Prior to RERA, there was no clarity on carpet area, was sort of monopoly of Builders regarding loading, rates, modes of payments. There were Frauds, no clear picture of project, possession, sanctions. An attempt has been made to find out the immediate impact of this act on the Builders, and the customer. The scope of study is limited to Pune area region. In this project we are going to study impact of RERA on small, medium and large construction Industry in India.

Keywords: RERA (Registration of Real Estate Project and Registration of Real Estate Agents), promoters, Allottee, Real estate project.

1. INTRODUCTION

1.1 PROJECT IDEA

Delay in construction projects is considered to be one of the common problems in the construction industry. Delays have adverse effect on the project in terms of performance, time and cost. Thus, it is essential to identify the types of delays that usually occur in a project. Delays occur due to so many reasons (or, in other words, have various origins); can be compensated or not; and they may appear alongside or subsequently. Further, the influence caused on the project performance may be direct or indirect [1]. Their presence leads to additional cost generation, conflicts among project participants and, in worst-case scenario, litigation where additional costs may be generated. When dealing with the delays, it is not only important to identify delays and quantify the delay effects on project performance but also to identify and quantify the impacts of delays already occurred upon additional project development. In order to regulate responsibility and allow to learning from these undesirable events, the primary causes and source of delays should be identified as well [2].

1.2 STUDY OF RERA ACT

No promoter is allowed to advertise, market, book, sell or offer for sale, or invite persons to purchase in any manner any plot, apartment or building in any real estate project or part of it, in any planning area, without registering the project with the RERA. The advertisement or prospectus issued or published by the promoter shall mention prominently the website address of the Authority and the registration number obtained from the Authority. Where any Allottee sustains any loss or damage by reason of any incorrect, false statement included therein, he shall be compensated by the promoter in the manner as provided under this Act. The entire investment along with interest and compensation shall be returned to allottee if he intends to withdraw from project.

The promoter shall make an application to the Authority for registration of the project within a period of three months from the date of commencement of this Act for ongoing projects and whose completion certificate is not issued. No registration of the real estate project required where;

- a. The area of land proposed to be developed does not exceed 500 square meters or the number of apartments proposed does not exceed eight inclusive of all phases.
- b. The promoter has received completion certificate for a real estate project prior to commencement of this Act;
- c. For the purpose of renovation or repair or re-development which does not involve marketing, advertising selling or new allotment of any apartment, plot or building, under the real estate project. Act specifies the list of documents and drawings which the promoter has to submit for Registration.

The promoter shall create his web page on the RERA website and enter all details of the proposed project in all the fields as provided, for public viewing, including . It is the right of Allottee to get all the above information from time to time. He is responsible for all obligations, responsibilities and functions till the conveyance of all the apartments, plots or buildings. With respect to the structural defect or any other defect continue even after the conveyance deed, its promoter's responsibility to execute.

Responsibility of promoter

1. To obtain the completion certificate or the occupancy certificate, or both.
2. To obtain the lease certificate, where project is developed on a leasehold land.
3. For providing and maintaining the essential services, on reasonable charges, till the taking over of the maintenance of the project by the association of the allottees.
4. Enable the formation of an association or society or co-operative society or federation of the allottees, under the laws applicable.
5. Execute a registered conveyance deed in favor of the allottee.
6. Pay all outgoings until he transfers the physical possession of the project to the allottee or the associations of allottees.

1.3 OBJECTIVES

1. To identify the various causes of delay in construction projects
2. To study the impact of delays in construction projects.
3. To study how RERA will help to mitigate the delays in real estate industry.
4. To Study act and understanding the provisions given in the RERA ACT.

1.4 BACKGROUND AND MOTIVATION

Delay in construction projects is considered to be one of the common problems in the construction industry. Delays have adverse effect on the project in terms of performance, time and cost. Thus, it is essential to identify the types of delays that usually occur in a project. Delays occur due to so many reasons (or, in other words, have various origins); can be compensated or not; and they may appear alongside or subsequently. Further, the influence caused on the project performance may be direct or indirect. Their presence leads to additional cost generation, conflicts among project participants and, in worst-case scenario, litigation where additional costs may be generated. When dealing with the delays, it is not only important to identify delays and quantify the delay effects on project performance but also to identify and quantify the impacts of delays already occurred upon additional project development. In order to regulate responsibility and allow to learning from these undesirable events, the primary causes and source of delays should be identified as well.

1.5 ESTABLISHMENT OF RERA

The Real Estate Regulatory Authority (RERA) will come into existence one year from the date of commencement of the act, by a notification, which will be issued by the appropriate government.

The Government or Governments, as the case may be, have the discretion of establishing just one RERA for two or more states, or establish more than one RERA in a single state.

The Government can appoint any authority to carry out the functions of a RERA for as long as the RERA is not established. As soon as the RERA is established, all the cases would be transferred from the authority acting as RERA to the established RERA. RERA shall be a body corporate.



1.6 FUNCTIONS OF RERA

- To register and regulate real estate projects and real estate agents.
- To publish and maintain a website of records, publicly accessible, of all projects with details.
- To maintain a database online, publicly accessible, of defaulter Promoters with their names and photographs.
- To maintain a database online, publicly accessible, of registered real estate agents and a list of those whose registration has been rejected or revoked.
- To advice and make recommendations to the Government to facilitate the growth and promotion of a healthy, transparent, efficient and competitive real estate sector.
- To ensure compliance of the provisions of the Act

2. REVIEW OF LITERATURE

Rajiv Bhatt et al. Delays are unique one in every of the largest issues construction companies are facing today. Delays will result in several negative effects like lawsuits between house owners and contractors, exaggerated prices, loss of productivity and revenue, and contract termination. Thus, comprehensive study on delays in construction projects is important. Present study works on identification and ranking of causes of delay in residential construction projects in Indian context. This paper identifies the causes of delays in residential construction projects of Indian construction industry.

Raj Kapur Shah et al. Cost and time overruns are the key problems of any construction projects. These issues are causing the negative impact on the development of country economic growth and prosperity. To overcome these issues, the paper is aimed to discover the most influence factors causing the project delay and cost overruns and recommend the possible measures by investigating case studies in three different countries in the world. Each country's quantitative data from the past studies was selected to analyse and recommend the effective measures. A questionnaire survey was conducted in all three case studies adopting different data collection strategy.

Asish Ram1 et al. Due to the inherent risks and increasing complexity of modern infrastructure construction projects, delays and cost overruns have become common facts in the construction industry. Delays can lead to many negative effects such as lawsuits between owners and contractors, increased costs, loss of productivity and revenue, and contract termination.

Tsegay Gebrehiwet et al. The occurrence of a delay in the construction projects is common and significantly affects by enormous ways. This study investigates the typical causes of delay at different stages of construction and its effect in the Ethiopian construction projects. Using a questionnaire with 52 causes and 5 effects of delay, data were collected from 77 participants' selected based on purposive sampling from the different contracting organizations. The methodologies used in this research are relative important index (RII) and correlation coefficient.

Pramod. V. Kanase et al. The Rules and Regulations and its existence is the support system of the existences of Life on earth and part of natural instinct to control the happening of activities in the surrounding. Its need was felt to ensure and safeguard life, property and the very existence of all resources and ecosystem that supports life. Residence is another aspect which plays a very vital role in the Life Cycle of a living being and in particular a Human Being as he is considered to be most intelligent living being on Planet Earth. Humans evolved over a period of time from primitive stage to the modern world of 21st Century after undergoing a lot of change in their requirements, way of living and rules and regulations governing them. Rules and Regulations is a must to maintain discipline and safe performance of any act for a desired output. They changed over a period of time as the requirements changed and need felt.

Rupali Kavilkar et al. High-rise structures are also called “vertical cities”, having the potential to decongest urban sprawl. Indian cities are witnessing immense demographic expansion due to Migration from surrounding villages, leading to urban sprawl, housing demand, rise in cost of land. Housing has developed into an economy generating industry. Given this demand, while High-rise residential structures have become a solution in the metropolitan cities; they remain eluded in tier II cities in India.

S. Kanchana et al. Construction industry has accomplished extensive growth worldwide particularly in past few decades. For a construction project to be successful, safety of the structures as well as that of the personnel is of utmost importance. The safety issues are to be considered right from the design stage till the completion and handing over of the structure. Construction industry employs skilled and unskilled laborers subject to construction site accidents and health risks. A proper coordination between contractors, clients, and workforce is needed for safe work conditions which are very much lacking in Indian construction companies.

Giri Hallur et al. This study aims at studying and analyzing the regulatory framework of four sector regulators in India namely Odessa Electricity Regulatory Commission (OERC), Insurance Regulatory and Development Authority (IRDA), and Telecom Regulatory Authority of India (TRAI). The study highlights the diversity and similarity in institutional frameworks across the different sectors. It broadly covers two important aspects of regulatory study (1) Institutional Framework and (2) Autonomy to the Regulator.

Ashwani Kumar et al. Environmental quality of a settlement is outcome of natural and built environment, which is crucial for sustainable development and maintaining ecological balance, and one of the most critical concerns faced by settlements in India. The degrading environmental quality of settlements is collective result of rapid development, increasing population, depleting vegetation and water resources, excess pollution and waste generation and results in ecological imbalance and climate change at large.

Pushplata et al. Pressure for development on preferred locations in the Himalayan regions has increased during the last few decades due to urbanization, population increase, and high influx of tourists. These preferred locations are converted into hill towns, making them preferred tourist destinations and the main economic activity generators of the hill regions of India. As a consequence of these factors, during the last three decades development activities have tremendously increased in these seismically vulnerable and environmentally sensitive hill towns. This unprecedented development has resulted in deterioration of living conditions, and environmental and visual quality in hill towns.

M.F. Jawaid et al. India is a country of diverse culture, traditions, and customs at the same time it is also a land of diverse geographical and climate zones with almost all type of climate, geographical conditions and ecosystems of the globes found in different parts of the country. These factors also affect the design, development and quality of the urban form and urban landscape i.e. urban built and inbuilt environment.

Bimal Patel et al. Cities in developing countries seldom consider the cost increases that regulations impose on development. To build legal housing, developers must meet a high minimum cost threshold established by mandatory standards. Many standards impose costs on building construction, make them less affordable to low-income households, deprive them access to legally built housing, and fuel the formation of slums.

Peter O. Akadiri et al. This paper presents a conceptual framework aimed at implementing sustainability principles in the building industry. The proposed framework based on the sustainable triple bottom line principle, includes resource conservation, cost efficiency and design for human adaptation. Following a thorough literature review, each principle involving strategies and methods to be applied during the life cycle of building projects is explained and a few case studies are presented for clarity on the methods. The framework will allow design teams to have an appropriate balance between economic, social and environmental issues, changing the way construction practitioners think about the information they use when assessing building projects, thereby facilitating the sustainability of building industry.

3. RESEARCH METHODOLOGY

Need and Significance

Need for this research is important to know whether the consumer will RERA be reliable on RERA or not. RERA is a body which is going to change whole game of real industry. To know the consumer behavior while buying a residential real estate property this research is required. Every research has its special significance in solving problem of business and industry. This research is going to help real estate developers and real estate agents to know the consumer's perception toward buying a real estate property

Objectives of Research

Main objective

To Study how RERA is going to affect consumer buying behavior while buying a residential real estate property

Secondary objectives

- a. To study how RERA is changing dimensions of Real estate Industry
- b. To study what consumer will think while buying property after implementation of RERA
- c. To study whether introduction of RERA had a positive, negative impact on the industry

Research Design

Descriptive research

Descriptive research includes surveys and facts findings enquiries of different kinds. The major purpose of Descriptive research is the description of the state of affairs, as it exists at present. It provides the data about the population or universe being studied.

Descriptive research is used when the objective is to provide a systematic description that is as factual as accurate possible. In this project we have to find whether outdoor advertising influences people to buy products & services, therefore our research is descriptive.

Sources of Data

For our study, we collected both Primary as well as Secondary Data:

1. Secondary Data was collected from internet browsing various websites and Journals.

2. Primary Data was collected through questionnaires

Tool used for data gathering

Data was gathered through self-administered questionnaires. A majority of the questions were objective in nature in the form of multiple choice questions or ratings. **Sample design**

The sample size is 200 and the sample is chosen using simple random sampling technique so as to cover the groups of interest in the right proportions. Each individual is chosen entirely by chance and each member of the population has an equal chance of being included in the sample.

Nature of sample

Age group mainly focus in this research is from 20 – 50 and above which is a working population and are in the occupation of business, professionals and employees or any having any other source of income who are interested in buying real estate property having annual income from Rs 2,50,000 -10,00,000 and above

Scope of Study

Real estate (regulation and development) Act is a significant and crucial law which will impact the whole real estate sector and it is going to change the whole picture of real estate industry forever. It has made real estate industry more transparent. RERA has made the consumers real winner of the industry and also it is going to protect them from unscrupulous activities. Research had RERA has generated a trust in the mind of the consumer to invest in real estate. Home buyers are agreeing to the clauses of RERA they are going too protected with regulatory body. Major home buyers who are currently now focusing on price will shift to think about amenities, brand, and location. This study is only complaint towards RERA and real estate consumers, real estate promoter and real estate agent.

The research methodology for present study contains two steps. In this project we are going to study impact of RERA on small, medium and large construction Industry in India. At first literature review was made in order to find out the delay causing factors in construction project. From the literature review, 101 causes of delays classified into 9 different groups (Owner related, Contractor related, Consultant related, Design-related, Labor related, Material related, Equipment related, External factors & RERA related). And also find out their different impacts/effects on construction project. Simplified Procedures: Mandatory for every state and union territory to have online registrations. Documentation processes made easy, consumers will benefit and save time

- Transparency: Consumers can track the developments of the projects. All plan layouts and documents will be uploaded on the site
- Timely Possessions: RERA will ensure customers will not have to face any delay in possession
- Trustworthy: RERA will make consumers and developer relationship stronger, thereby encouraging more investments.
- Grievance Redressal: Authority to address grievances and complaints associated with real estate investments.

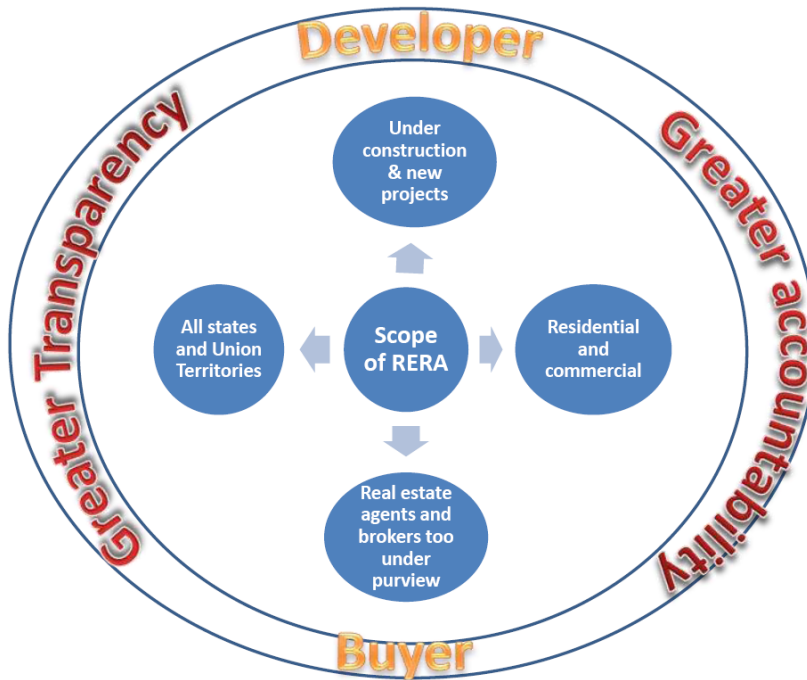


Fig No 01 Flow of Rera

A. Causes of delay due to RERA Act:

- **Owner Related**
 1. Delay in progress payments
 2. Delay to furnish and deliver the site
 3. Change orders (plan/design) & extra orders by owner during construction
 4. Late in revising and approving design documents
 5. Slowness in decision-making process
 6. Conflicts between joint-ownership of the project
 7. Suspension of work by owner
 8. Owners lack of experience and involvement
 9. Bureaucracy in client's organisation
- **Contractor Related**
 1. Difficulties in financing project/insolvency
 2. Conflicts in sub-contractor's schedule during execution
 3. Rework due to errors during construction
 4. Conflicts between contractor and other participants
 5. Ineffective & inadequate early planning and scheduling of project
 6. Implementing improper & obsolete construction methods
 7. Fraudulent practices and kickbacks
 8. Negotiations and obtaining of contracts
 9. Inadequate contractor's work & experience & also poor risk management and ignorance
 10. Delays in sub-contractors work and their incompetent which leads to frequent change in subcontractors
 11. Poor supervision & managerial skills and lack of training personnel
 12. Poor estimation of project time and quantities of material required before contracting
 13. Often changing project schedule
 14. Unsafe working condition due to improper safety management by the contractor
- **Consultant Related**
 1. Poor qualification & inadequate experience of consultant's engineering staff
 2. Delay in approving overall designs, shop drawing, sample tested materials and major changes in the work
 3. Incompetent/Poor management by consultant
 4. Delaying in performing site inspection & testing
 5. Consultant's reluctance for change and their inflexibilities
- **Designer Related**
 1. Insufficient data collection and survey before design
 2. Mistakes and discrepancies made in design documents leads to frequent revisions of drawings/designs

3. Inadequate design team experience & delay in producing design documents
4. Unclear and inadequate details in drawings and also slow response on doubts arising from the drawings
5. Using poor/old engineering design software
6. Complexity of project conception & designing
7. Misunderstanding of owner's requirements by design engineer

- **Labour Related**

1. Shortage of labours
2. Working permit of labours
3. Low skilled/productivity level or unqualified labours
4. Personal conflicts among labours
5. High labour wages insists to hire low amount of labours
6. Labour exodus/evacuated from the region
7. Labour strikes at site
8. Labour Safety & health problems when working in hazardous conditions and their absenteeism
9. Slow mobilization & demobilization of labour
10. Nationality and language of labours
11. Lack of motivation

- **Material Related**

1. Shortage of construction materials in market
2. Changes in material types during construction
3. Delay in material delivery especially while importing
4. Damage of sorted material while they are needed urgently due to improper storage of materials
5. Delay in manufacturing special-building materials
6. Late procurement of materials/late ordering
7. Quality problem with procured material
8. Procuring undesired or unwanted material instead
9. Problem with material transport and processing at site (lack of adequate space for storing materials in site)
10. Price fluctuation/inflation in material prices
11. Late in selection of finishing materials due to availability of many types in market
12. Sudden increase in quantity needed

- **Equipment Related**

1. Equipment breakdown and their idle time and lack of tool in market
2. Shortage of heavy equipment when needed
3. Low level of equipment-operator's skill
4. Low productivity and efficiency of equipment
5. Wrong kind or verity of equipment/selection
6. Lack of hi-tech, advanced and special equipment
7. Complication of hiring and transporting to the site
8. Limited mechanization due to cheap labour cost in the locality

- **External Factors**

1. Effects of unforeseen subsurface and changing ground condition (e.g. Soil, high water table) factors
2. Delay in obtaining permits from municipality
3. Weather, climate (hot or cold) & rain effects on construction activities
4. Heavy traffic, over-crowd & other restrictions at site
5. Accident during construction
6. Changes in government regulations and laws
7. Unavailability/poor temporary facility of utilities in site (such as water, electricity etc.).
8. Civil unrest/public strikes
9. Economic crisis
10. Delay in performing final inspection and certification by a third party
11. Bureaucracy restriction by government agencies.
12. Slow site clearance due to restrictions
13. Work complexity
14. Litigation b/w various parties in the mid of construction
15. Poor government judicial system for construction dispute settlement
16. Security (checking process for quality and other purposes)
17. Corruption & hostile political conditions and also strikes called by political parties
18. Effects of social and cultural factors

19. Original contract duration is too short – Unrealistic time schedule imposed in contract
20. Lack of motivation for contractors for early finish and ineffective delay penalties
21. Types of construction contract (Turnkey or design/construction only)
22. Type of project bidding and award (negotiation, lowest bidder.)
23. Aggressive competition at tender stage
24. Short bid preparation time leads to improper bidding by contractor
25. Land acquisition
26. Faulty soil investigation report
27. Delay in finalization of rates for extra items
28. Lack of periodic meeting among the management, site personnel and the contractors and also weekly project evaluation meetings
29. Problem with neighbors
30. Improper project document management
31. Lack of database and experience for estimating activity duration and resources required in a new type of construction project
32. Poor communication and coordination between the participants of the construction project (owners, contractors & subcontractors, designers, consultants, workers and suppliers) observed

- **RERA Related**

1. The time consumed in obtaining all approvals
2. Delay due to re-work of specification area
3. Delay obtaining completion certificate

B. Effects of delay

1. Schedule Overrun or Time Overrun

Time is the significant project outcome which decides the standard of our work because if we are not able to complete the project within the specified time, there is no use of setting all those time scale restrictions, so it is going to have serious effect on each and every other outcome, so by memorizing that every activity is an interlink and dependent on another activity which will have an impact on the other due to its delay, project can be completed as per schedule, so project review meetings must be conducted at regular time basis.

4. RESULT AND DISCUSSION

Effect on Customer-

1. Age Group

Survey was conducted on consumers of residential real estate property to know what those factors which impact consumer are buying behavior due to implementation of RERA. Questionnaire is filled by consumer which consists of 200 sample size. Following are interpretation of the question asked to consumers.

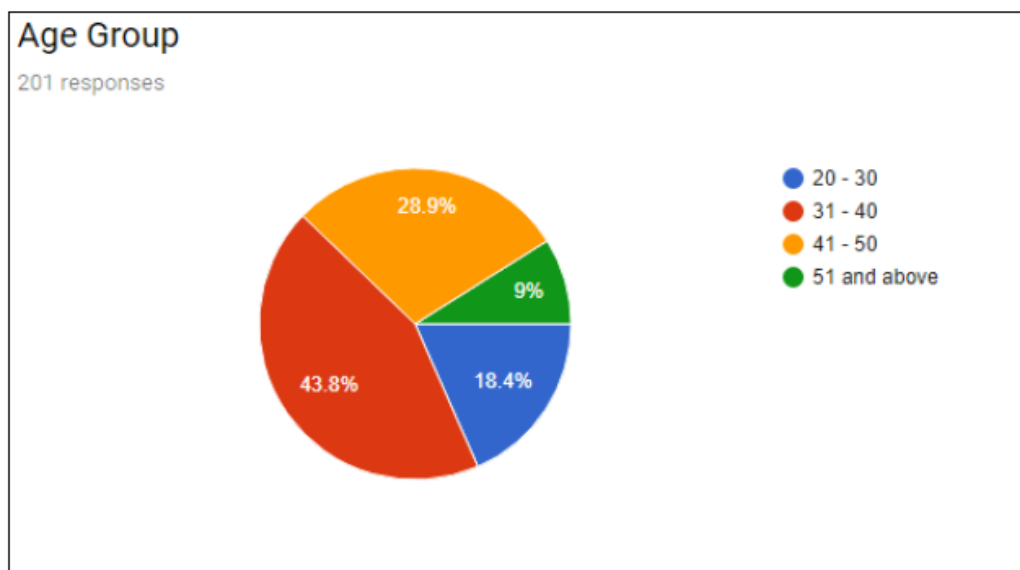


Figure 4.1: Age Group wise distribution of sample

Interpretation

Out of 201 responses, it is observed that 18.4% respondents (i.e. 31 people) belong to the age group of 20-30 years, 43.8% respondents (i.e. 88 people) belong to the age group of 31-40 years, and 28.9% respondents (i.e. 58 people) are between 41-50 years of age, whereas 18 people (9%) belong to the age group of 51 and above.

Middle aged people (31-50 years) are comparatively more into buying properties, the main reasons for buying a property being either for living or investment which surely has to be backed by the ability to spend. The youth (20-30 years) is seen to have relatively lower purchasing power than middle aged buyers due to less savings.

2. Gender

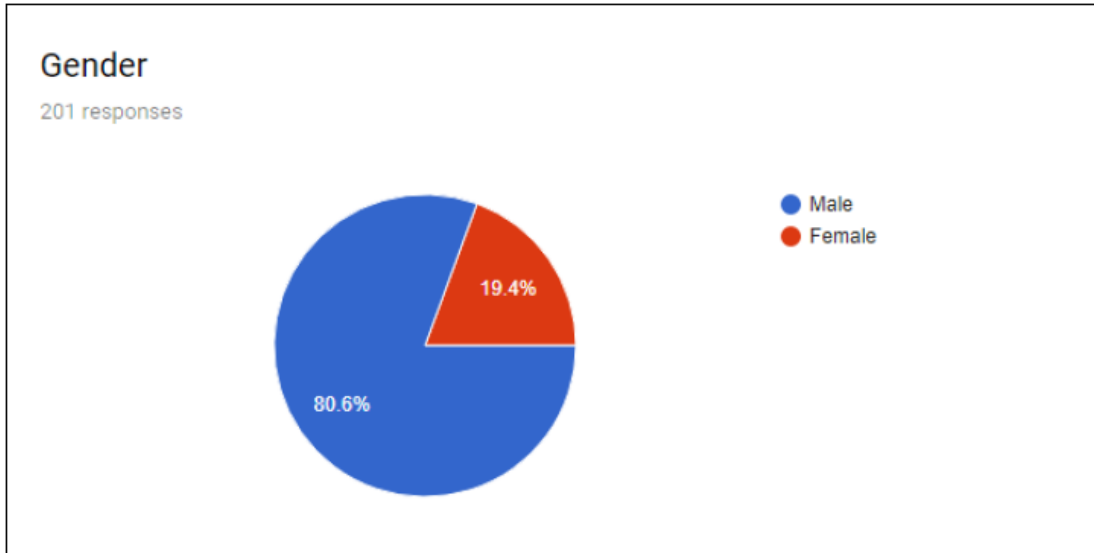


Figure 4.2: Gender

Interpretation

Responses on the gender are: Out of 201 responses, 162 respondents i.e. 80.6% are males and only 39 respondents i.e. 19.4% are females. On the basis of gender, it is seen that approximately 80% buyers are males and rest 20% are females. The reason behind this is the working class ratio between men and women, less females belong to the working class and men being the ones working and earning.

3. Occupation

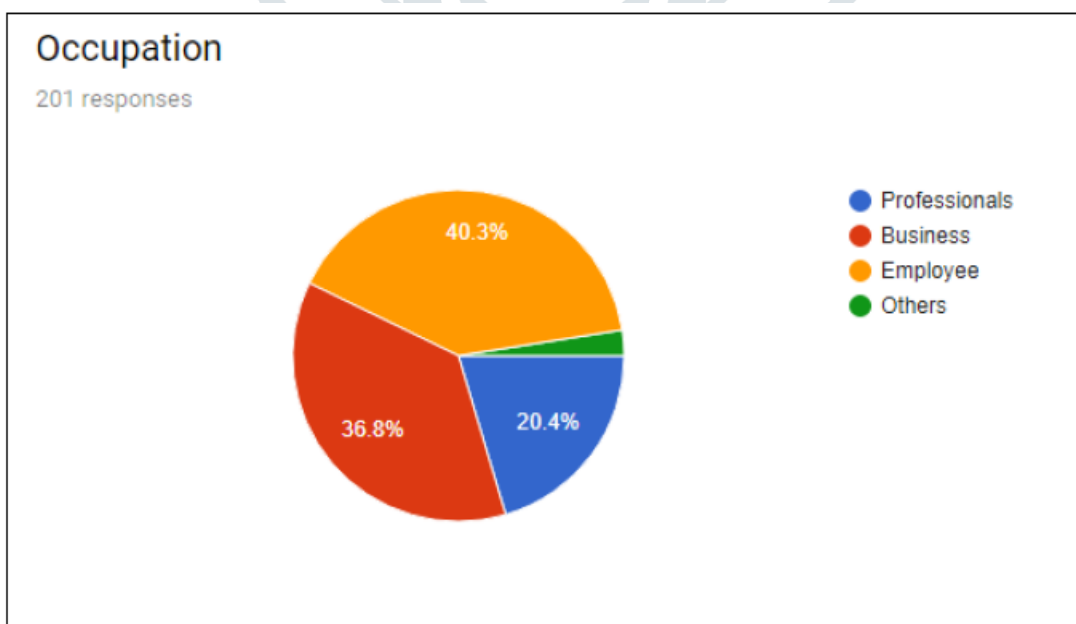


Figure 4.3: Occupation

Interpretation

It is surveyed that out of 201 responses, 81 respondents (40.3%) are employees, the occupation of 74 respondents is business and 41 respondents (20.4%) are professionals. 5 respondents (2.5%) have selected "others" i.e. occupation rather than employee, business and professionals.

Due to research it is found that maximum people are employee who are engaged in different industry. The maximum employees who are in the middle age are focused to buy a house on their own. The results shows that in the age group of 30-40yrs maximum people purchase real estate property for their end use.

4. Annual Income

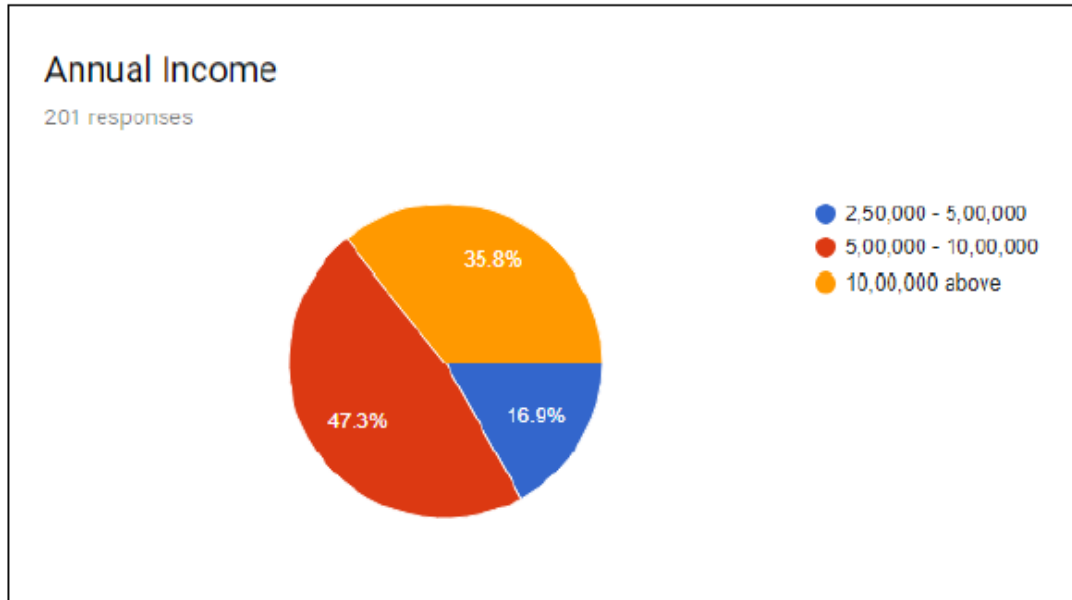


Figure 4.4: Annual Income

Interpretation

Out of total 201 responses, the annual income of 34 respondents (16.9%) is between Rs 2,50,000 to 5,00,000. 95 respondents (47.3%) have an annual income ranging between Rs 5,00,000 to 10,00,000, whereas 72 (35.8%) people have an annual income of Rs 10,00,000 and above. The major chunk belongs to employees so it can said that most of them belong to the 5 to 10 lacks annual income class, many can also belong to annual income of 10 lacks and above class. The income being the most important factor in purchase of any property, the ones with annual income of 2.5 to 5 lacks may or may not be able to afford the increasing prices of properties these days due to inflation and other factors and one of the important factor is that most of time people in this category apply for housing loan or else they will prefer subvention scheme offered by promoters and they get rejected by the bank due to the eligibility factor because of their income slab People take home loans these days but the loans are only sanctioned on the basis of income and age factor, so the ones with higher income are able to afford and spend more on properties due to location and amenities being a very important factor. The another important aspect with reference to income is savings because there has to be an ample amount of savings for purchasing any property, the ones who save a significant amount of money from their monthly income are able to afford flats with better facilities than the ones who save less and cannot afford.

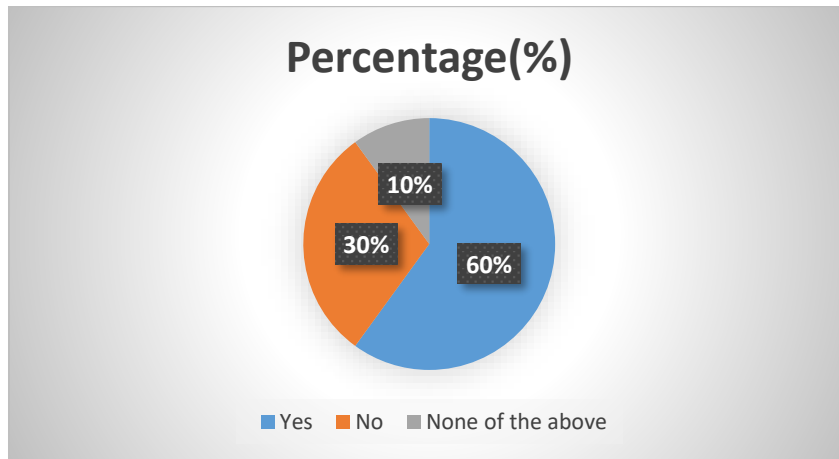
Effect on Builder-

Q) Should RERA be compulsory for builder?

Table:

Sr. No.	Responses	Percentage (%)
1	Yes	60
2	No	30
3	None of the above	10

Pie Chart:



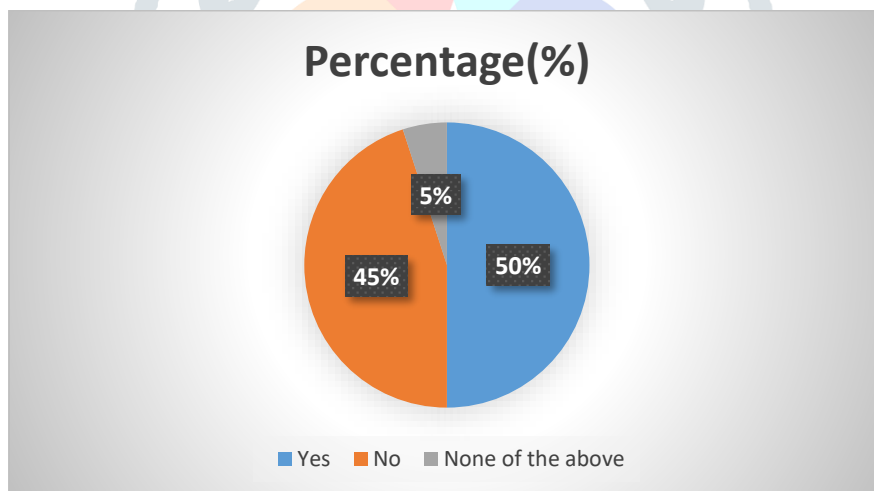
Interpretation: Out of the 100 responses collected, 60% of builder said yes i.e. it is beneficial, 30% said no i.e. not beneficial and 10% None of the above i.e. can't say anything.

Q) To register the project under RERA, project space should be more than 500 square meters or more than eight apartments, are you satisfied with the behavior?

Table:

Sr. No.	Responses	Percentage (%)
1	Yes	50
2	No	45
3	None of the above	5

Pie Chart:



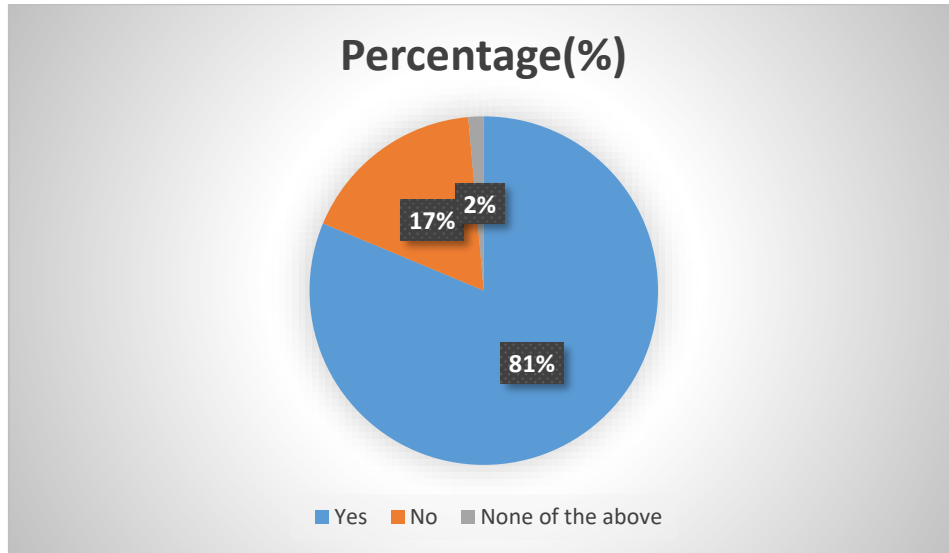
Interpretation: Out of the 100 responses collected, 50% of builder said yes i.e. satisfied, 45% said no i.e. not satisfied and 5% None of the above i.e. can't say anything.

Q) Should builder not permitted to market, advertise or sell the units before the registration of the project?

Table:

Sr. No.	Responses	Percentage (%)
1	Yes	81
2	No	17
3	None of the above	2

Pie Chart:



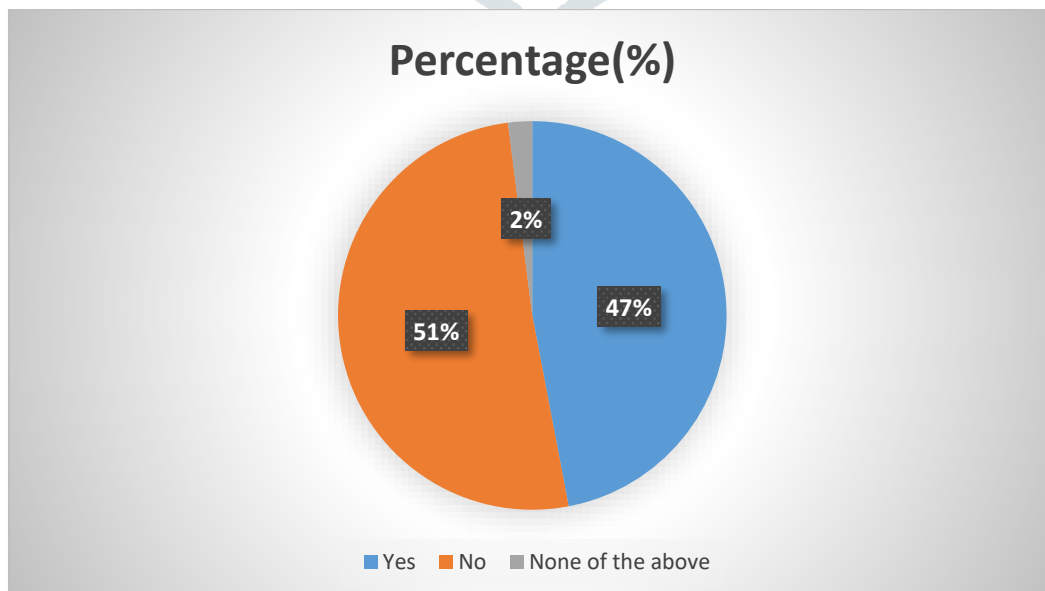
Interpretation: Out of the 100 responses collected, 60% of builder said yes i.e. should not permit, 30% said no i.e. permit and 10% None of the above i.e. can't say anything.

Q) Is it beneficial for a real estate developer to open an escrow account in a bank recognized by the government and must deposit 70% of the total payment received from the consumer. He/she can withdraw the money and should solely use it for the development of the said project after getting it approved from an engineer, architect or chartered accountant?

Table:

Sr. No.	Responses	Percentage (%)
1	Yes	47
2	No	51
3	None of the above	2

Pie Chart:



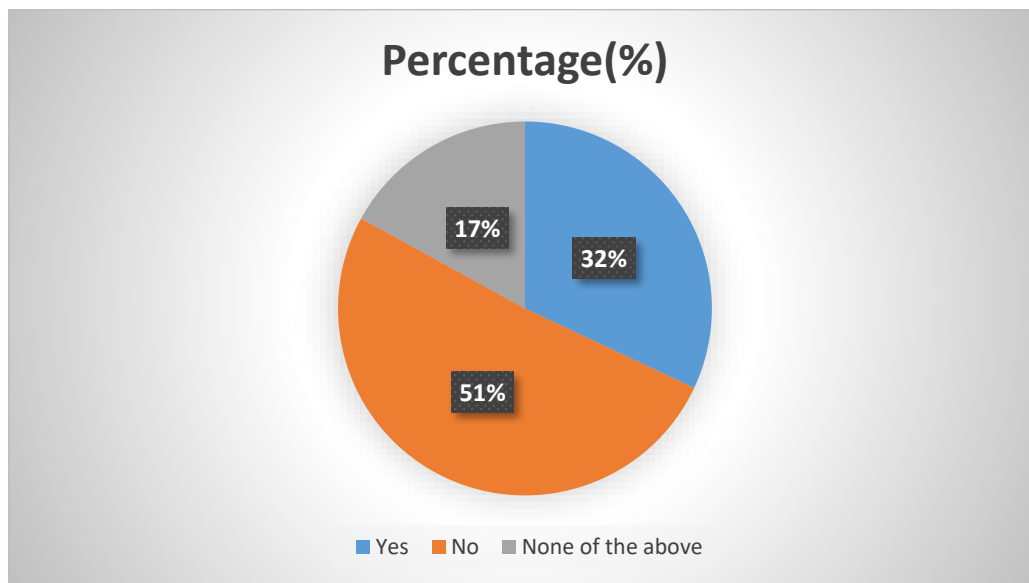
Interpretation: Out of the 100 responses collected, 60% of builder said yes i.e. beneficial, 30% said no i.e. not beneficial and 10% None of the above i.e. can't say anything.

Q) If the developer fails to comply with the directions or violates the rules prescribed by RERA or the Appellate Tribunal then, he/she may face imprisonment up to three years with a fine of up to 10% of the total estimated cost of the project in question, should it be mandatory?

Table:

Sr. No.	Responses	Percentage (%)
1	Yes	32
2	No	51
3	None of the above	17

Pie Chart:



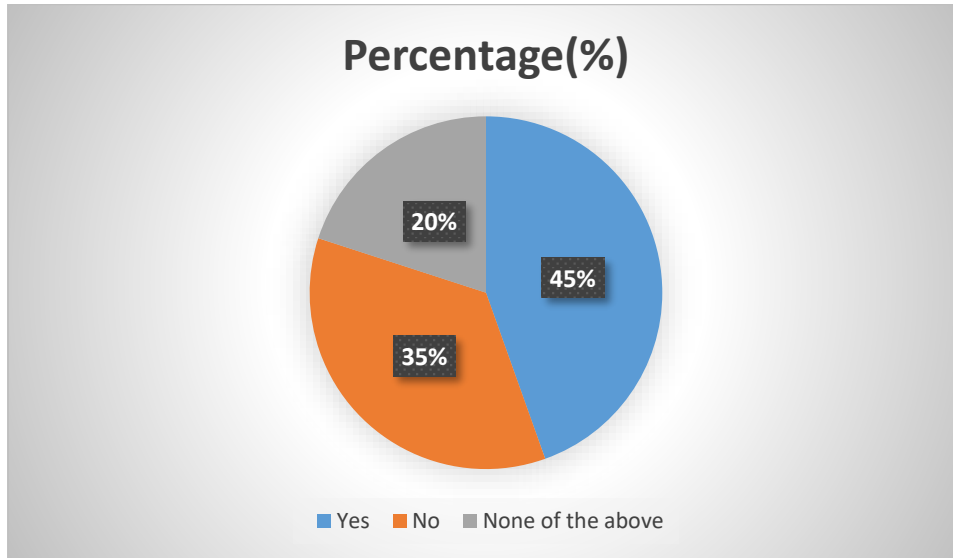
Interpretation: Out of the 100 responses collected, 60% of builder said yes i.e. mandatory, 30% said no i.e. not mandatory and 10% None of the above i.e. can't say anything.

Q) The final completion date of the project and 'possession date' for the buyer needs to be carefully determined, is it necessary to attract heavy penalties if missed these dates?

Table:

Sr. No.	Responses	Percentage (%)
1	Yes	45
2	No	35
3	None of the above	20

Pie Chart:



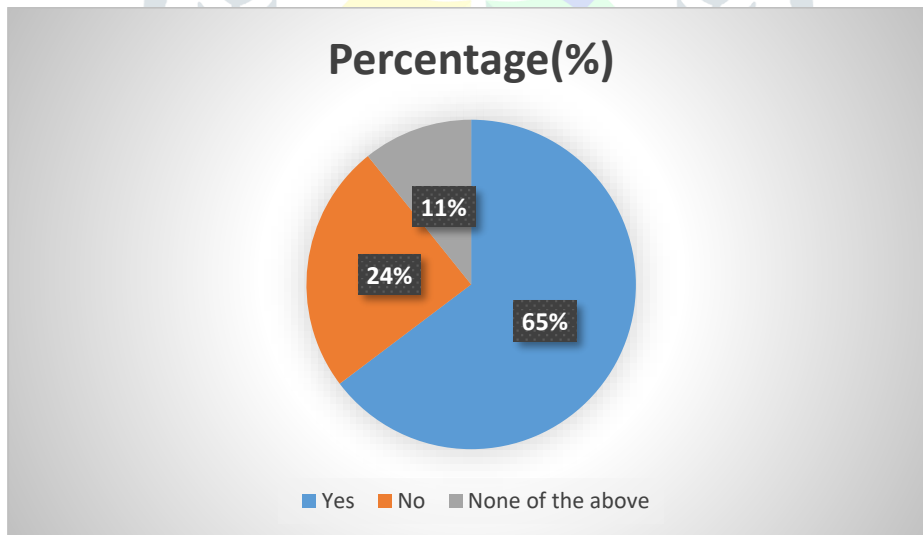
Interpretation: Out of the 100 responses collected, 45% of builder said yes i.e. necessary, 35% said no i.e. not necessary and 20% None of the above i.e. can't say anything.

Q) Is it beneficial to make RERA mandatory for each real estate developer?

Table:

Sr. No.	Responses	Percentage (%)
1	Yes	65
2	No	24
3	None of the above	11

Pie Chart:



Interpretation: Out of the 100 responses collected, 65% of builder said yes i.e. beneficial, 24% said no i.e. not beneficial and 11% None of the above i.e. can't say anything.

CONCLUSION

Though the act is very new, it is accepted very easily by the seller and buyers. The scope of study is limited to Pune area region. In this project we are going to study impact of RERA on small, medium and large construction Industry in India. A very positive impact is expected in the future as the act becomes more intact. Amendments are still going on. It is very early to study the results of this act in terms of both the parties. Single window system plays an important role in the success of the RERA Act.

1. However **the Real Estate (Regulation and Development) Act, (RERA) 2016** is enacted just one and half year ago, so many provisions are not yet came in force. But this act brought better transparency and accountability.
2. This act is helps to mitigate so many causes of delay that are enlisted above.

3. Due to single window approval system it helps to speedy approvals at beginning of project and also at project closure stage.
4. Escrow account is very good concept. It control the diversion of money from one project to another, also the chances of corruption will reduce.
5. Ongoing projects are affected by the RERA. Especially those projects which are project closure stage.
6. RERA is beneficial for both consumer and builder.

REFERENCES

- [1] Mr Ashish Chandu Pawar “A Methodology for Ranking of Causes of Delay for Residential Projects” International Research Journal of Engineering and Technology (IRJET) e-ISSN: 2395 -0056 Volume: 03 Issue: 06 | June-2016 www.irjet.net p-ISSN: 2395-0072
- [2] Aditya V Kadam “Detailed Study and Analysis of RERA Act” International Research Journal of Engineering and Technology (IRJET) e-ISSN: 2395-0056 Volume: 05 Issue: 04 | Apr-2018 www.irjet.net p-ISSN: 2395-0072
- [3] M. Haseeb “Causes and Effects of Delays in Large Construction Projects of Pakistan” Kuwait Chapter of Arabian Journal of Business and Management Review Vol. 1, No.4; December 2011
- [4] Shripad S. Merchant “Analysis of Dilutions of the Real Estate (Regulations and Development) Act 2016 by State Governments: A Case study” www.ijcrt.org © 2018 IJCRT | Volume 6, Issue 2 April 2018 | ISSN: 2320-2882
- [5] Naikwadi Sumaiyya R “Causes of Delays in any Construction Project” International Journal of Science and Research (IJSR) ISSN (Online): 2319-7064 Index Copernicus Value (2013): 6.14 | Impact Factor (2014): 5.611
- [6] Desai Megha “A Methodology for Ranking of Causes of Delay for Residential Construction Projects in Indian Context” International Journal of Emerging Technology and Advanced Engineering Website: www.ijetae.com (ISSN 2250-2459, ISO 9001:2008 Certified Journal, Volume 3, Issue 3, March 2013)
- [7] Rajiv Bhatt “Critical Causes of Delay in Residential Construction Projects: Case Study of Central Gujarat Region of India” International Journal of Engineering Trends and Technology (IJETT) - Volume4Issue4- April 2013 ISSN: 2231-5381 <http://www.ijettjournal.org>.
- [8] Raj Kapur Shah “ AN EXPLORATION OF CAUSES FOR DELAY AND COST OVERRUNS IN CONSTRUCTION PROJECTS: CASE STUDY OF AUSTRALIA, MALAYSIA & GHANA “Journal of Advanced College of Engineering and Management, Vol. 2, 2016
- [9] Asish Ram “Study on Construction Sequence Delay for Road Infrastructure Projects” IOSR Journal of Mechanical and Civil Engineering (IOSR-JMCE) e-ISSN: 2278-1684,p-ISSN: 2320-334X, Volume 12, Issue 2 Ver. VI (Mar - Apr. 2015), PP 15-21 www.iosrjournals.org.
- [10] Tsegay Gebrehiwet “Analysis of Delay Impact on Construction Project Based on RII and Correlation Coefficient: Empirical Study” Creative Construction Conference 2017, CCC 2017, 19-22 June 2017, Primosten, Croati
- [11] Pramod. V. Kanase “Regulatory Provisions for Safety Of Residential Buildings Shortcomings and Modifications For Its Role in 21st Century” International Journal of Recent Advances in Engineering & Technology (IJRAET) ISSN (Online): 2347 - 2812, Volume-3, Issue -1, 2015.
- [12] Rupali Kavilkar “Study of High Rise Residential Buildings in Indian Cities (A Case Study –Pune City)” IACSIT International Journal of Engineering and Technology, Vol. 6, No. 1, February 2014.
- [13] S. Kanchana “Studies on Labour Safety in Construction Sites” Hindawi Publishing Corporation Scientific World Journal Volume 2015.
- [14] Giri Hallur “Comparative Analysis of Regulatory Frameworks: A Study of Three Sector Regulators in India” Symbiosis Institute of Management Studies Annual Research Conference (SIMSARC13).
- [15] Ashwani Kumar “Building regulations for environmental protection in Indian hill towns” International Journal of Sustainable Built Environment (2013) 2, 224–231.
- [16] Pushplata “Building regulations for hill towns of India” Housing and Building National Research Center HBRC Journal 18 June 2014.
- [17] M.F. Jawaid “Review of environment responsiveness of building regulations in Jaipur” Journal of Urban Management 3 June 2018.
- [18] Bimal Patel “Building regulations are a barrier to affordable housing in Indian cities: the case of Ahmedabad” J Hous and the Built Environ DOI 10.1007/s10901-017-9552-7 12 April 2017.
- [19] Peter O. Akadiri “Design of a Sustainable Building: A Conceptual Framework Implementing Sustainability in the Building Sector” buildings ISSN 2075-5309 www.mdpi.com/journal/buildings/