

# Feasibility Analysis of Impact of GST and RERA on Building Construction Projects and Real Estate Sector at Pune Region

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**ABSTRACT:** Construction industry is considered one of the major and valuable industries for economic development and the growth in India. It is very popular that there is time and cost overrun in most of construction projects in India. The previous literatures studies were divided into two main groups which are: factors causing time overrun (delay) in construction project and factors causing cost overrun (increasing of the cost). The aim of this research is to analyze the impact of Real Estate Regulation Authority and Goods Services Tax on the city of Pune. The objectives of the paper were achieved through quantitative approach where a valid questionnaire was distributed online to owner, consultant, and contractors and project management companies. Responses received from the owners, consultants, project managers and office engineers within the Indian (Pune) construction industry will be analyzed using Relative Importance Index Factor and some major factors that show the impact of Real Estate Regulation Authority and Goods Services Tax on the construction industry of Pune will be highlighted. Real estate sector of India is not the exception for the revolutionary changes in Indian tax system since 1947.

**KEYWORDS:** Construction Productivity, Relative importance of index, Survey, RERA, GST.

## I. INTRODUCTION

In the History of the Indian Real estate sector The Real Estate Regulation and Development Act (RERA) 2016 proves to be a revolutionary Act. It is introduced to boost the investment in the real estate sector and also to protect home buyers' interests. The Act encourages fair practices in the Real Estate Sector and aims to improve transparency. The Act applies to new projects as well as the projects under construction (which were to be registered before 31st July 2017). Commercial and Residential projects are included under this act as well as Real estate agents or brokers are also included under the umbrella. Moreover, the developers will have to submit the project layout, government approvals and land title status the regulatory authority. Failing to do so will result in penalty in the form of fine or imprisonment or both, depending upon the severity. The Real Estate Sector was in a desperate need for such a transparent system to improve the market sentiment and to preserve the customer's investments.

## II. RESEARCH SCOPE AND OBJECTIVES

The objectives of this research can be summarized briefly as follows:

- 1) To identify the main issues those influence the GST and RERA in large construction projects in Pune;
- 2) The evaluation of the impact of RERA and GST through quantitative analysis by conducting survey on construction sites located in Pune, Maharashtra.
- 3) To establish a relationship between RERA-GST and productivity on construction sites
- 4) Layout a guideline based on the obtained results for identifying the effective factors for successful implementation of RERA and GST in construction projects;
- 5) To propose awareness regarding RERA and GST.

## III. RESEARCH PROBLEM

The real estate sector is one of the most recognized sectors across the world. In India it is next to agriculture sector i.e. second largest sector in terms of employment generation. The growth rate of this sector is expected at 30 % over next decade. Real estate sector can be categorized into four sub-sectors i.e. - housing, retail, hospitality, and commercial. The Indian real estate market is expected to touch US\$ 180 billion by 2020. (Christopher Crowe et al, 2012) The housing sector alone contributes 5-6 % to the country's Gross Domestic Product (GDP).

#### IV. LITERATURE REVIEW

1) Girish Garg (2014) – **“Basic Concepts and Features of Good and Service Tax in India”-**

The research carried out by this author is to analyze the impact of GST (Goods and Services Tax) on Indian Tax Scenario. He stated a brief description of the historical scenario of Indian taxation and its tax structure in his work. Then he stated the need arising for the change in tax structure from traditional to GST model. GST has been detailed discussed in this paper as the background, silent features and the impact of GST in the present tax scenario in India.

2) Anita Choudhary (2018)- **“RERA: A Reform to support Real Estate Sector”-**

The author in her research stated the purpose and objective of the act RERA is to reduce the mental and financial distress that customers have suffered from the fraudulent builders and Real Estate lobby. The RERA act will help the consumers to get possession of their units in a timely manner with better conditions. This act will also bring complete transparency in the Real Estate sector benefitting both the home buyer's community and developer's community.

3) Dr. Harvinder Singh Bhalla, Mr. Amarbir Singh Bhalla, Ms. Nancy Gupta (2017) – **“Goods and Service Tax (GST) - Impact, Challenges and Opportunities”-**

This paper focuses on the process of introducing the Goods and Services Tax (GST), bringing out the perspectives of different stakeholders and the contentious issues. The authors mentioned that Goods and Services Tax (GST) is a value added tax implemented in India and it has been made clear that there would be a dual GST, taxation power – both by the center and the state to levy the taxes on the goods and services.

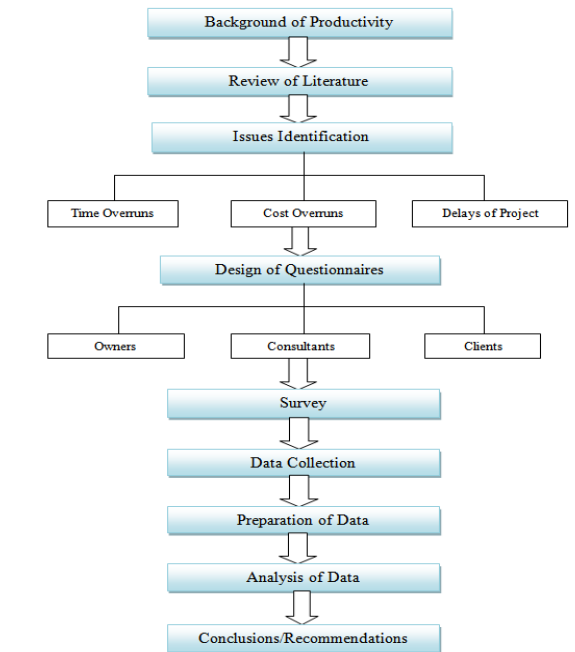
4) Arpit Shailesh, Dr. Taruna(2016)- **“A study on impact of goods and services tax on Indian economy: A key tax reform”-**

The authors in their paper stated that a very significant improvement over the local sales tax system is known Goods and Services Tax (GST). GST, one of the biggest taxation reforms in India is all set to assimilate Economies of the State and boost up the overall economic growth .

#### V. RESEARCH METHODOLOGY

The data has been collected by interviewing the officials of the construction industry. The study has been broadly undertaken as follows:

- Identified the projects, which has are under RERA and GST
- Studied all the available plans, estimates, schedules and work procedures in detail and collected all the relevant data about the project.
- Analyzed the data obtained and compared the estimated and actual schedules and budget to understand the causes and implications of overruns due to RERA and GST.
- Examined the reasons for the over-runs through either personal interviews or questionnaires.
- Listed out all the shortcomings.
- Identified the reasons of overruns through a general survey of opinion from Architects, Consultants and Contractors and suggest the possible remedial solutions.



**FACTORS AFFECTING CONSTRUCTION PRODUCTIVITY IN BUILDING CONSTRUCTION DUE TO IMPACT OF RERA AND GST IN THE CONSTRUCTION INDUSTRY**

- **Manpower related Factors-** Aiyetan, Ayodeji & Olatunji (2010) construction productivity is influence by many factors which include material equipment, tools, construction methods, management skills in terms of adequacy and accurate application.
- **External Factors-** Weather conditions are a significant factor to consider for completion of any construction project. Adverse winter weather, such as winds and rains, reduces productivity, particularly for external work such as formwork, T-shape work, concrete casting, external plastering, external painting, and external tiling.
- **Insufficient Time-** Aibinu and Pasco (2008) emphasizes that construction projects involving design time of months or years which request the contractors to digest the tender documents and submit the tender within a relative short period. The planning, estimating, developing a work method, studies and others are prepared within a short period or an insufficient time is allowed.
- **Factors related to the Communication-** According to Mohd and Madi (2017), reliable cost estimate alone determines profitability for a contractor. Cost estimates assist the contractor either to prepare cost plus basis bid or a competitive bid for a stipulated price contract.
- **Factors which are related to Material, Manpower, and Equipment-** Material management is one of the most important factors in the construction industry. Productivity can be affected if required materials, tools, or construction equipment for the species are not available at the correct location and time.

**MEASUREMENT OF DATA COLLECTED FROM THE SURVEY**

In order to select the suitable technique of study, the level of measurement is to be studied. For each measurement type, there is (are) (an) appropriate method(s) that can be applied. In this research, ordinal scales were used.

| Item  | 1                      | 2            | 3           | 4         | 5                   |
|-------|------------------------|--------------|-------------|-----------|---------------------|
| Scale | Strongly Disagree (SD) | Disagree (D) | Neutral (N) | Agree (A) | Strongly Agree (SA) |

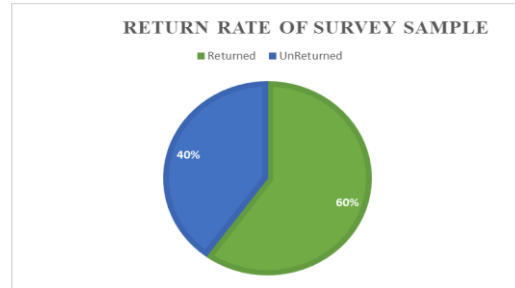
**Ordinal Scale Used for Data Measurement**



**DATA COLLECTED FROM THE SURVEY**

In successfully achieving main objective of the study, one of the most important phase is collection of accurate data. Data collection is a procedure of collecting crucial data records for a certain sample or population of observations (Bohrnstedt and Knoke, 1994).

|                               | No. | Percentage of Total (%) |
|-------------------------------|-----|-------------------------|
| Total Questionnaires Sent     | 20  |                         |
| Total Questionnaires Received | 12  | 60                      |
| Invalid Data                  | -   | -                       |
| Used for Study                | 12  | 60                      |



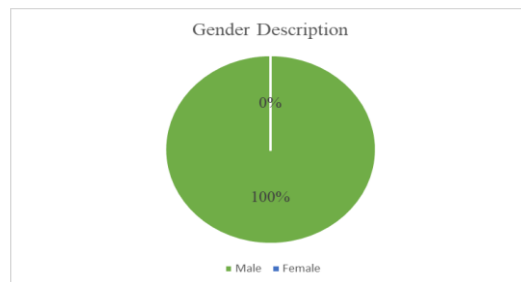
Statistical Data of Questionnaires Sent and Received

Return Rate of the Questionnaire

**VI. SECTION A- General Information of the respondents and their firms:**

**1) Gender**

| Gender | Response Percentage       | Response Count |
|--------|---------------------------|----------------|
| Male   | 100%                      | 12             |
| Female | 0%                        | 0              |
|        | <b>Answered questions</b> | 12             |
|        | <b>Skipped questions</b>  | 0              |

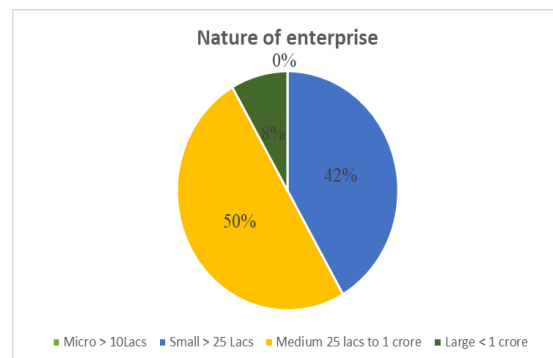


Gender Description of the respondents

Gender Description

**2) Nature of the enterprise of the respondents**

| Activity                 | Response Percentage       | Response Count |
|--------------------------|---------------------------|----------------|
| Micro > 10Lacs           | 0%                        | 0              |
| Small > 25 Lacs          | 41.66%                    | 5              |
| Medium 25 lacs to 1Crore | 50%                       | 6              |
| Large < 1Crore           | 8.33%                     | 1              |
|                          | <b>Answered questions</b> | 12             |



Nature of Enterprise

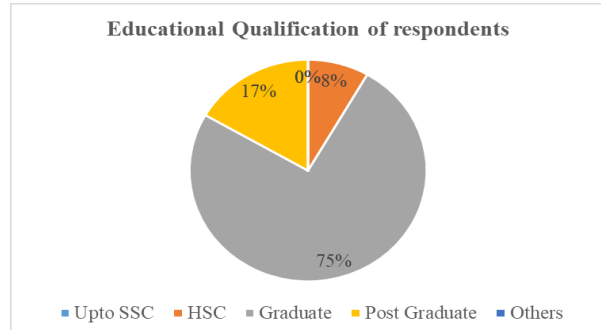
Nature of Enterprise of the Respondents



3) Educational level

| Activity                  | Response Percentage | Response Count |
|---------------------------|---------------------|----------------|
| Upto SSC                  | 0%                  | 0              |
| HSC                       | 8.33%               | 1              |
| Graduate                  | 75%                 | 9              |
| Post Graduate             | 16.66%              | 2              |
| Others                    | 0%                  | 0              |
| <b>Answered questions</b> |                     | 12             |
| <b>Skipped questions</b>  |                     | 0              |

Educational Qualification

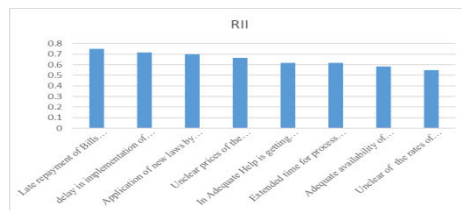


Educational Level of the Respondents

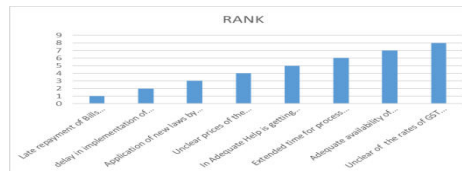
VII. SECTION B- Analysis of factors affecting accuracy by RII method:

1) Factors related to schedule of the project

| Factor  | RII    | Rank |
|---|--------|------|
| Late repayment of Bills from your Client.   | 0.75   | 1    |
| delay in implementation of RERA   | 0.7166 | 2    |
| Application of new laws by Govt in between the ongoing activities                                       | 0.700  | 3    |
| Unclear prices of the project details   | 0.666  | 4    |
| In Adequate Help is getting from MIDC/ DIC in the Procurement of Loan                                   | 0.6166 | 5    |
| Extended time for process of complaint/ actions against the builder/promoter in case of fraud/complaint | 0.6166 | 6    |
| Adequate availability of Export and Import of materials   | 0.5833 | 7    |
| Unclear of the rates of GST for Construction services under old scheme and new scheme                   | 0.550  | 8    |



RII for Factors related to schedule of the project



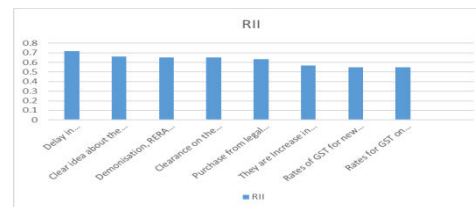
Ranking of Factors related to schedule of the project

Factors related to schedule of the project

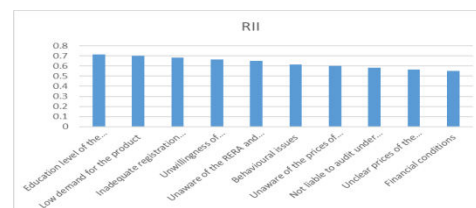
2) Economic factors

| Factors  | RII    | Ranking |
|--|--------|---------|
| Delay in implementation of RERA on some sites                                | 0.7166 | 1       |
| Clear idea about the application of GST                                      | 0.66   | 2       |
| <del>Demonisation, RERA RERA</del> and GST application construction industry | 0.65   | 3       |
| Clearance on the prices of the products                                      | 0.65   | 4       |
| Purchase from legal suppliers  | 0.633  | 5       |
| They are Increase in prices due to GST                                       | 0.566  | 6       |
| Rates of GST for new and old constructions                                   | 0.55   | 7       |
| Rates for GST on commercial constructions old and new                        | 0.55   | 8       |

Economic factors



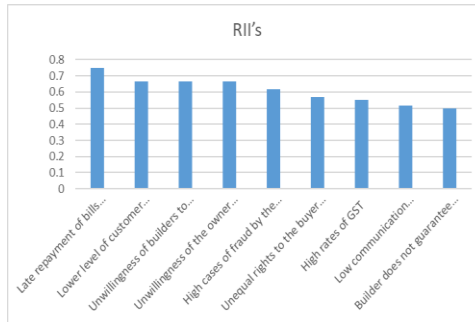
RII for economic factors



Ranking for economic factors

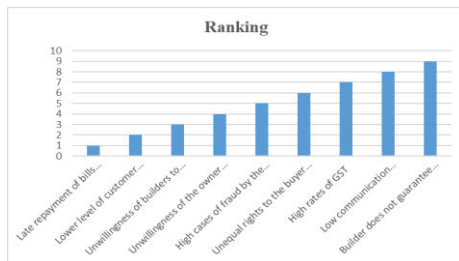
3) Factors related to owner and client

| Factors   | RII's  | ranking |
|---|--------|---------|
| Late repayment of bills from the client                                   | 0.75   | 1       |
| Lower level of customer satisfaction                                      | 0.666  | 2       |
| Unwillingness of builders to be dependent on strict rules and regulations | 0.666  | 3       |
| Unwillingness of the owner to pay GST                                     | 0.666  | 4       |
| High cases of fraud by the builder  | 0.6166 | 5       |
| Unequal rights to the buyer and seller                                    | 0.566  | 6       |
| High rates of GST   | 0.55   | 7       |
| Low communication between the owner and the client                        | 0.5166 | 8       |
| Builder does not guarantee hundred percent trustworthy information        | 0.50   | 9       |



Factors related to owner and client

RII for factors related to owner and client



Ranking of the factors related to owners and client

VIII. RECOMMENDATIONS AND CONCLUSIONS

- Buyers should be wary before fixing on the apartments. Always check on the background of the builder. Big or small is immaterial. The builder should be trust worthy person. He must have executed similar apartments. This is only to satisfy themselves that they have chosen the right builder who has good experience in construction of multi storied buildings. The study concluded 30 factors that impact most on the productivity due to the implementation of RERA and GST. It is recommended for all the buyers to always insist on the copy of RERA approval, while booking the flats.
- Since RERA approval is given only after completion of all the required formalities by the builder, copy of RERA approval is a must to find a place along with other documents of the buyer.
- It can be easily observed there has been a considerable reduction of up to 1.2% of the Project Cost by application of GST.
- GST has lend a whole lot of transparency in the real estate sector while also playing a major role in minimizing unscrupulous (black money) transactions.

IX. FUTURE RESEARCH SCOPE

The current research study was limited to the building construction industry in the Pune region of Maharashtra state. The future study could be done in other parts of the State and could emphasize specific types of building construction, including commercial, education, government buildings, skyscrapers, etc. A study similar to the present research is needed for transportation projects to find factors that affect the productivity of highway construction, which will help departments of transportation to minimize unnecessary cost escalations and project-schedule delays. Federal and state governments invest significant amounts of capital in road construction.

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