

Compilation of Legal Documents in the Field of Civil Engineering and its Various Interdisciplinary Approach

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Abstract— In India construction industry is growing day by day. It is not easy to access the legal documents of the construction projects. Sometime people have to visit different places like municipal corporation, Metropolitan region Development authority, National real Estate Development Council, real estate Regulatory Authorities, Electricity Board, Water Supply Department, Sewage Water Treatment Department Etc. for this. but it takes lot of time & it disturbed their daily routine. vice versa it is very easy and time reducing process to have all the necessary documents at one platform. The paper is based on the digitalization of document or electronic document. It will help to reduce time and money of all people who are related to construction Industry. They can get information on their own without visiting any place. It will more Useful for all government authorities to manage single platform than to manage different Platform.

Keywords: Electronic Documents, RERA, Legal Documents, Website Drafting, Project Management

I. INTRODUCTION

Private and public building law plays an increasingly important role in the building industry. Today, everyday working practices of civil and structural engineers are dominated not only by complex technical issues but also by legal issues. Dealing with the law concerns all persons involved in a construction project; that is why knowledge about legal pitfalls will become more important regarding the construction schedule in project management.

Electronic documents have advantages and useful to increase performance of construction process. In this project we are we are making the site where all the information about legal documents will be getting at one place .It will be helpful for the peoples in various sectors & it will also reduce time for those who are busy in their professional work. We have seen that sometime there is a lack of coordination in government departments.

The use of digital documentation is slowly picking up its pace in modern day complex projects in construction and infrastructure industry. The importance of using such a system on projects should be realized right at the conception level and necessary precautions are to be taken to ensure the project and the project team members will be benefited to the maximum. At the end of the day, we all strive to achieve the best possible results out of a project with the given time, cost and scope.

II. SCOPE OF THE PROJECT

It has been seen that construction field is growing day by day & buying or selling of the properties takes place every day. As seen above, the documents in the construction industry are

most important part and It is time consuming and cumbersome process to gather all documents. In this project we are making it easier way to gather this docs for the peoples who are in construction industry. Also this will be very helpful for the students, women, senior citizens etc. This will be useful for the illiterate peoples who have less knowledge about the field who are interested.

Gathering and analysis of documents in this work can be used to continue research on the subject of electronic documentation in a heavy civil construction setting. Future research on this topic could include more in depth research on the cost savings associated with electronic documentation. Research could also include more specific research on different types of software and tools that can be used on construction projects. It is important for this topic to be explored more thoroughly, especially during a time in which electronic forms of document control are becoming more prominent within the industry. Data from this paper as well as future research on the topic can guide contractors during the transition from traditional methods to electronic means of document management.

III. RESEARCH METHODOLOGY

The objectives of our study was to collect and analyse all the documents pertaining to construction industry and real estate right from Incorporation of Company, documents related to Survey of the respective Survey Department of that particular area up to Completion Certificate. The second step involved was to extract all the related data from these documents and which was unique in these documents in a single document and finally creating a user- friendly system (a Website) where a person can easily access any data related to a project whenever he wants.

A. Township Case-Study

The Township/ Construction Project taken into consideration has various segments and hence these segments have been given various annotations.

An application was filed with Pune Municipal Corporation for procurement of all the documents that have been sanctioned by the PMC and all other related documents submitted by the Project Developers. The said letter was addressed to the Pune Municipal Commissioner who is the Public Information Officer. The application was directed to their City Engineer. After visiting the PMC, it was bought to our notice that, it is the PMRDA and not the PMC who is in-charge of the said project as the project comes under their special category. PMRDA (Pune Metropolitan Region Development Authority) is the authority who is in-charge of the new development of metro routes in Pune. The request was also forwarded from PMC to PMRDA. Hence, we filed

a separate application to PMRDA for the required documents which can be seen in Figures 5 & 6. Till date we have received no information as to the status of our RTI application and because of the Pandemic situation, it has become even more difficult to visit personally every time.

B. Procuring Various Documents from Various Government Websites

For the present project, documents were procured from various Government websites and a few of them are:

- Ministry of Corporate Affairs (www.mca.gov.in/)
- Maharashtra Real Estate Regulatory Authority (<https://maharera.mahaonline.gov.in/>)
- Department of Registration & Stamps (<http://igrmaharashtra.gov.in/>)
- Documents procured are:
- Agreement/ MOU between the Developer and the Land Owners
- Declaration in Form B between the Developer and the Land Owners
- Copy of the legal title report
- Details of encumbrances
- Copy of Layout Approval (in case of layout)
- Building Plan Approval (IOD)
- Commencement Certificates / NA Order for plotted development
- Declaration in FORM B
- Proforma of the allotment letter and agreement for sale
- Certificates of Architect (Form 4)

IV. LIMITATIONS OF THE STUDY

- This project emphasises on accumulation of all data which is available either in the form of a hard document from some recognised institution or might be available online in the form of an electronic document.
- It becomes difficult to collect all this data physically especially in the times of Pandemic by visiting various Government Institutions or Local Sanctioning Authorities.
- Analysis of documents needs a person who has expertise in understanding the documents and its even more difficult if the document is in the local language as it is not known to all.
- It needs a larger team as there are many documents which are to be analysed and then converted into user- friendly and readable format for uploading it on the Website so that the end user can access and utilize the data easily.
- Regularly updating the Database is a challenge which is faced by almost each and every Information Technology based companies.
- The last but not the least is to analyse documents which you are not familiar about but are important and need a separate expertise like knowledge related to Law, information regarding Companies, etc.

V. EXPECTED OUTCOME

Electronic documents have advantages and useful to increase performance of construction process. In this project we are making the site where all the information about legal

documents will be getting at one place .It will be helpful for the peoples in various sectors & it will also reduce time for those who are busy in their professional work.

For students it is necessary that they learn to see a connection between an engineer's failure and a civil action, as well as to acknowledge the seriousness of a situation and to identify a problem. Only in this way are they able to recognize the difference between a legal problem they can solve and a situation that requires professional legal support. This helps the building industry to save money that otherwise might have been spent for unnecessary legal consulting.in India. there is not too much effort are taken on this solution thus we are working on it & hope it will help lot of people.

Because of the lack of coordination between the departments can cause delays or decrease the quality time of the projects. Thus, the interconnectivity between them is a very important & for this interconnectivity the platform is necessary & through our work we are just going to create a platform like this which will be very easily accessible for peoples

VI. WEBSITE RESULTS

The Website has been created successfully. General information is made available for the public at large. For knowing the details one needs Admin permission.

VII. CONCLUSION

- 1) Analysis of all construction related or real estate related legal documents has become easier using the Website which can be made available in electronic format.
- 2) Reduction in the valuable time of searching the different documents which are spread across various platforms can be achieved.
- 3) A single database in the form of a website was achieved where one can access to any related information of a construction project.
- 4) All the necessary documents and their extracts of the necessary information on a single platform and its inter-linking has been successfully achieved.
- 5) If worked upon in the future will reduce public expenditure.
- 6) There can be much more efficient coordination amongst the various Government Bodies and the public at large.
- 7) It can eventually help in drafting electronic contracts which will replace the conventional contracts





Fig. 1: Website Screenshots

REFERENCES

- [1] Sigitas Mitkusa and Tomas Mitkusa (2013), " Causes of conflicts in a construction industry: a communicational approach" Procedia - Social and Behavioral Sciences Volume 110, 24 January 2014, Pages 777-786 <https://doi.org/10.1016/j.sbspro.2013.12.922>
- [2] Eva Trinkunienea and Vaidotas Trinkunasb (2013), "Information system for construction contracts structural analysis" Procedia - Social and Behavioral Sciences Volume 110, 24 January 2014, Pages 1226-1234 <https://doi.org/10.1016/j.sbspro.2013.12.969>
- [3] Rivard H, Froese T, Waugh L M, El-Diraby T, Mora R, Torres H, Gill S M, O'Reilly T (2004). Case studies on the use of information technology in the Canadian Construction industry, ITcon Vol. 9, pg. 19-34, <https://www.itcon.org/2004/2>
- [4] Ulrike quapp and klaus holschemacher, "the importance of construction law teaching in civil and structural engineering education" Conference Paper, Penza, Russia 2014 - researchgate.ne
- [5] Prof C Sam Charles Devanand (2015), "Importance of Electronic Document/Information Management Systems in Modern Architectural, Engineering and Construction Projects" International Research Journal of Engineering and Technology (IRJET) e-ISSN: 2395 -0056 Volume: 02 Issue: 03 | June-2015
- [6] Ahmad Huzaimi Abd Jamil & Mohamad Syazli Fathi (2017), "An overview of contract documents for building information modelling (BIM) construction projects" Journal of Advanced Research in Business and management Studies Vol. 8 No. 2: September (2017)
- [7] Olga Pavlycheva (2017), "Role and importance of formation of legal competence of civil engineering students" MATEC Web of Conferences 106, 09021 (2017) <https://doi.org/10.1051/mateconf/201710609021>
- [8] Dr. Jyotirmoy Sarma (2020), "Assessment of Construction Contract Documents for Use in Urban Local Bodies in India"
- [9] Linas Gabrielaitis & Romualdas Bausys, "A Case Study of Project Document Management in Building Design" – Technical Research Centre of Finland (www.vtt.fi), 2004
- [10] Andrew W. Jenco, (2007) " Implementation of Electronic Documentation on Heavy Civil Construction Projects" <https://digitalcommons.calpoly.edu/cmsp/317>
- [11] Amrendra Singh Yadav , Dharmender Singh Kushwaha "Digitization of Land Record Through Blockchain-based Consensus Algorithm" IETE Technical Review, 2021 - Taylor & Francis <https://doi.org/10.1080/02564602.2021.1908859>
- [12] Siddiqui, Nabeela, Property and Digitization: With Special Reference to NLRMP Scheme in India (March 15, 2017). Available at SSRN: <https://ssrn.com/abstract=2986293> or <http://dx.doi.org/10.2139/ssrn.2986293>
- [13] <https://www.mca.gov.in/mcafoportal/login.do>
- [14] <https://maharera.it.mahaonline.gov.in/>
- [15] <http://igrmaharashtra.gov.in/>