ANALYSIS OF DELAYS IN REAL ESTATE PROJECTS IN DELHI/NCR

Pulkit Choudhary¹, Vaishali Sahu²

¹Undergraduate Student, ²Ph.D, Assistant Professor Selection Grade Department of Civil & Environmental Engineering, The NorthCap University, Gurugram, Haryana

Abstract: Construction is an important domain that has huge potential for employment in India and influences our economy. Infrastructure sector is majorly contributing towards the growth and development of any country. However, many such projects are facing slowdown and failures and thus affecting everything. Thus, the aim of the present work is to identify the project participant and majorly the attributes that lead to delays in the schedule of real development projects. Here we have identify the construction sector and conducted questionnaire survey. The main risk factors were identified based on the feedback and further ranked using relative importance index (RII). The outcome of the study can be helpful in reducing the overall delays in development projects.

Introduction: A development venture is ordinarily recognized as effective when it is completed on time, within spending plan, and in agreement with the particulars. In the development business, the contractors tend to boost their benefit to build the project. To accomplish this point, it is significant for temporary workers to painstakingly distinguish the variables that influence the accomplishment of a venture and gauge their effects previously the offering stage. Development undertakings may contrast in size, length, targets, condition, vulnerability, multifaceted nature, due dates, money related power, association structures, and some different measurements. In a development venture where time really breaks even with cash, time administration is the basic responsibility. Development delay, which means the non-fruition of the undertaking inside the predetermined span in the agreement, is viewed as one of the most repeating issues in the development business.

The NCR areas execution as far as conveyance of private supply has been the rust over all the real urban communities as of late. In Gurugram just one third of the aggregate submitted supply has been conveyed as of late. The circumstance is all the more disturbing in other NCR districts, for example, Noida where this proportion goes to one fifth (The Times of India). In creating nation like India the development business puts an imperative job in its national GDP at about 19% of the aggregate. More than 2300 land ventures are confronting delay in India out of which 826 are lodging ventures. On the normal a lodging venture in India is deferred around 39 months (CNBC – Real Estate News). For the fulfillment of the clients it is vital to convey the houses at time. Henceforth, study and investigation of elements of postponements in land ventures is important.

Literature Review: Many studies have been performed in past where major factors which causes delay in construction projects have been discussed. Martin Loosemore (2007) carried out a study of risk allocation in "public infrastructure". The author reviewed various risk allocation in projects involved in public private partnership and has studied the controversial case of New South Railway project in Sydney, Australia which involved \$920 Millions. The risk distribution among public and private sector in such PPP projects and their consequences have been analyzed here. It demonstrated that it is very difficult to distribute the risks in such projects. Ehsan and Mirza (2010) highlighted the major challenges faced by the real estate industry as the exposure to changes in government policies, geographically, physically and financially. Sameh Monir El-Sayedh (2010) carried out questionnaire survey to know the main reasons for the delays in construction industries. He prepared a list of

different risk types based on studies in USA, Kuwait, Hong Kong and China. The main risk factors were identified through questionnaire survey and the relative importance index (RII) was calculated for each risk based on probability, impact and rating. These risks were then ranked according to their RII. Samuel Laryea and Will Hughes (2014) carried out study on Risk and Price in the Bidding process of Contractors using methodology of capturing the analytical models and learning about their propositions and underlying assumptions. It was observed that in most of the cases there were many hindrances in bidding process like political interference which causes delay in the completion of the project. They compared the various theories and practices to know the various risks associated with the bidding process.

Objective: Objective of the present study is to identify the key risks in the development real estate projects mainly in NCR/Delhi region.

Methodology: Questionnaire-survey-technique have been adopted to observe and analyze the various factors associated with delays. The relative significance of the defer factors by the RII technique has been done and overall 40 defer factors were distinguished, and after that they were ordered into nine noteworthy gatherings through definite writing audit and meetings with specialists in the development industry. An extensive interview with a few key players in the industry was done to verify the relative importance of the factors that were identified. Approximately 50 experienced construction professionals including project managers, site superintendents, procurement managers, architects/engineers, and supervisors from public and private sectors were approached for questionnaire, interviews and feedback.

Result and Discussion: The collected data was analyzed using perceptible approach. Various possible factors are identified with the help of literature. Different factors indicated by local experts are also added, all factors were identified which causes delay in residential projects and the same were sorted to obtain only construction-related factors. Vast studies and reports were discussed to get right factors, which are applicable to this study. Thus in total 39 factors are found which are arranged in sequence according to the performance and work done at the time of raising construction and questionnaire is prepared. The major 15 important factors causing delay has been shown in Figure 1 and ranking of main groups based on RII is shown in Figure 2.



Figure 1: Major factors causing delay



Figure 2: Ranking of factors based on RII

The following recommendations have been suggested after the study:

- 1. It was observed that contractors should initial pick up the essential experience before the offering stage. Deficient experience of contractual worker is the most imperative effect on deferral.
- 2. Contractors ought to likewise give careful consideration to successful arranging of resources. Amid development, arranging and booking might be modified if vital. Powerful arranging and booking leads to first rate ventures.
- 3. Site supervision and administration ought to be made appropriately. Authoritative staff ought to be relegated to make the fundamental plans to finish the venture inside determined time limits while fulfilling quality and cost necessities.
- 4. Proprietors may request some plan changes amid development, in any case, proprietors additionally ought to think about the impacts on basic exercises before requesting changes;5
- 5. Conveyance of the development materials on location ought to be on time with the end goal to execute the work appropriately.
- 6. Performing assessment and testing by specialists is a vital action amid development. Less or potentially late review may result in lower nature of work and postponements in exercises due to revamps.
- 7. The quality and experience of work may affect the ventures. Inadequate workers may prompt wasteful work and cause mischances amid development
- 8. Correspondence and coordination with different gatherings is an critical factor to complete the undertaking on time, as there may be numerous gatherings engaged with an undertaking (customer, advisor, contractual workers, subcontractors, and so forth.). Powerful correspondence can mitigate most defer factors. Appropriate correspondence and coordination channels between the different gatherings ought to be set up amid each period of development.

Conclusion:

In the present study delay factors for the real estate projects were studied and analyzed through detailed interview with industry professionals. A total list of 38 key factors responsible for delay of construction projects was drawn out. These factors were grouped into 9 major groups. Feedback and ranking of these factors were done with detailed questionnaire survey with industry experts. Relative importance of each factor was computed through RII method. Various recommended have been suggested to mitigate the delays in the project and to have a better success rate.

References:

- 1. Kartam, N., Kartam, S. (2001), "Risk and its management in the Kuwaiti construction industry: a contractor's perspective", *International Journal of Project Management*, pg. no. 325-335
- 2. Laryea, S., Hughes, W. (2014), "Risk and Price in the Bidding Process of Contractors", *Indian Institute of Technology, Delhi*, pg. no. 248-258
- 3. Monir El-Sayedh, S. (2010), "Risk management in International construction joint ventures", *Indian Institute of Technology, Delhi*, pg. no. 277-284
- 4. Howard, R., Rubio, L. (2007), "Risk management in construction project: a knowledge-based approach", *Procedia – Social and Behavioral Science*, pg. no. 653-662
- 5. Bing, L., Lee-Kong Tiong, R. (1999), "Risk management in International construction joint ventures", *Indian Institute of Technology, Delhi*, pg. no. 277-284
- 6. Ehsan, N., Mirza, E. (2010), "Risk management in construction industry", IEEE, pg. no. 16-21
- 7. Monir El-Sayedh, S. (2010), "Different risk types based on studies in USA, Kuwait, Hong Kong and China", pg. no. 180-189
- Shen, L., Tom, V., Tom, L. (2010), "Project feasibility study: the key to successful implementation of sustainable and socially responsible construction management practice", Journal of Cleaner Production, pg. no. 254-260
- 9. Loosemore, M. (2007), "Risk allocation in the private provision of public infrastructure", *International Journal of Project Management*, pg. no. 66-76
- 10. Chan, D., Kumaraswamy, M. (1996), "A comparative study of causes of time overruns in Hong Kong construction projects", *Civil Engg. Journal of The University of Hong Kong*, pg. no. 55-63