

STUDY ON DELAYS OF CONSTRUCTION PROJECT

¹ ANUPAM MALAVIYA, ²RISHABH MAHURE

¹STUDENT, ²ASSISTANT PROFESSOR

¹CIVIL ENGINEERING DEPARTMENT,

¹NOIDA INTERNATIONAL UNIVERSITY, GREATER NOIDA, INDIA

Abstract :

Delay in construction project management is a major problem in Noida District that is why it is demanded to be recognized since delay recurs from one project to the other. Delay problem alarming rate is likely to go out of hand if authentic project management approach is not put in place to diminish it. The aim researcher focused this study on the management of delays that concern to construction projects in Noida District. The aim of research are to discover the censorious factors that caused delays of government construction projects in Noida District, to study the existing use of project management knowledge tools, skill tools and techniques in managing delays in construction project and to succeed a substructure to enhance management of construction project delays in Noida District. Targets groups of respondents were A2, B2 and D2, K2 namely financial roads and building contractors respectively. The study was limited to contractors in that Region and it was thus conducted with the use of literature review and surveys. Questionnaires and personal interview techniques were also used to collect data. conclusion from the study disclose that the actual sources of delays in project delivery are; Inadequate financial resources of clients, delays in honoring payment for work done, misjudge of project duration, poor interaction between contracting parties, complexity, difficulties in accessing bank credit (client); change orders during construction and others. It was suggested that, initial proper planning and controlling is necessary to the client in order to have genuine action plan, procurement plan, and budget plan prepared before commencement of project. Payment schedule must be agreed by the parties involved. On the part of the contractor sufficient knowledge of project management, principles, tools and techniques is required to diminish delays. Advisor must plan very well to ensure that agreement procedure are followed by both the parties, thus approval of drawings, documentation and other things to diminish variation during construction. They should monitor their allot work very well by insisting that corrections are done at the proper time to diminish or avoid rework.

1. INTRODUCTION

The construction industry is among those industries that face the problem of project failures in terms project delivery. According to Smith and Jaggar, (2007) it has been argued that the multiple kinds of construction projects including their multibranch nature make planning, forecasting, managing and controlling of projects more difficult. Consequently, decisions that are taken at the early stages of the management aspect of the project process become critical to the success of the project (Miller *et al.*, 2000). The construction industry is one of the industries that cannot run from problem or challenges. One of the challenges faced by the industry is project delay. The industry of construction has a poor standing as in the industry coping with delays and thus, a number of major projects fails in meeting the schedule deadline.

2. LITERATURE REVIEW

The objectives of this study include the founding of causes and effects of delay in construction projects in the Noida District and finding solutions to them by the use of project management approach. This

chapter reviews literature on most important causes of delays in construction projects and its effects on the people. This section also give advanced solutions to the issues.

The Noida government undertakes a key role in the industry of construction owing to the resources exhaustive nature of its activities. Funding of such project sources from a budgetary allocation, donor agencies contributions as well as other concern parties. The federal administration construction project cover four key areas, they include road construction, construction of buildings, other construction (i.e. bridge, underpass, etc.) and maintenance.

3. METHODOLOGY

The study involved the use of both primary and secondary data. Secondary data were sourced from books, journals, relevant articles, and published and unpublished thesis of students. Primary data involved the use of self-administered questionnaires to road contractors and consultants. The questionnaire incorporated the use of close ended questions and a Likert scale to rate and answer questions posed to responders. The questionnaires provided feedback on views of responders about the notable causes of delays in the delivery of construction projects and their particular impacts on stakeholders of the project particularly contractors. The relative importance index was used in analysing the data collected to identify key challenges and opportunities.

4. RESULT DISCUSSION

Actually, the two basic methods engaged in instituting what is true or false in a study and thus for drawing final conclusions are induction as well as deduction. Whiles induction method is undertaking in a less structured qualitative research method, deduction method is preferred using structured qualitative research method as this research tries to generalize the finding for the purpose of representing the whole population and as a result making the choice of the deduction approach the greatest fitting. Deduction approach aims at generalizing findings from sample to population with the inductive aims of investigating new ideas or the generation of theory (Saunders *et al.*, 2007).

To achieve the research objective, a review of existing literature on delays in Noida government construction projects were conducted. Subsequently, for analysis purposes, closed and opened-ended questionnaire was made available to responders to obtain for information. At the initial stage of the data collection process, useful literature on the definition of delays in Noida government construction projects were reviewed. The literature gathered on these was studied to determine the actual causes of these delays through formulating questionnaire and the interview schedule (Saunders *et al.*, 2007). Though, in formulating the review, information that supports verifiable study results was considered in that, the evidence quality made available by unreliable data is weaker than that made available by verifiable study (Aveyard, 20

5. CONCLUSION

Findings from this research indicate that managing delay in progress payment by client in Noida government construction project is a key issue that leads to the success of a project. This study has disclose that contractors' major problem or fear had to be with the poor payment practice and that factors contributing to continuing incident of delays in construction project in Noida West District are ineffective planning and scheduling of the project by contractors; delay in progress payment by the client; poor qualification, skills and experience of the contractors' and change order by the client. Moreover, it has been argued that these censorious factors can be better managed by employing appropriate project management tools and techniques. The intended framework is supposed to assist stakeholders in Noida District to enhance the effectiveness of the management of public construction projects in Noida District .

6. REFERENCES

1. Abdelnaser, O., Peter, J., Mahmood, A., Hussin, A., & Aziz, A. (2005). Causes of construction delays case studies in Langkawi Island, Malaysia. Paper presented at the International Conference on Built Environmental in Kuala Lumpur organized by University of Malaya, Kuala Lumpur.
2. Abd El-Razek, M.E., Bassioni, H. A. and Mobarak, A.M. (2008) _Causes of delays in building construction projects in Egypt', *Journal of Construction Engineering and Management*, 134 (11)831-841
3. Abdullah, A. A., Mukmin, M. N. 8t Samad, Z. A., 2011. *Application of project management methods in the construction of bungalow house project: A case study in Kuala Terengganu, Malaysia. International Journal of Economics and Management Sciences, Vol.1, no.2, pp. 42-58*
4. Abdul-Rahman, H. and Berawi, M.A. (2002) Managing change in construction contracting, *Contact Management*, 42, 10-16
5. Ahmed, S.M., Azhar, S., Kappagtula, P., Gollapudil, D. (2003) 'Delays in construction: a brief study of Florida construction industry', *Proceedings of the 39th Annual ASC Conference, Clemson University, Clemson, SC, 257-66*
7. Aibinu, A.A. & Jagboro, G.O., 2002. *The effects of construction delays on project delivery in Nigerian construction industry. International Journal of Project Management, Vol. 20, pp. 593-9.*
8. Aibinu, A. & Odeyinka, H., 2006. *Construction delays and their causative factors in Nigeria. Journal of construction and engineering management, vol. 132, issue 7, July 2006. Pp667-677 .Available at: http://www. informaworld.com. [Accessed on 26 October 2010].*
9. Aiyetan, A. O., 2010. *Influences on Construction Project Delivery Time. Ph.D. Port Cape Town, South Africa*
10. Alaghbari, W., Kadir, M. A., & Salim, A., E. (2007). The significant factors causing delay of building construction projects in Malaysia. *Construction and Architectural Management*, 14(2),192-206.
11. <http://dx.doi.org/10.1108/09699980710731308>
12. Almed *et al.* (2000). -Construction delays in Florida: An empirical studyll. Florida Department of Community Affairs.

13. Alzan, S. A., Smitt, A., Pitt, M. and Chan, H. C., (2011). –Contractors' perception of factors contributing to project delay: case studies of commercial projects in Klang Valley, Malaysia, E-journal, Klang Valley, Malaysia
14. Al-Momani, H. (2000). _Construction delay quantitative analysis', International Journal Project Management, 51-59.
15. APM. (2006). APM Body of Knowledge (5th ed.): Association for Project Management.
16. Apolot, R. Alinaitwe, H. and Tindiwensi, D. (2012), –An investigation into the causes of delay and cost overrun in Uganda's public sector construction projects, second international.
17. Artidi, D. and Chotibongs, R. (2005) Issues in Subcontracting Practice. *Journal of Construction Engineering and Management ACSE*. Volume 8: 866-876.
18. Assaf, S. A., & Al-Hejji, S. (2006). Causes of delay in large construction projects. *International Journal of Project Management*, 24(4), 349-357. doi: <http://dx.doi.org/10.1016/j.ijproman.2005.11.010>
19. Atkinson, R. (1999). Project management: cost, time and quality, two best guesses and a phenomenon, its time to accept other success criteria. *International Journal of Project Management* [online] 17(6), p. 337-342.
20. Ayman, H. (Al-Momani) (2000) _Construction delay: a quantitative analysis',
21. *International Journal of Project Management*, 18 (1), 51 -59
22. Rahman, M.A. Berawi, A.R. Berawi, O. Mohamed, M. Othman, I.A. Yahya, Delay mitigation in the Malaysian construction industry, *Journal of Construction Engineering and Management* 132 (2006) 125-133.
23. Battaineh HT. Information system of progress evaluation of public projects in Jordan, MSc thesis, Dept, of Civil Engineering, Jordan Univ. of Science and
24. Technology, Irbid, Jordan, 1999.
25. Bentil, N. L. (2014, March 6). Contractors working on two major road projects which are part of the _Gang of Six' roads have abandoned the project site for lack of payment. Abandoned the project site for lack of payment "graphic news".
26. Borrego, M., Douglas, E. P. & Amelink, C. T. (2009). Quantitative, Qualitative, and Mixed Research Methods in Engineering Education. *Journal of Engineering Education*, 98 (1), 53-66.
27. Burke, R. (2013). Project management: planning and control techniques.
28. McGraw, R. Leonoudakis, Project Time Management: The Foundation for Effective Resource Management, Cognitive Technologies Inc, 2009.
29. Chartered Industry of Building (CIOB), (2008). Managing the Risk of Delayed Completion in the 21st Century.
30. Cheung, S.O., Shu, J. J. and Arditi, D. (2001). Construction Delays Computation Method. *Journal of*

Construction Engineering and Management, ASCE. January/February, 60-65.

31. CIOB (2004). Construction Act Consultation: "Improving Payment Practices", 14 October 2004 [Retrieved August 8, 2010]
32. <http://www.ciob.org.uk/ciob/siteRoot/NewsRoom/ConstructionindustryNews/Article.aspx?id=724>
33. Couto, J., 2009. The public institutions performance is one of main Portuguese construction reasons for delays. Proceedings from the 13th International Congress on Project Engineering, Badajoz (July, 2009).
34. Crawford, L. (2005). Senior management perceptions of project management competence. International journal of project management, 23(1), 7-16.
35. Dawson, C. (2002). "Practical Research Methods: A user-friendly guide to mastering research techniques and projects", Oxford, UK.
36. Dayi, S. (2010) Schedule delay analysis in construction projects: –A case study using time impact analysis method. Middle East Technical University.
37. Dayanand, N., & Padman, R. (2001). Project contracts and payment schedules: The client's problem. Management Science, 47(12), 1654-1667.
38. Duy Nguyen, L., Ogunlana, S. O., & Thi Xuan Lan, D. (2004). A study on project success factors in large construction projects in Vietnam. Engineering,
39. Construction and Architectural Management, 11(6), 404-413.
40. Enshassi, A., Al-Najjar, J., Kumaraswamy, M., 2009. *Delays and cost overruns in the construction projects in the Gaza Strip. Journal of Financial Management of Property and Construction, Vol. 14, Iss: 2, pp. 126 - 151*
41. Fagbenle, O.I., Adeyemi, A.Y., and Adesanya, D.A. (2004) _The impact of non-financial incentives on bricklayers' productivity in Nigeria', *Construction Management and Economics*, 22 , 899-911
42. Falqi, I. (2004). Delays in Project Completion: A comparative study of construction delay factors in Saudi Arabia and the United Kingdom. (MSc), Heriot Watt University, UK.
43. Faridi, A. S. and El-sayegh, S.M., 2006. Significant factors causing delay in the UAE construction industry. *Construction Management and Economics*. Vol. 24, pp. 1167- 76.
44. Frame, W.S. (2002). Credit scoring and the availability, price, and risk of small business credit.
45. Haugan, G. T. (2002). Effective work breakdown structures: Management Concepts Inc.
46. Ibbs, W., Nguyen, L. D., & Lee, S. (2007). Quantified impacts of project change. *Journal of Professional Issues in Engineering Education and Practice*, 133(1), 45-52.
47. J.J. Shi, S.O. Cheung, D. Arditi, Construction delay computation method, *Journal of Construction Engineering Management* 127 (2001) 60-65.
48. Kaliba, C., Muya, M. and Mumba, K., 2009. *Cost escalation and schedule delays in road construction projects in Zambia. International Journal of Project Management. Vol. 27, pp. 522-31.*
49. Kallantzis, A., Soldatos, J., & Lambropoulos, S. (2007). Linear versus network scheduling: A critical path comparison. *Journal of Construction Engineering and Management*, 133(7), 483-491.

50. Elizabeth, South Africa: Nelson Mandela Metropolitan University