

TYPES AND CAUSES IN CONSTRUCTION DELAYS

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Abstract - The construction world has a lots of fascinating factors which imphasise the important things to give a perfect shape to the developing world, with the help of various construction techniques, we develope our society to achieve its shining mark, here I made a move in such a way to touch all important factors which always impart messages for a better construction in the world and the causes which effect. However it is because of the complication of the construction work and involvement of a large number of parties in this sector like clients, consultant, planners, designers, stakeholders, contractors, suppliers, and subcontractors. We should always schedule and manage construction industries with a very high quality management technique to avoid day by day arising problems at site.

Key Words: Delays¹, Reasons², Types³, Effects, Remedies etc...

1. INTRODUCTION

Delays in construction industries are often means a lot which define the whole project and put various types of hurdles on the way of completion even with the schedule and plan work, It is acknowledged as successful as our projects rapped on our target and schedule time, as accordance with the specifications, in estimated budget and client satisfaction. The most important problems in the construction project is delays. Generally we experience different types of delays occur in construction project and the same magnitude. As delays occur in construction such situation should be minimize with a team work and plan with contractor, consultant, and client jointly or severally contribute to the non-completion of the project within the original or the stipulated or agreed contract period. Here construction projects are affected by different types of delays and reason are experienced with step by step reason to be solved with very stone and effective efforts.

1.1 General

Construction delays means an experience that share views to describe delays in construction and its related reactions. Here we experience a lots of expected and

unexpected happenings occur at site, with the help of various surveys conducted, we found the reasons and its causes.

1.2 Objectives

The main objective of this research is to solve all those coming problems which make obstacles in completion of the project.

1. Survey questionnaire at various site.
2. To analysis of different causes and reasons found during questionnaire.
3. To find the causes of delay for different construction projects.
4. To get methodology to find out different techniques to solve it easily.
5. To know the main reasons of construction delay in construction project
6. To rectify the various reasons and causes arises at site.

1.3 Procedure

In this methodology I have fabricated each and every efforts to minimize the delays caused at site like day by day problems generally faced by all responsible persons.

2. METHODOLOGY

Our methodology should touch all aspects of finding those reluctant causes and types of delays with their remedies on the virtue of the following methods.

First of all made a schedule and planning for achieving maximum efforts to get all required functions concern to this work. It will be fabricated in various ways to confine all those related activities to freeze these day by day causing delays and their reasons. The research methodology will mark with the following phases.

1. Surveying method of different construction projects
2. Personal interviews with working people at site
3. Collection of data and their analysis
4. Finding results showing remedies over it
5. Identification of real and typical types and causes of delays
6. Nature's related obstacles

The above phases and discussed methods will reveal the facts of concern topic.

3. FUTURE PROSPECTS

1. The main aspect of our research will accelerate to reduce the upcoming reasons of delays in wee hour.
2. This black and white will work like a tool to produce multifaceted remedies against all various types and causes of construction delays.
3. On the basis of different research, surveys and data analysis, some alarming facts has been described as
 - a. Poor communication within working people
 - b. Delay in proper design and drawings
 - c. Poor site management and supervision
 - d. Changes in design time to time
 - e. Delay in supplying materials
 - f. Inexperience working people or contractors
 - g. Delay in approving design documents
 - h. Delay in payments

4. Live Projects

These are live projects in which we found actual causes of delays. It has a number of distinctive features associated with the nature of its product. The most important task of construction in the these live works to provide extended reproduction of the fixed target in the ongoing project by the efficient use of technique for various fronts and its investments, the intensification of construction output, and, on this basis, improvement in the efficiency of responsible persons. Many factors contributed to the importance of construction to this project in developing productive forces.

For example:-

Construction plays a leading role in the planned development and re-equipment of all branches of the project, in the development of new production processes, in the selection of more efficient sites for enterprises and the incorporation of newly discovered natural resources into production, and in the integrated development of the work. Construction is also of prime importance in the realization of long term urban development projects, in the preservation, reorganization, and restoration of the environment, in the acceleration of the development of advanced branches of industry, in the improvement of the material basis for science, and in the creation of a material basis for the improvement of the standards of life and culture of the people.

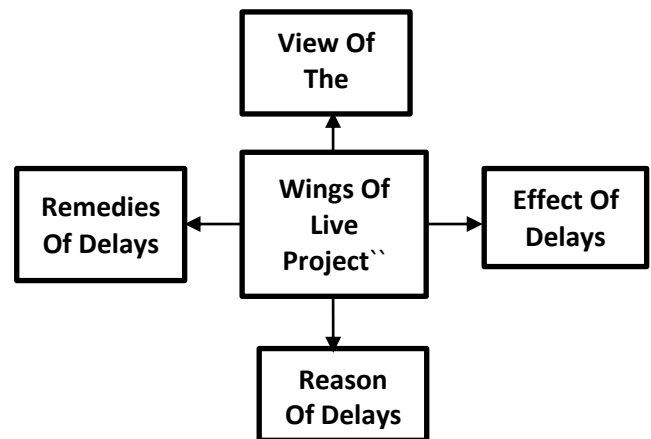
In this project we experienced a lots of realistic reasons of delay which produced multifaceted problems to put

hurdles on the way to achieve its final position. Here I introduced my project to view my own experience about the types and causes of this project delay. On the virtue of day to day work with rising problems,

I emphasized on the following way to summarize reasons and its remedies in wee hour to push the project on smooth track to move on.

Wings of Live Project

- A. View Of The Project
- B. Reason Of Delays
- C. Effect Of Delays
- D. Remedies Of Delays



. In view of this causes of delay were identified and developed the questionnaire for the quantitative confirmation of the most causes of delay. They are very complex, requiring the co-ordination of the following

About the project

This is a complete residential project with external development which has been constructed under my supervision In this project I experienced different types and causes of construction delays at various fronts as well I found that these reasons were very most effecting. All of this project comes together to create a unique development on a particular site under circumstances that will never be repeated. They are very complex, requiring and co-ordination of the following In this project I experienced a lots of typical and regular types of delays which has been listed below to identify and put some stone steps to reduce it as per to achieve our goal on time by avoiding various types of obstacles on the way of concurring our target to be delivered on given time span. In fact I realized that it's a team work and nobody can accomplish it alone by producing any technique This project team comes together to create a unique development on a particular site under circumstances that will never be repeated. In this project I experienced a lots

of typical and regular types of delays which has been listed below to identify and put some steps to reduce it as per to achieve our goal on time by avoiding different types of obstacle on the way of concurring our target to be delivered on given time span The Case study of this project reveals the facts of causes and reason of the delay, this survey aims to investigate the causes of delay in this particular projects undertaken by private organizations. In view of this causes of delay were identified and developed the questionnaire for the quantitative confirmation of the most causes of delay. They are very complex, requiring the co-ordination of the following

Various Types Of Delays And Causes Experienced At This Project

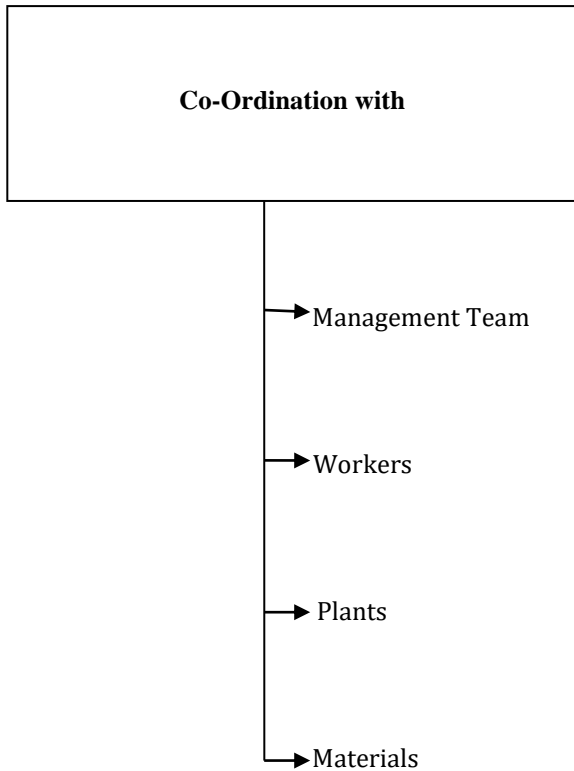
1. Delay in payments of workers
2. Changes in drawings time to time by the client
3. Delay in revising and approving design documents after changes
4. Delay in mobilization due to interference of local inhabitants
5. Theft of materials at site
6. Slowness in decision-making process (not able to have firm decision on the spot)
7. Unavailability of professional sub contractors
8. Rework due to errors during construction because of poor supervision
9. Conflicts between contractor and other participants
10. Ineffective & inadequate early planning and scheduling of project
11. Implementing improper & obsolete construction methods
12. Improper arrangement for laborers huts
13. Delays in sub-contractors work and their incompetency which leads to frequent changes in subcontractors
14. Use of outdated tools and machinery
15. Poor estimation of project time and quantities of material required before execution
16. Often changing project schedule
17. Unsafe working condition due to improper safety management by the contractors
18. Not providing signage place to place to lead right way
19. Insufficient data collection and survey before design
20. Mistakes and discrepancies made in design documents leads to frequent revisions of drawings/designs
21. Inadequate design team experience & delay in producing design documents
22. Unclear and inadequate details in drawings and also slow response on doubts arising from the drawings
23. Not proper arrangement of play ground for worker's children
24. Financial problems
25. Misunderstanding among workers and staffs
26. Shortage of labourers
27. Personal conflicts among labours
28. Hiring of low amount of labours
29. Labour strikes at site
30. Labor Safety & health problems when working in hazardous conditions and their absenteeism
31. Not applying safety measures by the workers
32. Nationality and language of labours
33. Lack of motivated schemes for workers
34. Shortage of construction materials in market
35. Changes in material types during construction
36. Sudden strike of material suppliers
37. Damage of sorted material while they are needed urgently due to improper storage of materials
38. Delay in manufacturing special-building materials
39. Late procurement of materials/late ordering due to late decision of selection of materials
40. Problem with material transport and processing at site (lack of adequate space for storing materials in site)
41. Price fluctuation/inflation in material prices
42. Late in selection of finishing materials due to availability of many types in market
43. Sudden increase in quantity needed
44. Equipment breakdown and their idle time and lack of tool in market
45. Shortage of heavy equipment when needed
46. Low level of equipment-operator's skill
47. Low productivity and efficiency of equipment
48. Lack of hi-tech, advanced and special equipment
49. Complication of hiring and transporting to the site

Here we have interacted consequently with the questionnaire and distributed to construction professionals like Managers, Engineers and others. Subsequently the collected data was analyzed using statistical tool and the factors were measured and ranked under each group by importance index for various construction professionals.

The results suggest that delays are mainly due to the following reason

- a. Shortage of labours
- b. Shortage of construction materials
- c. Extra works like rework and change orders.

We should have good co-ordination with the concern people as described below



Disputes In Between Client & Contractor

Arbitration

Problems In Cash Flow

Difficult To Improve Market Value Of The Firm

Penalty Clauses Imposed

Litigation

Here we experienced actual delays, reasons and effects of construction delays, on the basis of various surveys we should minimize these following effected aspects to be protected from arising reasons of delays.

Cost Overrun

Effect Of Delays

Time Overrun

Cost Increases

Poor Quality Of Work

Damage Of Company's Image

Project Abandonment

Less In Profit

Negotiation

5. Remedies of Delays

On the basis of various efforts at site to minimize delays and emitting problems I concluded the work with multifaceted solution to be practiced at site.

Obviously, the factors shown are mostly human-related factors. This implies that people play a decisive role regarding the success or failure of a project.

Here, factor analysis uncovered that most of the success factors can be identify and rectify within given time period.

Comfort concerns ensuring that resources, efforts and leadership are well aligned for the implementation of the project.

It includes these factors

1. Adequate funding throughout the project,
2. Comprehensive contract document,
3. Availability of resources,
4. Continuing involvement of stakeholders,
5. Competent project managers.

Competence requires having appropriate technology, experience, and specialties available for the project.

It must have

1. Up to date technology utilization,
2. Proper emphasis on past experience,
3. Multidisciplinary/competent project team,
4. Awarding bids to the right designer/contractor.

We should always communicate to each other to cope with problems if any because communication helps clarify and disseminate all necessary project information and status to all internal and external project stakeholders. The project will then have the opportunity to avoid failure and reach for success through the achievement of team-spirit and a sense of ownership.

Generally it includes

1. Community involvement,
2. Clear information/communications channels,
3. Frequent progress meeting.

Commitment from top to bottom level management is more important in which periodic review and correction should be made in all aspects like

1. Safety
2. Quality,
3. Material,

We found it that we should make the availability of new technique equipment's to avoid unnecessary delays and cost overruns. Unskilled workers are inefficient, in which labours and supervisors should be well trained with effective training program to improve their knowledge. Delivery of construction materials should be dealt carefully with the vendors which affects the progress of the project utmost. Owner should be well aware about the effect of changing orders during construction and delay in progress payment, which affects the project completion on predefined time

The important factors identified in this study were:

1. Clear objectives and scope;
2. Commitment to project;
3. Top management support
4. Timely, valuable information from different parties
5. Effective strategic planning
6. Awarding bids to the right designer/contractor
7. Continuing involvement of stakeholders in the project;
8. Frequent progress meeting
9. Adequate funding throughout the project;
10. Availability of resources;
11. Absence of bureaucracy;
12. Community involvement;
13. Clear information and communications channels;
14. Accurate initial cost estimates;
15. Systematic control mechanisms;
16. Competent project manager;
17. Multidisciplinary/competent project team;

18. Multidisciplinary/competent project team;
19. Up to date technology utilization; and
20. proper emphasis on past experience
21. Five critical success factors were identified:
22. Competent project manager;
23. Multidisciplinary/competent project team;
24. Availability of resources

When a construction delay occurs, there is no question that the Owner suffers financially, but the extent to which an Owner can recover its loss of income from the Contractor, and more importantly minimize the risk that such delays will occur, depends largely on how the construction contract was drawn up. Based on several studies of project success factors and rectification of delays in construction project, a total of 15 methods have been identified as

On the basis of various efforts we found that different types of delays and its causes, Which are a lots of typical causes come in lights at site which are as follows

1. Lack of ample space for materials
2. Living arrangement of worker near site
3. Large space to procure costly and delicate materials
4. Time to time coordination with concern authority
5. Making list of works on tip
6. Accessibility of required sources promptly
7. Involvement of unwanted agencies like mafia etc
8. Assessment of required materials before time
9. Alternate arrangement of workers at the time of festivals
10. Lack of magnetic scheme and offers for incentive
11. Lack of required facilities for workers and their children like electricity, water supply, children park etc.

Construction delays are often result of a mismanaged events and can be seen as a risk for the projects, which if identified, analyzed and managed in a systematic process at inception, could be managed, minimized, shared, mitigated or accepted to give some good results and minimize chances of further delay.

Processes in Construction Project Management

Project management processes are grouped into five categories known as Project Management Process Groups.

1. Project Initiation
2. Project Planning
3. Project Execution
4. Project Monitoring & Control
5. Project Closing

If we practice and work properly to eradicate shortcomings of site. Delays can be minimized by the following factors.

1. Teamwork
2. Detailed investigations.
3. Careful & regular monitoring and meetings.
4. Careful & regular monitoring and meetings.
5. Effective management.
6. Collaborative & effective working and coordination.
7. Careful scheduling.

6. SUMMARY AND CONCLUSION

This study focused on delay of construction of building projects in. The study sought the views of clients, consultants, and contractors on the relative importance of the factors that cause delays in building construction projects. The study showed that all the groups of respondents generally agreed that all factors are influencing factors in causing delay arranged in descending order of importance are:

- delay in honouring certificates
- underestimation of the costs of projects
- underestimation of the complexity of projects
- difficulty in accessing bank credit
- poor supervision
- underestimation of time for completion of projects by contractors
- shortage of materials
- poor professional management
- fluctuation of prices/rising cost of materials
- poor site management

This has been verified that there are a lots of reasons are there at site at the time of execution to till finishing but here we should make some stone steps or unique strategies to minimize different types of delays in

construction which had been described above many times to avoid such types of delaying reason.

On the basis of above study we can conclude over it that we should frame the project in such parameter to define it on schedule time.

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BIOGRAPHIES



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