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ROLE OF PROJECT MANAGER IN COST AND TIME CONTROL OF CONSTRUCTION PROJECT

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Abstract

In India, the development business assumes a significant job in the economy of the nation. It expends a huge part of the workforce, contributes generally to the nation's total national output (GDP), and is viewed as a key impetus for the development and advancement of the Indian economy. The aim of this research is to study the project management of construction program. The construction sector has a massive importance not just to the economic and social life, but also to the essential and encouragement of the local culture. The significant challenges were the poor planning, poor project management and poor communication between total functional bodies to reach optimal solutions, in addition to gaps and points that are clarified in the context of the search. Initially by understanding the main goals and objectives of the project and try to apply these ideas clearly on the ground, and another goal is to develop sound system through which the project can be employed as a program for best practice and help other project manager to improve the administrative viability of their tasks. The undertaking director is the individual liable for the effective inception, arranging, plan, execution, observing, control and conclusion of a task.

An overview of more than 250 development venture firms in the INDIA was directed, trailed by up close and personal meetings with experienced experts from these 15 firms. Regular factors that anticipate both time and cost control during development ventures were first recognized. 90 moderation measures have been created for the best five driving counteractive action factors for configuration changes, dangers/vulnerabilities, off base assessment of venture time/length, complexities and non-execution of subcontractors.

Keywords: Project management, economy, construction

1. INTRODUCTION

The construction industry in India has developed very rapidly with the construction of latest projects. Because of the massive increment in the construction industry, the services delivered by the project manager required to be improved in terms of execution and exception of work to meet up the construction project aim and objective and also the customer satisfaction. Efficiency in Management is needed to gain a higher level in competitiveness The Project Manager has a ample variety of roles to perform during the construction process therefore it is significant to fully figure out Project Manager and influence through their services in terms of importance and satisfaction of the same. The study focuses on explore industry with study of PM services and measures their accomplishment in provisos of importance & satisfaction along with their operations.

Failure does not solely mean doing things wrong, but even doing things nearly right, this idea will route to execute the best way to implement project management in construction projects and to starting new era in thinking that will allow valuation to construction industry. In the construction industry, the point of task control is to ensure that projects are completed under scheduled time and cost, within decided cost. During the most recent number of decades, various project control strategies are employed, for example, Bar Chart, Program Evaluation and Review Technique (PERT) and Critical Path Method (CPM) have been created. Assortments of programming bundles have turned out to be accessible to help the use of these task control strategies, for instance Microsoft Project.

All through execution period undertaking, Project manager must be prepared to respond to inquiries that partners pose: Is the project on calendar? Is the task inside spending plan? Is the undertaking accomplishing the objectives that we've set? If not, what are you, the venture director, going to do about it? The undertaking chief thinks about real work and expenses to the venture intend to decide if the task is bogged down or over spending plan. This research tries to examinations and surveys the current accessible acquirement courses time, quality and cost effectiveness while likewise meeting the administration plan for maintainability. Different techniques for acquisition are as of now being used specifically, customary, plan and fabricate, the board draws near,

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Private Finance Initiative and banding together. A large number of questionnaires were distributed to the responders such as Project Engineers, Project Managers, Architect and client's representatives. Clients Interview was also conducted. The collected information / data are analyzed using the method of average index. From the study, it was observed that the range of services delivered by PM is break down in three stages namely the pre-construction, construction stage and the post-construction stage.

Research Questions

- How are projects managed in the India?
- What are the major elements causing deficiency in construction projects?
- Is there any method employed for project management?
- Is there any methodology for addressing projects in large scale construction?
- How is project success measured?

These questions and others will be answered in this study, in order to improve project management performance in the construction industry in India.

Objectives

Findings of this research should be very useful for decision makers in the construction sectors in India. Though the research focused on multi-storey projects in India to understand the current scenario used in construction industry. The objectives of the research are:

i. To Analysis method adopt by Project Manager.
ii. To study the factors, impact in project time.
iii. To study the Evaluation of cost and time.
iv. To study the evaluation system of construction project.

2. LITERATURE STUDY

Aibinu, A. also, Jagboro, G.: The aim of the research is that the Nigerian development industry can be lined up with the utilization of development venture the executive's frameworks, despite the fact that, the industry has been insulted by issues, for example, building breakdown, perpetual deferrals, relinquishment and cost overwhelm. In this examination the unmistakable study technique was embraced and information was acquired by methods for request utilizing surveys. An example size of fifty-nine (59) development experts was utilized for the examination. The investigation uncovers that location of a project majorly impacts Project Manager's decision making on undertaking arranging. It attested the significant significance of Management aptitudes required in rehearsing development venture the executives. All in all, the outcome recognized that uninvolved investment from Project Manager, absence of customer contribution in making choices, arrangement of substandard materials, structure mistake, and need of effective correspondence and poor treatment of workforce are difficulties hampering the utilization of construction venture the board. The examination prescribes the standardization of development venture the board practice, impulse of satisfactory preparing and skill modification programs for construction experts to help the maintainability of development project management frameworks in Nigeria.

Ndekugri, I., Akinsola. A., Harris. F, Potts, K.: This examination looks at the level and adequacy of the endeavors of indigenous and exile Nigerian temporary workers on venture observing and control. The investigation's goals are to think about the frequencies at which task observing and control systems are utilized by Nigerian contractual workers and their impact on undertaking result. A field study was directed utilizing an example of 86 contractual workers chosen by stratified arbitrary examining. The information was gathered utilizing organized surveys and investigated utilizing the mean, t-test and Spearman connection test. The aftereffects of the examination uncover that indigenous temporary workers do extend control procedures more often than exile contractual workers. Moreover, three of the eight checking and control methodologies impact the task result, while the rest of the techniques don't; this outcome shows that while a portion of the systems are viable, others are definitely not. Temporary workers should in this way guarantee their venture observing and control endeavors are coordinated towards improving the whole results of their activities.

Al-Momani, A.: The goal of this study is to present the exploration or breakdown of Role of Project Management Consultancy and focus on the troubles looked by PMC for arises during the project. Undertaking Management Consultancy has multifaceted impact in such ventures and gives the administrations from initiation to consummation of activities. Utilization of Project Management Consultancy (PMC) offers one of the compelling administration answers for increment and development. A contextual analysis of development of a Mega Industrial Project which is managed by PMC and Project comprise of different sort of structures for Process unit with associated Infra of Electrical utilities, Services like Firefighting, Sewage line, Storm water game plan and Road and so forth have been considered for this examination work.

Safeer Ali Abbas Ali and Arun C.: This paper provides a straight perception into all presently accessible researches relating to activity- oriented as well as non-activity-oriented time waste development. It is seen that the lean technique implementation has reduced wastages in construction reducing time wastes within the method. Further, studies explaining delay analysis, ways to the reduction of delay and betterment of process are reported by a variety of students. But time waste researches are nominal, and a lot of effort is needed to be set into this region of study. In case of delay in construction, which is confirmed in presents sites delays are to be cancelled or at least reduced primarily.

3. RESEARCH METHODOLOGY

The examination techniques used fundamental factors that influence to survey the project manager execution inside the development businesses in India will be talked about in this part. This part will likewise take a gander at how the fundamental elements can add to the achievement of development ventures.

There are numerous techniques used to gather information, for example, perception, center gathering and contextual analyses. The fundamental research gadget utilized was the accumulation of essential information, subjective and quantitative information Questionnaires reviews. All analysis methodologies can be grouped as qualitative and quantitative. Qualitative analysis is relying on theoretical study and is utilized to know patterns, nature, or frequency features during a mass of information.

Quantitative method is based on exact magnitudes and trials and is utilizes to pinpoint statistical interaction between a set of variables. Qualitative studies use a procedure of investigation to construct and interpret the theory. Again, quantitative method utilizes mathematical models and computations to forecast workable results. It is also employed to know statistical relationships among variables and produce results Information is gathered from 100 outside clients (level purchasers) as indicated by their sentiment about quality and administrators related issues. The data gathered is entered on check sheet. Another check sheet inner client (worker) will be filled by gathering representatives of the information architecture firm to assess their experience and quality issues.

To summarize the methodology description Figure 1 shows the diagram of the methodology used in this research:

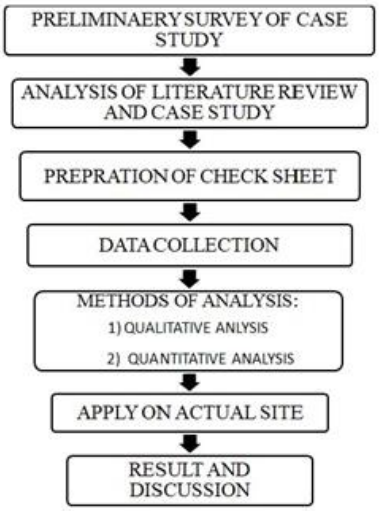

Figure 1 Flow chart

4. ANALYSIS & RESULTS

Check Sheet

Table1. Check Sheet of Internal worker against Complaints on Quality related Problems. Study is directed dependent on 100 cases (at Site &management at Head Office).

Table 1 Check Sheet of Internal worker against Complaints on Quality related Problems

S. No	Name of Complaints	No. of Customers
1	Incorrect HR function	67
2	Unskilled manager	28
3	Unskilled site engineer	58
4	Unskilled supervisor	69
5	Unskilled labour	86
6	Lack of material	39
7	Lack of incentive	93
8	Lack of time determination	75
9	Lack of motivation	90
10	Wrong Master Budget	79
11	Low salary	89
12	Change of scope	97
13	Partisan appointment	95
14	Lack of manpower	48
15	Lack of a completed schedule	67
16	Delay in material supply	21
17	Overhead reduction policy	58
18	Waste	59
19	Lack of drawing supplies	72
20	Others	17

Pareto Analysis of Check Sheet Data

Table 2 Pareto Chart on External Customer (Flat buyer) against Complaints on Quality related Problems

S. No	Name of Complaints	No. of customers	Cumulative	Cumulative percentage
1	Handover delay	50	50	14.5
2	Slow work progress	45	95	28.4
3	Plaster crack	40	135	41.5
4	Bad performance	40	175	54.6
5	An additional exception is abuse & delay	30	205	66.3
6	The problem of drainage	35	240	78.7
7	Door and window related problems	20	260	88.9
8	Stress problem in water taps	17	277	91.8
9	RCC top floor roof leakage	13	290	94.02
10	Electrical line related	8	298	95.4

Table 3 Ranking of components hindering compelling undertaking time control

S. No	Time constraining factors	Rank	RII
1.	Design changes	1	0.88
2.	Improper evaluation of projects time / duration	2	0.80
3.	The complexity of writing	3	0.79
4.	Risk and uncertainty associated with projects	4	0.74
5.	Volatile interest rate	5	0.72
6.	Lack of proper training and lack of PM experience	6	0.70
7.	Variations in contract documentation	7	0.68
8.	Less skilled manpower	8	0.66
9.	Differences between project parties	9	0.63
10.	Project fraud and corruption	10	0.61
11.	Financing and payment for completed work	11	0.59
12.	Contract and specification interpretation disagreement	12	0.58
13.	Dependence on imported materials	13	0.56
14.	Lack of suitable software	14	0.53
15.	Price inflation	15	0.51

Table 4 Ranking of factors inhibiting effective project cost control

S. N.	Factors that inhibit cost control	Rank	RII
1.	Design changes	1	0.88
2.	Risk and uncertainty associated with projects	2	0.85
3.	Improper evaluation of projects time /duration	3	0.80
4.	Performance of subcontractors andnominated suppliers	4	0.78
5.	Weak control and control	5	0.77
6.	Differences between project parties	6	0.76

5. CONCLUSION

A study on Role, Responsibility & Services carried out by Project Manager was conducted for Industrial Projects mostly. The intension of the study was to identify the parameters affecting project time and project cost overrun. The study also focused on various problem faced by Project Manager and solution provided during services this study was not intended to be specific or limiting in scope but was allowed to outline what would commonly be done in existing project manager. This study was primarily intended to serve as a guide to Project Manager in respect of the suggested scope and extent of services and also for the guidance of the clients who may wish to engage a Project Manager offering project management services.

From the results of the survey on the problem faced by Project Manager, it can be concluded that the problems according to priority are as follows:

1. Incorrect project achievability investigations and confusing project scope report.
2. Slow decision making by client & unrealistic imposed contract span.
3. Uncertain work practice & unnecessary modify in sequence.

Extents of significance of services shows, no more than three services were considered by the interviewers as major significant that are Planning & scheduling, Monitor& Controlling, Quality assurance& Control. The total outcomes are the various tabulated in figures as shown previous. Similarly, during project following fields are needed to be slight enhanced in order to control the construction projects through documentation more easily like, Communication control, Change Control actions, Project Close-out and termination, degree of satisfaction on services delivered by the Project Manager shows that the respondents have categorized the services provided by the Project Management Consultant which is “moderate satisfied”. There can be further study performed for various applications like bridge construction, tunnel, dams, etc.

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