

## CONSTRUCTION MANAGEMENT AND PROJECT PLANNING A REVIEW ON HUMAN AND INFORMATION TECHNOLOGY ASPECTS

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### ABSTRACT:

The paper reviews literature available on project planning and construction management in civil engineering or construction industry worldwide. The present study is about construction managers' role in the industry and use of information communication technologies' and management tools for effective and fast track completion of projects. The project management techniques are found very effective in improving the quality of the projects. The construction industry is facing the huge problems related to failure in timely delivery of the project. The proper planning of the construction project by considering the various factors affecting the quality and timely completion of the project.

**KEYWORDS:** Construction, Management, planning, information technology.etc.

### INTRODUCTION:

The construction industry is considered as most uncertain and complex in its nature. The complex nature of this industry, in association with the challenges of competitiveness and changing regulatory requirements has created the need for extremely educated and competent construction managers. Having Essential attributes like: intelligence, flexibility, addictiveness, and the ability to deal with uncertainty and rapid changes.

Construction manager's role is in various organizations in the construction industry such as, building and civil engineering contracting, project management consulting, construction and project management consulting, client organizations and developer organizations.

The objective of the research is to find out if construction managers apply their skill sets and theory in practice and meeting the expectations of their organizations. Keeping in mind the dynamic forces impacting the industry, can construction management's curriculum identify the skills needed by construction management graduates for future success or not. Are these managers, meeting the expectations of contractors or not. To answer these questions, review of various available materials is done in brief.

Figure below shows basic steps used in project and construction management.

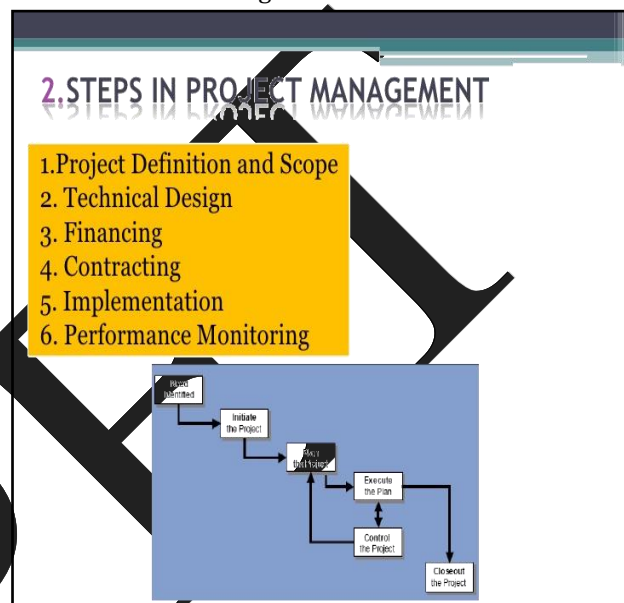


Fig. 1 Steps in Project management

### LITERATURE REVIEW:

**POLLAPHAT NITITHAMYONG, MIROSLAW CAW, J. SKIBNIEWSKI:**

In their paper "Web-based construction project management systems: how to make them successful" described research carried out at Purdue University on the finding of factors determining success or failure of web-based construction project management systems, also the authors have found ways to identify common factors across the systems and organizations that can influence the success/failure of this web based implementation efforts.

**C. WILLIAM IBBS, YOUNG HOON KWAK:**

In their paper "Assessing Project Management Maturity", summarized the results of research conducted by them from the University of California at Berkeley, they studied how to determine the financial and organizational impacts of Project Management (PM). They developed a PM Maturity Model and an analysis methodology to assess the maturity of that processes. This is called a benchmarking tool. It consists of various multiple choice questions that measure maturity.

Also they showed that there are some perceptions of project management that are not

confirmed by author's actual data. The study showed that this is a start in understanding and forming a theory of project management, yet there are still many gaps in the literature available.

**H. A. BASSIONI, S.M.ASCE; A. D. F. PRICE AND T. M. HASSAN:**

In their paper "Performance Measurement in Construction" reviewed the main performance measurement frameworks and their applications by United Kingdom construction companies and to identify gaps in available intelligence and practice that suggest future research. They also reviewed contemporary performance measurement frameworks, consisting of balanced Scorecard and the European Foundation for Quality Management Excellence Model. Gaps in knowledge and practical applications are overviewed both in general and for the construction industry in specific, thus suggesting future research.

**KATHLEEN M. J. HARMON:**

In the paper "Resolution of Construction Disputes: A Review of Current Methodologies" reviewed the current methodologies and techniques for preventing and resolving construction conflicts. They gave reader an overview of the advantages and disadvantages of each process when determining which one is right for a particular situation.

**N. JAFFAR, A. H. ABDUL THARIM, M. N. SHUIB:**

In the paper "Factors of Conflict in Construction Industry: A Literature Review", Took an overview of the factors of conflict in construction industry. Such as

1. Behavioral problems.
2. Contractual problems and
3. Technical problems.

The paper made to be guidance for conflict management in future construction projects.

**M. MOAZZAMI R. DEGHANAND J. Y. RUWANPURA:**

In the paper "Contractual Risks in Fast-Track Projects", In this particular paper, exact legal risks and challenges in fast-track projects are identified through a review. In addition, contractual aspects of fast-tracking are briefly reviewed at three levels: contract language; contract type; and project delivery method. The study showed that inaccurate cost estimating and cost overrun risk liability, liability for design errors and omissions, delay damages, change orders, construction rework and modifications, as well as risk liability for overlooked

work are among the most important reasons for disputes in fast-tracking. Also the authors provided a better understanding of the contractual risks in fast-track projects and help to develop contract strategies and minimize the associated legal problems.

**CONCLUDING REMARKS:**

The paper has made a brief and effective review of the literature available for the topic construction management and project planning in civil engineering and construction industry. The available research showed that many factors play an important role in success of project these are.

1. Project managers ( Human resources)
2. Use of Information technology
3. Problem minimization tools used by organization
4. Performance measurement technique effectiveness and efficiency

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