



e-ISSN:2582-7219



INTERNATIONAL JOURNAL OF MULTIDISCIPLINARY RESEARCH IN SCIENCE, ENGINEERING AND TECHNOLOGY

Volume 5, Issue 6, June 2022



INTERNATIONAL
STANDARD
SERIAL
NUMBER
INDIA

Impact Factor: 7.54



6381 907 438



6381 907 438



ijmrset@gmail.com



www.ijmrset.com



Preparation of Claims on Infrastructural Projects Using Primavera

Shreyash Khodaskar

M.Tech, TRE, GH Rasoni University Amravati, Maharashtra, India

ABSTRACT: Building claims have really been affected by the cost and length of the project. To mitigate these effects, an organization should implement a flawless and efficient claiming project plan. The growing number of lawsuits is a consequence of the increasing the complexity of building projects, their cost structure, and the procedural strategy used by many client and developers. Claim are an unavoidable and impending burden on contemporary projects that include current technology, standards, and high owner expectations. All participants must be completely acquainted with the workflows, along with the ability to take specific preventative measures as necessary and needed. Consolidation of changes to the current sector is possible immediately or through conversion to a complete process project. The purpose of this research is to organize and investigate different ways for using Primavera contracts management tools with Primavera P6 to quickly and easily generate properly documented claims.

KEYWORDS: Infrastructures, Claims, Contracts, Primavera P6

I. INTRODUCTION

Conflicts are inevitable in human interactions, and therefore in building projects with a large number of interacting elements. Internal conflicts may occur in either direction, and if an extra subsystem is introduced to a contact, the possible conflict could be examined in depth. The construction sector is facing serious difficulties as a result of conflicting interests between many stakeholders, and the fact that the building process is changeable and other conditions necessitates natural adaptability and common sense. If one group supports that every other party obligated to work is not adhering to the accepted contract's real course of work or is failing to fulfil contractual obligations, may that party bring a claim versus them? A claims as described as "a request, demanding, or assert of right made by a purchaser against with the supplier, or by the owners against a clients, for the purpose of obtaining reimbursement or payments under rules of a contractual agreement, which is for a contested modification."

Any significant occurrence or sequence of quantifiably minor events throughout the project's operating process may generate issues that escalate into severe building conflicts. The relationship among litigation may be described as follows: a claim is a topic of concern, while a result has been either settlements or litigation. The order fulfilment process's key function is to handle specific problems effectively and efficiently to avoid future conflicts. However, claim leadership doesn't quite receive adequate focus in the building industry, but in some case scenarios, it's not really taken into consideration or understood as a managerial function that includes emotional knowledge and skills to assist and provide necessary attention for claim-related matters beginning with the beginning of the project. The formulation of claims and their administration requires considerable work, while assertions in building projects are undesired and they need valuable time and effort to resolve. Claim leadership means not only time and skilled personnel to resolve disputes, but also the payment of expenses associated with the resolution of the dispute. The expense of resolving a claims or disputes may be very expensive, not only for the money given in agreement but also about the business that deals with resolving the issues.

Participants in programs should try to prevent and eliminate issues that may result in claims, which can be done proactive or as a reply to an issue it before develops into a serious disagreement. For one of the most effective methods to prevent or reduce complaints is to ascertain their main origins or reasons. A real root may well be the main source of an undesirable condition or issue, because if the main cause is effectively addressed and treated, it can result in a lasting resolution of the issues that arose. It is important to determine common origins of building conflicts in order to isolate and manage the underlying issues. Existing research has compelled us to address the reasons of conflicts and disputes in a variety of ways, despite the fact that the range of available causes is lengthy. Attempts to examine underlying problems have been undertaken in previous studies, however they have mostly



focused on possible real causes and ignored true problems. Prior research has failed to recognize the claimed reasons unique to EPC-projects and thus to address the claims reasons that arise inside an EPC-organization where a leading is solely accountable for outsourced operations.

Body:

AIM

The purpose of this research is to demonstrate how to utilize the PCM as well as Primavera P6 systems to quickly and easily produce claims for infrastructural projects.

OBJECTIVES

1. Identify road Construction project as Study Area
2. Identify and analyze the types of claims and their causes in case study and categorize compensation for claims.
3. Identify and analyze contract clauses and claims quoted in tender notice
4. Determining the existing potholes in claim management process and suggesting the best possible remedy to control the management process effectively.
5. To provide insight on how the relationship affects claims, which would further develop understanding to existing research, in a different context.
6. To Compare As-Built Vs As-Planned Comparison of Time and Cost Using Primavera Software.

II. METHODOLOGY

For the purposes of this research, a qualitative approach was selected as an interpretative technique of data collection in order to increase the understanding of the topic. In this study case studies are reviewed of delivering infrastructural projects under the EPC scheme in Maharashtra. Academic literature and case studies are the main sources of data. In order to get a wide context and support of some of the professionals involved in the project. The secondary data will be obtained from the literature. Using this approach, data is collected from the selected site and the details of the selected case study are described further in this chapter. This data is analyzed using P6 Primavera program to highlight the effectiveness of construction management process during especially in claims. The data has been collected by interviewing the officials of the construction industry. The study has been broadly undertaken as follows:

- ✓ Identified the projects, which are emerged as iconic landmarks in Maharashtra region.
- ✓ Study all the available plans, estimates, schedules and work procedures in detail and collected all the relevant data about the project.
- ✓ Analyzed the data obtained and Use of technology to increase the efficiency of contract management by Primavera
- ✓ Identification of contractual risks and advice on mitigation
- ✓ Listed out all the shortcomings.
- ✓ Monitoring of the payments made to sub-contractors based on mutually agreed contractual terms and conditions as well as avoiding any overpayment
- ✓ Determining of roles and obligations of various parties to the contract

5.1 Contracts

Part I

The new standard form of CR occurrence is contract force, claims, disputes, and other provisions. There are two sections to this article: Legal Adviser, FDIC Working Group, FL9IC International Terms of Agreement, Partner, White & Case LLP and Paris Update. Sepal Legal Adviser, FDIC Working Group, FL9IC International Terms of Agreement, Partner, White & Case LLP, Paris Update. Part I looks at three new FIDIC essential works books: Part 2 Compensation; 3 liability limit; 4 New Force Major Division; and 5 reasons and process for contract cancellation by the owner and contractor Part II looks at: 1. New rules for contractor and owner claims; 2. The Dispute Resolution Board's (DAB) Dispute Resolution Policy; and 3. International Mediation (very briefly). Contractor Risk and "Owner's Risk" (liability assignment for work-related losses) (Subsections 17.2-17.4) Basic risk distribution for losses suffered prior to acquiring subsections between the contractor and the employer. New book volumes range from 17.2 to 17.4.

The principles aren't always the same as they were in the previous Red & Orange books. The following are the principles (hence referred to): 1. from the date of start until the issue of the take-over certificate for the work, the



Contractor is completely responsible for the work, materials, and maintenance of the plant. 2. In the case of any damage or loss to the work, materials, or plant that is not caused by "employer risk" (as described), the Contractor must "fix" the damage or injury at his or her own cost.

1. In all instances of accident, the contractor owner is entitled to collect "in addition to Clause 52 of a selling price" under the Old LalKitab , i.e. Eligible for benefits.

2. However, the contractor is only entitled to the cost in all respects under the Orange Books (subsection 17.4), but he's not eligible to the profit.

3. Previously there was a clause (subsection 17.6) in all new books, notably new construction contracts that limited contractor liability. The new Clause, like the Orange Books Clause states: Excludes responsibility for both the Contractor's (& employer's) loss of work, profit, contract loss, and any indirect or incidental damages suffered by another party; Set a monetary limit upon this contractor's overall responsibility, subject to specified exclusions.

Part II- Claims, Resolution of Disputes and the Dispute Adjudication Board

The New Procedures for Claims of the Contractor and the Employer (Sub-Clauses 20.1 and 2.5) Special provisions related to the handling of contractor claims may be found in the Orange Books (Clause 20.1).

This sub-clause not only controls overpayment claims as previously, but also manages time extension claims very intelligently, since there is no need to apply the same process to claims over time but also claims. The reason for this does not appear. For the sake of money.

In addition, a new sub-section dealing only with process relevant to employer claims has been included for the very first time (sub-section 2.5) The following is the discussion of certain two subdivisions: The contractor's claims are dealt with in subsection 20.1, whereas the employer's claims are dealt with in subsection 2.5

Claims of the Contractor (Sub-Clause 20.1)

1) If the Contractor believes he is qualified for completion and/or under any term of the Terms, or for an extension of payment for extra payment, the Contractor must notify the Engineer or Owner (as applicable) as early as feasible. It's possible, which led to the assertion that "the contractor must be able to be detected or scenario 28 days once it occurred, or be aware of."

2) Whenever the Contractor sends a notification under new provision, he must maintain the current documents necessary for substantiate this claim, just as he did inside the old Red Books & Orange Book. And, on a contract basis, the engineer or employer has the power to supervise the contractor's document and/or extra current records (sub-section 20.1).

3) The Contractor must send to Engineer or Employer a full detailed claim with supporting documents for the Engineer but rather Employer Claim, as well as a full extension and additional claim for payment within 42 days of the event known to a Contractors or in the object or events that led to the claim (or any other period accepted by the Engineer or Owner).

4) Within 42 days after receipt of the claims or any additional information supporting the prior claim or any alternative time suggested by the engineer or employer and authorized by the contractor, engineer or employer, approval or rejection and specific comments.

Claims of the Employer (Sub-Clause 20.5)

As previously stated, the new books not only offer a procedure for contractor claims but also outline a process for employer claims.

If the employer believes he is responsible for every payment under or other conditions and for an extension of an error reporting time, the employer or engineer must notify the contractor and provide specific details.

5.2 Features of Primavera Software:

The management of the new construction project in Primavera software involves following steps:

- ✓ New Building Project
- ✓ Calendar Creation for project work
- ✓ Work Breakdown Structure
- ✓ Define Activities regarding work
- ✓ Applying Durations for task
- ✓ Sequence of Activities according task
- ✓ Finding the Critical Path in project
- ✓ Creation of Resources in project
- ✓ Assigning the Resources into a task



- ✓ Analyzing the Resources in project
 - ✓ Leveling the Resources in project
 - ✓ Creating Baseline for project
 - ✓ Develop the Schedule regarding project
- Report Preparation for project

5.3 Expected Outcomes from the Analysis:

- It takes less time & effort to perform case study and claim analysis in PCM & obtain results than it does to conduct the job physically. This cuts down on the amount of time, effort, and personnel needed to prepare claims.
- Following any method for document control is higher than ever; without it, project failure is a certain conclusion; the system is also simple to follow, with little effect upon on project.
- Any business must first establish a flow route for any document based on the company's enterprise and employee responsibilities, which will aid in the system's development and make it simpler for each individual to adopt since they are aware of their goal.
- Reports and forms are included with the software, which may be modified to meet the requirements of the business.

5.4 Types of Claims

5.4.1 Delay Analysis:

Delay Analysis determines why construction project delays occur and how they will affect the overall schedule. The findings of the study may result to one party filing a lawsuit over the contract, insufficient employees on site, cash flow problems, and poor project planning.

Major reasons for Delay Analysis:

- ✓ Creation & approval of the drawing.
- ✓ The project's fundamental planning is insufficient.
- ✓ The lack of a decision-making procedure by the employer.
- ✓ Inadequate personnel.
- ✓ Inadequate site monitoring and upkeep.
- ✓ Manpower productivity is low.
- ✓ Non availability of Material on time.
- ✓ Approval from various government bodies.

5.4.2 Acceleration Claims:

- ✓ Contractors who accelerate work to finish a particular job activity sooner than anticipated are known as acceleration suits.
- ✓ A contractor may deliberately accelerate the project's completion in order to avoid his next delay, thus reducing his own delays and inefficiencies.
- ✓ On a construction project, acceleration claims typically emerge when the contractor tries to recover the project schedule after it has been delayed.
- ✓ There are many methods for accelerating work,
- ✓ Working overtime
- ✓ Putting the new shift into practice
- ✓ Adding to the workforce
- ✓ Making extra equipment available
- ✓ Workplace reorganization

5.4.3 Scope of work claim:

It is an employment contract (which includes a list of all construction obligations including duties all project managers, suppliers, contractors and subcontractors are required to perform).

SOW includes

5.4.4 Change in site conditions Claims:

- Site modifications occur when circumstances on the construction area deviate substantially from those at the date of the agreement or from those reflected in the contract papers.
- Those are all site circumstances that are substantially different from those specified in the construction contract.
- Assists contractors who are confronted with unexpected site circumstances



- Joint procuring regime and joint venture for engineers
- Various site statuses may be classified into two groups.
 1. Create a one-sided form that significantly varies from the one presented or specified in the contract.
 2. Designate a unique site state that is unknown due to the site's distinctive physical environment and is distinct from the typical operational experience.

III. RESULT & CONCLUSION

- This study examined the influence of defects in claims on the success of a project and the critical nature of economic matters managing inside the employee's organization.
- By implementing the case study in PCM and evaluating claims, it was determined that implementing and getting the required from the programme required lesser time and money than doing the task manually. This saves time, effort, and money by lowering the amount of workers allocated to claims assessment.
- This research introduced an effective way for monitoring progress reports in attempt to lessen or manage scope of this work and conduct delay analysis via the use of web-based Primavera Contracting and Primavera P6 applications.
- Based on the Questionnaire survey it is been observed that lack of effective claim management system exist in construction industry which needs to be replaced for smooth and efficient working for the betterment of society as well individual.
- Based on survey it is observed that 80% of Clients and contractor feel the need of efficient software like primavera and primavera contract management for claim management and dispute resolution.

REFERENCES

1. Arun S Bagi1, Dheeraj N kumar2, Road Safety Audit IOSR Journal of Mechanical and Civil Engineering (IOSRJMCE) ISSN :2278-1684 Volume 1, Issue 6 (July-August 2012), PP01-08
2. Marisol Castroa , C. Angelo Guevarab,* , Angel Jimenez-Molinac, A methodological framework to incorporate psychophysiological indicators into transportation modeling, Transportation Research Part C 118 (2020) 102712, <https://doi.org/10.1016/j.trc.2020.102712>
3. Afshin Jafari a,* , Alan Both a , Dhirendra Singh b,c , Lucy Gunn a , Billie Giles-Corti, Building the road network for city-scale active transport simulation models, Simulation Modelling Practice and Theory 114 (2022) 102398, <https://doi.org/10.1016/j.simpat.2021.102398>
4. Yingheng Zhang a,b,c , Haojie Li a,b,c, *, N.N. Sze d , Gang Ren a,b,c, Propensity score methods for road safety evaluation: Practical suggestions from a simulation study, Accident Analysis and Prevention 158 (2021) 106200, <https://doi.org/10.1016/j.aap.2021.106200>
5. Albert Peireta , Eric Karpman a,† , László L. Kovács a , József Kövecses a , Daniel Holz b , Marek Teichmann b, Modelling of off-road wheeled vehicles for real-time dynamic simulation, Journal of Terramechanics 97 (2021) , <https://doi.org/10.1016/j.jterra.2021.04.001>
6. Vivek Roy* , S.K. Mitra, Manojit Chattopadhyay, B.S. Sahay, Facilitating the extraction of extended insights on logistics performance from the logistics performance index dataset: A two-stage methodological framework and its application, Research in Transportation Business & Management 28 (2018), <http://dx.doi.org/10.1016/j.rtbm.2017.10.001>
7. Ana Ogando-Martínez * , Francisco Troncoso-Pastoriza, Enrique Granada-Álvarez, Pablo Eguía-Oller, approximation method for the estimation of the actual reduced luminance coefficients of road surfaces for accurate lighting simulations, Sustainable Cities and Society 63 (2020), <https://doi.org/10.1016/j.scs.2020.102502>
8. Kaveh Safari a ,HessamAzariJafari, Challenges and opportunities for integrating BIM and LCA: Methodological choices and framework development, Sustainable Cities and Society 67 (2021), <https://doi.org/10.1016/j.scs.2021.102728>
9. Baoju Liu a , Jun Long a , Min Deng b , Jianbo Tang b,* , Jincui Huang a, Revealing spatiotemporal correlation of urban roads via traffic perturbation simulation, Sustainable Cities and Society xxx (xxxx) xxx, <https://doi.org/10.1016/j.scs.2021.103545>
10. Hitesh kumar1, Mrs. Monika2 Research Paper on the Road Safety Audit and a Case Study on Kaithal-Kurukshetra Road Haryana, IndiaInternational Journal of All Research Education and Scientific Methods (IJARESM) ISSN: 2455-6211, Volume 5, Issue 5, May- 2017, Impact Factor:2.287
11. K. Durga Abhishek, K. Yogesh Kumar, and R. Vijayalakshmi*Road Safety Audit and Comparison with



Accident Case Studies Indian Journal of Science and Technology, Vol 12(22), DOI: 10.17485/ijst/2019/v12i22/144265, June 2019

12. N. Naveen , M. Rajesh, M. Srinivas, Md. Fasioddin, ROAD SAFETY AUDIT OF A RURAL ROAD International Journal of Civil Engineering and Technology (IJCIET) Volume 8, Issue 4, April 2017, pp. 752-761, Article ID:IJCIET_08_04_087

13. Omkar Gholap¹, Nikita Shinde², Vaishnavi Shelke³, Navnath Navale⁴, Kuldeepak Deshmukh⁵ Road safety audit International Journal of Engineering Research & Technology (IJERT) ISSN: 2278-0181 Vol. 7 Issue 04, April-2018



INNO SPACE
SJIF Scientific Journal Impact Factor
Impact Factor
7.54

ISSN

INTERNATIONAL
STANDARD
SERIAL
NUMBER
INDIA



INTERNATIONAL JOURNAL OF MULTIDISCIPLINARY RESEARCH IN SCIENCE, ENGINEERING AND TECHNOLOGY

| Mobile No: +91-6381907438 | Whatsapp: +91-6381907438 | ijmrset@gmail.com |

www.ijmrset.com