

Analysis of Payment Issues in Construction Industries in Karnataka State: Perspective View of Contractors

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Abstract

Construction industry is a complicated industry with lot of uncertainties and fluctuations in work progress, manpower, payment issues, and other variables. Hence, proper contract documentation and contract management is very much important to solve the uncertainties and to control the various disparities. Hence, the payment issue is one of the most important issues in the construction industry which is affecting the delays and hence will result into various issues. Payment issues are the common challenges in the construction industry, and contractors often face delays or difficulties in receiving timely payment. This study aims to provide a better understanding of the effects of delayed payment and to find various factors that cause payment problems in the construction projects, their impact and answers to the payment issues in the construction project in Karnataka. This research aims to identify the main causes of delays in payments by contractor by collecting data from contractors. Due to limited time and availability of information, research is conducted through literature reviews and questionnaire surveys. The findings of this research work will help the contractors and subcontractors in Karnataka state to mitigate or control the irregularities in the future construction works.

Keywords: Construction Management, Contractor, Subcontractor, Payment, Contracts Management, Impact of Delay.

Introduction

Payment problems in construction projects are a common challenge that can significantly affect the project's progress and completion. These issues arise when there is a delay, dispute, or failure in the agreed-upon payment between contractors, subcontractors, suppliers, and project owners. Payment delays often stem from cash flow issues, incomplete paperwork, or a lack of clarity regarding the terms of the contract. Disputes can occur over the quality of work, project delays, or discrepancies in invoicing. To prevent payment issues, clear and fair contract terms are essential, including specific payment schedules, deadlines, and retainage conditions. Strong communication between all parties involved and proper project management can help identify and address payment issues early, minimizing disruption and ensuring smooth project completion. Some of the common Payment Problems are:

1. Delayed Payments

Cause: Bureaucratic processes, cash flow issues for the client, or disputes over the work completed.

Impact: Affects the contractor's ability to pay workers, procure materials, or manage cash flow.

2. Non-Payment

Cause: Client insolvency, disputes, or unwillingness to pay.

Impact: Financial strain on contractors and possible legal action.

3. Underpayment

Cause: Disputes over the quality or quantity of work, client mismanagement, or misinterpretation of contract terms.

Impact: Reduced profitability for contractors and disputes that can escalate.

4. Retention Payments

Cause: Clients often withhold a percentage of payments as a security for defects liability.

Impact: Delays in releasing retention money can create financial pressure on contractors.

5. Change Order Disputes

Cause: Disagreement on payments for additional or altered work.

Impact: Stalled progress and strained client-contractor relationships.

6. Ambiguity in Contracts

Cause: Poorly drafted contracts with vague payment terms.

Impact: Misunderstandings and disputes over invoicing and payments.

7. Back Charges

Cause: Clients deduct costs for work they claim was defective or incomplete.

Impact: Unexpected financial losses for contractors.

Construction delays and reasons for delays in construction

Construction delays are extensions or interruptions in the project schedules that prevent work from being completed on time. Project delays can be caused by wide variety of factors, including weather, material shortages, and disputes between stakeholders and workers. While many delays are caused by uncontrollable forces and no one is to blame, there can still be significant financial and legal fallout when planned deadlines and budgets are not successfully met.

Reasons for delays in construction

Delays by the contractors are not always to blame. Sometimes, a client will make decisions or initiate changes that significantly impact the schedule which is deviating from the contract. Examples of delays caused by client include:

- Late design changes requiring rework or additional resources.
- Slow approvals for contract document updates or construction contingencies.
- Contract disputes that lead to work stoppages.
- Delays in funding or agreed-upon payments to contractors and suppliers.
- Unanticipated site access issues based on environmental regulations or zoning.

Impacts of payment problems

Here are the key impacts of payment problems in construction projects:

1. Cash Flow Disruption: Delayed payments halt the inflow of funds, causing work stoppages and project

delays.

2. Increased Labor Costs: Payment issues extend project timelines, resulting in higher labour expenses.
3. Subcontractor Prioritization: Subcontractors may prioritize other projects with timely payments, leading to further delays.
4. Quality Compromise: Contractors might cut corners to save costs, compromising the quality of work.
5. Strained Relationships: Persistent payment delays erode trust between clients, contractors, and suppliers.
6. Legal Disputes: Unpaid bills can lead to legal actions and potential liens on the property.
7. Business Instability: Financial instability from payment problems can affect a contractor's ability to secure future projects.
8. Supplier Hesitation: Suppliers might hesitate to provide materials on credit, affecting project progress.

Objectives

This study focuses on delay in payment by the client to the contractor. The purpose of this study is to find various factors that cause payment problems in construction projects, their impact, and answers to issues. This research aims to identify the main causes of delays in payments by contractor by collecting data from contractors. The objectives of the study is to:

1. Reasons for the delay in payment.
2. To determine the impact of the delay.
3. Recommendations for minimizing or controlling delay in payment.

Literature Review

P., Pallavi. (2023) studied on Delays in construction projects can lead to cost overrun, time overrun, and compromised quality. Based on the study, it was identified that the factors affecting cost overrun are Poor estimate, design changes, delays, etc. and factors affecting time overrun are project planning, design changes, weather conditions, etc.

Salha, Sankar., et al. (2022) identified the factors affecting cost and schedule overruns in construction projects, including delays in quality assurance, accidents, and conflicts among parties. The author stated that Construction projects in India face cost and schedule overruns and hence the study aims to identify factors causing delays and cost overruns. Delay in quality assurance and Conflicts among parties were identified to be the crucial factors through questionnaire survey.

Sindhu Vaardini U et al. (2015) identified that Time overruns are the crucial problems faced in the construction industry. Since delays are considered to be a serious problem in the construction industry this study examines the factors that cause delay in construction projects. Based upon the relative importance index method the most critical factors ranked were Inaccurate construction planning, Owners delay in freeing the contractor financial payment, Improper scheduling resulting in poor judgment of time and resources, Shortage of construction materials at site and Contractors financial difficulty.

Methodology

First, a literature review was conducted to find factors causing construction project delays. This helped conduct a survey to find out the causes related to the situation in Karnataka state. Achieving these goals require a research methodology. These are the main stages for conducting this study.

- Identifying the problem

- Specifying research objectives
- Specifying research scope
- Data collection
- Literature research
- Questionnaire
- Data analysis
- Results
- Conclusion and Recommendation

Designing and collecting data through a questionnaire survey

The questionnaire (consisting of 46 questions) was designed based on factors identified as majorly added to the causes of delay, the effects of delay and the methods to minimize delay with reference to the literature reviewed and analyzed. A questionnaire survey was adapted towards assessing the insight of contractors and clients of the relative importance of causes and effects of construction delay. A questionnaire survey was conducted as a source of primary data. A cross-sectional survey method was chosen due to the time limitation of this study. Information collected through the literature review was used to generate questionnaire surveys. The survey was conducted by using ‘Google form’, and this was forwarded to the potential or identified contractors via email or WhatsApp to save time and money, Face-to-face interviews with contractors were also conducted in few cases wherever the contractor was interested to give concrete response and feedback.

Data collection

We have forwarded the questionnaire to 66 contractors across Karnataka. However, we have received the responses from 41 contractors (62.12%) regarding delay in the work and delay in the payment.

Rating scale

Each statement in these questions should be rated on a scale from strongly agree to strongly disagree, starting with the rating system was given as follow;

Strongly Agree – 5, Agree – 4, Can’t Say – 3, Disagree – 2, Strongly Disagree - 1

Table 1: Questions asked to Contractor

Q. No	Questions designed only for the Contractor
1	Changes in the material types and specifications during the construction
2	Changes in the project by owner / client
3	Delay by owner in handing over process or delay in delivering the construction site to the contractor
4	Delay in decision making by the client
5	Delay in financing and payments by client
6	Lack of experience of the client in construction project
7	Legal dispute between client and others (relatives or partners)
8	Problem with nearby structure or facilities
9	Poor management by client in business and finance

10	Unrealistic enforced contract duration
11	Complex payment mechanism
12	Poor planning and scheduling
13	Weak cost control systems
14	Lack of use of modern technology
15	Delays in inspection and testing of work
16	Financial stability of client
17	Withhold of payment by client
18	Insufficient documentation and information for valuation
19	Lack of regular cash flow forecasting
20	Increase in the interest rate resulting in the delay of payment
21	Variations to the construction works
22	Scope of work non-compliance

Table 2: Questions asked to Contractor and Client

Q. No	Questions designed for both Contractors and Client
23	Accident during construction activities
24	Changes in government regulation and laws
25	Delay in approval of submittals, drawing, shop drawings and sample materials etc.
26	Financial stability of sub-contractor
27	Delays related to sub-contractor's work
28	Force majeure (earthquake, etc.)
29	Increased operation cost in the project
30	Inflation and escalation of material prices
31	Lack of experience of sub-contractor
32	Poor communication and coordination with other parties
33	Shortage of construction materials in the region
34	Failure of equipment or plants or machineries
35	Unforeseen or unexpected site conditions
36	Unsafe practice at site
37	Variations / design changes during the construction
38	Material theft on sites
39	Shortage of skilled personnel
40	Increased cost of machinery and equipments
41	Additional work not mentioned in the contract
42	Late delivery of materials and equipments
43	Delay in the work dur to pandemic (COVID – 19)
44	Delay in the work execution due to migration of labor force
45	Difficulties in getting loan from financiers / banks
46	Breach of contract / Contract terminations / Suspensions

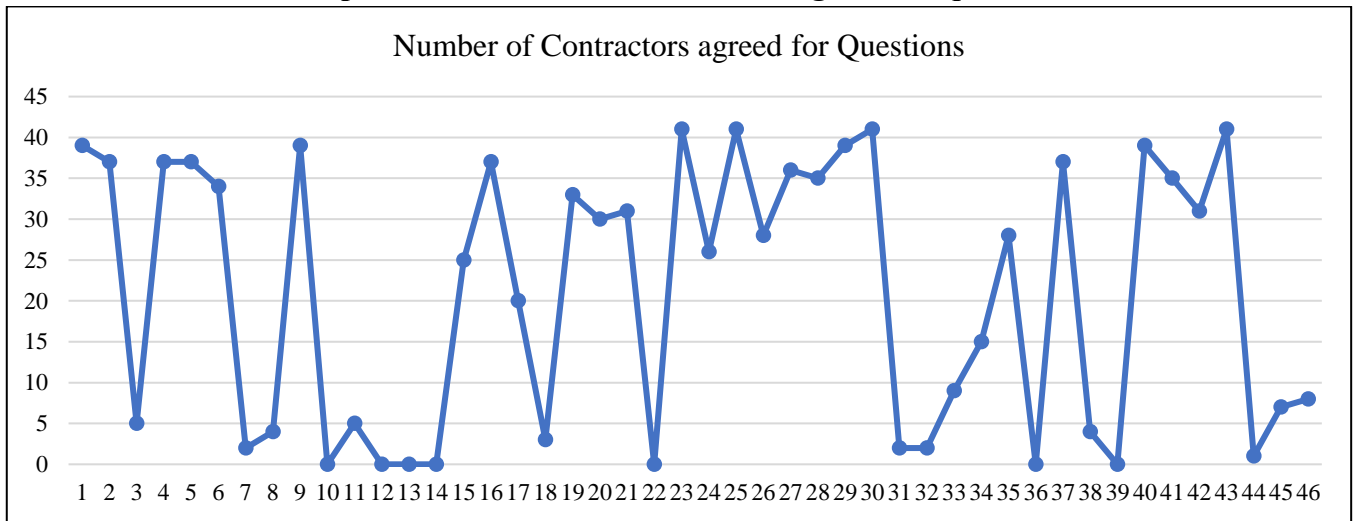
Result and Analysis

Table 3: Result Analysis Chart

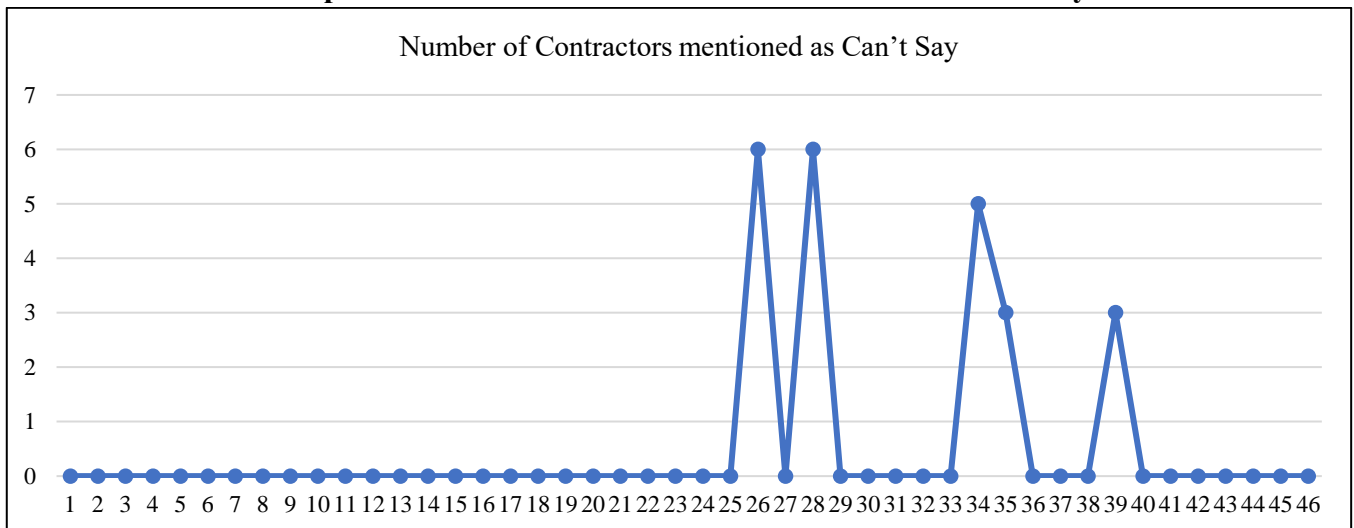
Q. No	Number of contractors 5 & 4 (Agree)	Number of contractors 3 (Can't Say)	Number of contractors 1 & 2 (Disagree)
1	39	0	2
2	37	0	4
3	5	0	38
4	37	0	4
5	37	0	4
6	34	0	7
7	2	0	39
8	4	0	37
9	39	0	2
10	0	0	41
11	5	0	36
12	0	0	41
13	0	0	41
14	0	0	41
15	25	0	16
16	37	0	4
17	20	0	21
18	3	0	38
19	33	0	8
20	30	0	11
21	31	0	10
22	0	0	41
23	41	0	0
24	26	0	15
25	41	0	0
26	28	6	7
27	36	0	5
28	35	6	0
29	39	0	2
30	41	0	0
31	2	0	39
32	2	0	39
33	9	0	32
34	15	0	21
35	28	5	10
36	0	3	41
37	37	0	4
38	4	0	37

39	0	3	38
40	39	0	2
41	35	0	6
42	31	0	10
43	41	0	0
44	1	0	26
45	7	0	34
46	8	0	33

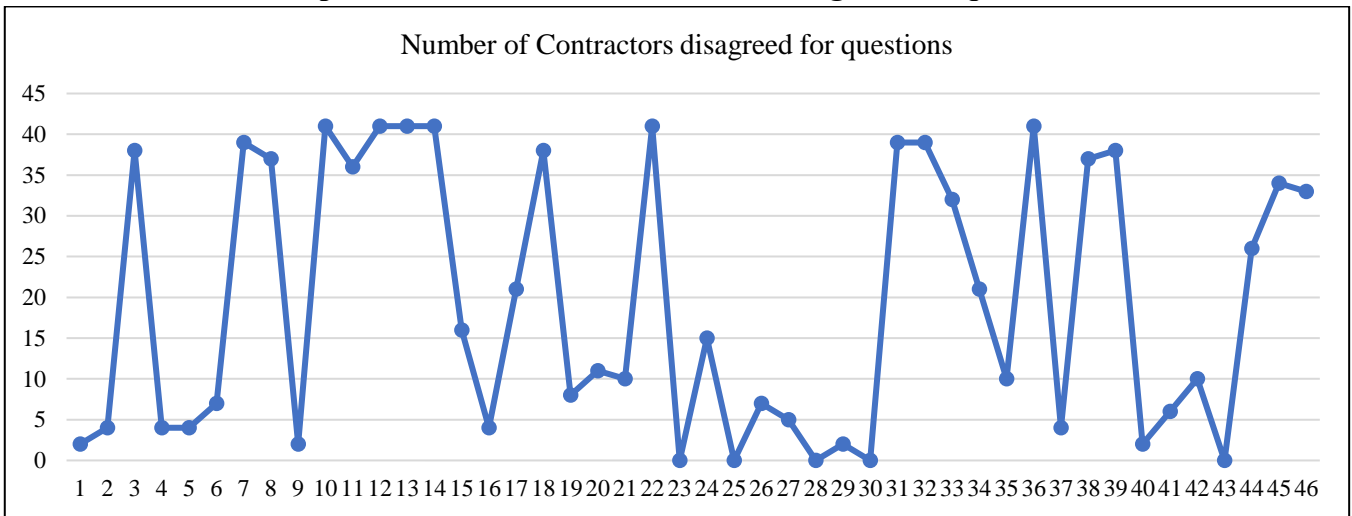
Graph No.1: Number of Contractors agreed for questions



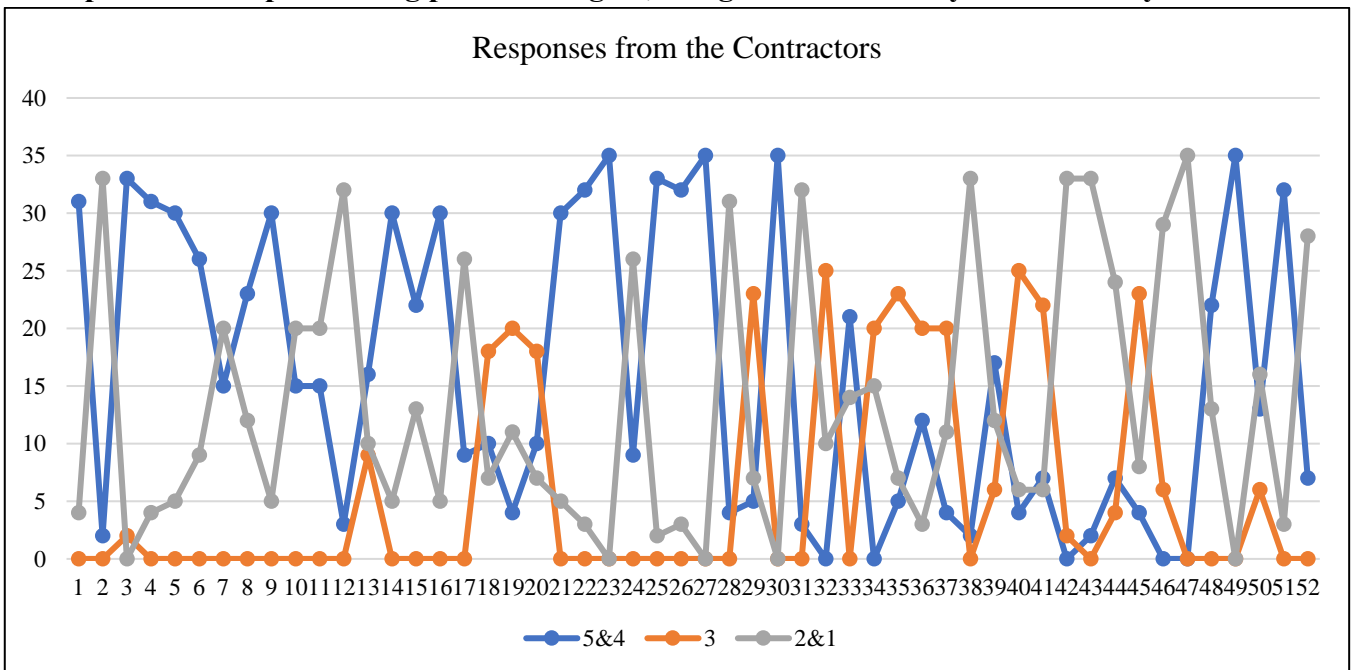
Graph No.2: Number of Contractors mentioned as can't say



Graph No.3: Number of Contractors disagreed for questions



Graph No.4: Graph showing pattern of agree, disagree and can't say mentioned by contractors



Conclusion and Recommendation

After analysing the data and above-mentioned tables of 46 questions, we can categorise all the questions in the following five areas:

- Materials and Equipments
- Contracts Management
- Payment / Financial Planning
- Quality Assurance and Quality Control
- Site Management

In each of the above-mentioned area or category, I have listed few parameters for which majority of the contractors have expressed their willingness which will reflect in the collective opinion regarding the delay in the project completion and payment related issues:

Materials and Equipments:

Following issues related to materials and equipments were observed during the interaction with contractors:

- Q1 - Changes in the material types and specifications during the construction
- Q30 - Inflation and escalation of material prices
- Q42 - Late delivery of materials and equipments

It was observed that type of material and specification was changed during the construction which has resulted in the increase of material cost. Also, the price of material was escalated due to inflation which was deviated from the materials cost estimated before the start of work.

In addition to this, the materials and equipments were delivered to the site with delay due to which the project was prolonged which in turn raised the payment issues. Hence effective materials planning and equipments planning are necessary before the start of the work. Also, there should be an agreement or binding between the contractor and the materials supplier to fix the materials price well in advance which will not give an opportunity for price escalation.

Contracts Management:

Below mentioned contracts management related issues were observed which resulted in the payment issues.

- Q2 - Changes in the project by owner / client
- Q4 - Delay in decision making by the client
- Q15 - Delay in inspection and testing of work
- Q21 - Variations to the construction works
- Q25 - Delay in approval of submittals, drawing, shop drawings and sample materials etc.
- Q37 - Variations / design changes during the construction
- Q41 - Additional work not mentioned in the contract
- Q43 - Delay in the work due to pandemic situation, COVID 19

It was observed that the client suggested changes in the project during the construction phase which resulted into variations of original work than agreed in the original contract. Due to this, the work was delayed and the delay in decision making, delay in inspection, delay in approval of revised drawings were resulted. In addition to this, delay in the work resulted due to pandemic situation which was not mentioned in the original contract. Hence there is a need of better contract clauses between client and contractor which will take care off above mentioned uncertainties which will not escalate the project cost and will not create adverse contractual situations.

Payment / Financial Planning:

Majority of the contractors have agreed with below mentioned 8 parameters which affected payment related issues and hence project was delayed.

- Q5 - Delay in financing and payments by client
- Q9 - Poor management by client in business and finance
- Q16 - Financial stability of client
- Q19 - Lack of regular cash flow forecasting
- Q20 - Increase in the interest rate resulting in the delay of payment

- Q26 - Financial stability of sub-contractor
- Q27 - Delays related to sub-contractor's work
- Q40 - Increased cost of machinery and equipments

It was observed that the financial planning of the client went wrong due to uncertainties which affected in getting funds and resulted in doing payment to the contractor. In addition to this, the financial stability of the subcontractor was not healthy. Because of all these issues, contractor has slowed down the construction work which delayed the completion time of the project. Hence, it is very important for the client as well as contractor and subcontractors to confirm the sources of finance and ensure regular cash flow throughout the project. Hence it is advisable to approach well established financial institutions which will solve the finance or funding issues.

Quality Assurance and Quality Control:

Majority of the contractors have agreed with below mentioned 3 parameters which affects the quality assurance and quality control and hence the project was delayed.

- Q1 - Changes in the material types and specifications during the construction
- Q15 - Delays in inspection and testing of work
- Q21 - Variations to the construction works

From the contractors, it is learned that, material types and specification were changed during construction as per the clients' suggestions, which resulted in variation in work. There is a tendency that clients sometimes suggest or pressurise the contractor for changes or variations. Hence, frequent changes in material type and specification should be avoided by the client.

Site Management:

Following 3 factors were observed by the contractors:

- Q23 - Accident during construction activities
- Q25 - Delay in approval of submittals, drawing, shop drawings and sample materials etc.
- Q29 - Increased operation cost in the project

Accidents at construction site will slow down the work. Hence more focus to be given on health and safety. This in turn will reduce operation cost and replacement cost which actually to be taken care by the contractor. In addition to this, whenever there is a change or variation in the work, it is the responsibility of the client to get the approval for work with variation and related issues.

Accidents at construction site can be reduced or controlled by providing Safety Training, Safety Drills, Proper use of PPE, Regular inspections, Fall protection, Regular safety meetings, Establishing and enforcing safety procedures, Keeping the workplace clean and Maintaining the right safety gear. Also, by providing awards or felicitations for the Workers who promptly execute the works by adopting highest level of safety standards.

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