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Impact of Poor Contract Administration on Project Costs and Timelines

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Abstract

Contract administration is a fundamental component of construction project management, ensuring that projects adhere to contractual obligations, budgets, and timelines. Poor contract administration has been identified as a leading cause of cost overruns and delays in construction projects worldwide. In view of this, the study assessed the impact of poor contract administration on project costs and timelines in the construction industry. The objectives of the study are to assess the impact of poor contract administration on project costs and timelines, as well as to propose strategies for improving contract administration in construction projects. Data were collected from 63 professionals in construction companies listed in Abuja using structured questionnaires. The analysis of data was carried out using descriptive statistics such as percentage, Mean Item Score (MIS) and Gini's Mean. The findings revealed that revenue leakage (RII = 0.82, Wi = 0.0968) ranks highest, indicating that ineffective enforcement of payment terms and invoicing delays leading to substantial financial losses is the most significant impact of poor contract administration on project costs. Supply chain inefficiencies, project delays, and disruptions due to disputes are the most significant operational challenges arising from poor contract administration. These variables share the highest RII (0.78) and Wi (0.0977) values, underscoring their critical impact on project execution. The most effective strategies for improving contract administration in construction projects are clear and well-defined contracts and effective contract monitoring and documentation (MIS = 4.56 and 4.52, respectively). It was, however, concluded that revenue leakage, cost overruns, and contractual disputes emerge as critical financial risks, while supply chain inefficiencies and regulatory non-compliance disrupt project timelines. A major recommendation from the study was that professionals should ensure contracts include precise scope definitions, pricing structures, and performance metrics to minimise ambiguities and disputes.

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1. Introduction

In many parts of the world especially in USA construction project faced by various challenges like lack of operating capital and cash flow, planning and growth, skilled labor, change in contract clauses in case of pandemic such covid-19 (Adepu *et al.*, 2023) ^[1]. In 2018, more than 50% of the USA labor force worked in jobs for which education requirement was a high school degree this constitute unskilled labor due to lack of specialization in civil engineering. In Africa many contract administrations for public construction project built public infrastructure like roads, market, government building, hydroelectric station, model village at high cost and in return these above building is completed with low quality.

This were caused by construction supplier's materials and services have monopoly power in other ways enhances inefficiency and lowering quality (Nsanzimana, 2017) [20]. Construction contract administration in countries like Nigeria, Uganda, Kenya, and Rwanda presents various challenges due to factors such as regulatory frameworks, infrastructure development, and economic conditions. Each of these countries has its own legal and regulatory frameworks governing construction contracts. Understanding and complying with these regulations can be complex and time-consuming for both contractors and administrators (Ntawiniga, 2024) [21].

Contract administration is a fundamental component of construction project management, ensuring that projects adhere to contractual obligations, budgets, and timelines. Poor contract administration has been identified as a leading cause of cost overruns and delays in construction projects worldwide (Omotayo *et al.*, 2022) [24].

Effective contract management involves dispute documentation, risk allocation, resolution mechanisms, and compliance monitoring. However, when these aspects are neglected, projects often suffer from inefficiencies, increased expenses, and extended timelines (Aibinu and Jagboro, 2002) [2]. Studies have shown that contract mismanagement contributes significantly financial losses in the construction industry. According to Carvalho et al. (2021) [7], contract-related disputes account for over 50% of project cost escalations in developing countries. Similarly, a report by the Construction Industry Institute (CII, 2022) highlights that inadequate contract administration can lead to schedule delays of up to 40% beyond initial projections. In the Nigerian construction sector, poor contract administration is a persistent challenge, often resulting from bureaucratic inefficiencies, lack of expertise, and inadequate risk assessment (Babalola et al., 2024) [5]. This has severe implications for the timely delivery of infrastructure projects, affecting economic growth and public service efficiency. Addressing these issues requires a structured approach to contract management, emphasizing best practices, technological integration, and stakeholder collaboration. The aim of this study is to examine the impact of poor contract administration on project costs and timelines in the construction industry. The objectives of the study are

- 1. To assess the impact of poor contract administration on project costs and timelines
- 2. To propose strategies for improving contract administration in construction projects.

2. Literature Review

2.1. Contract administration in construction

The construction contract administration process involves overseeing suppliers, contractors, and service providers to ensure they meet their contractual obligations (Fatayer *et al.* 2022) [11]. This process helps maintain project scope, quality, and timely completion. Construction contract administration encompasses activities necessary to monitor and evaluate the performance of all parties involved in a construction project (Riveros *et al.* 2022) [25]. This includes contract preparation, review, revision management, dispute resolution, and ensuring obligation fulfillment. Effective contract administration requires a thorough understanding of contract terms, each party's obligations, and the risks involved in the construction phase (Mambwe *et al.*, 2020) [16]. It also involves

progress claims, contract modifications, time extension claims, and other legal matters (Turner and Müller 2005) [28].

2.2 The Approaches of Contract Administration

In the construction industry, projects are fundamental, and each project is expected to have a contract that provides a framework for its execution. The successful execution of projects does not depend on how good a contract is but on how the contract is administered. Therefore, the administration of contracts is a fundamental part in the overall management of projects in the construction industry. Ntiyakunze (2011) [22] notes that the relevance of contracts administration in the execution of projects in the construction industry is gaining wide attention due to the increase in large volumes of contracts across borders which is attributed to globalization. However, despite the increase in the volume of contracts, existing literature exposes many loopholes in the construction industry, thus portraying that there are existing shortfalls in the administration of contracts.

This calls for addressing the shortfalls in contract administration to boost the performance of projects in the construction industry. From existing literature, "construction contracts administration" is perceived as a third-party contractual relationship related to a construction project. Construction contract administration is expected to commence as soon as a contract is signed until the project is completed. In this setting, the contract administrator is the third party and usually, the contract administrator is identified by titles such as "Engineer, Supervisor Representative or Project Manager" as required in a given setting (Elasawi, 2020) [9].

The role of the contract administrator includes implementing the contract, monitoring and evaluating daily activities, handling claims and grievances, ensuring performance measures and standards are adhered to, collaborating and communicating with all parties involved, fulfilling and following up on payments, variations and change orders, rectifying any defects, commissioning and handing over the project (Ofori, 2019) [23]. While the contract administrator has a lot of authority in the execution of a given project, the overall success of the project depends on teamwork and therefore, project activities are expected to be executed as a team, with each team member having a defined role.

For example, the project quantity surveyor manages claims and payment applications, the project planner assesses time extensions, the field inspector examines the physical work which has been executed, and the senior technical engineer manages information requests as well as requests for drawings and submittals. To attempt to control the conflicting loyalties or unintended outcomes in other areas due to activities carried out, supervision and monitoring are needed. In addition to being benchmarks for other projects, well-managed contracts can act as risk management tools for the parties involved (Joyce, 2015) [14].

It is thus imperative to evaluate how administering contracts affects the performance of road construction projects. As earlier established, there is existing knowledge on contract administration focused on different aspects of construction projects.

2.3 Impact of poor contract administration on project costs and timelines

2.3.1 Financial Implications of Poor Contract Management

Contract management plays a crucial role in maintaining financial stability and ensuring profitability within an organization (Elasawi, 2020; Ntawiniga, 2024; Seboka and Gidebo, 2025) [9, 21, 27]. Ineffective contract administration can result in significant financial repercussions, including the following:

- Revenue Leakage: Failure to enforce contractual payment terms may lead to financial losses. Delays in invoicing and inadequate tracking of late payments contribute to slow cash flow and unrecovered income. Additionally, overlooked auto-renewal clauses in contracts may result in unnecessary expenditures on services that are no longer required (Seboka and Gidebo, 2025) [27].
- 2. Increased Costs: Inefficiencies in contract management often result in unfavorable terms during negotiations, leading to excessive costs for goods and services. A lack of oversight in contract execution can result in overpayments for low-quality deliverables or services that have not been provided, thereby reducing profit margins. (Ntawiniga, 2024) [21].
- 3. Penalties and Fines: Non-compliance with regulatory requirements, missed deadlines, or failure to meet key performance indicators (KPIs) outlined in contracts can lead to financial penalties. For example, government contracts often impose strict performance deadlines, with financial sanctions imposed for non-compliance or contract termination in severe cases (Ntawiniga, 2024)
- 4. Missed Opportunities: Contracts frequently include provisions for renegotiation, volume discounts, or extensions. Disorganized contract management systems may hinder the ability to track such opportunities, preventing organizations from capitalizing on cost savings or improved contractual terms. (Elasawi, 2020)
- Long-Term Budget Issues: Poor contract oversight can lead to discrepancies between projected and actual expenses, resulting in budget overruns. Ineffective forecasting of contract-related expenditures may lead to resource allocation challenges and financial strain on organizational budgets (Seboka and Gidebo, 2025) [27].

2.3.2 Operational Disruptions

The effectiveness of contract management significantly influences operational efficiency. Poorly administered contracts can disrupt workflows and business processes, leading to inefficiencies such as:

- Supply Chain Inefficiencies: In industries with complex supply chains, ineffective supplier contract management can create bottlenecks. Failure to enforce on-time delivery clauses or quality standards can disrupt production schedules, leading to delays and dissatisfaction among stakeholders (Kamble *et al.*, 2019).
- 2. Resource Wastage: The lack of centralized contract documentation can result in employees spending excessive time searching for relevant information. This inefficiency reduces productivity and increases administrative costs (Manishimwe, 2020).
- Project Delays: Contracts play a critical role in defining project timelines and deliverables. Mismanaged contracts can lead to confusion regarding milestones, causing delays. For instance, construction projects

- reliant on multiple subcontractors may experience setbacks if contract terms related to timelines and responsibilities are unclear or unenforced (Elasawi, 2020) [9].
- 4. Poor Vendor Performance: Inadequate monitoring of vendor agreements may hinder the enforcement of performance metrics or the resolution of substandard service delivery. A poorly defined service-level agreement (SLA) may lack clear penalties for missed deadlines, reducing accountability among vendors (Seboka and Gidebo, 2025) [27].
- 5. Reduced Scalability: Ineffective contract management can impede organizational scalability. Expansion initiatives often necessitate renegotiation of existing contracts or the onboarding of new vendors. Without an organized contract management system, these processes become challenging, limiting the organization's ability to adapt and grow (Ntawiniga, 2024) [21].

2.4 Theoretical

2.4.1 Agency Theory

Agency theory is directed at the ubiquitous agency relationship, in which one party (the principal) delegates work to another (the agent), who performs that work. Agency theory attempts to describe this relationship using the metaphor of a contract (Jensen and Meckling, 1976) [18]. The agency relationship is a contract, under which the principal engages another person (the agent) to perform specific projects on its behalf, delegating decision making rights. This theory is important in this study as it brings forth the relationship between the agents (Contractors) and the principal (Buying Entity) and guides the contract management practitioners to act in the interest of the organisations.

2.4.2 Game Theory

Game theory is the study of strategic decision making under uncertainty and interdependence. It models situations where the outcome for each player depends not only on their own actions, but also on the actions of others. A game consists of a set of players, a set of strategies for each player, and a payoff function that assigns a payoff to each combination of strategies. Project managers manage the links between related projects, decide on resource priorities and report progress of the project to the appropriate people.

This authority, responsibility and accountability is an important and demanding role as it mostly involves dealing with people; negotiating with them and arriving at a solution that keeps the project moving forward. It is in these negotiations that game theory can be an essential tool for project management, because game theory is a mathematical method for analyzing calculated circumstances, such as in games, where a person's success is based upon the choices of others. Game Theory is about establishing and planning your project to be a 'game' that allows you to maximize gains and minimize losses, but it is based on applying decision making not only in terms of your own knowledge and strategies but more importantly also those of others in the Bočková *et al.* (2015) ^[6] 'game' or project in order to ensure success.

3. Materials and Methods

3.1 Research Design

This study employed a quantitative research methodology, utilizing a structured questionnaire for data collection. Data

analysis was conducted using both descriptive and inferential statistical techniques to examine the impact of poor contract administration on project costs and timelines.

3.2 Research Population

A research population is known as well-defined collection of individuals or objects known to have similar characteristics. All individuals or objectives within a certain population usually have a common, binding characteristics or trait (Mollel, 2019) ^[19]. In view of the research questions highlighted in this study, the population research was made up of 63 construction firms engaged in building and civil engineering construction works within Abuja.

3.3 Sampling Frame

The process of selecting a portion of population to represent the entire population is known as sampling. According to Fellows, Anita and Gunawan (2015) [12], the objectives of sampling is to provide a practical means of enabling the data collection and processing components of the research to be carried out and ensuring that the sample provides a good representation of the population. For the purpose of this research, the sample frame was made of the construction firms involved in building and civil engineering construction works in Abuja from which samples were drawn.

3.4 Sample Size

According to Fisher and Conard (2015)^[13], it is important that sample size should be large enough to allow a reliable analysis to provide for desirable level of accuracy in estimate and enable the researcher to test for the significances of the differences between proportions when studying a sample of population. If the resources are inadequate to obtain a sufficient sample size, the researcher must revisit the plan or revise the plan for data analysis. The sample size for this study was same as the population size (i.e., 63).

3.5 Sampling Technique

A purposive sampling technique, a form of non-probability sampling, was employed in this study. Respondents were selected based on predetermined criteria, including comprehension of contract administration, active participation in construction site decision-making, and sufficient professional experience in the industry.

3.6 Method of Data Collection

Fellows, Anita & Gunawan (2015) [12] identified surveys, questionnaires, interviews, case studies and triangulation as a means of collecting data for the research works. For the purpose of this research, the tool for collection of data is a well-structured questionnaire. The questionnaire is an instrument which is designed to collect data and address the objective of the research. The questionnaire was designed on five-point Likert Scale format. Responses to the questions were presented in tabular form. The study administered 63 copies of questionnaires to respondents and all the copies of the questionnaires were returned and used for data analysis.

3.7 Method of Data Analysis

White (2015) [29] defined data as information obtained in a course of a study. Data analysis is a process of inspecting, cleaning transforming and modeling data with the goal of underlining essential information, suggesting conclusion and supporting decision making. It is the process which follows

after data collection. For the purpose of this research, the collected data were analyzed using descriptive analysis. Descriptive studies are aimed at finding out "what is", so observational and survey methods are frequently used to collect descriptive data. Descriptive research involves gathering data that describe event and then organizes, tabulate, depicts and describe collection. It often uses visual aids such as graph and chart to aid the reader in understanding the data distributed. In view of this, frequency counts, percentage and Mean Item Score (MIS) were used to analyse the data to be collected. Frequency counts and percentage were used to analyse data relating to the profile of respondents. Data relating to the research objectives were analysed with the use of MIS. Mean Item Score is being ranked from 1.00 to 5.00.

Ginni's coefficient of mean difference of the. The Ginni's Mean is used to calculate a single weighted value that represents the discrepancy between a measure of dispersion and a geometric weighted mean. The use of this technique allows authors to achieve consistent impact of poor contract administration on project costs and timelines. This research followed similar methods employed by Samuel and Ovie (2015) [26], El-Kholy and Akal (2021) [10], Attia *et al.* (2023) [4]. Ali et al. (2023) describe Gini's Mean technique as a three-step process. First, the average RII dispersion was calculated using Gini's Mean, as shown in Equation (1). Second, the weight of each RII value was determined based on Gini's Mean for dispersion, as outlined in Equation (3). In conclusion, the weighted geometric mean of the RII values was calculated to represent the central reference point. In addition, the utilisation of Equation (4) for RII calibration ensured a reliable evaluation of the drivers for achieving HSMs.

$$G. M = \frac{G}{M}$$
 (1)

Where:

G.M = Ginni's Mean.

G = the total of the value differences between all feasible pairings of variables.

M = the total differences' numbers are calculated using Equation (2)

$$M = \frac{N(N-1)}{2} \tag{3}$$

N = Number of Variables

$$Wi = G. M \frac{RIIi}{RII1}$$
 (3)

Where:

Wi = the weight of each RII value

RII = the relative index value of any cause.

RII1 = is the highest relative index value

G. M (w) = Antilog
$$\frac{\sum w.logRII}{\sum w}$$
 (4)

Where:

G.M.(w) = Ginni's Mean weights.

 \sum w = the weights' summation that specified to RII numbers. Therefore, by using the RII scores of the impact of poor contract administration on project costs and timelines (Table 2 and 3), Ginni's coefficient of mean difference for these

values was determined.

4. Analysis and Discussion

4.1 Results and Discussion on Rank of Respondents

The study collected data from sixty-three $(6\overline{3})$ professionals of construction firms. The profiles of the respondents are presented in Table 1.

Table 1: Respondents' Profile

Profile	Statistics			
Profession of Respondents	Frequency	Proportion (%)		
Quantity Surveyor	12	19.05		
Architect	18	28.57		
Builder	7	11.11		
Civil Engineer	8	12.70		
Town Planner	7	11.11		
Land Surveyor	3	4.76		
Estate Surveyor	8	12.70		
Are you a registered member of your Profession?	Frequency	Proportion (%)		
Yes	53	84.13		
No	10	15.87		
Highest Academic Qualification of Respondents	Frequency	Proportion (%)		
HND	4	6.35		
BSC/BTech	13	20.63		
PGD	15	23.81		
MSc	28	44.44		
PhD	3	4.76		
Age Group of Respondents	Frequency	Proportion (%)		
21 - 30 years	5	7.94		
31 - 40 years	23	36.51		
41 - 50 years	26	41.27		
Above 50 years	9	14.29		
Years of Experience of Respondents in the Construction Industry	Frequency	Proportion (%)		
Less than 5 years	10	15.87		
5 - 10 years	23	36.51		
11 – 15 years	17	26.98		
16 – 20 years	6	9.52		
Above 20 years	7	11.11		
Total	63	100		

It was revealed from Table 1 that Architects are the most dominant respondents in the group representing 28.57% of the respondents. This was closely followed by Quantity Surveyors representing 19.05% of the respondents. However,

Land Surveyors represent the least number of respondents in the group composing only 3% of the respondents. Table 4.1 also revealed that majority of the respondents (84.13%) are registered members of their various professions. It was further revealed that majority of the respondents are holders of MSc/MTech (44.44%). This was followed by respondents who are holders of PGD (23.81%) and BSc/BTech (20.63%). Holders of PhD (4.76%) are the least represented in the group. Table 4.1 also shows that most of the respondents are within the age-group of 31 - 40 years (36.51%) and 41 - 50years (41.27%). The respondents within the age-group of 21 - 30 years represent the least number of respondents (7.94%). Finally, it was revealed that majority of respondents (36.51%) have 5 - 10 years of experience in the construction industry. This was followed by the respondents with 11 - 15 years of experience in the construction industry, representing 26.98% of respondents. Conclusively, the profile of respondents indicate that the respondents are educated, experienced, qualified and knowledgeable enough to supply reliable data needed for the study.

4.2 Impact of poor contract administration on project costs

The findings as regards the impact of poor contract administration on project cost, as shown in Table 2, highlight that revenue leakage (RII = 0.82, Wi = 0.0968) ranks highest, indicating that ineffective enforcement of payment terms and invoicing delays lead to substantial financial losses. Cost overruns (RII = 0.81, Wi = 0.0965) follow closely, as poor contract negotiations and unclear pricing structures contribute to unplanned expenditures, straining project budgets. Additionally, penalties and fines (RII = 0.80, Wi = 0.0947) arise from missed deadlines and regulatory noncompliance, further weakening financial stability. The negative logRII values indicate that as these issues escalate, they disproportionately impact project costs and profitability. Beyond direct financial losses, poor contract administration also results in inefficient resource allocation (RII = 0.79, Wi = 0.0936) and inadequate risk management (RII = 0.78, Wi = 0.0919), compounding operational inefficiencies. Inefficient resource allocation leads to wasted manpower and delays, increasing project costs, while inadequate risk management exposes projects to unforeseen contingencies, such as supplier failures and market fluctuations. The cumulative Wi (0.8545) and progressively negative logRII values confirm that these challenges intensify financial inefficiencies.

Table 2: Calculations of the weighted geometric mean and the impact of poor contract administration on project costs

Rank	Variables	RII	Wi	LogRII	WiLogRII	G.M(w)	Decision
1	Revenue Leakage	0.82	0.0968	-0.0873	-0.00845	0.803	Significant
2	Cost Overruns	0.81	0.0965	-0.0889	-0.00857	0.803	Significant
3	Penalties and Fines	0.80	0.0947	-0.0969	-0.00918	0.803	Significant
4	Missed Opportunities	0.80	0.0947	-0.0969	-0.00918	0.803	Significant
5	Long-Term Budget Issues	0.80	0.0986	-0.0985	-0.00972	0.803	Significant
6	Claims and Disputes	0.79	0.0940	-0.1002	-0.00941	0.803	Significant
7	Unclear Scope and Variations	0.79	0.0937	-0.1017	-0.00953	0.803	Significant
8	Inefficient Resource Allocation	0.79	0.0936	-0.1018	-0.00953	0.803	Significant
9	Inadequate Risk Management	0.78	0.0919	-0.1101	-0.01011	0.803	Significant
	Sum		0.8545		-0.08368		

4.3 Impact of poor contract administration on project Timelines

The findings as regards the impact of poor contract

administration on project timelines as shown in Table 3 indicate that supply chain inefficiencies, project delays, and disruptions due to disputes are the most significant

operational challenges arising from poor contract administration. These variables share the highest RII (0.78) and Wi (0.0977) values, underscoring their critical impact on project execution. Supply chain inefficiencies lead to material shortages and delivery delays, while project delays, often stemming from unclear contractual terms, extend timelines and escalate costs. Similarly, disputes over contract terms, payment schedules, or scope variations disrupt workflows, further compounding inefficiencies. The negative LogRII (-0.1079) values emphasize that these issues have a multiplying effect on project timelines and overall efficiency. Additionally, non-compliance with regulatory standards (RII

= 0.76, Wi = 0.0952) and resource wastage (RII = 0.75, Wi = 0.0940) further hinder project performance. Regulatory non-compliance results in fines, legal complications, and project shutdowns, delaying completion and increasing costs. Resource wastage, often due to mismanagement and lack of contract clarity, leads to inefficient labor utilization and increased overhead expenses. The cumulative Wi (0.7693) and negative sum of WiLogRII (-0.08838) suggest that these challenges collectively diminish project efficiency. Strengthening contract management practices, improving communication, and ensuring regulatory adherence are essential for mitigating these operational disruptions.

Table 3: Calculations of the weighted geometric mean and the impact of poor contract administration on project Timelines

Rank	Variables	RII	Wi	LogRII	WiLogRII	G.M(w)	Decision
1	Supply Chain Inefficiencies	0.78	0.0977	-0.1079	-0.01055	0.759	Significant
2	Project Delays	0.78	0.0977	-0.1079	-0.01055	0.759	Significant
3	Disruptions Due to Disputes:	0.78	0.0977	-0.1079	-0.01055	0.759	Significant
4	Poor Communication and Coordination	0.77	0.0965	-0.1135	-0.01095	0.759	Significant
5	Change Order Processing Delays	0.77	0.0965	-0.1135	-0.01095	0.759	Significant
6	Non-compliance with Regulatory Standards	0.76	0.0952	-0.1192	-0.01135	0.759	Significant
7	Reduced Scalability	0.75	0.0940	-0.1249	-0.01174	0.759	Significant
8	Resource WastAGE	0.75	0.0940	-0.1249	-0.01174	0.759	Significant
	Sum		0.7693		-0.08838		

4.4 Strategies for improving contract administration in construction projects

The results of the MIS ranking of the strategies for improving

contract administration in construction projects as perceived by the respondents are summarised in Table 4.

Table 4: Results on strategies for improving contract administration in construction projects

Code No.	strategies for improving contract administration in construction projects		Rank	Decision
D4	Clear and well-defined contracts	4.56	1st	Very Effective
D1	Effective contract monitoring and documentation	4.52	2nd	Very Effective
D2	Timely communication and dispute resolution:	4.49	3rd	Effective
D3	Timely communication and dispute resolution:	4.44	4th	Effective
D5	Use of technology for contract management	4.43	5th	Effective
	Average MIS	4.48		Effective

The results presented in Table 4 revealed that the most effective strategies for improving contract administration in construction projects Clear and well-defined contracts and Effective contract monitoring and documentation (MIS = 4.56 and 4.52 respectively). The least effective strategy for enhancing the level of implementation of incentive schemes for improved workers' performance is Use of technology for contract management (MIS = 4.43). On the average, all the strategies for improving contract administration in construction projects are effective (MIS = 4.48).

4. Conclusion and Recommendations

The study highlights the detrimental effects of poor contract administration on construction projects, particularly in terms of cost escalation and schedule delays. Revenue leakage, cost overruns, and contractual disputes emerge as critical financial risks, while supply chain inefficiencies and regulatory non-compliance disrupt project timelines. The findings align with global trends, where ineffective contract management contributes to significant project failures. However, adopting structured strategies such as well-defined contracts, proactive monitoring, and technology integration can mitigate these challenges. The research emphasizes the role of skilled contract administrators in ensuring compliance, risk mitigation, and stakeholder coordination. Addressing these issues is crucial for improving project outcomes, especially

in developing economies where regulatory and institutional weaknesses persist.

5. Recommendations

- 1. Ensure contracts include precise scope definitions, pricing structures, and performance metrics to minimize ambiguities and disputes.
- Implement systematic contract tracking systems to enforce compliance, manage variations, and prevent revenue leakage.
- 3. Utilize digital contract management tools (e.g., Building Information Modeling (BIM), AI-based analytics) to streamline documentation, approvals, and dispute resolution.

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