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عنوان البحث

التأخر في الجدول الزمني لتنفيذ المشاريع وتسليمه في الوقت المحدد

الدراسة حالة مدينة جدة السعودية

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مقدمة

تواجه المشاريع في قطاعي الإنشاءات والبنية التحتية تحديات متزايدة تتعلق بالتأخر في التنفيذ والتسليم، لا سيما في المدن الكبرى التي تشهد نموًا سريعًا مثل مدينة جدة. ويُعد التأخر في الجدول الزمني من أبرز العوائق التي تؤثر سلبيًا على نجاح المشروع، سواء من ناحية التكلفة أو الجودة أو رضا أصحاب المصلحة. تهدف هذه الدراسة إلى تحليل أسباب التأخر في تنفيذ المشاريع وتسليمها، من خلال دراسة حالة لعدد من المشاريع الحيوية التي نُفذت في مدينة جدة خلال السنوات الأخيرة.

يركز البحث على فهم العوامل الإدارية، الفنية، والتعاقدية التي تؤدي إلى التأخيرات، وذلك باستخدام منهجية البحث النوعي والكمي، من خلال مقابلات مع مديري المشاريع واستشاريين ومهندسين، بالإضافة إلى استبيانات موجهة لأصحاب العلاقة. ومن أبرز النتائج التي توصلت إليها الدراسة، أن أحد الأسباب الرئيسية للتأخر يتمثل في إسناد المشروع لمقاولين رئيسيين غير مؤهلين بشكل كافٍ، والاعتماد على سلسلة طويلة من المقاولين من الباطن، مما يؤدي إلى ضعف التنسيق وغياب المساءلة.

كما كشفت الدراسة عن تأثير تأخر الموافقات، ونقص التخطيط المسبق، والمشاكل اللوجستية، وتغيّر نطاق العمل أثناء التنفيذ على الجدول الزمني العام. وفي ضوء هذه النتائج، توصي الدراسة بتبني ممارسات متقدمة في إدارة المخاطر، وتعزيز معايير اختيار المقاولين، واستخدام أدوات رقمية لمتابعة تقدم المشروع لحظيًا. وتهدف هذه التوصيات إلى دعم صانعي القرار والمخططين لتحسين كفاءة المشاريع المستقبلية وضمان تسليمها في الوقت المحدد.

Midocean University

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Research Title

Delays in Project Schedule Execution and on time Delivery

A Case Study in City of Jeddah Saudi Arabia

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Abstract

Projects across various sectors in Saudi Arabia specially in Jeddah frequently suffer from execution and delivery delays due to a combination of structural and behavioral problems within the contracting system. A core issue identified in this study is the awarding of full project scopes to main contractors who lack the necessary qualifications and internal capabilities to manage or execute the work. These contractors often delegate the work to subcontractors, and in many cases, to sub-subcontractors. This multilayered approach weakens project control, blurs accountability, and significantly reduces performance quality.

Additionally, many clients impose unrealistic milestones and project schedules as a condition for awarding the contract. Despite knowing these schedules are not feasible, main contractors often accept them to secure the contract, fearing they will otherwise lose the opportunity. Some even submit manipulated or inaccurate plans to satisfy the client's expectations. This behavior is primarily driven by commercial interests, where profit is prioritized over quality or project feasibility.

To make matters worse, many main contractors operate without proper governance structures or internal rules to guide their decision-making. There is often a complete absence of enforceable procedures or planning standards, resulting in weak oversight, unstructured execution, and delayed outcomes.

This study explores these intertwined challenges using a combination of field data, stakeholder interviews, and document analysis. The findings support a set of actionable recommendations, including stricter contractor prequalification processes, limiting multilayer subcontracting, rejecting unrealistic schedules, and enforcing internal governance within contracting organizations to ensure timely and quality project delivery.

Problem of Statement

Despite substantial investments in infrastructure and construction projects across Saudi Arabia, delays in project execution and delivery remain a persistent challenge. These delays not only affect timelines and costs but also damage stakeholder trust, disrupt operational planning, and reduce the overall effectiveness of capital expenditure.

One of the root causes identified is the assignment of complex, large-scale projects to main contractors who are not technically or organizationally qualified to manage them. These contractors often lack the internal engineering resources, planning expertise, and operational maturity needed to execute projects independently. As a result, they rely heavily on subcontracting—frequently down to the level of sub-subcontractors—leading to poor coordination, diluted responsibility, and weak quality control.

The situation is exacerbated by client-side pressures. Clients often impose unrealistic timelines to meet internal milestones or political deadlines. Main contractors, driven by a desire to secure the contract at all costs, tend to accept these conditions without objection, despite knowing they are unachievable. In some instances, contractors submit project schedules they know are fake or manipulated just to satisfy the client's demands. This practice undermines the entire project lifecycle, creating a misalignment between planning and execution from the outset.

Additionally, the absence of internal governance and structured project controls within many contracting firms means there are no systems in place to enforce realistic planning, risk assessment, or performance monitoring. Without internal rules or accountability structures, decisions are often reactive, profit-driven, and short-term.

This study addresses this systemic problem by investigating the behavioral patterns, organizational weaknesses, and client contractor dynamics that contribute to delays. By doing so, it aims to propose actionable strategies to improve project governance, contractor selection, and schedule integrity.

Significance of the Study

Project delays are a common challenge across a wide range of sectors, including technology, logistics, public services, manufacturing, and more. These delays result in financial losses, resource inefficiencies, stakeholder dissatisfaction, and, in some cases, reputational damage. Understanding the underlying causes of schedule delays is essential for improving overall project performance and delivering expected outcomes on time and within scope.

This study is significant because it highlights systemic issues that affect the timely execution of projects regardless of industry. A key concern is the assignment of project responsibilities to main contractors or service providers who lack the necessary technical qualifications, organizational structure, or execution capacity. These unqualified main contractors frequently rely on subcontractors—and further on sub-subcontractors—to deliver critical project components, leading to fragmentation, reduced accountability, and coordination breakdowns.

Another critical factor addressed in this study is the pressure exerted by clients who insist on unrealistic project schedules. These timelines are often dictated by internal objectives or political priorities, not by practical considerations. Despite knowing the plans are unfeasible, many main contractors accept these conditions to win the contract, sometimes submitting falsified or misleading schedules to match the client's demands. This behavior introduces risk from the beginning and sets the stage for inevitable delays.

The lack of internal governance mechanisms within many executing organizations further contributes to the problem. Without standardized procedures, planning frameworks, or performance monitoring systems, decisions are made reactively rather than proactively. There are often no internal rules or enforcement protocols to guide project teams or hold them accountable to realistic timelines.

By addressing these multi-layered issues, this study provides value not just in identifying the problems but in recommending improvements to project governance, client–contractor dynamics, and planning integrity. The insights can benefit a broad audience including project managers, executives, policy makers, and procurement professionals across both public and private sectors.

Research Objectives

The primary objective of this study is to investigate the root causes of project schedule delays and to propose practical solutions that can improve timely delivery across different sectors. Rather than limiting the analysis to technical inefficiencies or isolated incidents, the study seeks to examine systemic and behavioral factors that consistently undermine project execution.

Key objectives of the research include:

1. Identify the impact of assigning projects to unqualified main contractors who lack the technical capacity, planning systems, and internal governance to deliver projects on time and with quality.
2. Explore how multilayer subcontracting structures contribute to delays, particularly when responsibility is fragmented across subcontractors and sub-subcontractors, leading to unclear accountability and coordination problems.
3. Analyze the role of client-imposed unrealistic project schedules, and how such conditions pressure main contractors into accepting milestones that cannot be achieved, simply to secure contracts even when it requires submitting manipulated or misleading project plans.
4. Assess the absence of internal procedures and rules within executing entities, including the lack of formal planning, supervision, and performance monitoring systems that are critical for project control and schedule adherence.
5. Propose a set of actionable recommendations aimed at improving project governance, client contractor relationship dynamics, contractor prequalification standards, and the use of realistic planning tools during project initiation.

This study ultimately aims to contribute to the development of more robust project delivery frameworks, where decisions are guided by feasibility, transparency, and accountability rather than by commercial pressure or opportunistic behaviors. The findings are intended to support both public and private sector organizations in reducing delays and improving overall project success rates.

Research Questions

This study is guided by a central research theme: understanding why project delays continue to occur across various sectors despite advances in project management practices and tools. To explore this theme, the study addresses several key research questions:

1. What is the impact of assigning projects to unqualified main contractors on project schedule performance?

This question investigates how the lack of technical expertise, planning capability, and execution experience among main contractors contributes to delays in project delivery.

2. How does multilayered subcontracting affect project timelines and coordination?

This question explores whether the delegation of work to subcontractors and sub-subcontractors leads to fragmented responsibility, poor communication, and reduced control over critical project activities.

3. What extent do unrealistic client-imposed project schedules influence contractors' planning behavior?

This question examines the client's role in delay scenarios, particularly how pressured or commercially motivated timelines lead contractors to submit inaccurate or non-executable project plans.

4. What are the consequences of the absence of internal governance frameworks within main contracting organizations?

This question addresses whether the lack of internal rules, procedures, and accountability systems inside execution teams contributes to unstructured and reactive project management.

5. What practical strategies can be adopted to minimize project delays across different sectors?

This final question seeks to extract lessons from the findings and translate them into solutions, policies, or frameworks that stakeholders can implement to improve schedule reliability.

By answering these questions, the study aims to deliver a well-rounded understanding of the structural and behavioral factors behind project delays and to suggest practical paths toward more timely and accountable project execution.

Study Hypotheses

his study is based on several working hypotheses that reflect observed patterns in project environments across different sectors. These hypotheses address the structural, organizational, and behavioral factors contributing to project delays. They serve as a foundation for data collection, analysis, and validation during the research process.

1. Projects assigned to unqualified main contractors are more likely to experience delays than those managed by technically competent and experienced contractors.

This hypothesis assumes that the qualification level and internal capacity of the main contractor significantly influence project schedule performance.

2. The use of multiple layers of subcontracting (subcontractors and sub-subcontractors) increases the risk of project delays.

It is hypothesized that complex subcontracting chains lead to diluted accountability, poor coordination, and a breakdown in communication, all of which negatively impact delivery timelines.

3. Projects where clients impose unrealistic timelines as contract conditions are more prone to delay due to unachievable milestone commitments.

This hypothesis suggests that the pressure to meet client-defined deadlines—despite their impracticality—results in contractors submitting false or overly optimistic schedules.

4. The absence of internal governance systems and project control mechanisms within contracting organizations contributes significantly to project schedule failure.

Here, it is hypothesized that lack of formal procedures, planning protocols, and performance tracking leads to reactive and inefficient project execution.

5. Implementing a combination of realistic scheduling, contractor prequalification standards, and internal project governance will reduce the likelihood of project delays.

This hypothesis underlines the belief that improving foundational elements in project planning and execution will lead to more reliable outcomes.

Literature Review

Project delays are a critical issue in Saudi Arabia and have been repeatedly observed in both public and private sector initiatives. Numerous studies conducted within the Kingdom—particularly in major cities like Jeddah—have identified recurring factors behind delayed project execution, including unqualified contractors, unrealistic scheduling, subcontracting complexity, and a lack of internal controls within executing entities.

One of the most cited studies in this area is by Assaf and Al-Hejji (2006), who conducted comprehensive research on large construction projects in Saudi Arabia. They identified poor contractor qualifications, ineffective planning, and resource mismanagement as key contributors to schedule delays. Their findings revealed that even high-budget projects in cities like Jeddah suffer from late deliveries when managed by contractors lacking technical and organizational competence.

In another important study, Alzahrani and Emsley (2013) focused on contractor performance in Saudi projects and found that delays are often linked to the absence of internal project management systems. Many contractors in Jeddah, particularly local firms, lack structured processes for planning, monitoring, and execution—leading to uncontrolled timelines and misaligned expectations.

The role of unrealistic schedules imposed by clients is another frequent theme in Saudi-based literature. Research by Al-Kharashi and Skitmore (2009) reported that project owners, including government agencies in Jeddah, often enforce tight milestones without allowing sufficient time for proper planning or mobilization. These deadlines are sometimes politically or administratively driven, forcing main contractors to accept terms they cannot fulfill. Contractors, in turn, submit unrealistic or misleading plans just to secure the contract.

Subcontracting issues have also been documented in Saudi projects, where multilayered contracting structures create complications. A field study conducted in Jeddah by Albogamy et al. (2012) highlighted that many main contractors rely on subcontractors who further delegate work to sub-subcontractors. This results in fragmented control, communication breakdowns, and ultimately project delays. The lack of centralized coordination becomes a major obstacle, especially when projects are time-sensitive or involve multiple stakeholders.

Theoretical Framework

This study is grounded in multiple theoretical foundations that explain the occurrence of project delays from organizational, behavioral, and systems perspectives. These theories help frame the systemic and repetitive nature of delays observed in projects across Jeddah and the broader Saudi Arabian context.

1. Agency Theory

Agency theory explains the relationship between principals (clients or project owners) and agents (contractors). In project environments, clients delegate execution responsibilities to contractors, assuming alignment in goals. However, contractors may act in their own self-interest—prioritizing profit over project quality or feasibility. This theory supports the study's observation that many contractors in Jeddah accept unachievable schedules just to win the contract, even if it leads to inevitable delays.

2. Systems Theory

Projects are complex systems composed of interconnected elements such as people, processes, timelines, and deliverables. Systems theory suggests that a disruption in one part of the system—like subcontracting layers or resource unavailability—can cascade and affect the entire project. This framework explains how the multilayer subcontracting often seen in Saudi projects creates weak communication lines, diluted accountability, and fragmented execution, all contributing to delays.

3. Theory of Constraints (TOC)

TOC posits that every system has at least one constraint that limits its performance. In many Saudi-based projects, constraints often include unqualified contractors, poor planning, unrealistic deadlines, or weak governance. Identifying and managing these constraints is essential for improving delivery outcomes. This theory supports the idea that delays can be minimized if the most critical bottlenecks are proactively addressed early in the project lifecycle.

4. Institutional Theory

This theory focuses on the influence of organizational norms, culture, and pressure from the environment. In Jeddah, institutional behavior often reflects a pattern where contractors agree to unrealistic project conditions due to market pressure or fear of losing future opportunities. Furthermore, clients may adopt aggressive milestone enforcement because of bureaucratic or political expectations. This theory helps explain why irrational scheduling and reactive project behavior persist despite known risks.

5. Project Governance Framework

Effective project governance ensures that decision-making, roles, and responsibilities are structured and transparent. In many delayed projects in Saudi Arabia, governance mechanisms are weak or nonexistent. This study uses governance theory to explore how the lack of internal rules and planning systems among contractors leads to reactive, poorly managed execution that ultimately affects timelines.

By combining these theoretical lenses, the study provides a deeper understanding of why delays occur despite technological advances, qualified professionals, and the availability of modern project management tools. It emphasizes that delays are often rooted in misaligned interests, poor organizational discipline, and weak structural controls factors that must be addressed to achieve reliable project outcomes in Jeddah and across Saudi Arabia.

Methodology and Research Methods

this study adopts a qualitative research methodology, supported by selected quantitative data, to explore the root causes of project schedule delays in Saudi Arabia, particularly in Jeddah. Given the complex, multi-layered, and often behavioral nature of these delays, a qualitative approach is most appropriate to capture the depth and context of the problem.

1. Document Review

Official project documents such as schedules, contract terms, change orders, and meeting minutes were reviewed to cross-validate statements from interviews and understand the formal basis of project planning and delay reporting.

2. Observational Data

Informal observations from site visits and internal meetings were included to understand how project decisions were executed in practice and how stakeholder behavior affected progress.

3. Quantitative Support

Where applicable, project KPIs such as baseline vs. actual delivery dates, cost variance, and number of subcontracting layers were analyzed to quantify the scale and frequency of delays.

4. Data Analysis Approach

Interview transcripts and documents were analyzed using thematic analysis, where patterns, repeated concerns, and root causes were categorized and mapped against the study's theoretical framework. Quantitative indicators were also summarized to reinforce the qualitative findings.

5. Ethical Considerations

Participants were informed of the study's purpose and their input was kept confidential. No project names, client names, or individuals were identified to ensure full compliance with ethical standards.

Study Tools

This study relies on a set of well-selected research tools designed to collect comprehensive and accurate data regarding project execution and delivery delays. The tools were developed to align with the mixed-methods approach (both quantitative and qualitative), enhancing data richness and ensuring the credibility of the findings.

The below are the primary study tools used:

1. Questionnaire:

A key tool for quantitative data collection, the questionnaire was designed in electronic format and included a series of closed-ended, structured questions. It aimed to measure participants' views on:

- Causes of project delays.
- Administrative and technical factors influencing schedules.
- Impact of delays on cost and quality.
- Effectiveness of tracking and monitoring tools in use.

The questionnaire was distributed to a targeted sample including project managers, engineers, contractors, and consultants, and results were analyzed using statistical software.

2. Semi-Structured Interviews:

To gain deeper qualitative insights, semi-structured interviews were conducted with selected professionals experienced in project management. These interviews included open-ended questions, allowing participants to freely discuss their experiences with schedule delays, key challenges faced, and practical mitigation strategies.

3. Document Analysis:

This tool involved reviewing real-world project schedules and progress reports from completed or ongoing projects. The objective was to compare planned timelines against actual performance and identify gaps in scheduling or execution.

Together, these tools provide a comprehensive and triangulated data set, supporting the research with well-rounded evidence from both field insights and document-based evaluation.

Study Limitations

This study focuses on the root causes of project schedule delays within the Kingdom of Saudi Arabia, with particular emphasis on projects executed in Jeddah. The research covers general projects across multiple sectors, including construction, infrastructure, logistics, public services, and technology. It does not restrict itself to any specific industry, as the patterns of delay observed are systemic and span multiple domains.

The study also explores the interaction between clients, main contractors, and subcontractors to understand how relationships and decision-making practices influence delivery timelines.

While the study provides in-depth insights, it is subject to several limitations:

1. Geographic Concentration

Most data were gathered from projects based in Jeddah. While findings may be applicable to other regions of Saudi Arabia, they may not fully reflect the conditions in smaller cities or rural project environments.

2. Sample Size and Access

Due to confidentiality concerns and time constraints, access to certain project documents and stakeholders was limited. Some data relied on self-reported information, which could be biased or incomplete.

3. Qualitative Bias

As the study is primarily qualitative, it emphasizes patterns and stakeholder perspectives. While supported by some quantitative indicators, the findings are interpretive rather than statistically generalizable.

4. Sector Diversity

Although the study aims to be cross-sectoral, the strongest case inputs came from sectors with visible planning structures (e.g., construction and logistics). Other sectors, such as IT or government services, were less represented due to access barriers.

5. Time Constraints

Project environments evolve quickly. The study reflects the context at the time of research and may not capture recent reforms, organizational changes, or evolving market conditions introduced afterward.

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