

Analysis of Online Tendering System and their effect on budgetary performance in delayed project

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Abstract- *The adoption of Online Tendering Systems (also known as e-tendering or electronic procurement systems) has significantly transformed public procurement processes worldwide. These systems utilize digital platforms to advertise, manage, evaluate, and award contracts in a transparent and efficient manner. In many developing economies, delayed project implementation remains a critical challenge, often resulting in cost overruns, poor budget absorption, and reduced value for money. This study analyzes the impact of Online Tendering Systems on budgetary performance, particularly in projects experiencing delays. The study explores how online tendering enhances transparency, competition, accountability, and process efficiency, and how these factors influence budget utilization, cost control, and timely project completion. It also examines the relationship between procurement cycle time, contractor selection quality, compliance with procurement regulations, and financial performance outcomes. Findings from existing literature suggest that effective implementation of e-tendering systems reduces procurement lead time, minimizes corruption risks, improves audit trails, and strengthens budget discipline. However, system limitations such as inadequate ICT infrastructure, limited user training, resistance to change, and technical disruptions may reduce its effectiveness and contribute to project delays.*

The study concludes that while online tendering systems have strong potential to improve budgetary performance, their effectiveness depends on institutional capacity, regulatory compliance, and technological readiness. Strategic investments in system integration, capacity building, and monitoring mechanisms are necessary to maximize their impact on reducing delayed projects and improving fiscal performance.

Keywords- *online tendering, delayed project, cost overruns.*

INTRODUCTION

Public procurement plays a central role in government expenditure and development planning. A significant proportion of public budgets is allocated through procurement processes to finance infrastructure, goods, and service delivery projects. However, many public projects experience delays, cost overruns, and inefficient budget utilization. These challenges undermine economic development objectives and weaken public trust in government institutions. Traditional procurement systems are often characterized by manual processes, excessive paperwork, limited transparency, and prolonged evaluation periods. These inefficiencies contribute to project delays and poor budgetary performance. In response, governments across the globe have adopted Online Tendering Systems to modernize procurement operations. For example, countries such as Kenya, India, and United Kingdom have implemented national e-procurement platforms to enhance efficiency, accountability, and competitiveness in public contracting.

Online tendering systems facilitate electronic advertisement of tenders, online bid submission, automated evaluation processes, and digital contract award notifications. These systems are designed to reduce procurement cycle time, improve accessibility for bidders, enhance record keeping, and ensure compliance with procurement regulations. By improving efficiency and transparency, online tendering has the potential to positively influence budgetary performance through cost savings, better planning, and improved financial control. Budgetary performance refers to the extent to which allocated funds are utilized effectively, efficiently, and within approved limits to achieve intended outcomes. Delayed projects often lead to budget rollovers, supplementary budgets, escalation of costs, and inefficient resource allocation. Understanding how online tendering systems affect these outcomes is therefore critical for policymakers and public financial management practitioners.

This study seeks to analyze the relationship between online tendering systems and budgetary performance in delayed projects. Specifically, it examines whether the implementation of digital procurement platforms contributes to reduced procurement lead times, minimized cost overruns, improved contractor selection, and enhanced financial accountability. It also identifies challenges that may hinder the effectiveness of online tendering in improving project delivery and fiscal discipline. By providing empirical and conceptual insights, this study contributes to the broader discourse on digital governance, public financial management, and sustainable development. The findings are expected to inform policy reforms aimed at strengthening procurement systems and improving budget execution performance in public sector projects.



PROBLEM STATEMENT

Despite the implementation of Online Tendering Systems, many public projects continue to experience significant delays. Delayed projects often lead to increased project costs, supplementary budget requests, accumulation of pending bills, and underutilization of allocated funds within the fiscal year. In some cases, funds are returned to the treasury due to failure to complete procurement processes on time, thereby affecting budget absorption rates.

While e-tendering systems are designed to improve efficiency, the extent to which they influence budgetary performance in delayed projects remains insufficiently examined. Some institutions experience system downtimes, inadequate user training, resistance to technological change, and poor integration with financial management systems. These limitations may offset the anticipated benefits of digital procurement reforms.

There is therefore a need to critically analyze whether Online Tendering Systems effectively enhance budgetary performance, particularly in environments where project delays are prevalent. Understanding this relationship is essential for strengthening procurement reforms and improving fiscal discipline.

RESEARCH HYPOTHESES

The study examines the effect of online tendering systems on budgetary performance in delayed projects. The main hypothesis proposes that online tendering systems have a significant influence on budgetary performance. Specifically, the study hypothesizes that greater transparency, improved procurement efficiency, increased bidder competition, enhanced monitoring mechanisms, and reduced corruption associated with online tendering systems contribute to better budget control and reduced cost overruns in delayed projects. Conversely, the null hypothesis states that online tendering systems have no significant effect on budgetary performance. The study further assumes that factors such as project size and procurement efficiency may moderate or mediate this relationship, thereby influencing the extent to which online tendering impacts financial outcomes in delayed projects.

LITERATURE REVIEW

Prof. Prashant Barsing(1) This research makes several important contributions to the understanding and management of India's infrastructure megaprojects. First, it empirically reaffirms the phenomenon known as Bent Flyvbjerg's "Iron Law of Megaprojects", showing that despite advances in governance mechanisms, Indian infrastructure projects continue to experience average cost overruns of 17–19%—consistent with global trends—but in a high-volume environment involving thousands of projects.

Salim S. Mulla 1, Ashish P. Waghmare2(2) Time & Cost are the lifelines of every construction project. The successful completion of construction projects within the specified time has become the most valuable and challenging task for the Managers, Architects, Engineers and Contractors. This study provides most influencing factors caused for time & cost overruns.

Hemanta Doloi a,* , Anil Sawhney b, K.C. Iyer b, Sameer Rentala c (3) This research reveals that one of the most critical factors of construction delay is the lack of commitment. This finding is indeed a clear contrast to the findings of El-Razek et al. (2008) that financial problem of a contractor is the most important cause.

Mr. Dinesh Bhatia 1, Prof. Emeritus M. R. Apte 2 (4) To Study the factor and reasons causing schedule overruns for residential construction projects in Pune Indian context.

Yusif Inusah 1,* , Aynur Kazaz 1 and Serdar Ulubeyli 2 (5) This study identified eight main barriers that appeared consistently in all six geographical locations: (1) Inadequate technical/skilled personnel, (2) Inadequate data security, (3) Lack of uniform standard or policy and Inadequate legal framework, (4) Reluctance/resistance to change (5) Inadequate ICT and internet infrastructure, (6) High investment cost of implementation, (7) Lack of support, and (8) Technical challenges. Table 1 provides a summarized overview of these dominant main barriers, highlighting their prevalence and significance in E-Tendering implementation.

OBJECTIVES

- To identify and categorize the primary causes of project delays and cost overruns in construction projects by reviewing existing literature.
- To conduct a frequency analysis of the identified causes from the literature review to determine their prevalence in previous studies.
- To analyse the critical factors contributing to project delays and cost overruns through a questionnaire survey targeted at industry professionals.
- To examine past case studies of construction projects to validate and compare the identified causes from the literature review and the questionnaire survey.
- Study the trend followed by organizations of good repute, by conducting surveys.

RESEARCH METHODOLOGY

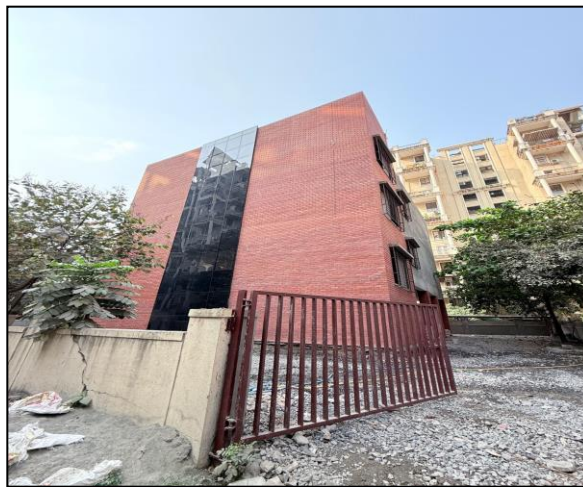
The aim of this research is to identify, analyze, and quantify the primary causes of project delays and cost overruns in construction projects by synthesizing insights from existing literature, industry professionals, and case studies, ultimately providing a comprehensive understanding of the factors affecting project performance.



Projects for research-



For Retaining wall



For Under Tunnel Construction



Missing Link Projects



RESULT AND CONCLUSION

Milestones	Milestone	Days from the Appointed Date	Financial Progress	Scheduled End Date	Physical Progress	Revised Date	Delay in No of Months	Status	Action
	1	270	10	25-11-2019	10	31-03-2021	16	Achieved	
	2	4500	30	25-06-2031	30	30-08-2025	0	N/A	
	3	730	60	27-02-2021	60	01-02-2024	35	Achieved	
	4	1095	100	27-02-2022	100	30-08-2025	42	Delayed	

End Lane :	6L	NH (New) :	48	Member Incharge :	Member-Technical
Implementation Mode :	EPC	Awarded Cost (Rs crs):	493	Total Capital Cost (Rs crs):	907.03
LOA Date :	13-12-2018	Financial Closure Status :	No	Agreement Date:	01-01-2019
Appointed Date due as per Agreement:	28-02-2019	Actual Start Date/ Appointed Date :	28-02-2019	Scheduled Completion as per contract :	27-02-2022
EOT Approved upto :	30/08/2025	Likely Completion Date :	30-06-2026	Scheme:	BM-1
PCOD Status:	No	Completion Status:	No		

DETAILS ABOUT MISSING LINK PROJECT :

- 1) Estimated cost at approval are Rs.4797Crores.
- 2) The project starting date 2019
- 3) Expected to complete 2022
- 4) Expected to completion 1 May 2026
- 5) Delay 4 years
- 6) Increases the budget 1898 crores

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