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Critical Factors Contributing to Cost Overruns in Philippine Construction Projects: A Multi-Stakeholder Perspective

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Abstract

Cost overruns remain a critical issue in the Philippine construction industry, particularly in vertical building projects within the private sector. These budget exceedances can significantly disrupt project timelines, reduce profitability, and erode stakeholder trust. This study aims to investigate the root causes of cost overruns by collecting empirical data from 40 construction professionals, including engineers, project managers, architects, and contractors. Using a structured survey and statistical analysis, the study identifies and ranks both internal and external factors that contribute to budget deviations. The results show that internal issues such as inappropriate planning (85%), poor project management (78%), design errors (65%), and financial difficulties (60%) are the most significant contributors. External causes, including raw material price fluctuations (50%) and unforeseen site conditions (45%), were acknowledged but deemed secondary in severity. A key insight is the variation in perception across stakeholder roles: senior managers emphasized communication and financial controls, while field professionals highlighted operational planning and risk assessment. The paper proposes several mitigation strategies, including the adoption of digital project management tools, stronger communication protocols, rigorous financial oversight, and proactive risk management practices. By addressing these issues comprehensively, construction stakeholders in the Philippines can significantly reduce the frequency and impact of cost overruns. The study not only contributes to the limited body of local literature but also provides actionable recommendations for enhancing cost performance and overall project success.

Keywords: cost overruns, construction projects, project management, risk factors, Philippine construction industry

INTRODUCTION

The construction industry is a vital engine of economic growth in the Philippines. According to the Construction Industry Authority of the Philippines (CIAP, 2018), the sector contributes approximately 33.9% to the country's Gross Capital Formation (GCF), underscoring its substantial role in national development. It also employs an average of 3.85 million people, making it a significant source of jobs and economic activity. As the government continues to push for aggressive infrastructure expansion through programs like "Build, Build, Build," maintaining cost efficiency in construction projects becomes increasingly critical.

Despite its importance, the construction industry in the Philippines faces persistent challenges, particularly in delivering projects within their approved budgets. One of the most common and detrimental issues is cost overrun, which refers to the situation where the actual cost of a project exceeds its initial budget (Vaardini, 2016). Globally, cost overruns are widespread; Flyvbjerg et al. (2002) found that nearly 90% of large-scale projects experience this issue. These overruns lead to delays, diminished returns on investment, strained stakeholder relationships, and loss of public trust—outcomes that are especially impactful in developing countries where infrastructure budgets are limited and highly scrutinized (Doloi, 2013).

In the Philippine context, cost overruns are often the result of factors such as poor project planning, inadequate cost estimation, design changes, material price fluctuations, and inefficient project management (Gamil &

Rahman, 2017). While similar issues are reported in other emerging economies, the magnitude and frequency of these overruns in the Philippines warrant focused investigation. For example, in contrast to cost management trends in more developed nations where digital technologies and risk-based cost planning are now standard, Philippine construction projects frequently rely on outdated or ad hoc management systems (World Bank, 2020). This research thus aims to contribute to the limited body of local empirical studies by examining both internal and external factors contributing to cost overruns.

The primary aim of this study is to identify and rank the key factors that lead to cost overruns in private-sector vertical construction projects in the Philippines and to propose practical mitigation strategies. A survey method was selected to gather perspectives from 40 construction professionals—including project managers, engineers, architects, and contractors—who are directly involved in budgeting and cost control. Although the sample size is relatively modest, it is considered appropriate for exploratory research and for generating insights relevant to practice. Moreover, the participants were selected for their direct involvement in medium- to large-scale projects, increasing the credibility of their responses.

Given the current surge in infrastructure projects and the increasing financial pressures on developers, this research is both timely and necessary. By understanding the root causes of cost overruns, project stakeholders can implement better planning, adopt technology, and strengthen financial controls—ultimately improving project delivery and safeguarding investment.

The goal of this study is to explore these contributing factors in depth, uncovering both their root causes and broader implications for project success. The research aims to support the development of practical strategies to minimize cost overruns, with a focus on early intervention, better planning, and more accurate budgeting processes. According to Gamil and Rahman (2017), common contributors to cost overruns include material unavailability, frequent design amendments, ineffective coordination among stakeholders, and inadequate project management expertise—factors that this study will specifically investigate in the context of private-sector vertical construction projects in the Philippines.

In the following sections, the paper will examine each of these factors using quantitative data from industry professionals, analyze their relative impact through statistical methods, and present feasible recommendations. These insights aim to improve cost control practices and enhance overall project efficiency.

Ultimately, this study contributes to the growing body of research on construction cost management by offering evidence-based findings tailored to the Philippine construction sector—laying the groundwork for improved budget performance and more resilient project delivery frameworks.

LITERATURES

Upon exhaustive review of literatures, numerous studies have attempted to explain the causes of cost overruns in construction projects. These investigations typically identify two major categories: internal factors—which include poor planning, weak project management, and design errors—and external factors such as market volatility, adverse site conditions, and regulatory delays.

According to Flyvbjerg (2002), cost overruns are observed in approximately 90% of large-scale infrastructure projects globally, with the most prevalent reasons being optimistic estimations and planning fallacies. Similarly, Iyer and Jha (2005) emphasized poor project planning, contractor inexperience, and inadequate contract management as dominant causes of budget deviations in Indian projects. In Uganda, Apolot et al. (2011) identified changes in project scope and delays in payments as primary contributors. Endut et al. (2005) also highlighted the significance of poor project management in Malaysia.

In the Middle East, Bubshait and Al-Juwait (2002) found that contractor cash flow issues and material shortages often led to cost increases. In contrast, Le-Hoai et al. (2008) in Vietnam identified weak supervision and design changes as major causes. These findings emphasize that while the specific causes of cost overruns vary by region, many are rooted in common managerial and operational shortcomings.

Despite the breadth of international literature, limited studies focus specifically on the Philippine construction industry. A contextualized understanding is critical, given the country's unique political, economic, and labor conditions. This study builds on global findings by investigating the local relevance of common overrun factors through a stakeholder-based survey.

The reviewed literature provides a foundational understanding of global and regional trends, and the current study aims to extend this knowledge by determining the most influential cost drivers in the Philippine setting.

METHODS

Research Design. This study employed the descriptive survey method, a research approach well-suited for gathering data that describe and interpret present conditions related to a specific issue—in this case, cost overruns in the construction industry. This method was selected because it enables researchers to collect firsthand information directly from individuals who have relevant field experience, allowing for both quantitative measurement and qualitative insights. One of the main advantages of this method is its ability to reflect current practices, perceptions, and challenges as observed by practitioners. It also facilitates a broader understanding of complex issues by capturing diverse viewpoints from a targeted respondent group.

By adopting this approach, the study was able to assess the opinions and experiences of construction professionals across various roles, thereby identifying key factors that contribute to budget overruns. This method supports data-driven decision-making and serves as a valuable tool for exploring emerging trends and operational inefficiencies, particularly in dynamic sectors like construction. Ultimately, the descriptive survey design aligns with the research objective of uncovering real-world issues and proposing context-specific recommendations.

Population and Sampling. The target population consisted of construction company owners, project managers, engineers, and architects. These professionals were directly involved in the construction process, and their experiences and opinions are crucial in understanding the causes of cost overruns. Inclusion criteria required participants to have a minimum of five years' experience in the industry. To ensure representativeness, stratified sampling was used, with each subgroup equally represented. The distribution of respondents was as follows: 1) 10 Owners; 2) 10 Project Managers; 3) 10 Engineers; and, 4) 10 Architects. This equal distribution allows the study to capture diverse insights from all four subgroups, ensuring that the findings are reflective of a wide range of perspectives within the construction industry. Although the sample size may seem modest, the homogeneous nature of the targeted population (professionals with relevant field experience) supports its validity. According to Krejcie and Morgan (1970), a sample size of 40 can be considered statistically significant for a population with shared professional attributes.

Instrumentation. The primary data collection tool was a structured questionnaire composed of two sections: 1) demographic profile; and, 2) a 5-point Likert-scale section measuring perceived causes of cost overruns. The questionnaire was carefully designed and developed based on previous literature (e.g., Enshassi et al., 2009; Iyer & Jha, 2005) and subjected to expert validation through a panel of three academic and industry professionals. A pilot test was conducted with 5 respondents from outside the sample, and minor revisions were made based on their feedback. Cronbach's Alpha for internal consistency was calculated at 0.88, indicating high reliability.

The survey questionnaire was administered via Google Forms, facilitating easy distribution and completion. The questionnaire was divided into two sections:

1. *Part 1.* Demographic information (e.g., age, sex, position, years of professional experience, etc.)

   Age reflects the level of maturity and potentially exposure to varying project challenges, which may influence attitudes towards project management and cost control.

   Sex profiling is included to acknowledge the diversity within the industry and examine if perspectives differ across sex lines, given the traditionally male-dominated construction sector.

   Professional experience is critical as it directly impacts the respondent's familiarity with project execution challenges, risk management, and decision-making processes that affect cost performance.

   Position/Title provides insight into the respondent's role and level of responsibility within the project hierarchy, which may influence their understanding of cost management practices and constraints.

   These variables thus help contextualize the findings and ensure that interpretations consider the diversity of professional backgrounds and viewpoints.

2. *Part 2.* Main questions assessing respondents' views on the causes of cost overruns in construction projects.

   For quantitative analysis, an ordinal scale was used, based on a five-point Likert scale, which allows participants to express their degree of agreement with each statement. The scale has the following numerical scale and corresponding verbal interpretation: 1 = Strongly Disagree; 2 = Disagree; 3 = Neutral; 4 = Agree; 5 = Strongly Agree.

Ethical Considerations. Ethical integrity was prioritized throughout the research process. All participants were informed of the study's purpose, and consent was obtained prior to participation. Respondents were assured of the confidentiality and anonymity of their responses. No identifying information was collected, and all data were stored in a password-protected digital file. The study followed the guidelines outlined by the Philippine Social Science Council for ethical research practices.

Types of Data. The study utilized two types of data:

1. *Primary Data*. Collected through self-administered questionnaires, where respondents directly provide their answers.

2. *Secondary Data.* Sourced from relevant published documents, reports, and literature that pertain to the research problem. This secondary data helped build upon existing findings and offered a broader context to the study.

Data Collection Procedure. The finalized questionnaire was distributed electronically using Google Forms and was open for two weeks. Participants were recruited through professional networks, online forums, and LinkedIn groups related to construction in the Philippines. A reminder was sent one week after the initial invitation to encourage participation.

Data Analysis. Collected data were analyzed using Microsoft Excel and SPSS. Descriptive statistics were used to present frequency, percentage, mean, and weighted mean. One-way Analysis of Variance (ANOVA) was used to examine differences in perceptions among professional groups. A significance level of 0.05 was used to interpret p-values. Once data were collected, responses were analyzed using a combination of descriptive and inferential statistical techniques to derive meaningful conclusions and assess the significance of observed trends. The following were applied:

1. *Frequency and Percentage.* These were used to present demographic data and summarize categorical variables, such as respondents' roles, years of experience, and types of projects handled. This method helped contextualize the composition of the sample.

2. *Mean.* This was calculated to identify the central tendency of responses for each cost overrun factor, allowing the researchers to determine the general sentiment or trend among respondents.

3. *Weighted Mean.* Given that certain factors may carry varying levels of importance, weighted means were computed to provide a more representative average. Each response option on the Likert scale was assigned a weight, and the weighted scores were used to rank the perceived severity of each factor contributing to cost overruns.

4. *One-Way Analysis of Variance (ANOVA).* To determine whether statistically significant differences existed in the assessment of cost overrun factors among different professional groups (e.g., project managers, engineers, a one-way ANOVA was conducted). The decision rules for interpreting the results were:

   If the p-value ≤ 0.05, the null hypothesis is rejected, indicating a significant difference among groups.

   If the p-value > 0.05, the null hypothesis is accepted, suggesting no significant difference.

By employing these statistical techniques, the study provides a comprehensive and rigorous analysis of the causes of cost overruns in the construction industry, offering valuable insights for potential mitigation strategies.

RESULTS

The survey gathered responses from 40 professionals, evenly divided among contractors, project managers, engineers, and architects. Participants were asked to evaluate 40 common causes of cost overruns using a five-point Likert scale.

Demographics of Respondents. The demographic and professional characteristics of respondents – namely age, sex, professional experience, and position/title – were collected to provide a comprehensive understanding of the sample profile and its potential influence on perspectives related to cost overruns in construction projects.

Table 1
Frequency and Percentage Distribution of Respondents in terms of Age

Age	Frequency	Percentage
25 and below	1	3%
26-35	11	28%
36-45	12	30%
46-55	14	35%
56 and above	2	5%
Total	40	100%

The respondents were diverse in terms of age, which ranged from those early in their careers to individuals with significant experience in the construction industry. The largest group of respondents was between the ages of 46-55 years, with 14 participants (35% of the total). This was followed by the 36-45 age group with 12 respondents (30%). The 26-35 age group included 11 respondents (27.5%), while the 25 and below group had the smallest representation, contributing only 2 respondents (5%). A small number of respondents, 2 (5%), were 56 years and older.

Table 2
Frequency and Percentage Distribution of Respondents in terms of Gender

Gender	Frequency	Percentage
Male	33	83%
Female	7	18%
Total	40	100%

The sex distribution among respondents showed a clear skew toward male participants, with 33 male respondents (82.5%) compared to only 7 female respondents (17.5%). This ratio may reflect the gender composition of the construction industry in the Philippines, where

male workers are more prevalent, particularly in fieldwork and project management roles.

Table 3
Frequency and Percentage Distribution of Respondents in terms of Years of Experience

Years of Experience	Frequency	Percentage
5yrs. & below	4	10%
6-15yrs.	11	28%
16-25yrs.	12	30%
26-35yrs.	10	25%
35 & above	3	8%
Total	40	100%

Experience in the construction industry varied among the respondents. The majority of participants had extensive experience, with 12 individuals (30%) reporting between 16-25 years of experience, and 10 participants (25%) with 26-35 years of experience. A significant portion of the respondents (11, or 27.5%) had 6-15 years of experience. However, a smaller group of 4 respondents (10%) had 5 years or fewer, and only 3 respondents (7.5%) had 35 years or more in the industry.

Table 4
Frequency and Percentage Distribution of Respondents in terms of Position

Position	Frequency	Percentage
Owner	10	25%
Project Manager	10	25%
Engineer	10	25%
Architect	10	25%
Total	40	100%

Respondents were predominantly male (82.5%), consistent with the current demographics of the construction industry. Most respondents (30%) were aged 36–45, with 27.5% having 16–25 years of experience. Each stakeholder group (engineers, architects, project managers, and owners) was evenly represented.

Internal Factors Contributing to Cost Overrun. The following data present the internal factors contributing to cost overrun as arranged according to Contractor, Consultant and Client.

Inappropriate Planning. A significant majority of respondents (31 strongly agree, 9 agree) identified inappropriate planning as a major cause of cost overruns in construction projects. This finding aligns with existing literature highlighting that inadequate project planning leads to unforeseen risks and resource mismanagement, ultimately increasing costs (Assaf & Al-Hejji, 2006; Flyvbjerg, Holm, & Buhl, 2003). Effective planning is critical in establishing realistic budgets, schedules, and risk mitigation strategies.

Table 5
Contributing Factors of Cost Overrun as to Contractor

	Criteria	Degree of Concern (Percentage out of 40 respondents) 5	4	3	2	1	Total
1	Causes by Contractor						
1.1	Inappropriate planning	78%	22%	-	-	-	100%
1.2	Improper Project Management	65%	33%	-	2%	-	100%
1.3	Lack of Contractors Experience	65%	35%	-	-	-	100%
1.4	Financial Difficulties faced by contractors	60%	38%	2%	-	-	100%
1.5	Relationship between management and labor	50%	48%	2%	-	-	100%
1.6	Incorrect Scheduling by Contractors	80%	15%	3%	2%	-	100%
1.7	Errors during construction	65%	33%	-	2%	-	100%
1.8	Extension of time	63%	30%	7%	-	-	100%
1.9	Incompetent subcontractor	63%	30%	7%	-	-	100%
1.10	Unsuitable construction methods	65%	30%	5%			100%
1.11	Poor financial control on site	68%	28%	2%	2%		100%

Improper Project Management. Twenty-six respondents strongly agreed, and thirteen agreed that improper project management contributed to cost overruns, with only one disagreement. This corresponds with previous studies emphasizing that inefficient project management, including poor coordination, insufficient resource allocation, and weak communication, directly affects project performance and cost control (Chan & Kumaraswamy, 1997; Sambasivan & Soon, 2007).

Lack of Contractors' Experience. Lack of contractor experience was identified as a key factor, with 26 strongly agreeing and 14 agreeing. Literature supports that inexperienced contractors are less capable of anticipating site challenges, managing complexities, and maintaining quality, which often results in delays and increased costs (Memon, Rahman, & Abdullah, 2012; Enshassi, Mohamed, & Abushaban, 2009).

Financial Difficulties Faced by Contractors. Financial instability among contractors was another significant concern, supported by 24 respondents strongly agreeing and 15 agreeing. Studies have shown that contractors facing financial difficulties may experience cash flow problems that hinder timely procurement and labor payments, causing delays and cost escalation (Zou, Zhang, & Wang, 2014; Odeck, 2014).

Incorrect Scheduling by Contractors. With 32 respondents strongly agreeing and 6 agreeing, improper scheduling was recognized as one of the most prominent causes. Scheduling deficiencies disrupt workflow, cause resource clashes, and lead to overtime or idle times, all of which increase project costs (Kerzner, 2013; Ogunlana, Promkuntong, & Jearkjirm, 2002).

Errors During Construction. The impact of errors during construction was also emphasized, with 26 strongly agreeing and 13 agreeing. Construction errors cause rework and delays that elevate labor and material costs. Previous research identifies construction phase errors as a major contributor to budget overruns (Hwang & Ng, 2013; Love, Edwards, & Irani, 2010).

Table 6
Contributing Factors of Cost Overrun as to Consultant

	Criteria	Degree of Concern (Percentage out of 40 respondents)					Total
		5	4	3	2	1	
2	Causes by Consultant						
2.1	Poor Contract Management	70%	30%	-	-	-	100%
2.2	Mistake in Design	75%	25%	-	-	-	100%
2.3	Underestimate Project Duration	60%	33%	7%	-	-	100%
2.4	Delay in Approval of Design Changes	60%	33%	7%	-	-	100%
2.5	Lack of Cost Plan/Monitoring	60%	35%	5%	-	-	100%
2.6	Inadequate Project Preparation	63%	37%	-	-	-	100%
2.7	Lack of Coordination at Design Phase	68%	32%	-	-	-	100%
2.8	Incomplete Design at Tendering	65%	33%	-	2%	-	100%
2.9	Lack Consultant Team's Experience	68%	30%	2%			100%

Poor Contract Management. The majority of respondents (28 strongly agree, 12 agree) agreed that poor contract management by consultants contributed significantly to cost overruns. Proper contract administration ensures adherence to budgets and timelines.

Mistakes in Design. Design errors were also identified as a critical issue, with 30 respondents strongly agreeing and 10 agreeing. Mistakes in the design phase can necessitate costly changes and revisions that affect the overall project budget.

Underestimating Project Duration. Respondents largely agreed (26 strongly agree, 13 agree) that underestimating the duration of a project led to cost overruns, as extended timelines typically result in additional labor and overhead costs.

Delay in Approval of Design Changes. Delays in approving design changes were recognized as another key cause, with 24 respondents strongly agreeing and 13 agreeing. Prolonged approval processes can disrupt project timelines and inflate costs.

Table 7
Contributing Factors of Cost Overrun as to Client

	Criteria	Degree of Concern (Percentage out of 40 respondents)					Total
		5	4	3	2	1	
3	Causes by Client						
3.1	Financial Problems Faced by Owner	75%	23%	2%	-	-	100%
3.2	Practice of Assigning Contract to Lowest Bidder	60%	28%	10%	2%	-	100%
3.3	Lack of Communication with Consultant	65%	25%	10%	-	-	100%
3.4	Delay in Payment	63%	25%	10%	2%	-	100%
3.5	Re-measurement of Provisional Sum	68%	28%	4%	-	-	100%

Financial Problems. Faced by the Owner. Financial instability of the client was considered a significant cause of cost overruns, with 30 respondents strongly agreeing and 9 agreeing. Inadequate funding or delays in payment can halt construction, resulting in cost escalations.

Practice of Assigning Contract to the Lowest Bidder. The practice of awarding contracts based solely on the lowest bid was also cited as a contributing factor, with 24 respondents strongly agreeing and 11 agreeing. Choosing the lowest bidder may lead to compromises in quality, project delays, or cost-related issues during execution.

Lack of Communication with Consultant. Communication breakdowns between the client and consultant were highlighted by 26 respondents who strongly agreed, and 10 who

agreed. Poor communication can result in misunderstandings about project scope, leading to cost overruns.

Delay in Payment. Delayed payments from clients were another major concern, with 25 respondents strongly agreeing and 10 agreeing. Payment delays can impact on the timely procurement of materials and the payment of workers, causing delays and added costs.

External Factors Contributing to Cost Overrun. The data below presents the external factors contributing to cost overrun based on the indicated criteria.

Table 8
Contributing External Factors of Cost Overrun

	Criteria	Degree of Concern (Percentage out of 40 respondents) 5	4	3	2	1	Total
4	Others/External Causes						
4.1	High Cost of Machineries	50%	40%	5%	3%	2%	100%
4.2	Fluctuation in Price of Raw Materials	43%	45%	12%	-	-	100%
4.3	Unforeseen Site Condition	50%	40%	10%	-	-	100%
4.4	Shortage of Site Workers	50%	40%	10%	-	-	100%
4.5	Delay in Material Procurement	50%	35%	13%	2%	-	100%
4.6	Unpredictable Weather Conditions	55%	30%	15%	-	-	100%
4.7	Poor Labour Productivity	60%	35%	3%	2%	-	100%
4.8	Unskilled labour	58%	33%	5%	4%	-	100%
4.9	Equipment Failure	55%	28%	15%	2%	-	100%
4.10	Labour Absenteeism	48%	43%	8%	1%	-	100%

High Cost of Machinery. High machinery costs were identified as a contributing factor by 20 respondents who strongly agreed and 16 who agreed. Rising costs for equipment, especially when unforeseen, can strain budgets and lead to increased project expenses.

Fluctuations in Price of Raw Materials. The volatility of raw material prices was another major cause identified by respondents, with 17 strongly agreeing and 18 agreeing. Such fluctuations can significantly impact the overall project cost, especially if they occur during procurement phases.

Unforeseen Site Conditions. Unpredictable site conditions were identified as an external cause, with 20 respondents strongly agreeing and 16 agreeing. Conditions such as soil instability or the discovery of hidden obstructions can lead to additional costs for remediation and delays.

Figure 1 below illustrates the top five causes of cost overruns by weighted mean and the group-specific rating differences across owners, PMs, engineers, and architects.

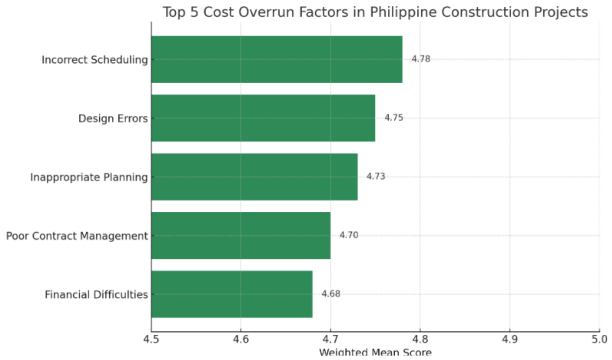

Figure 1
Top 5 Contributing Factors of Cost Overrun

Comparison of Internal Contributing Factors to Cost Overrun when Grouped by Profession. One-way ANOVA results showed no statistically significant difference among the professional subgroups in their perceptions of the top internal causes of cost overrun ($p > 0.05$). This suggests a shared understanding of roles regarding the leading contributors.

DISCUSSION

Internal Factors as Primary Causes of Cost Overruns. This study confirms that internal project issues – specifically inappropriate planning, poor project management, design errors, and financial constraints – are the most critical contributors to cost overruns in Philippine construction projects. These findings are consistent with the work of Aziz and Abdel-Hakam (2016), who identified internal management inefficiencies as a dominant cause of overruns in similar contexts. The study's results suggest that improving project scoping, resource planning, and team coordination early in the project life cycle is vital. Practical strategies may include adopting structured project management frameworks like PMBOK or PRINCE2 and enforcing stage-gate processes to ensure proper checks before moving into subsequent phases.

Influence of Experience and Organizational Role. The research highlights a notable trend:

respondents with greater industry experience and those in senior managerial roles tend to have a deeper understanding of cost overrun causes. This aligns with Flyvbjerg (2002), who noted that decision-makers with strategic oversight often attribute cost overruns to systemic and planning issues, rather than isolated operational mishaps. Consequently, project success may hinge on leveraging the knowledge of experienced professionals in both strategic planning and execution oversight.

External Factors and Their Perceived Impact. External issues such as price volatility of raw materials, inflation, and unforeseen site conditions were acknowledged but perceived as less influential compared to internal mismanagement. This finding complements the conclusions of Doloi (2013), who argued that while external factors are difficult to control, their impact can be significantly reduced through robust risk allocation mechanisms and early site investigation practices. Risk management tools like Monte Carlo simulations or contingency planning could help mitigate these uncertainties.

Communication and Coordination among Stakeholders. A recurring theme throughout the data was the lack of clear communication between stakeholders, including contractors, consultants, and clients. Miscommunication often led to disputes, misaligned expectations, and design modifications that inflated project costs. This supports the findings of Sambasivan and Soon (2007), who emphasized that poor communication is among the top five causes of project failure in developing countries. Establishing formal communication protocols, regular coordination meetings, and utilizing project collaboration software (e.g., BIM or cloud-based tools like Procore) could significantly improve project coherence and reduce misunderstandings.

Implications for Practice and Policy. The study's findings offer practical implications for both private firms and policymakers. First, capacity-building programs targeting mid-level managers could bridge the knowledge gap in cost control practices. Second, regulatory bodies such as the Construction Industry Authority of the Philippines (CIAP) might consider mandating risk assessment plans and value engineering exercises for projects above a certain budget threshold. Finally, promoting digitization in construction management could enable real-time monitoring of cost metrics, further enhancing accountability and control.

Limitations and Future Research. This study has several limitations that should be acknowledged. First, the relatively small sample size (n = 40) may restrict the generalizability of the findings to a broader population or different contexts. A larger sample could provide more robust statistical power and a more representative understanding of the issues surrounding cost overruns. Second, the reliance on self-reported data introduces the potential for response bias, as participants might have emphasized familiar or subjective perspectives while underreporting less obvious factors. This could affect the accuracy and comprehensiveness of the findings.

Future research should aim to address these limitations by expanding the sample size and geographic scope to include a more diverse range of regions and project types. Additionally, conducting detailed case studies on specific construction projects with well-documented cost overruns would offer deeper, contextualized insights into the root causes and contributing factors. Employing a mixed-methods approach that combines quantitative data analysis with qualitative interviews or focus groups could provide a more holistic understanding of the complexities involved.

Moreover, future studies could explore the integration and impact of emerging digital project control tools, such as Building Information Modeling (BIM) and Enterprise Resource Planning (ERP) systems, on cost management and project performance. Investigating how these technologies influence cost control processes and their effectiveness in mitigating overruns could contribute valuable knowledge to the field of construction management.

Conclusion. In summary, this research underscores that although external factors such as economic fluctuations, regulatory environments, and market conditions contribute to cost overruns, the predominant drivers within the Philippine construction industry are internal management shortcomings. Deficiencies in critical areas such as project planning, communication among stakeholders, and effective resource management emerge as fundamental causes undermining successful project delivery. These internal challenges highlight the need for stronger organizational capabilities and more disciplined management practices throughout the project lifecycle.

Given the Philippines' ongoing and substantial investment in infrastructure development, addressing these core internal issues is imperative to improve cost performance and overall project success. Implementing strategic management frameworks that emphasize clear planning, transparent communication, and efficient allocation of resources can significantly mitigate risks associated with cost overruns. Furthermore, continuous capacity development initiatives aimed at enhancing the skills and competencies of project managers and teams, coupled with appropriate policy reforms to support industry best practices, are essential to build resilience within the sector.

Such interventions will not only improve project outcomes but also foster sustainable growth and competitiveness in the construction industry. By strengthening internal management processes, the sector will be better positioned to meet the increasing demands for infrastructure while ensuring value for investment and contributing to the country's broader economic development goals.

Recommendations. Based from the results and drawn conclusion of the study, the following are the recommendations:

1. *Enhance Planning and Project Management Practices*
   Target Audience: Contractors and Project Managers

   Action Steps:
   - Adopt standardized project management methodologies (e.g., PMBOK, Agile for Construction).
   - Utilize project management software (e.g., Primavera P6, MS Project) for scheduling, resource management, and cost tracking.
   - Conduct comprehensive project risk assessments during the planning stage.
   - Implement regular progress reviews and milestone-based evaluations to adjust plans as needed.

2. *Strengthening Contractor Qualifications and Financial Preparedness*
   Target Audience: Construction Firms and Developers

   Action Steps:
   - Vet contractors based on past performance, technical experience, and financial standing.
   - Require submission of audited financial reports as part of pre-qualification.
   - Establish minimum experience and competency benchmarks for project team members.
   - Encourage firms to access revolving credit or project-specific financing to secure liquidity during project execution.

3. *Improve Design Accuracy and Contract Administration*
   Target Audience: Consultants and Design Engineers

   Action Steps:
   - Adopt a formal design review protocol that includes third-party peer reviews.
   - Use BIM during the design phase to detect clashes, omissions, and scope discrepancies.
   - Incorporate realistic time and cost estimates into project contracts.
   - Align design outputs with clearly defined scopes and client expectations to reduce scope creep.

4. *Foster Transparent and Continuous Communication*
   Target Audience: All Stakeholders (Clients, Contractors, Consultants)

   Action Steps:
   - Schedule weekly coordination meetings and use centralized communication platforms (e.g., Slack, Microsoft Teams, Procore).
   - Maintain a shared project dashboard to ensure access to real-time data and updates.
   - Develop a responsibility matrix (RACI) to clarify roles and escalation protocols.
   - Ensure prompt documentation and resolution of issues through a formal change order process.

5. *Establish Contingency Measures for External Risks*
   Target Audience: Project Owners and Cost Estimators

   Action Steps:
   - Allocate contingency funds (typically 5–15% of the total budget) based on project complexity and risk profile.
   - Apply sensitivity analysis and cost-risk modeling (e.g., Monte Carlo simulations) during budgeting.
   - Create flexible procurement strategies that allow substitutions for materials with volatile prices.
   - Conduct site condition assessments before finalizing scope and budgets.

6. *Promote Industry Awareness and Professional Development*
   Target Audience: Industry Associations, Training Providers, and Employers

   Action Steps:
   - Develop CPD-accredited training modules on cost control, estimation, and project finance.
   - Organize regular seminars, webinars, and workshops involving case studies on cost overrun mitigation.
   - Encourage firms to include mandatory training hours in employee development plans.
   - Disseminate findings of this and similar studies to raise awareness across sectors.

7. *Leverage Technology for Real-Time Monitoring and Cost Control*
   Target Audience: Contractors, Project Managers, and Consultants

   Action Steps:
   - Implement integrated digital platforms (e.g., Procore, PlanGrid, CostX) for document control and cost tracking.
   - Use BIM to simulate construction sequences and identify cost-impacting issues in advance.
   - Adopt mobile apps for on-site reporting and instant issue escalation.
   - Utilize dashboards and KPIs to flag early warning signs of cost deviation.

By executing these stakeholder-specific actions, the Philippine construction industry can significantly reduce the prevalence of cost overruns, leading to better financial discipline, smoother project delivery, and stronger trust among stakeholders. A collaborative, well-trained, and technologically enabled ecosystem is essential for achieving sustainable improvements in project cost performance.

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