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Research Article

An Examination on Project Cost Overruns in Project Management: A Study of S3 Project at Kanshanshi Mine

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About Article

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ABSTRACT

This study examines project cost overruns in project management with a focus on S3 Project at Kanshanshi Mine. The main objectives were to identify types of cost overruns, assess their effects on project management, and evaluate the effectiveness of cost strategies. A descriptive research design was employed, with a sample of 50 respondents. Findings review that poor project planning, inefficient resource allocation and scope changes are significant causes of cost overruns. Inaccurate cost estimation and inadequate risk management contributes to project delays and budget issues. The study recommends thorough project planning, efficient resource allocation, and effective risk management practices to mitigate cost overruns. Additionally, fostering stakeholder collaboration and using metrics like Earned Value Management (EVM), Cost Performance Index (CPI), and Schedule Performance Index (SPI) can enhance project cost strategy success.

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1. INTRODUCTION

1.1. Background

Project cost overruns are a persistent challenge in global project management, particularly in the mining sector. The Project Management Institute (PMI) highlighted in 2020 that 43% of projects worldwide face cost overruns, a figure corroborated by studies from Crossett and colleagues, which revealed global on-budget project delivery rates of only 46-47% across the early 2000s. United Nations (2015) In Africa, this issue is even more pronounced; nearly 60% of infrastructure projects experience overruns, according to the African Development Bank (2019. Such overruns delay project timelines, strain resources, and hinder progress toward the United Nations Sustainable Development Goals (Ndjamena & Dark, 2020). In Southern Africa, delays in mining projects, often extending 12-18 months, compromise socio-economic empowerment and economic growth (Banda & Chandra, 2020). Zambia's Kansans Mine illustrates these challenges, with over 70% of projects exceeding budgets (ZCM, 2021). These overruns reduce government revenue, employment opportunities, and funds for community development, stressing the need for improved project management to align mining activities with sustainable development and economic upliftment (Ahiaga-Dagbui & Smith, 2020).

1.2. Statement of the problem

Despite budget estimates, it is common that project's actual expenditure exceeds allocated funds, prompting inquiries into the causes and implications of these overruns. While various factors may contribute to this situation, a comprehensive analysis is necessary to accurately identify them, encompassing possibilities such as inaccurate estimates, unforeseen complications, or inefficiencies in project management. The ramifications of these cost overruns could be substantial, potentially affecting project completion, overall quality, and the financial well-being of the organization (Banda & Chanda, 2020). Addressing the gaps in understanding the reasons behind cost overruns and devising mitigation strategies is essential to prevent similar issues in future projects (Hughes & Mlambo, 2019). Conducting this study is significant as it will yield insights into the causes and impacts of cost overruns, as well as strategies for prevention. This knowledge could lead to improved project management practices, better budgeting, and ultimately, more successful project outcomes. Therefore, addressing this problem transcends resolving issues with the S3 project alone, extending to enhancing our understanding and management of project costs overrun across the board (PMBOK, 2013).

1.3. Objectives

1.3.1. General objective

The general objective of this study is An Examination on project cost overruns in project Management: A case study of S3 Project at Kanshanshi Mine.

1.3.2. Specific objectives

i. To establish types of cost overruns on project management.
ii. To examine effects of cost overruns on project management.
iii. To analyze effectiveness of project cost strategies on project management.

1.4. Theoretical framework

This study applies key project management theories to analyze and address cost overruns in the S3 project at Kansanshi Mine. Earned Value Management (EVM) provides a framework to measure cost and schedule performance, enabling the identification of variances between planned and actual expenditures. For instance, EVM highlights critical stages where cost overruns occur, supporting corrective action. Flyvbjerg, B. (2018). Additionally, Cost-Benefit Analysis (CBA) evaluates the economic viability of project decisions by weighing costs against expected benefits, ensuring efficient resource allocation. (Love, 2016). Risk management theories, using tools like the Risk Management Plan (RMP), address underlying risks such as technical or regulatory challenges. Together, these frameworks foster effective mitigation strategies and evidence-based decision-making to enhance project outcomes (Morris *et al.*, 2012).

2. LITERATURE REVIEW

2.1. Types of cost overruns on project management

Cost overruns in project management take various forms, influenced by regional and sectoral factors. In the United States, studies highlight three major types: scope creep, inaccurate cost estimation, and unforeseen external factors. A 2020 report by the Project Management Institute (PMI) revealed that 33% of projects in the U.S. experience scope creep, leading to increased costs due to unplanned activities. Additionally, a study by Flyvbjerg *et al.* (2003) found that infrastructure projects in the U.S. frequently suffer from inaccurate cost estimation, with an average overrun of 28% attributed to underestimating material and labor costs. In Tanzania, cost overruns often arise from procurement delays, poor planning, and currency fluctuations. A study by Kimambo (2017) on road construction projects in Tanzania revealed that procurement inefficiencies contribute to an average cost overrun of 30%. Moreover, unstable exchange rates frequently inflate the costs of imported materials, further straining project budgets (Wandera, 2018). In Zambia, mining and infrastructure projects exhibit overruns linked to technical challenges, resource mismanagement, and environmental factors. Banda and Chanda (2020) reported that 70% of mining projects in Zambia experience overruns, with delays in equipment delivery and fluctuating commodity prices cited as primary causes. Furthermore, the Zambia Chamber of Mines (ZCM) highlights that environmental compliance costs often exceed initial projections, adding financial pressure to projects (ZCM, 2021).

2.2. Effects of cost overruns on project management

Cost overruns significantly affect project management in Malaysia, Nigeria, and Zambia, creating financial, operational, and socio-economic challenges. In Malaysia, a study by Azis *et al.* (2013b) revealed that cost overruns in public infrastructure projects are primarily caused by inaccurate cost estimation and poor project management. These overruns often lead to delays and compromised project quality, adversely affecting

stakeholders and tarnishing public trust in project delivery. For instance, the Klang Valley Mass Rapid Transit (KVMRT) project faced substantial overruns, highlighting weaknesses in budgeting and execution strategies (Azis *et al.*, 2013a). In Nigeria, cost overruns are pervasive, particularly in the construction sector. A study by Aibinu and Jagboro (2002) identified inflation, contractor inefficiencies, and poor financial management as key factors. These issues result in stalled projects, loss of investor confidence, and higher operational costs. The Abuja-Kaduna railway project, for instance, suffered from delays and budget increases, reflecting broader systemic inefficiencies in Nigeria's project management landscape (Aibinu & Jagboro, 2002). In Zambia, cost overruns are especially pronounced in the mining sector. Banda and Chanda (2020) highlighted that over 70% of mining projects, such as the S3 project at Kansanshi Mine, experience budget overruns. These overruns compromise job creation, reduce government revenues, and delay socio-economic development. According to the Zambia Chamber of Mines (2021), such financial mismanagement diminishes the sector's contribution to national growth and sustainability.

2.3. Effectiveness of project cost strategies

Empirical studies on the effectiveness of project cost strategies in the UK, Kenya, and Zambia reveal significant variations in their implementation and outcomes. In the UK, research by Hughes *et al.* (2012) demonstrates that effective project cost management strategies, including robust cost estimation techniques and stringent project monitoring practices, have led to improved cost control across various industries. Specifically, the use of Earned Value Management (EVM) and risk management frameworks has been shown to enhance project delivery within budget, with a 40% reduction in cost overruns in sectors like construction and infrastructure (Hughes *et al.*, 2012). However, the study also highlights challenges such as scope creep and inadequate risk identification, which still contribute to cost overruns. In Kenya, studies on the construction sector show that cost strategies such as value engineering and competitive tendering have been effective in reducing project costs. A study by Muriithi and Crawford (2003) highlighted that construction projects using these strategies in Nairobi experienced up to 15% cost savings compared to those that did not. Despite this, challenges such as insufficient project planning and weak enforcement of cost management protocols led to overruns in government infrastructure projects, particularly in rural areas (Muriithi & Crawford, 2003). In Zambia, empirical research by Banda and Chanda (2020) examines the mining sector, revealing that cost strategies like cost-benefit analysis and contingency planning have had limited success in mitigating cost overruns. The study shows that over 70% of mining projects in Zambia experience budget overruns due to factors such as poor project estimation, inadequate resource allocation, and external market risks (Banda & Chanda, 2020). Furthermore, the lack of skilled project managers and ineffective stakeholder engagement exacerbate the situation.

3. METHODOLOGY

3.1. Overview

This chapter presents the methodology employed in conducting the study titled "An Examination on Project Cost Overruns in Project Management: A Case Study of S3 Project at Kansanshi Mine." The methodology outlines the research design, target population, sampling design, sample size determination, data collection methods, data analysis techniques, triangulation, limitations of the study, and ethical considerations.

3.2. Research design

A mixed-method research design is ideal for this study as it combines qualitative and quantitative approaches to provide a comprehensive understanding of cost overruns at the Kansanshi Mine's S3 Project. Qualitative methods, such as interviews, offer in-depth insights into stakeholder perspectives and project management practices, uncovering complex dynamics that may not be captured quantitatively (Creswell, 2014). Meanwhile, quantitative methods, including surveys and statistical analysis, allow for the measurement of variables such as budgets and timelines, identifying patterns and correlations that contribute to cost overruns (Tashakkori & Teddie, 2003). This integrated approach strengthens the validity and reliability of findings, offering actionable insights for stakeholders.

3.3. Target population

The target population for this study comprises 10 project managers, 10 engineers, 30 contractors, and other relevant stakeholders involved in the S3 Project at Kansanshi Mine.

3.4. Sampling design

The study employs a stratified random sampling technique to ensure comprehensive representation across various stakeholder groups in the S3 Project at Kansanshi Mine. By categorizing participants based on job roles and departments, the approach captures diverse perspectives, including those from project managers, engineers, and administrative staff. Additionally, purposive sampling is used to select key informants with specialized knowledge relevant to the research topic, ensuring in-depth insights. This combination enhances both the representativeness and specificity of the data, strengthening the validity and comprehensiveness of the research findings.

3.5. Sample size determination

The sample size for this study will be determined using statistical rigor, combining simple random and purposive sampling methods. Simple random sampling will select 50 employees from the S3 mining project at Kansanshi Mine, ensuring a representative sample for generalizable findings. Factors such as population size, confidence level, and margin of error will guide the calculation to ensure statistical validity. Additionally, purposive sampling will identify 10 key informants with specialized knowledge on project cost overruns, enriching the study's data by providing expert insights into the factors influencing the project's financial performance.

3.6. Methods of data collection

In the data collection phase, a mixed-method approach will be utilized to gain comprehensive insights into the factors contributing to cost overruns in the S3 Project at Kansanshi

Mine. Structured interviews will be conducted with project managers and key stakeholders to explore in-depth perspectives on cost management practices. Additionally, surveys will target a broader sample of mining employees to capture diverse experiences. Document analysis will review relevant project materials, such as budget reports and financial statements, complementing the qualitative data from interviews and surveys to provide a well-rounded understanding of the issues (Creswell, 2014).

3.7. Method of data analysis

In the data analysis phase, both quantitative and qualitative data will be processed to extract meaningful insights. Quantitative data from surveys will be analyzed using SPSS to compute descriptive statistics like means and standard deviations, while inferential statistical tests will examine relationships and test hypotheses about factors influencing cost overruns. Qualitative data from interviews and document analysis will undergo thematic analysis to identify recurring patterns and themes, providing a deeper understanding of the underlying causes of cost overruns. This mixed-methods approach enhances the validity and reliability of the research findings by triangulating different data sources (Yin, 2014).

3.8. Triangulation

Triangulation is a crucial methodological approach that will be utilized in this study to strengthen the validity and reliability of the findings. By employing triangulation, data collected from multiple sources and through various methods will be compared and analyzed to corroborate findings and identify any discrepancies or inconsistencies (Lewis & Thornhill, 2015). This multifaceted approach enhances the robustness of the research findings by reducing the likelihood of bias or error inherent in any single method or data source. For example, in this study, triangulation may involve comparing data obtained from interviews with project managers to data gathered from the survey. By cross-referencing information from different sources, researchers can validate the accuracy and credibility of the findings. Similarly, triangulation may also involve using different data collection methods, such as interviews, surveys, and observations, to capture diverse perspectives and nuances related to project cost overruns.

3.9. Limitations of the study

This study faces several limitations that may affect the interpretation and generalizability of its findings. A key limitation is the reliance on self-reported data, which may be influenced by bias, such as social desirability or memory recall errors. Efforts to mitigate this will include ensuring participant confidentiality and using probing techniques to verify responses. Additionally, limited access to confidential project data may restrict the depth of analysis. Finally, the evolving nature of project management environments means that the study's findings may be context-specific, with limited generalizability to other settings. Researchers will address these challenges accordingly (Newman 2014).

3.10. Ethical considerations

Ethical considerations are paramount in any research endeavor, particularly when involving human participants (Sekaran & Bougie, 2016). In this study, strict adherence to ethical principles will be maintained to safeguard the rights and welfare of all participants involved in the research process. First and foremost, informed consent will be obtained from all participants before their involvement in the study. This means that individuals will be provided with clear and comprehensive information about the purpose of the research, the nature of their involvement, any potential risks or benefits, and their rights as participants.

4. RESULTS AND DISCUSSION

4.1. Presentation of research findings

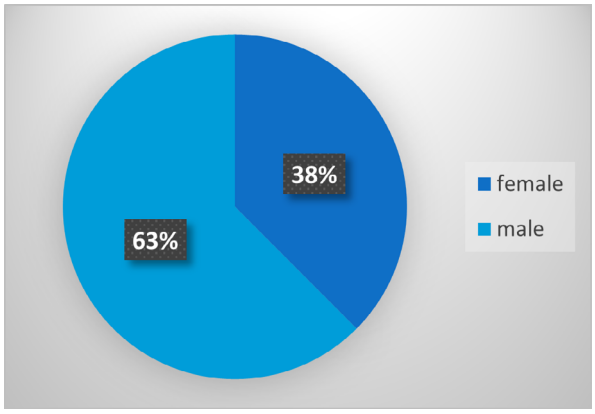

Figure 1. Sex of the despondents

Figure 1 shows that data collected from respondents comprised 62.5% males and 37.5% females.

Table 1. Age of the despondents

Age	Frequency	Percent
18 – 30years	5	12.5%
30 –45years	26	65.0%
45–60years	4	10.0%
60 years and above	5	12.5%
Total	**40**	**100.0**

Data gathered from respondents shows that 65% were between 30 and 45 years old, while 12.5% were between 18 and 30 years, 12.5% were 60 years old or above, and 10% of the were between 45 and 60 years old.

Data gathered from respondents shows that 45% attained a diploma level of education, 37.5% attained a degree level of education, and 17.5% attained a master's level of education.

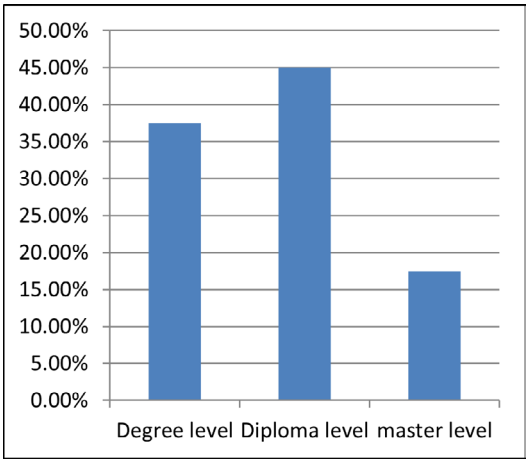

Figure 2. Educational level

4.2. Types of cost overruns on project management

Table 2. What is a common cause of cost overrun in construction projects?

Response	Frequency	Percent
Lack of Efficient resource allocation	14	35.0%
Minimal scope changes	6	15.0%
Poor project planning	20	50.0%
Total	**40**	**100.0%**

The study requested respondents to indicate common cause of cost overrun in construction projects. 50% of the majority respondent indicated Poor project planning, 35% of the respondent indicated lack of Efficient resource allocation and 15% of the respondent indicated Minimal scope changes.

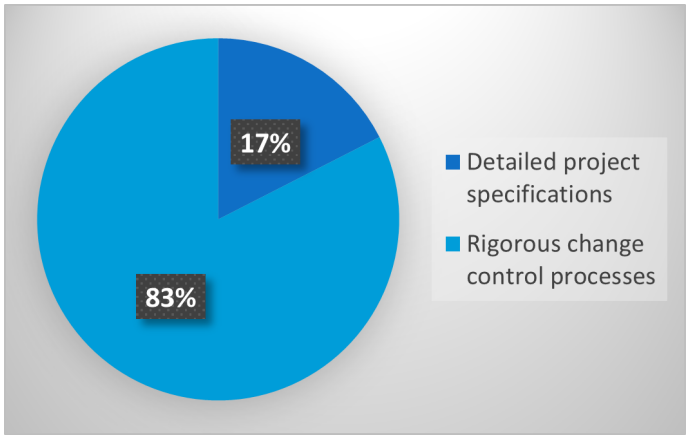

Figure 3. Which factor contributes significantly to scope creep and subsequent cost overruns?

The study requested respondents to indicate which factor contributes significantly to scope creep and subsequent cost overruns. 82.5% of the majority respondent indicated rigorous changes control processes and 17.5% of the respondent indicated detailed project specifications.

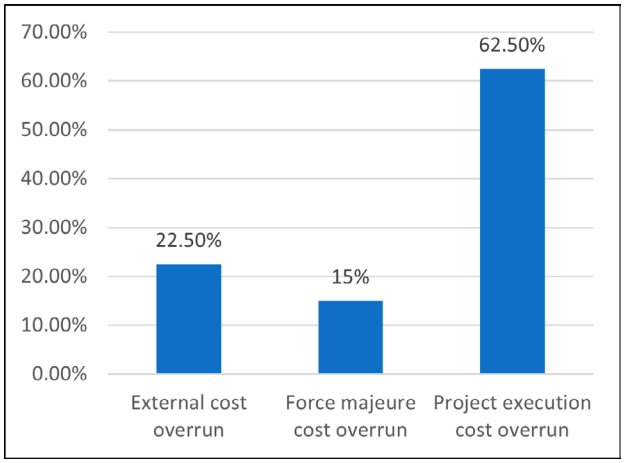

Figure 4. Which type of cost overrun is typically caused by unforeseen circumstances?

The study requested respondents to indicate the type of cost overrun typically caused by unforeseen circumstances. 62.5% of the majority respondent indicated project execution cost overrun, 22.5% of the respondent indicated external cost overrun and 15% of the respondent indicated force majeure cost overrun.

Tables 3. How can inadequate risk management contribute to cost overruns?

Response	Frequency	Percent
Delay to the project	26	65%
It cannot Enhances project scheduling	14	35.0%
Total	**40**	**100.0%**

The study requested respondents to indicate inadequate risk management contribute to cost overruns. 65% of the majority respondent indicated Delay to the project and 35% of the respondent indicated It cannot Enhances project scheduling.

Table 4. What are the causes of cost overruns in project management?

Response	Frequency	Percent
Inaccurate initial cost estimation	18	45.5%
Inefficient resource allocation and management practices	8	20.5%
Unforeseen external factors (e.g., regulatory changes, economic shifts)	14	35.0%
Total	**40**	**100.0%**

Data gathered from respondents shows that 45% indicated inaccurate initial cost estimation, 35% indicated unforeseen external factors (e.g., regulatory changes, economic shifts) and 20% indicated inefficient resource allocation and management practices.

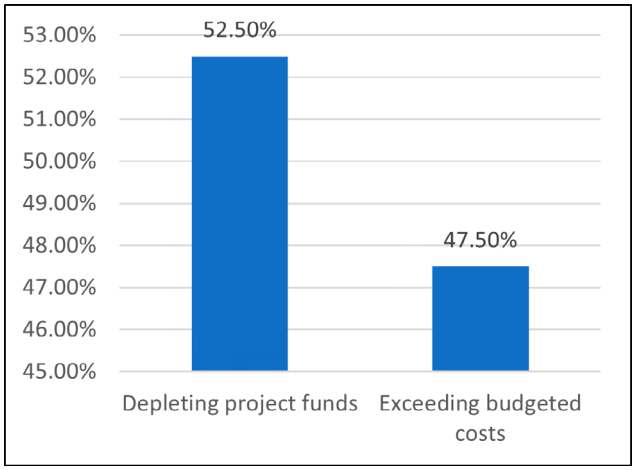

Figure 5. What are the effects of cost overruns on project budgets?

The study requested respondents to indicate the effects of cost overruns on project budgets. 52.5% of the majority respondent indicate depleting project funds and 47.5% of the respondent indicated exceeding budgeted costs.

Tables 5. What role do risk management practices play in mitigating the effects of cost overruns on project performance?

Response	Frequency	Percent
Assessing cost impact probabilities	7	17.5%
Identifying cost related risks	24	60.0%
Implementing risk mitigation strategies	9	22.5%
Total	**40**	**100.0%**

The study requested respondents to indicate the role of risk management practices in mitigating the effects of cost overruns on project performance. 60% of the majority respondent indicated identifying cost-related risks, 22.5% of the respondent to indicated implementing risk mitigation strategies and 17.5% of the respondent indicated assessing cost impact probabilities.

Table 6. What are the long-term consequences of cost overruns on organizational performance and reputation?

Response	Frequency	Percent
Budget contingency planning	11	27.5%
Risk management techniques	14	35.0%
Value engineering practices	15	37.5%
Total	**40**	**100.0%**

The study requested respondents to indicate the long-term consequences of cost overruns on organizational performance and reputation. 37.5% of the majority respondent indicated impairing financial stability, 35% of the respondent indicated hindering future project and 27.5% of the respondent indicated damaging brand credibility.

4.4. Effectiveness of project cost strategies on project management

Table 7. What are the key project cost strategies employed to mitigate cost overruns?

Response	Frequency	Percent
Budget contingency planning	11	27.5%
Risk management techniques	21	52.5%
Value engineering practices	8	20.0%
Total	**40**	**100.0%**

The study requested respondents to indicate the key project cost strategies employed to mitigate cost overruns. 52.5% of the majority respondent indicated Risk management techniques, 27.5% of the respondent indicated budget contingency planning and 20% of the respondent indicated value-engineering practices.

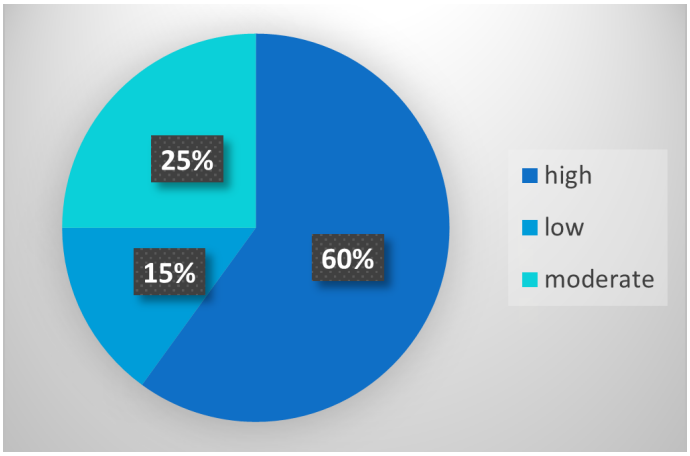

Figure 6. To what extent do stakeholder collaboration and communication influence the success of project cost strategies?

Data gathered from respondents shows that 60% indicated high, 25% indicated moderate and 15% indicated low.

Table 8. What are the main challenges faced in implementing project cost strategies to prevent overruns?

Response	Frequency	Percent
Inaccurate initial cost estimates	12	30.5%
Lack of stakeholder buy-in	10	25.5%
Scope creep	18	45.0%
Total	**40**	**100.0%**

The study requested respondents to indicate the main challenges faced in implementing project cost strategies to prevent overruns. 45% of the majority respondent indicated scope creep, 30% of the respondent indicated inaccurate initial cost estimates and 25% of the majority respondent indicated lack of stakeholder buy-in.

Table 9. What metrics are most effective in evaluating the success of project cost strategies in mitigating overruns?

Response	Frequency	Percent
Cost Performance Index (CPI)	11	27.5%
Management (EVM)	20	50.0%
Schedule Performance Index (SPI)	9	22.5%
Total	**40**	**100.0%**

The study requested respondents indicate most effective metrics in evaluating the success of project cost strategies in mitigating overruns. 50% of the majority respondent indicated earned value management (EVM), 27.5% of the respondent indicated cost performance index (CPI) and 22.5% of the respondent indicated schedule performance index (SPI).

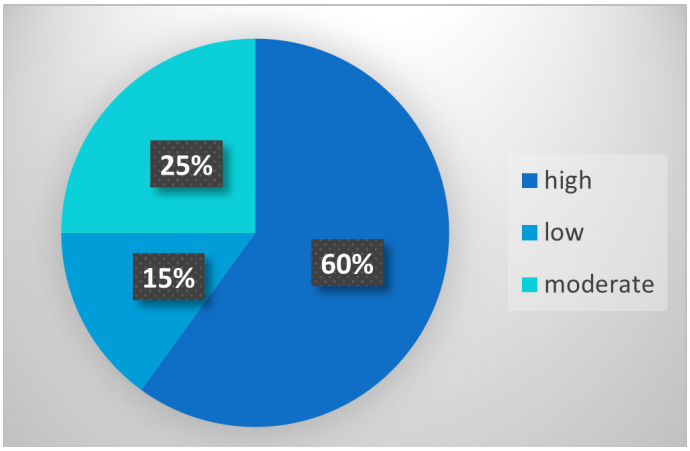

Figure 7. What are the effects of risk management practices on mitigating project cost overruns?

The study requested respondents to indicate the effects of risk management practices on mitigating project cost overruns. 42.5% of the majority respondent indicated risk monitoring and control, 32.5% of the respondent indicated risk identification and 25% of the respondent indicated risk response planning.

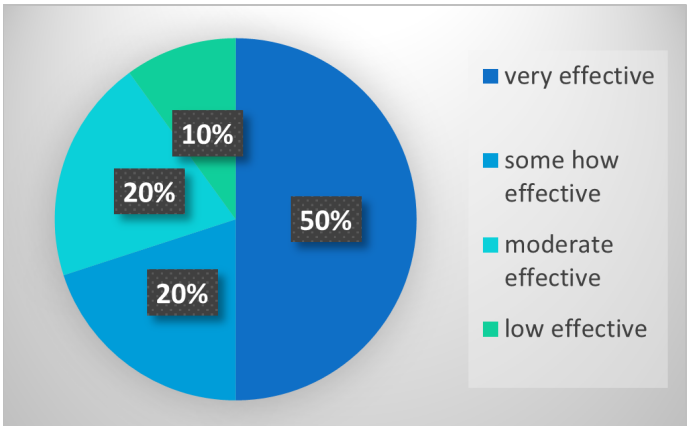

Figure 8. How effective is the project risk management process in identifying potential cost risks?

The study requested respondents to indicate how effective project risk management process is in identifying potential cost risks. 50% of the majority respondent indicated very effective, 20% of the respondent indicated somehow effective, 20% of the respondent indicated moderate and 10% of the respondent indicated low effective.

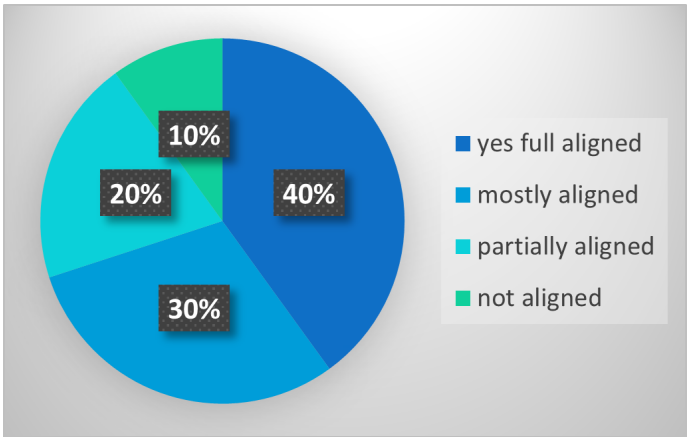

Figure 9. Are project costs aligned with organizational strategic objectives?

The study requested respondents if project costs are aligned with organizational strategic objectives. 40% of the majority respondent indicated yes full aligned, 30% of the respondent indicated mostly aligned, 20% of the respondent indicated partially aligned and 10% of the respondent indicated not aligned.

4.5. Discussions

4.5.1. Types of cost overruns on project management

A study on cost overruns in construction projects identified several key factors contributing to financial excesses. Notably, 50% of respondents cited poor project planning as the primary cause of overruns, emphasizing the importance of detailed and realistic planning to mitigate unexpected issues such as delays and unforeseen costs. Another 35% pointed to inefficient resource allocation, stressing the need for effective scheduling, procurement, and resource utilization. While 15% attributed overruns to minimal scope changes, it remains critical to manage even small alterations to the project scope. Regarding scope creep, 82.5% of respondents highlighted rigorous change control processes as a key factor in managing scope changes and costs, while 17.5% pointed to detailed project specifications as an important preventive measure. Moreover, 62.5% of respondents identified project execution costs as the most common overrun type due to unforeseen circumstances, followed by 22.5% attributing overruns to external factors. Inaccurate estimation was universally recognized as a contributor to overspending, with 100% agreement on its role in exacerbating cost overruns. Finally, 65% of respondents linked inadequate risk management to delays and increased costs, reinforcing the need for proactive risk mitigation strategies in construction projects.

4.5.2. Effects of cost overruns on project management

The study found that various factors contribute significantly to cost overruns in construction projects. A substantial 50% of respondents identified poor project planning as the primary cause of cost overruns, emphasizing the importance of thorough planning, including accurate risk assessments and detailed scheduling. Additionally, 35% of respondents attributed overruns to inefficient resource allocation, which leads to delays and cost inefficiencies. On the other hand, 15% of respondents cited minimal scope changes as a contributor, indicating that while scope changes can increase costs, they are not the most significant factor. When examining scope creep, 82.5% of respondents highlighted rigorous change control processes as critical in mitigating associated costs. Moreover, 62.5% of respondents reported that project execution costs, due to unforeseen circumstances during implementation, were the most common type of cost overrun. These findings also underscore that 100% of respondents agreed on the crucial role of accurate estimation in preventing overspending. Inadequate risk management, identified by 65% of respondents, was found to be a leading cause of project delays, further driving up costs. Effective risk management, including risk assessment, contingency planning, and proactive problem-solving, was highlighted as essential for keeping projects within budget and schedule, confirming the study's emphasis on proactive and strategic management practices to avoid cost overruns.

4.5.3. Effectiveness of project cost strategies on project management

The study provides comprehensive insights into the effectiveness of various project cost strategies in construction management, with a focus on the causes of cost overruns and mitigating practices. Poor project planning emerged as the leading cause, identified by 50% of respondents, emphasizing the critical need for detailed risk assessments, accurate budgeting, and realistic scheduling. Inefficient resource allocation was cited by 35% of respondents, highlighting the importance of effective procurement and labor management to prevent delays and excess costs.

Notably, 15% of respondents associated cost overruns with minimal scope changes, indicating that even small alterations can impact budgets if not managed properly. Furthermore, rigorous change control processes were recognized by 82.5% of participants as essential in controlling scope creep, underscoring their role in systematically managing modifications to prevent budget escalations. Additionally, 17.5% emphasized the importance of detailed project specifications in managing scope alterations. Unforeseen circumstances were identified as key contributors to project execution cost overruns by 62.5% of respondents. External factors such as economic conditions (22.5%) and force majeure events (15%) also played significant roles. Lastly, inadequate risk management, flagged by 65%, was found to lead to project delays and increased expenses, reinforcing the necessity for proactive strategies like contingency planning and continuous monitoring to enhance overall project outcomes.

5. CONCLUSIONS

The study on cost overruns in construction projects highlights several critical findings. Poor project planning was identified as the primary cause by 50% of respondents, emphasizing the necessity of thorough planning and accurate risk assessments. Inefficient resource allocation, cited by 35%, stresses the need for effective scheduling and resource utilization. Minimal scope changes, though noted by 15%, still necessitate careful management. Rigorous change control processes (82.5%) and detailed project specifications (17.5%) were identified as crucial in controlling scope creep. Project execution costs, linked to unforeseen circumstances, were the most common type of overrun (62.5%), followed by external factors (22.5%). All respondents (100%) agreed that inaccurate estimations exacerbate overruns, while 65% attributed delays and increased costs to inadequate risk management. These findings underscore the importance of proactive planning and strategic management practices in mitigating cost overruns.

REFERENCES

African Development Bank. (2019). *African Economic Outlook 2019: Infrastructure Development and Challenges*. AfDB.

Ahiaga-Dagbui, D., & Smith, S. (2020). Beyond Cost Overruns: Aligning Project Management with Sustainable Development Goals. *International Journal of Project Management, 38*(6), 789-803.

Aibinu, A. A., & Jagboro, G. O. (2002). The effects of construction delays on project delivery in Nigerian construction industry. *International Journal of Project Management, 20*(8), 593-599. https://doi.org/10.1016/SO263-7863(02)00028-5

Azis. N., Memon, A. H., Rahman , I. A., & Karim, A. T. A. (2013a). Controlling cost overrun factors in construction project in Malaysia Research. *Journal of Applied Sciences, Engineering and Technology, 5*(8), 2621-2629. https://doi.org/10.19026/rjaset.5.4706

Azis. N., Memon, A. H., Rahman , I. A., & Karim, A. T. A. (2013b). Cost management issues in public infrastructure projects in Malaysia. *International Journal of Project Management*.

Banda, L., & Chanda, M. (2020). Community resilience and adaptation strategies to cost overruns in mining projects: Insights from Zambia. *Resources Policy, 68*, 101718.

Banda, M., & Chanda, K. (2020). Assessing the role of cost management strategies in Zambia's mining sector. *African Journal of Economics and Sustainable Development.*

Banda, R., & Chanda, F. (2020). Mining Project Delays in Southern Africa: Causes and Socio-Economic Implications. *Mining and Development Quarterly, 15*(2), 45-60.

Creswell, J. W. (2014). *Research design: Qualitative, quantitative, and mixed methods approaches* (4th ed.). SAGE Publication.

Crossett, J., & Hines, L. (2007). Comparing State DOTs' Construction Project Cost and Schedule Performance: 28 Best Practices from Nine States. *Final Report Project* (pp. 20-24). TransTech Management, Washington D.C. 2007. http://onlinepubs.trb.org/onlinepubs/archive/NotesDocs/20-24(37)A_FR.pdf.

Dwamena, B., & Darko, B. O. (2020). The impact of improved feasibility studies on cost control in Ghanaian mining projects. *Journal of African Business, 21*(1), 103-123.

Flyvbjerg, B. (2018). *Planning Fallacy and Optimism Bias in Major Projects: The Big Risk.*

Flyvbjerg, B., Bruzelius, N., & Rothengatter, W. (2003). *Megaprojects and Risk: An Anatomy of Ambition.* Cambridge University Press.

Hughes, J., & Mlambo, P. (2019). Mining Governance and Economic Growth in Sub-Saharan Africa. *Governance in Extractives Review, 8*(4), 101-121.

Hughes, W., Hillebrandt, P., & Greenwood, D. (2012). *Managing the costs of projects: A critical perspective on the UK construction industry.* Wiley-Blackwell.

Kimambo I. N. (2003). *The Management of roads in Tanzania: a daunting task.*

Lewis, P., & Thornhill, A. (2015). *Research methods for business students* (7th ed.). Pearson

Love, P. E. D. (2016). Rework in Projects: Causes and Mitigation. *Journal of Construction Engineering and Management, 142*(4), 04015095.

Morris, P. W. G., Pinto, J. K., & Söderlund, J. (2012). *The Oxford Handbook of Project Management.* Oxford University Press. https://doi.org/10.1093/oxfordhb/9780199563142.001.0001.

Muriithi, N., & Crawford, L. (2003). Approaches to project management in Africa: A study of Kenya's construction sector. *International Journal of Project Management, 21*(5), 369-379. https://doi.org/10.1016/SO263-7863(02)00094-7

Newman, W. C. (2014). *Social research methods: Qualitative and Quantitative approaches* (7th ed.). Pearson.

PMBOK Guide. (2013). *A Guide to the Project Management Body of Knowledge* (5th ed.). Project Management Institute.

Project Management Institute (PMI). (2020). *Pulse of the Profession: A deep dive into scope creep.* PMI's official reports.

Project Management Institute (PMI). (2020). *Pulse of the Profession: Success in Disruptive Times.* PMI Research.

Sekaran, U., & Bougie, R. (2016). *Research methods for business: A skill-building approach.* John Wiley & Sons.

Tashakkori, A., & Teddie, C. (2003). *Handbook of mixed methods in social & behavioral research.* Saga Publications.

United Nations. (2015). *Transforming Our World: The 2030 Agenda for Sustainable Development.*

Wandera, F. M. (2018). Impact of currency fluctuations on construction costs in developing countries. *International Journal of Construction Management.*

Yin, R. K. (2014). *Case study research: design and methods* (5th ed.). Sage Publication.

Zambia Chamber of Mines. (2021). *Economic impact of mining project delays on Zambia's development.*