Jurnal Manajemen dan Teknologi Informasi (JMTI)
Volume 16, Issue 01, 2026, pp. 24-35
ISSN 2721-7604 (Online); ISSN 2087-5312 (Print)
DOI: 10.59819

PROJECT MANAGEMENT CHALLENGES IN PUBLIC SECTOR IT: A CASE STUDY IN PALU

Mutia Sayyidah[*1], Teguh Raharjo[2], Ni Wayan Trisnawaty[3]
[1]Universitas Indonesia, Jakarta, Indonesia; mutia.sayyidah@gmail.com
[2]Universitas Indonesia, Jakarta, Indonesia; teguhr2000@gmail.com
[3]Universitas Indonesia, Jakarta, Indonesia; niwayan.trisnawaty@gmail.com
Corresponding author; mutia.sayyidah@gmail.com

ARTICLE INFO
Article history
Received December 01, 2025
Revised April 20, 2026
Accepted April 28, 2026
Available online April 30, 2026

Keyword: Public sector IT, Stakeholder engagement, PMBOK, E-government

Abstract. Public sector IT projects frequently encounter challenges that impede successful delivery, especially in decentralised environments. This study explores the key project management issues that emerged during the development of the Kelurahan Cantik (Smart Statistical Village) website in Palu, Indonesia. Employing a mixed-method case study, we combined the PMBOK 7th Edition framework with empirical ICT project failure factors to evaluate the project's planning and execution. Quantitative data were collected through a structured Likert-scale questionnaire completed by 30 respondents involved in the project, while qualitative insights were drawn from document analysis. The findings highlight critical gaps in stakeholder engagement, project monitoring, and leadership support, along with inadequate user preparation and technological misalignment. These issues significantly affected project outcomes, particularly in terms of system utilisation and benefit realisation. This study offers practical recommendations for strengthening governance, planning, and stakeholder coordination in future local government IT initiatives.

INTRODUCTION

Digital transformation extending to the level of local governments has become a key driver of innovation to enhance service quality, transparency, and citizen participation (Palvia et al., 2021). Governments worldwide have adopted e-government strategies to digitise services and improve administrative efficiency. At the local government level in Indonesia, one such initiative is the "Kelurahan Cantik" (Smart Statistical Village) programme, which aims to empower sub-district offices (kelurahan) to utilise statistical data for better governance and to modernise the delivery of public services. This programme represents the commitment of Statistics Indonesia (BPS) in its role to foster sectoral statistics, as mandated by Law No. 16 of 1997 on Statistics (*UU_Nomor_16_Tahun_1997_tentang_Statistik_1726565451*, n.d.).

Despite increasing emphasis on digital transformation, public sector IT projects frequently encounter significant delays, cost overruns, or even total failure. Studies suggest that these challenges are typically rooted in a combination of insufficient stakeholder engagement, ineffective planning, technical misalignments, and a lack of institutional readiness (Liana et

al., 2023; Mekawie & Yehia, 2021; Waheeb et al., 2023). These issues are further compounded in decentralised systems where project governance can vary significantly across regions (Nyansiro et al., 2021).

The development of the Kelurahan Cantik website in Palu, Indonesia, exemplifies such difficulties. Preliminary observations and project documentation reveal several implementation issues, including weak coordination of stakeholder requirements, unclear change control processes, limited risk mitigation efforts, and technology mismatches (Kampermann et al., 2021; Schmidt, 2023). These symptoms reflect a broader gap between the aspirations of national digital policies and the actual implementation capacity at the local government level (Sarantis & Askounis, n.d.; Yu-Chih Liu, n.d.).

Previous research on IT project failure has identified a range of critical success and failure factors. The PMBOK framework offers a widely accepted standard for managing projects through knowledge areas such as scope, time, cost, quality, and stakeholder engagement. However, empirical studies argue that relying solely on formal frameworks is insufficient without addressing contextual and behavioural factors such as communication breakdowns, user resistance, and ambiguous role definitions (Altahtooh & Emsley, 2014; Zamzami et al., n.d.).

To address these issues, this study integrates a formal framework (PMBOK) (*A Guide to the Project Management Body of Knowledge (PMBOK® Guide) : Seventh Edition and The Standard for Project Management*, 2021) with practical insights drawn from prior empirical studies on ICT project failures. The aim is to conduct a critical evaluation of project management practices applied in the development of the Kelurahan Cantik website and to identify key factors influencing its outcomes
This study addresses the following research question:

"What are the key project management challenges in the development of public sector IT systems, as illustrated by the Kelurahan Cantik website in Palu?"

The main objectives of this research are threefold. First, it aims to identify and analyse the project management problems encountered during the implementation of the Kelurahan Cantik website. Second, the study seeks to assess the project by applying both the PMBOK framework and empirical failure factors identified in previous ICT project research. Lastly, it aims to provide practical recommendations for improving the execution of public IT projects in similar contexts, particularly within decentralised governance settings.

The scope of this study focuses on the project lifecycle—from planning to post-implementation—of the Kelurahan Cantik website in one local government area. The remainder of this paper is structured as follows: Section 2 reviews the relevant literature and theoretical framework; Section 3 outlines the research methodology; Section 4 presents the results and discussion; and Section 5 concludes with key findings and recommendations.

LITERATURE REVIEW

A. Project Management in the Public Sector

Public sector IT projects, particularly in developing countries, frequently encounter structural and managerial constraints that hinder successful implementation. [6] introduced the concept of the "design–reality gap," which describes the misalignment between project design and the institutional realities within which projects operate—often leading to underperformance

or outright failure. This gap is exacerbated by issues such as limited stakeholder engagement, insufficient digital infrastructure, and bureaucratic resistance to change. These conditions are especially prevalent in decentralised governance systems where capacity and governance maturity vary across regions.

B. Project Management Framework: PMBOK

The Project Management Body of Knowledge (PMBOK), developed by the Project Management Institute (PMI), remains one of the most widely used frameworks for managing complex projects (*A Guide to the Project Management Body of Knowledge (PMBOK® Guide) : Seventh Edition and The Standard for Project Management*, 2021). The 7th Edition of PMBOK introduces a shift from process-based knowledge areas to eight performance domains, namely: Stakeholder, Team, Development Approach and Life Cycle, Planning, Project Work, Delivery, Measurement, and Uncertainty. This study selectively focuses on domains most relevant to the context of digital transformation at the local government level. These include Stakeholder Engagement, Team Collaboration, Development Approach and Technology, Planning, Delivery, Monitoring, and Risk and Executive Support. These domains serve as the theoretical lens for assessing the planning, execution, and evaluation of the Kelurahan Cantik website development project.

C. Empirical Failure Factors in ICT Projects

While PMBOK provides a structured approach, several empirical studies argue that formal frameworks alone are insufficient to capture the contextual and behavioural dynamics of public IT projects. (Liana et al., 2023) identified critical factors contributing to ICT project failure in the public sector, particularly in developing regions. These include the absence of strong top management support, limited stakeholder involvement, rigid procurement and contract mechanisms, misalignment of selected technologies with user readiness, and a lack of feasibility assessments or process modelling. These empirically grounded dimensions offer practical insights into the causes of project failure that are often overlooked in standard methodologies such as PMBOK.

D. Conceptual Framework

To address the complexity of public sector IT project management, this study employs an integrated conceptual framework that bridges the gap between formal project management standards and empirical evidence of project failure. Specifically, the framework combines selected performance domains from the PMBOK 7th Edition with empirical failure factors identified by Liana et al. (2022), which are commonly encountered in ICT projects within developing countries.

This hybrid approach enhances the analytical depth of the study by contextualising normative guidelines within the realities of public sector project implementation. The framework serves a dual function: it informs the design of the research instrument (questionnaire) and provides a structured lens for interpreting the results of the Kelurahan Cantik case study. By doing so, it enables a more comprehensive and realistic evaluation of the project's strengths and shortcomings.

Figure 1 illustrates the conceptual alignment between PMBOK performance domains and the corresponding failure factors documented in the literature. Each domain is matched with one or more empirically derived risks, thereby reinforcing the relevance of both theoretical and practical perspectives in analysing project performance.

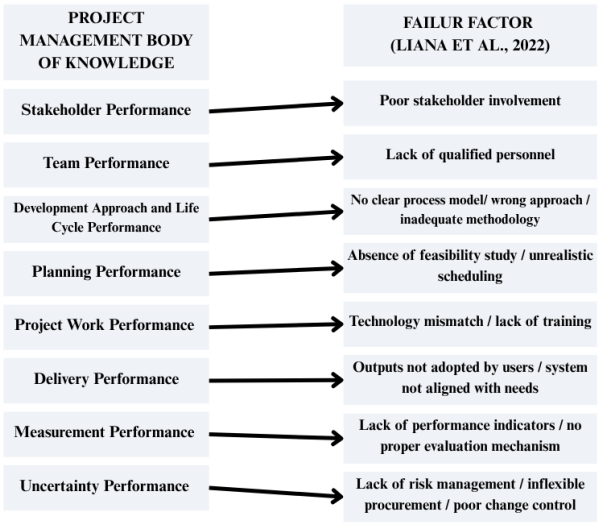

Figure 1. Mapping of PMBOK 7 Performance Domains with Failure Factors in ICT Projects (Liana et al., 2022)

To operationalise this conceptual integration, the study adopts a structured thinking framework (Figure 2) that connects the theoretical constructs to the stages of data collection, analysis, and interpretation. The seven selected project management domains—Stakeholder Engagement, Project Outcomes, Team and Organisational Support, Leadership and Risk Management, Execution and Monitoring, Planning, and Development Method and Technology—serve as the foundation for constructing a Likert-scale questionnaire instrument. The instrument is subjected to both validity and reliability testing to ensure its accuracy and internal consistency.

Following data collection, responses are analysed using a three-tiered statistical approach: descriptive statistics provide an overview of perceptions across domains, correlation analysis explores the relationships between variables, and regression analysis identifies which factors most significantly influence project outcomes. The results are then interpreted through the lens of the integrated framework, allowing the study to identify dominant project challenges and key relational patterns between management domains. These findings form the basis for practical recommendations aimed at improving future public IT project implementation, particularly in decentralised or under-resourced governance contexts.

Figure 2 illustrates the research flow, connecting the domain selection, instrument testing, statistical methods, and interpretive processes in a coherent analytical structure

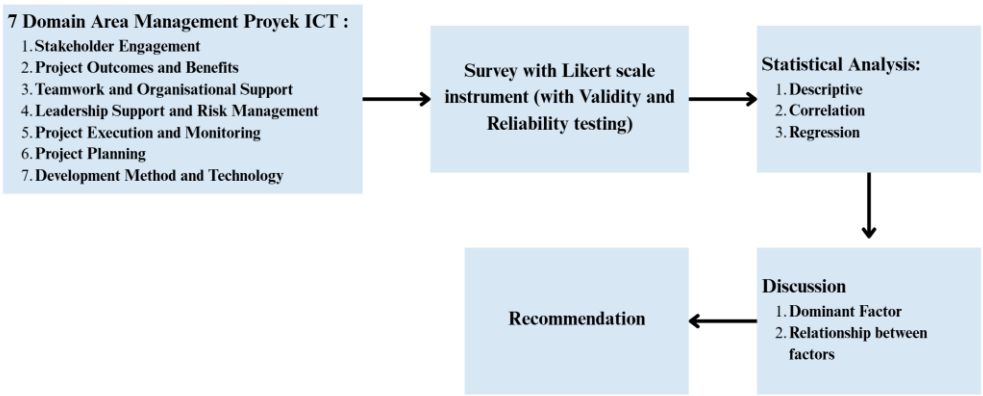

Figure 2. Conceptual Flow of the Research Framework

RESEARCH METHODOLOGY

This study adopts a mixed-method case study approach to examine project management challenges in the development of the Kelurahan Cantik website in Palu, Indonesia. The quantitative component involved structured responses from stakeholders using a Likert-scale questionnaire, while the qualitative component provided contextual depth through document analysis to understand organisational dynamics and implementation nuances.

A. Data Collection Techniques

Data Data for this study were collected through two primary techniques. First, a quantitative survey was conducted using a structured questionnaire that was developed based on selected performance domains from the PMBOK 7th Edition and empirical failure factors derived from previous ICT project studies. The questionnaire was distributed to individuals directly or indirectly involved in the project, including technical staff, system users, and relevant stakeholders. Second, a document analysis was conducted on project-related materials such as planning files, meeting minutes, and implementation reports to identify inconsistencies, risk areas, and key decision points throughout the project lifecycle.

B. Sample and Respondents

Respondents in this study were drawn from three key stakeholder groups: (1) project team members, including local government officials and vendors; (2) system users, such as administrative staff within the Kelurahan; and (3) supervisory stakeholders, including representatives from BPS (Statistics Indonesia) and city government. In total, 30 valid responses were collected. The Slovin formula was applied to determine the minimum sample size required to ensure representativeness while accounting for a limited population.

C. Data Analysis Techniques

The collected data were analysed using several complementary techniques. Descriptive statistics were applied to summarise Likert-scale responses and evaluate trends across each PMBOK domain. To ensure internal consistency, a reliability test using Cronbach's Alpha was conducted on each domain indicator set. Furthermore, linear regression analysis was used to examine the relationship between selected project management factors and the perceived success of the project. For the qualitative data, a thematic analysis was performed on the document content and open-ended survey responses to identify context-specific barriers and supporting factors not captured quantitatively.

D. Framework Used

This The analytical foundation of this study is a hybrid framework that integrates two components. The first is the PMBOK 7th Edition, which provides a standardised structure for evaluating project management processes. The second is an empirical model of ICT project failure factors, adapted from Liana et al. (2022), which introduces practical insights into real-world risks commonly encountered in public sector IT initiatives. This combined framework enables a comprehensive and balanced assessment of both ideal project management practices and grounded implementation realities.

RESULTS AND DISCUSSION

To answer the research question, this section presents the key project management challenges identified in the development of the Kelurahan Cantik website, based on both quantitative findings and contextual analysis. The results are discussed in relation to the PMBOK framework and relevant empirical studies to highlight critical issues affecting project execution.

A. Instrument Testing

Before conducting the main analysis, the questionnaire instrument underwent testing to ensure its validity and reliability. A total of 44 items were initially included in the instrument, designed to measure multiple domains of project management performance and failure factors. To test the construct validity, we performed a correlation analysis between each item score and its corresponding total score (corrected item-total correlation). Based on the commonly used threshold of $r > 0.30$, 43 out of 44 items were deemed valid, while 1 item failed to meet the validity criteria and was subsequently removed from further analysis.

In addition, a reliability analysis was conducted using Cronbach's Alpha to measure internal consistency across the entire questionnaire. The resulting coefficient was 0.981, which indicates excellent reliability, exceeding the standard threshold of 0.70 and even the higher benchmark of 0.90 for research instruments. These results confirm that the final instrument—consisting of 43 valid items—is both valid and highly reliable for assessing perceptions related to project management practices and risk factors in the Kelurahan Cantik website development project.

B. Survey Results

A total of 30 respondents completed the questionnaire. The participants represented a variety of roles, including project team members, end users at the sub-district (kelurahan) level, and supervisory stakeholders such as local government staff and statistical officers. Responses were collected using a five-point Likert scale to assess perceptions of various project management domains.

Table 1. Distribution of Respondent Ratings on Project Management Domains Based on Likert Scale (1–5)

Domain	Skala Likert				
	1	2	3	4	5
Stakeholder Engagement	0,00%	2,22%	22,78%	61,11%	13,89%
Teamwork and Organisational Support	0,42%	10,42%	30,42%	47,50%	11,25%
Development Method and Technology	0,83%	20,00%	35,00%	38,33%	5,83%
Project Planning	1,33%	22,67%	26,67%	43,33%	6,00%
Project Execution and Monitoring	0,00%	19,44%	36,11%	37,78%	6,67%
Leadership Support and Risk Managem	0,00%	15,00%	36,11%	43,33%	5,56%
Project Outcomes and Benefits	0,42%	0,83%	25,00%	65,00%	8,75%

Table 1 presents the percentage distribution of Likert-scale responses (1–5) across all seven project management domains. This breakdown allows for a deeper understanding of respondent sentiment and variation in perceptions.

The domain Stakeholder Engagement shows the highest concentration of agreement, with 61.11% selecting "Agree" (scale 4) and 13.89% "Strongly Agree" (scale 5), indicating a positive perception regarding the involvement of relevant parties. Similarly, Project Outcomes and Benefits received a combined 73.75% agreement, with the majority (65%) strongly agreeing that the project delivered useful results. This supports its highest average score (3.81) in previous analysis.

On the other hand, several domains show a more mixed or neutral perception:

- Development Method and Technology: While 38.33% agreed, 35% selected "Neutral", and 20% chose "Disagree" (scale 2), suggesting that many respondents were uncertain or dissatisfied with the technical methodology used.
- Project Planning and Leadership Support also had over 36% neutral responses, which could reflect insufficient visibility or clarity in these areas during implementation.

Domains such as Execution and Monitoring and Team Collaboration also show a notable proportion of respondents who remained neutral or disagreed, indicating a need for deeper focus on implementation procedures and coordination quality.

The data reinforces earlier conclusions that, although stakeholder involvement and output usefulness are seen positively, technical approach, planning clarity, and execution consistency remain areas of concern. It also suggests that future improvement efforts should focus on reducing ambiguity and increasing engagement across all roles during project execution

The average scores for each domain are presented in Figure 2, which displays a side-by-side comparison of the mean ratings across seven key areas of project performance. The domain of Stakeholder Engagement received the highest average score (3.87), followed closely by Outcome Usefulness (3.81), indicating that the end users perceived the project results as valuable and relevant. On the other hand, the lowest scores were observed in Development Approach & Technology (3.28) and Planning Quality (3.30), suggesting concerns about the appropriateness of the technical methods used and the clarity or completeness of the planning process.

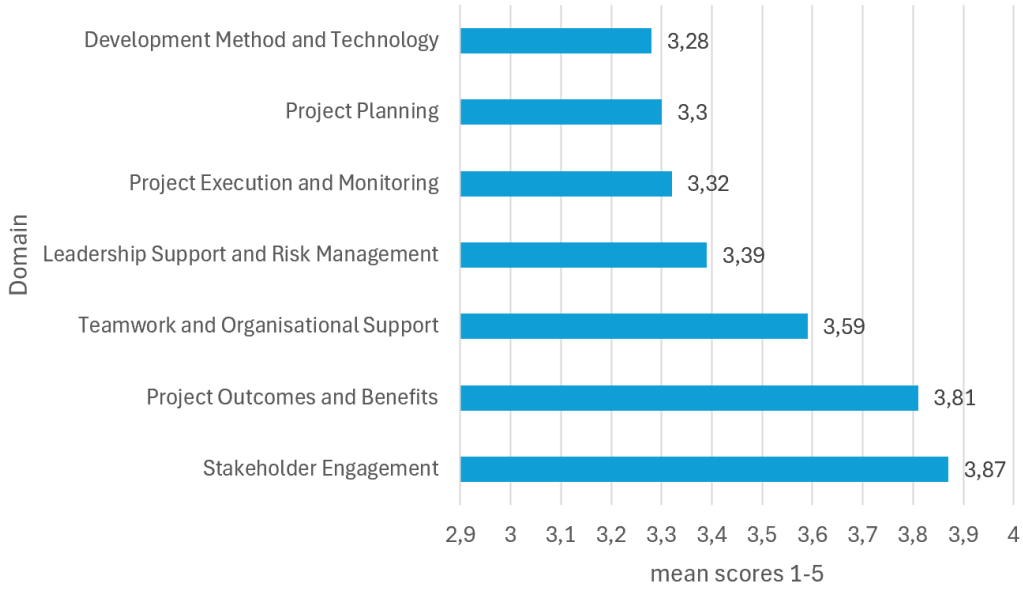

Figure 3 Comparison of Average Scores by ICT Project Domain

To explore the relationships between project management domains, a Pearson correlation analysis was conducted using the mean scores from each domain. The resulting correlation matrix is visualised in Figure 2, which highlights the strength and direction of association between variables.

As shown in the heatmap, most domains are strongly and positively correlated ($r > 0.80$), indicating a high degree of interdependence across project performance factors. For example, the strongest correlation is observed between Planning Quality and Development Approach & Technology ($r = 0.92$), followed by Planning and Execution ($r = 0.91$). This

suggests that well-structured planning processes are closely linked to the appropriateness of development methods and the successful execution of project activities.

Another notable relationship exists between Team Collaboration and Outcome Usefulness (r = 0.85), implying that collaborative team environments contribute meaningfully to the perceived benefits of the project. Similarly, Support from leadership and Risk Management shows strong correlations with both Execution (r = 0.79) and Outcome (r = 0.83), reaffirming the importance of executive support in achieving both operational and strategic success.

On the other hand, Stakeholder Engagement exhibits relatively weaker correlations compared to other domains (r = 0.55–0.71), suggesting that stakeholder involvement alone may not directly influence outcome perception unless it is effectively integrated into team processes and planning mechanisms.

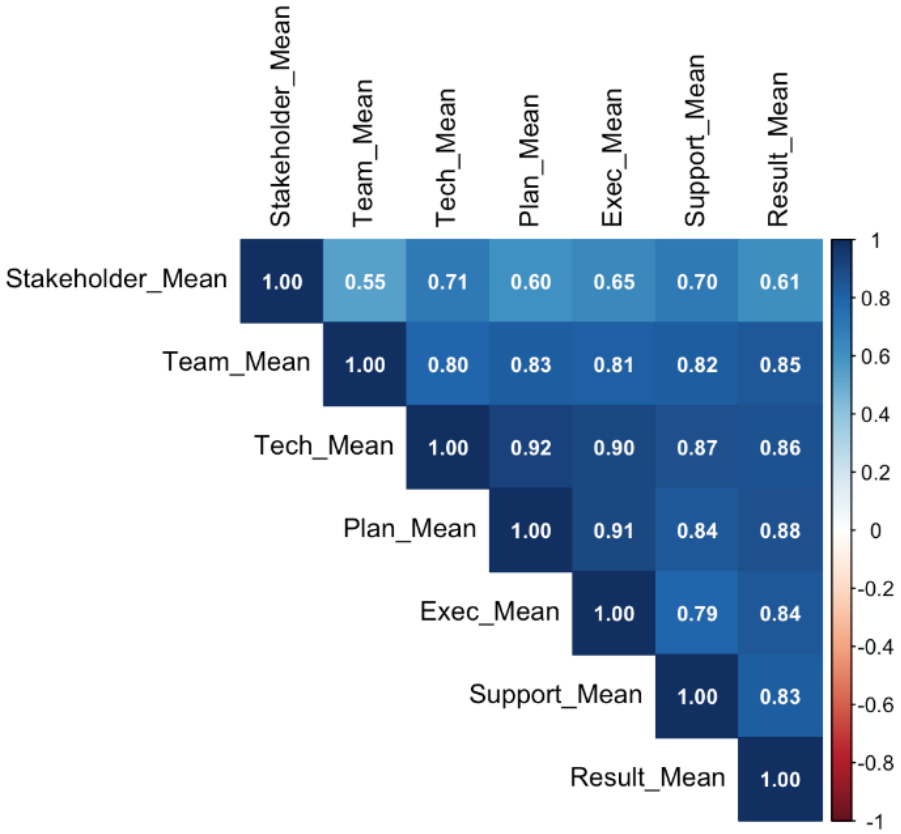

Figure 4 Heatmap of Pearson correlation matrix between PMBOK domain scores and perceived project outcomes.

These findings provide empirical support for the assumption that project success is a cumulative result of well-aligned and mutually reinforcing domains, particularly in planning, execution, teamwork, and leadership. The correlations validate that improvements in any one domain—especially planning or technological approach—are likely to have a positive cascading effect on others, ultimately enhancing the usefulness and impact of public IT projects.

The evidence also reinforces the need for a holistic and integrated project management approach, consistent with the PMBOK framework and supported by empirical ICT failure factors.
In addition to identifying the dominant predictors through regression analysis, a correlation analysis was conducted to further examine the strength and direction of relationships among the project management domains and their connection to perceived outcomes. The resulting heatmap (Figure 4) visualises the interdependence between domains and their collective influence on project success.

These findings provide empirical support for the assumption that project success is a cumulative result of well-aligned and mutually reinforcing domains. Figure 5 shows the Model Summary of the multiple linear regression analysis conducted to determine the extent to which project management domains influence the perceived success of the Kelurahan Cantik website initiative. In this model, the dependent variable was Outcome Usefulness, representing the degree to which the system was perceived as beneficial and aligned with user needs. The independent variables included six PMBOK-based domains: Stakeholder Engagement, Team Collaboration, Development Approach and Technology, Planning Quality, Execution and Monitoring, and Leadership Support and Risk Management.

Model Summary[b]

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.842[a]	.710	.634	.26258

Figure 5. Model Summary of Multiple Linear Regression

The model yielded a correlation coefficient (R) of 0.842, indicating a strong positive relationship between the combined predictors (i.e., planning, execution, team collaboration, leadership, etc.) and the outcome variable, Outcome Usefulness. Furthermore, the R Square value of 0.710 suggests that approximately 71% of the variance in project success can be explained by the selected independent variables. This implies a high explanatory power of the model in capturing the key drivers of successful ICT project implementation in the public sector.

The Adjusted R Square value of 0.634 confirms the model's robustness even after adjusting for the number of predictors, thus minimising the risk of overfitting. The Standard Error of the Estimate was 0.26258, indicating that the model's predictions are, on average, close to the actual values reported by respondents.

These results demonstrate that the selected PMBOK-based domains collectively provide a reliable model for predicting perceived project success, and they justify the use of these domains as the foundation for performance assessment and improvement recommendations.

ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	3.875	6	.646	9.366	<,001[b]
	Residual	1.586	23	.069		
	Total	5.460	29			

Figure 6. ANOVA Summary Table Showing Overall Significance of the Regression Model

The ANOVA table presented in Figure Y provides further statistical confirmation of the model's validity. The regression model achieved an F-value of 9.366 with a significance level (Sig.) of less than 0.001, indicating that the model is statistically significant. This result means that the set of independent variables—comprising Stakeholder Engagement, Team Collaboration, Development Approach and Technology, Planning Quality, Execution and Monitoring, and Leadership Support and Risk Management—collectively have a meaningful impact on the dependent variable, Outcome Usefulness.

The breakdown of the Sum of Squares shows that the majority of the variance in project outcome perceptions (3.875 out of a total 5.460) is attributable to the regression model, while the residual (unexplained variance) is relatively small (1.586). The Mean Square values reflect this distribution, with the model explaining substantially more variance per degree of freedom (0.646) compared to the residual variance (0.069).
Together with the high R^2 value from the Model Summary, this ANOVA result supports the conclusion that the model not only fits the data well but also that the relationship between the predictors and outcome is unlikely to be due to chance

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	95,0% Confidence Interval for B	
		B	Std. Error	Beta			Lower Bound	Upper Bound
1	(Constant)	1,848	0,430		4,296	0,000	0,958	2,738
	Stakeholde	0,075	0,152	0,082	0,491	0,628	-0,240	0,390
	Teamwork	0,134	0,199	0,198	0,674	0,507	-0,277	0,546
	Developme	0,113	0,285	0,203	0,397	0,695	-0,477	0,704
	Project Pla	0,085	0,195	0,161	0,438	0,666	-0,318	0,488
	Project Exe	0,046	0,247	0,079	0,185	0,855	-0,466	0,557
	Leadership	0,114	0,207	0,172	0,548	0,589	-0,315	0,542

a. Dependent Variable: Project Outcomes and Benefits

Figure 7. Coefficients Table Showing the Relative Influence of Each Project Management Domain on Outcome Usefulness

To further examine the contribution of each project management domain to the perceived project success (Outcome Usefulness), a coefficient analysis was performed. The results are summarised in Figure Z, which presents both unstandardised and standardised coefficients along with their respective significance levels.

From the Standardised Beta coefficients, the three domains with the largest relative influence on the dependent variable are:

- Development Approach and Technology ($\beta = 0.203$)
- Teamwork and Organisational Support ($\beta = 0.198$)

- Leadership Support and Risk Management ($\beta = 0.172$)

These values suggest that improvements in these domains are more strongly associated with enhanced perceptions of outcome usefulness, compared to the other predictors. However, it is important to note that none of the predictors are statistically significant at $p < 0.05$, with all Sig. values ranging between 0.507 and 0.855. This means that individually, the effect of each variable is not statistically distinguishable from zero in this model.
This lack of statistical significance could be due to:

- The small sample size ($n = 30$), which limits statistical power,
- Multicollinearity among the predictors (as seen in high inter-correlations),
- Or the possibility that outcome perceptions are shaped by the collective rather than individual effect of domains.

Nonetheless, the direction and strength of the Beta values are useful for identifying which areas deserve attention. For example, although Stakeholder Engagement had the weakest Beta (0.082) and was far from significant ($p = 0.628$), Development and Teamwork still show relatively meaningful patterns in influencing perceived outcomes.

CONCLUSION

This study explored the project management challenges encountered during the development of the Kelurahan Cantik website in Palu, Indonesia, by employing a mixed-method approach grounded in the PMBOK 7th Edition and supported by empirical failure factors from prior ICT project research. The findings revealed that while stakeholders generally perceived the project outcome as beneficial, several management domains—particularly those related to planning, risk mitigation, and technological adaptation—were rated less favourably.

Correlation analysis demonstrated strong interdependencies among project management domains, especially between planning, execution, teamwork, and leadership support. These relationships reinforce the importance of a well-integrated and collaborative approach to managing public sector IT projects, particularly within decentralised governance contexts. The use of an integrated conceptual framework proved valuable in highlighting both systemic and context-specific project shortcomings.

Despite its contributions, this study has several limitations. First, the sample size was relatively small ($n = 30$), constrained by the limited number of stakeholders directly involved in the project. Second, the study focused on a single case within one city, which may limit the generalisability of the findings to other local governments with different capacities or governance structures. Third, the use of self-reported data through surveys may introduce bias due to perception-based responses rather than objective performance metrics.

Future research could address these limitations by conducting multi-case comparative studies across different regions or tiers of government to uncover broader patterns of success and failure in digital transformation initiatives. Longitudinal studies could also be designed to track the evolution of e-government systems and assess long-term sustainability and user adoption. Furthermore, integrating project analytics, system usage logs, or third-party evaluations could provide a more robust validation of project performance beyond stakeholder perception.

DAFTAR PUSTAKA

A Guide to the Project Management Body of Knowledge (PMBOK® Guide) : Seventh Edition and The Standard for Project Management. (2021). Project Management Institute, Inc.

Altahtooh, U. A., & Emsley, M. W. (2014). Is a challenged project one of the final outcomes for an IT project? *Proceedings of the Annual Hawaii International Conference on System Sciences*, 4296–4304. https://doi.org/10.1109/HICSS.2014.531

Kampermann, A., Opdenakker, R., Van der Heijden, B., & Bücker, J. (2021). Intercultural competencies for fostering technology-mediated collaboration in developing countries. *Sustainability (Switzerland)*, *13*(14). https://doi.org/10.3390/su13147790

Liana, D. Y., Mazana, M. M. Y., & Hamisi, M. (2023). Factors Leading the Failure of ICT Project Management in the Public Sectors in Tanzania. *European Journal of Theoretical and Applied Sciences*, *1*(4), 788–798. https://doi.org/10.59324/ejtas.2023.1(4).72

Mekawie, N., & Yehia, K. (2021). Challenges of deploying cloud computing in eHealth. *Procedia Computer Science*, *181*, 1049–1057. https://doi.org/10.1016/j.procs.2021.01.300

Nyansiro, J. B., Mtebe, J. S., & Kissaka, M. M. (2021). E-Government Information Systems (IS) Project Failure in Developing Countries: Lessons from the Literature. *The African Journal of Information and Communication*, *28*. https://doi.org/10.23962/10539/32210

Palvia, P., Ghosh, J., Jacks, T., & Serenko, A. (2021). Information technology issues and challenges of the globe: the world IT project. *Information and Management*, *58*(8). https://doi.org/10.1016/j.im.2021.103545

Sarantis, D., & Askounis, D. (n.d.). *Critical Appraisal on Project Management Approaches in e-Govemment*.

Schmidt, J. (2023). Mitigating risk of failure in information technology projects: Causes and mechanisms. *Project Leadership and Society*, *4*. https://doi.org/10.1016/j.plas.2023.100097

UU_Nomor_16_Tahun_1997_tentang_Statistik_1726565451. (n.d.).

Waheeb, R. A., Wheib, K. A., Andersen, B. S., & Al-Suhiili, R. (2023). Impact of Pandemic SARS COVID-19 on Different Construction Project Management: Problems and Solutions. *Public Works Management and Policy*, *28*(3), 306–338. https://doi.org/10.1177/1087724X221113579

Yu-Chih Liu, J. (n.d.). Differences Between Clients' and Vendors' Perceptions of IT Outsourcing Risks: Project Partnering as the Mitigation Approach. *Project Management Journal*, *47*(1), 45–58. https://doi.org/10.1002/pmj

Zamzami, I. F., Hayiyusoh, N. U.-A., Phoesalaeh, B., Hamith, A., & Dhalan, A. (n.d.). *Evaluating the Success Factors of Information System (IS) Case Study of Malaysian Public Sector*.