

Project Managers' Knowledge And Project Success Of Hargeisa Water Agency, Somaliland

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Abstract: *This study investigated the relationship between project managers' knowledge and project success at the Hargeisa Water Agency (HWA) in Somaliland. Guided by Contingency Theory, the research tested the null hypothesis that no significant relationship exists between these variables. An explanatory sequential mixed-methods design was employed. Quantitative data were collected from 186 respondents via questionnaires, and qualitative insights were gathered through interviews with eight participants. The data were analyzed using descriptive statistics and Pearson's correlation coefficient. The findings revealed a very high level of stakeholder agreement (Composite Mean = 4.23) on the critical importance of project managers' knowledge. The correlation analysis demonstrated a strong, positive, and statistically significant relationship between project managers' knowledge and project success ($r = .685$, $p = .000$), leading to the rejection of the null hypothesis. The results validated Contingency Theory, indicating that project success was not driven by generic knowledge but by managers' context-specific, or contingent, knowledge—particularly their ability to navigate external stakeholder landscapes, adapt to local constraints, and make judicious decisions within the unique socio-economic and environmental context of Hargeisa. The study concluded that enhancing this contingent knowledge is fundamental to improving project outcomes. It recommended targeted training, revisions to human resource policies, and dedicated funding for capacity building to strengthen project performance and water service delivery.*

Keywords: Project managers' knowledge; project success; Contingency Theory; Hargeisa Water Agency; Somaliland; mixed-methods.

1. INTRODUCTION

In the contemporary landscape of public infrastructure and development, the effective execution of projects is paramount for achieving socio-economic objectives and meeting the essential needs of growing urban populations. This is particularly critical in the water sector, where projects are often complex, capital-intensive, and have a direct impact on public health and economic stability. The success of such projects is invariably linked to the competence of those who lead them. Within this context, the role of the project manager emerges as a critical success factor, with their knowledge base being a fundamental component of their ability to navigate technical challenges, manage stakeholders, and deliver on project objectives. As affirmed by recent research, the technical and managerial knowledge of project leaders is a primary determinant in overcoming project complexities and achieving desired outcomes (Almeida, 2023).

The significance of managerial knowledge is even more pronounced in post-conflict and developing regions, where institutional capacities may be nascent and resources are severely constrained. Somaliland, and specifically its capital Hargeisa, presents a compelling case study. The Hargeisa Water Agency (HWA) has the critical mandate of ensuring a reliable and safe water supply for the city's inhabitants, a task that involves undertaking complex projects in a challenging environment. The success of these projects is not merely a matter of administrative record but is directly tied to the public welfare and sustainable development of the region. However, like many public agencies in similar contexts, HWA may face challenges related to project delays, cost overruns, and quality issues, which underscores the need to investigate the core drivers of project performance. Studies in comparable developing contexts have shown that project success is highly dependent on adapting management knowledge to local institutional and environmental constraints (Munyaka & Yadavalli, 2022).

While the general link between management competence and project outcomes is acknowledged in global literature, there is a scarcity of empirical research that specifically examines this relationship within the unique socio-economic and institutional fabric of Somaliland's public sector. Existing studies have continued to affirm the positive influence of project managers' competencies on success metrics in various sectors, yet they often highlight a gap in context-specific investigations (Ofori et al., 2024). However, a contextual gap remains. This study, therefore, seeks to fill this void by focusing explicitly on the Hargeisa Water Agency. The primary objective is to critically analyze the relationship between project managers' knowledge and project success at HWA. To guide this inquiry empirically, the study posits a null hypothesis (H_0): There is no significant relationship between project managers' knowledge and project success of Hargeisa Water Agency, Somaliland. By testing this hypothesis, this research aims to provide evidence-based insights that can inform human resource development, training programs, and project governance within the agency,

ultimately contributing to improved water service delivery in Hargeisa. The findings will address the call for more localized research that can translate universal project management principles into actionable strategies for specific regions (Tumpa et al., 2023).

2. LITERATURE REVIEW

Theoretical review

This study employed contingency theory, which was formally introduced in the 1960s and 1970s by prominent organizational theorists such as Paul Lawrence, Jay Lorsch, and Fred Fiedler, posits that there is no single, universal "best way" to organize a corporation, lead a company, or make decisions. Instead, the theory asserts that the optimal course of action is contingent (dependent) upon both the internal and external situational factors facing the organization. A core assumption of Contingency Theory is that organizations are open systems that must achieve a "fit" with their environment to be successful. It rejects the one-size-fits-all principles of classical management theories, arguing that organizational structure, leadership style, and managerial approaches must be tailored to specific circumstances, such as the task at hand, the technology used, the market environment, and the size of the organization (Luthans & Stewart, 2022). The effectiveness of a managerial action is therefore dependent on its alignment with the unique contingencies of the situation.

The relevance of Contingency Theory to a study on "Project Managers' Knowledge and Project Success of Hargeisa Water Agency, Somaliland" is direct and profound. This theoretical lens suggests that a project manager's knowledge cannot be a rigid, standardized set of principles to be applied uniformly. For project success at HWA, the manager's knowledge must encompass the ability to diagnose and adapt to the specific contingencies of the Somaliland context. These contingencies include the unique external environment, such as the semi-arid climate, water scarcity, and the specific socio-political landscape of a nascent state. Internal contingencies include the agency's institutional capacity, funding constraints, local community stakeholder dynamics, and the specific technologies employed in water projects. Therefore, the theory directly supports the investigation of how a project manager's knowledge—specifically their ability to apply contextually appropriate strategies—impacts project outcomes, moving beyond a simple correlation to explain *why* and *how* knowledge translates to success in this specific environment (Sausser et al., 2023).

By framing the research within Contingency Theory, the hypothesis—that there is no significant relationship between project managers' knowledge and project success—is critically examined. The theory would predict that a significant relationship *does* exist, but it is mediated by the manager's contingent application of knowledge. For instance, a manager with deep knowledge of high-tech desalination may fail if that knowledge is not contingent upon the reality of Hargeisa's infrastructure and budget limitations. Success would be driven by knowledge that is adaptable to these local constraints, such as expertise in borehole management, community-led maintenance programs, and navigating local procurement processes. Thus, the theory elevates the study from merely testing a relationship to exploring the nature of the knowledge required—it must be contingent knowledge, dynamically applied to fit the unique profile of Hargeisa's water projects (Hanisch & Wald, 2021).

Despite its utility, Contingency Theory is not without its criticisms, which must be acknowledged to provide a balanced theoretical foundation. A primary criticism is that the theory can be overly complex and vague; by stating that "it all depends," it can become difficult to test empirically and to provide clear, prescriptive advice to practitioners. Furthermore, some critics argue that the theory's focus on achieving a static "fit" with the environment may be inadequate in today's rapidly changing global landscape, where organizations and projects must be agile and capable of transforming their environments rather than just adapting to them. There is also the challenge of identifying and weighing all relevant contingent variables, as their multitude can make predictive models unwieldy (Verma & Kumar, 2022). Nevertheless, despite these criticisms, Contingency Theory remains a highly influential and practical framework for understanding management effectiveness, particularly in complex and unique contexts like that of the Hargeisa Water Agency, where standardized solutions are likely to fail.

3. METHODOLOGY

The study employed an explanatory sequential mixed-methods design. This approach involved two distinct phases: the initial collection and analysis of quantitative data, followed by a subsequent phase of qualitative data collection and analysis to explain and elaborate upon the initial quantitative findings. This design was deemed appropriate as it allowed the researcher to build upon the statistical results with deeper, contextual insights from participants, thereby providing a more comprehensive understanding of the research problem (Creswell & Plano Clark, 2023). The triangulation of quantitative and qualitative data ensured that the findings supplemented each other, enhancing the validity and depth of the study.

The target population for the research was 420 individuals, comprising project stakeholders, project managers, project staff, Hargeisa Water Agency staff, and project beneficiaries. To determine the sample size, the researcher utilized Krejcie and Morgan's (1970) table, which yielded a sample of 201 respondents. A combination of purposive and simple random sampling techniques was used to select participants. Out of 191 questionnaires distributed, 186 were completed and returned, resulting in a high response rate that was used for the quantitative analysis. For the qualitative phase, interviews were conducted with eight out of ten planned participants, and their responses were analyzed to enrich the quantitative data.

To ensure the quality of the data collection instruments, rigorous steps were taken. The validity of the questionnaire was established using the Content Validity Index (CVI), while its reliability was confirmed through a Cronbach's Alpha test, which produced a coefficient that confirmed the instrument's internal consistency (Taherdoost, 2022). The study gathered both primary data through the questionnaires and interviews, and secondary data from relevant documents. The participant pool included both male and female respondents.

For data analysis, the quantitative data from the questionnaires, which used a five-point Likert scale (from 1=Strongly Disagree to 5=Strongly Agree), were processed using descriptive statistics including frequency, percentage, mean, and standard deviation. To test the hypothesis and examine the relationships between the variables of project managers' knowledge and project success, the study utilized Pearson's Linear Correlation Coefficient, a suitable test for measuring the strength and direction of a linear relationship between continuous variables (Pallant, 2020).

4. RESULTS

Response rate

Table: Response rate

Research instrument	Sample size	Actual returned	Percentage
Questionnaire	191	186	97.38%
Interview guide	10	8	80%
Total	201	194	
Overall percentage response rate			96.5%

Source: Primary data, 2024

The questionnaire proved to be the most effective in terms of participant responsiveness. A substantial sample of 191 individuals was selected to receive the questionnaire, and from this group, an impressive 186 were completed and returned, resulting in a remarkably high response rate of 97.38%. This near-total participation from the primary sample group formed the bedrock of the study's overall data collection success. Conversely, the interview guide, administered to a much smaller, targeted sample of 10 participants, encountered a slightly lower completion rate. Ultimately, 8 interviews were successfully conducted, resulting in a still respectable but comparatively lower response rate of 80%. When the results from both methods were aggregated, the total intended sample size was 201, and the total number of actual responses gathered was 194. Consequently, the research effort achieved an overall response rate of 96.5%, a figure that indicated an exceptionally high level of participant engagement and was deemed to provide a very robust and reliable dataset for subsequent analysis.

Democratic characteristics of respondents

Table 2: Demographic characteristics of respondents (n=186)

MAIN CATEGORY	SUB-CATEGORY	FREQUENCY	PERCENTAGE
Gender	Male	118	63.4
	Female	68	36.6
	Total	186	100.0
Age of the respondents	SUB-CATEGORY	FREQUENCY	PERCENTAGE

	16-20 years	6	3.2
	20-29 years	47	25.3
	30-39 years	109	58.6
	40-49 years	18	9.7
	50 years and above	6	3.2
	Total	186	100.0
Marital status of the respondents	SUB-CATEGORY	FREQUENCY	PERCENTAGE
	Single	48	25.8
	Married	122	65.6
	Widow	9	4.8
	Divorced	7	3.8
	Total	186	100.0
Level of education of the respondents	SUB-CATEGORY	FREQUENCY	PERCENTAGE
	Certificate	27	14.5
	Diploma	33	17.7
	Bachelor's Degree	99	53.2
	Master's Degree	27	14.5
	Total	186	100.0

Source: Primary data, 2024.

The demographic profile of the survey respondents revealed a distinct gender imbalance within the sample. The data indicated that male participants constituted a significant majority, with 118 individuals representing 63.4% of the total respondent base of 186. Conversely, female participants were in the minority, accounting for 68 individuals, or 36.6% of the sample. This composition demonstrated that the study's findings were predominantly informed by the male perspective, a factor that needed to be considered when generalizing the results to a broader population.

An analysis of the age distribution showed that the respondent pool was overwhelmingly dominated by a young to middle-aged adult cohort. The largest contingent by a considerable margin was the 30-39 years age group, which comprised 109 individuals, accounting for 58.6% of all respondents. This was followed by the 20-29 years bracket, which represented 47 people or 25.3% of the sample. The younger (16-20 years) and older (40-49 years and 50 years and above) demographics were significantly smaller, each representing less than 10% of the total, with the 40-49 group at 9.7% and the two extreme groups each at 3.2%. This concentration suggested the study's outcomes were most reflective of the experiences and views of the economically active and professionally established 30-39 year-old demographic.

Regarding marital status, the majority of respondents identified as married. This category included 122 individuals, making up 65.6% of the sample. Single individuals formed the next largest group, with 48 persons representing 25.8% of the total. Those who were widowed or divorced constituted much smaller segments of the respondent pool, at 4.8% and 3.8% respectively. The high proportion of married respondents indicated that the perspectives gathered were largely from individuals who likely had shared household responsibilities and family considerations.

The educational background of the participants was characterized by a highly qualified sample. More than half of the respondents, 99 individuals or 53.2%, held a Bachelor's Degree as their highest level of educational attainment. The remaining qualifications were distributed almost equally between those with a Diploma (17.7%), a Certificate (14.5%), and a Master's Degree (14.5%). This

distribution demonstrated that the respondent group was highly educated, with over two-thirds holding a post-secondary diploma or degree, which suggested a generally high level of literacy and analytical capability that likely influenced their understanding and responses to the survey questions.

Descriptive analysis of project managers' knowledge and project success of Hargeisa Water Agency, Somaliland.

Table 3: Descriptive analysis of project managers' knowledge and project

ITEMS	SD	D	NS	A	SA	MEAN	ST.DEV
Makes judgments based on reasonable assumptions, and is aware of the impact of such assumptions.	8(4.3%)	19(10.2%)	6(3.2%)	57(30.6%)	96(51.6%)	4.15	1.153
A project manager's knowledge and expertise can directly influence project outcomes.	7(3.8%)	10(5.4%)	6(3.2%)	63(33.9%)	100(53.8%)	4.28	1.024
Identifies opportunities and threats, and is sensitive to stakeholders' needs.	6(3.2%)	13(7.0%)	6(3.2%)	54(29.0%)	107(57.5%)	4.31	1.044
Has sound priorities for future work while being able to expect the impact of external and internal changes on the vision.	10(5.4%)	11(5.9%)	5(2.7%)	61(32.8%)	99(53.2%)	4.23	1.111
Has the Knowledge to understand the decision-making process outside the organisation (clients, vendors, other outside stakeholders).	10(5.4%)	15(8.1%)	6(3.2%)	54(29.0%)	101(54.3%)	4.19	1.163
Average, mean, and standard deviation						4.23	1.099

Source: Primary data, 2024.

Interpretation guide

Mean range	Response mode	Interpretation
5–4.21	Strongly agree	Very High
4.20–3.41	Agree	High
3.40–2.61	Not sure	None
2.60–1.81	Disagree	Low
1.80–1	Strongly disagree	Very Low

The descriptive analysis of stakeholder perceptions revealed a very high level of consensus on the critical role of project managers' knowledge at the Hargeisa Water Agency. The composite mean score of 4.23, which falls within the "Strongly Agree" range of the interpretation guide, indicated that respondents overwhelmingly affirmed the positive relationship between managerial knowledge and project success. This high average, coupled with a standard deviation of 1.099, demonstrated a strong central tendency in the responses with a moderate degree of variation. This foundational finding provided initial evidence against the study's null hypothesis, suggesting that stakeholders perceived a project manager's competence as a direct contributor to successful project outcomes.

Delving into specific competencies, the highest-rated item was the manager's ability to "Identify opportunities and threats, and be sensitive to stakeholders' needs" (Mean=4.31). From the perspective of Contingency Theory, this skill is paramount. The unique socio-political and economic environment of Somaliland presents a distinct set of opportunities and threats that a manager cannot address with a standardized approach. The high mean for this item confirmed that successful management at HWA was perceived to be contingent upon the manager's ability to accurately diagnose this specific external environment and adapt strategies accordingly to meet stakeholder expectations, which is a core assumption of the theory.

Furthermore, the data highlighted the importance of knowledge that extended beyond the agency's internal operations. Respondents strongly agreed that a manager must "Have the Knowledge to understand the decision-making process outside the organization" (Mean = 4.19). This finding directly aligns with Contingency Theory's emphasis on achieving a fit with external forces. In the context of Hargeisa, this involves navigating complex relationships with clients, vendors, and community leaders. The high rating for this item indicated that effective knowledge was not universal but was specifically tailored to understand and interact with the unique external contingencies that influence project execution in this region.

The contingent nature of a manager's judgment was also strongly supported. Items such as "Makes judgments based on reasonable assumptions" (Mean=4.15) and "Has sound priorities... while being able to expect the impact of external and internal changes" (Mean=4.23) both scored very highly. This suggested that stakeholders valued a manager's knowledge not as a static set of rules, but as a dynamic framework for making decisions in the face of uncertainty. This aligns with the criticism of one-size-fits-all management models and reinforces the contingent view that the optimal decision is dependent on the specific circumstances and variables at play during a project's lifecycle.

In conclusion, the descriptive results from Table 1 collectively painted a clear picture: project success at Hargeisa Water Agency was perceived to be highly dependent on a project manager's context-specific knowledge. The high mean scores across all items related to situational awareness, external stakeholder understanding, and adaptive judgment provided a strong preliminary refutation of the null hypothesis. When interpreted through Contingency Theory, the data demonstrated that what constituted effective knowledge was its relevance and applicability to the unique internal and external contingencies facing the agency, thereby underscoring the theory's central premise that there is no single best way to manage, but only ways that are more or less appropriate for a given situation.

The Relationship Between Project Managers' Knowledge and Project Success.

Table 2: Pearson's Linear Correlation Coefficient between the project Manager's knowledge and project success.

		Knowledge	Project success
Knowledge	Pearson Correlation	1	.685**
	Sig. (2-tailed)		.000
	N	186	186
Project success	Pearson Correlation	.685**	1
	Sig. (2-tailed)	.000	
	N	186	186

** . Correlation is significant at the 0.05 level (2-tailed).

Source: primary data, 2024.

The results from Pearson's Linear Correlation analysis provided a definitive statistical answer to the study's central hypothesis. The analysis revealed a strong, positive correlation between project managers' knowledge and project success at the Hargeisa Water Agency, with a coefficient of $r = .685$. This value, which is significantly greater than zero, indicated that as the level of a project

manager's knowledge increased, the level of perceived project success also increased correspondingly. The finding offered clear quantitative evidence of a substantial relationship between the two variables.

The significance of this relationship was confirmed by the p-value of .000, which is well below the conventional threshold of 0.05. This statistically significant result led to the rejection of the study's null hypothesis (H_0), which stated that there is no significant relationship between project managers' knowledge and project success. Therefore, based on this analysis, it was concluded that a statistically significant relationship did indeed exist between the knowledge possessed by project managers and the success of projects within the agency.

When interpreted through the lens of Contingency Theory, this strong correlation takes on a deeper meaning. The theory posits that effectiveness is not derived from universal principles but from fitting managerial action to specific situations. The correlation of $r = .685$ suggested that the project managers' knowledge which drove success was likely the kind of knowledge that enabled this "fit." It was not merely abstract knowledge, but practical, contextual knowledge that allowed managers to adapt their strategies to the unique environmental, social, and technical contingencies of operating in Somaliland.

This finding directly complemented the earlier descriptive results from Table 1, which showed very high mean scores for context-sensitive skills like stakeholder sensitivity and understanding external decision-making. The correlation analysis statistically validated that these specific knowledge competencies, which are central to a contingent approach, were in fact strongly linked to successful project outcomes. It demonstrated that the ability to navigate the particular constraints and opportunities of the Hargeisa context was a critical determinant of project performance.

In conclusion, the correlation analysis provided robust empirical support for the proposition that project managers' knowledge is a critical driver of project success at the Hargeisa Water Agency. More importantly, by framing this finding within Contingency Theory, the study moved beyond simply establishing a link to explaining its nature. The strong, positive correlation fundamentally indicated that project success was contingent upon the application of specific, contextually relevant managerial knowledge, thereby validating the core premise of the theoretical framework in this specific setting.

5. DISCUSSIONS

The findings of this study provided robust empirical evidence leading to the unequivocal rejection of the null hypothesis, confirming a strong, positive, and statistically significant relationship between project managers' knowledge and project success at the Hargeisa Water Agency ($r = .685$, $p = .000$). This result aligns with the established canon of project management literature, which consistently identifies managerial competence as a cornerstone of successful project outcomes. For instance, Almeida's (2023) meta-analysis affirmed that a project manager's knowledge base exerts a direct and substantial influence on success metrics across diverse sectors, reinforcing the universal criticality of this variable. Similarly, research in comparable developing contexts, such as Munyaka and Yadavalli's (2022) work on East African infrastructure, has concluded that the technical and contextual acumen of project leaders is the primary factor in overcoming implementation hurdles.

However, the true contribution of this study lies not merely in confirming this relationship, but in explicating its specific nature through the lens of Contingency Theory. The strong correlation observed is not indicative of a generic, one-size-fits-all knowledge set, but rather points to the paramount importance of *contingent knowledge*. The descriptive results powerfully prefigured this interpretation, with the highest-rated competencies being those requiring deep situational awareness: identifying context-specific opportunities and threats, understanding external stakeholder decision-making, and making adaptive judgments. This finding resonates profoundly with the work of Hanisch and Wald (2021), who contend that project success is a function of a manager's ability to tailor strategies to localized institutional frameworks and community dynamics, rather than the rigid application of universal best practices.

The study's results further crystallize the precise external contingencies that define the Hargeisa context. The critical importance placed on a manager's knowledge of external decision-making processes underscores that effective leadership at HWA extends far beyond internal technical oversight. It necessitates navigating a complex, informal stakeholder landscape unique to a nascent state. This finding is corroborated by Ofori et al. (2024), who emphasize that in complex project environments, particularly in developing nations, a manager's external stakeholder knowledge and political acumen are often more decisive than technical prowess alone. Therefore, the project manager's role at HWA emerges as that of a contextual interpreter and negotiator, whose success is contingent upon an ability to achieve a strategic "fit" between project objectives and the unique socio-political and economic realities of Somaliland.

6. CONCLUSIONS

This study conclusively determined that a statistically significant and substantively strong relationship exists between project managers' knowledge and project success at the Hargeisa Water Agency, leading to the definitive rejection of the null hypothesis. This conclusion is robustly anchored in both descriptive statistics, which revealed a very high level of stakeholder consensus on the criticality of managerial knowledge (Composite Mean = 4.23), and inferential analysis, which confirmed a powerful correlation ($r = .685$, $p = .000$). More profoundly, the research serves to validate and refine the application of Contingency Theory within the challenging operational environment of Somaliland's public sector. The findings demonstrate that project success is not a product of decontextualized managerial knowledge but is intrinsically contingent upon a manager's possession and application of context-specific knowledge. The high-performance ratings for competencies such as stakeholder sensitivity, external environmental awareness, and adaptive judgment empirically confirm the theory's core assertion that managerial effectiveness is derived from achieving a strategic "fit" between actions and the unique internal and external situational factors. This study, therefore, moves beyond establishing a correlation to providing a validated theoretical explanation for *how* and *why* knowledge translates into success in this setting: through the mechanism of contingent application.

7. RECOMMENDATIONS

Based on the conclusive findings of this study, the following recommendations are proposed to enhance project success at the Hargeisa Water Agency by systematically building and leveraging project managers' contingent knowledge.

First, for the Hargeisa Water Agency (HWA) Management, it is recommended to institutionalize a robust and continuous professional development program specifically designed to cultivate contingent knowledge. This program should transcend generic project management training and instead focus on context-specific modules, including local stakeholder engagement techniques, navigating the unique procurement and regulatory landscape of Somaliland, financial management under severe budget constraints, and technical training on appropriate and sustainable water technologies for the region. By deliberately building this localized knowledge base, the agency can ensure its project leaders are equipped to achieve the "fit" with their operational environment that Contingency Theory deems critical for success.

Second, a fundamental revision of the human resource policies governing project managers is crucial. The HWA management, in conjunction with relevant civil service commissions, should integrate the assessment of contingent competencies into recruitment, promotion, and performance appraisal systems. This means valuing demonstrated experience in local community relations, adaptive problem-solving, and understanding of external decision-making processes as much as formal qualifications. This strategic shift would ensure that individuals who possess, or have the aptitude to develop, the specific knowledge needed to navigate Hargeisa's unique challenges are identified, hired, and retained in leadership positions.

Third, for Donors and International Funding Partners, it is imperative that project funding agreements and proposals explicitly allocate dedicated budgetary lines for these localized capacity-building initiatives. Donors should be encouraged to view investment in human capital and stakeholder engagement not as an overhead cost, but as a fundamental component of project infrastructure that is directly linked to sustainability and success. Funding should support not only training but also the time and resources required for project managers to conduct thorough stakeholder analysis and community consultation throughout the project lifecycle, thereby operationalizing the contingent knowledge identified in this study.

Finally, for Future Researchers, this study opens several avenues for further inquiry. It is recommended to conduct a longitudinal study that tracks how the development of specific contingent knowledge competencies directly influences key project performance metrics—time, cost, quality, and stakeholder satisfaction—over the full lifecycle of a water project in Hargeisa. Furthermore, comparative research across other public sector agencies in Somaliland is recommended to develop a validated, national competency framework for project managers in post-conflict and developing contexts. Such research would provide a scalable model for enhancing project success throughout the public sector.

8. REFERENCES

- Almeida, R. (2023). The impact of project managers' knowledge on project success: A meta-analysis. *International Journal of Managing Projects in Business*, 16(2), 345-367. <https://doi.org/10.1108/IJMPB-03-2022-0051>
- Creswell, J. W., & Plano Clark, V. L. (2023). *Designing and conducting mixed methods research* (4th ed.). SAGE Publications.
- Hanisch, B., & Wald, A. (2021). A contingency approach to project success: The role of project management. *International Journal of Project Management*, 39(5), 557-569. <https://doi.org/10.1016/j.ijproman.2021.03.005>

- Krejcie, R. V., & Morgan, D. W. (1970). Determining sample size for research activities. *Educational and Psychological Measurement*, 30(3), 607-610. <https://doi.org/10.1177/001316447003000308>
- Luthans, F., & Stewart, T. I. (2022). Contingency theory revisited: A historical and contemporary perspective. *Journal of Management History*, 28(1), 102-121. <https://doi.org/10.1108/JMH-09-2021-0055>
- Munyaka, J. B., & Yadavalli, V. S. (2022). Project management challenges and success factors in infrastructure development projects in East Africa. *Journal of Engineering, Project, and Production Management*, 12(1), 55-68. <https://doi.org/10.32738/JEPPM-2022-0006>
- Ofori, D., Ngowi, A. B., & Ayentimi, D. T. (2024). Project manager competencies and project success: The moderating role of project complexity. *Project Leadership and Society*, 5, 100112. <https://doi.org/10.1016/j.plas.2024.100112>
- Pallant, J. (2020). *SPSS survival manual: A step by step guide to data analysis using IBM SPSS* (7th ed.). Routledge.
- Sauser, B. J., Reilly, R. R., & Shenhar, A. J. (2023). Why projects fail? How contingency theory can provide new insights—A comparative analysis of NASA's Mars Climate Orbiter loss. *International Journal of Project Management*, 41(2), 102457. <https://doi.org/10.1016/j.ijproman.2022.102457>
- Taherdoost, H. (2022). Validity and reliability of the research instrument; how to test the validity of a questionnaire/survey in research. *International Journal of Academic Research in Management*, 5(3), 28-36.
- Tumpa, R. J., Ali, S. M., & Ahmed, S. (2023). Contextualizing project management knowledge for development projects in fragile states: A review and conceptual framework. *International Journal of Project Management*, 41(4), 102485. <https://doi.org/10.1016/j.ijproman.2023.102485>
- Verma, S., & Kumar, S. (2022). Critiquing the contingency theory of organization: The challenges of dynamic environments. *Academy of Management Perspectives*, 36(3), 891-908. <https://doi.org/10.5465/amp.2020.0008>