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EFFECTS OF RISK MANAGEMENT ON THE PERFORMANCE OF WORLD BANK-ASSISTED PROJECTS IN DELTA STATE, NIGERIA

Chukwuka Godwin Ubaka *, Herbert Ugwueze Nwoke and Ugochukwu Ilozurike Duru

Department of Procurement Management, Centre of Excellence in Sustainable Procurement, Environmental and Social Standards (CE-sPESS), Federal University of Technology, Owerri, Nigeria.
* Corresponding Author

ORCID Details
Herbert Ugwueze Nwoke: https://orcid.org/0000-0003-2856-4660
Ugochukwu Ilozurike Duru: https://orcid.org/0000-0001-7920-8047

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ABSTRACT

World Bank-assisted development projects continue to face performance challenges such as cost overruns, quality shortfalls, stakeholder dissatisfaction and schedule delays, despite the Bank's comprehensive risk management frameworks. This study examined the effect of risk management - specifically risk identification, risk analysis, risk response and risk monitoring - on the performance of World Bank-assisted projects in Delta State, Nigeria. A cross-sectional survey design was adopted. Structured questionnaires were administered to procurement, finance, environmental and social safeguards, and project-implementation personnel across eight health, education, water, environment and social-development Ministries, Departments and Agencies engaged in World Bank-assisted projects in the state. From an accessible population of 1,600 procurement- and project-related staff, a stratified and systematic random sample yielded 320 valid responses, analysed in SPSS; the instrument returned an overall Cronbach's alpha of 0.943. Descriptive statistics, Pearson correlation and multiple linear regression were used to test four hypotheses. Risk identification significantly predicted project cost efficiency ($R = 0.330$, $R^2 = 0.109$, $p < 0.001$); risk analysis significantly predicted service quality ($R = 0.633$, $R^2 = 0.401$, $p < 0.001$); risk response was significantly correlated with stakeholder satisfaction ($r = 0.594$, $p < 0.001$); and risk monitoring was significantly correlated with project timeframe performance ($r = 0.304$, $p < 0.001$). Jointly, the four dimensions explained 45.9% of the variance in overall project performance ($R^2 = 0.459$, $F(4,315) = 66.847$, $p < 0.001$), with risk response and risk analysis emerging as the strongest unique predictors. The study concludes that integrated, institutionalized risk management substantially improves the performance of World Bank-assisted projects in Delta State, though risk identification and risk monitoring contribute more through their specific bivariate outcomes than as unique predictors once the other dimensions are accounted for, or held constant.

Keywords: Risk management; Project performance; World Bank-assisted projects; Risk identification; Stakeholder satisfaction; Delta State; Nigeria

1 INTRODUCTION

Since its founding in 1944, the World Bank has channelled financial and technical assistance to developing countries to pursue poverty reduction and shared prosperity, delivered through the International Bank for Reconstruction and Development (IBRD) and the International Development Association (IDA) [1]. Nigeria, the continent's most populous country, has been a major recipient of this assistance since joining the institution in 1961, with support spanning infrastructure, health, education, agriculture and governance reform. In Delta State, World Bank-assisted interventions include the Nigeria Erosion and Watershed Management Project (NEWMAP), the Nigeria for Women Project (NFWP), the Nigeria COVID-19 Action Recovery and Economic Stimulus Program (NG-CARES), and the Immunization Plus and Malaria Progress by Accelerating Coverage and Transforming Services (IMPACT) programme; yet cost overruns, schedule delays and quality shortfalls remain persistent despite this sizeable investment.

Risk management - the structured process of identifying, analyzing, responding to and monitoring risk to increase positive outcomes and reduce negative ones - has become integral, rather than optional, to World Bank project delivery [2]. The Bank's operational risk framework explicitly integrates risk management into project design and supervision so that risk is managed across the project life cycle [3], and project teams increasingly draw on structured risk registers, analytical risk-assessment techniques and continuous monitoring to track exposure dynamically, consistent with contemporary project-management guidance [4] and with international risk management standards such as ISO 31000 [5].

Despite these frameworks, many World Bank-assisted projects in developing countries, Nigeria included, continue to experience cost overruns, quality shortfalls, stakeholder dissatisfaction and delays that undermine the value generated from project investment. In Delta State specifically, risks associated with procurement delays, weak institutional capacity and inadequate monitoring are often inadequately assessed or insufficiently mitigated - with consequences that extend beyond cost and schedule: in a health-sector programme, for instance, failure to anticipate risk in vaccine procurement can directly affect immunization coverage and, in turn, child and maternal health outcomes. Without effective risk analysis, project managers may be unprepared for disruptions that raise operational cost and compromise workmanship; and without effective risk response and monitoring, identified risks can escalate into cost overruns, delivery delays and eroded stakeholder confidence.

Empirical evidence broadly supports a positive relationship between structured risk management and project performance. In Brazil, risk identification embedded in project planning has been shown to reduce cost overruns and improve budget performance [6]; among internationally funded development projects, continuous risk identification, stakeholder involvement and adaptive monitoring have been associated with improved project performance [7]; and in Nigeria, estate-development projects with structured risk-identification practices have recorded significantly lower cost overruns than those without [8]. Classic work on systematic risk management in construction similarly links early risk identification and analysis to cost and schedule performance [9], while cross-country evidence from Malaysian and other developing-country construction projects links poor risk monitoring and control to project delay [10,11].

However, most of this evidence derives from the construction sector or treats development projects in aggregate, and project performance itself is typically measured as a single composite construct rather than disaggregated into the specific outcomes - cost efficiency, service quality, stakeholder satisfaction, project timeframe - that individual risk-management dimensions might differently predict. Sub-national, sector-specific evidence from Nigeria's donor-funded portfolio, and from World Bank-assisted projects in Delta State in particular, remains limited. This study addresses that gap by examining how risk identification, risk analysis, risk response and risk monitoring individually relate to four distinct performance outcomes - project cost efficiency, service quality, stakeholder satisfaction and project timeframe - in World Bank-assisted projects in Delta State, and by assessing their combined explanatory power for overall project performance.

The specific objectives were to: (i) determine how risk identification influences project cost efficiency; (ii) identify the influence of risk analysis on service quality; (iii) establish the relationship between risk response and stakeholder satisfaction; and (iv) assess the impact of risk monitoring on project timeframe, in World Bank-assisted projects in Delta State. Corresponding to these objectives, four null hypotheses were tested: risk identification has no significant influence on project cost efficiency (H_{01}); risk analysis has no significant influence on service quality (H_{02}); there is no significant relationship between risk response and stakeholder satisfaction (H_{03}); and risk monitoring has no significant impact on project timeframe (H_{04}).

2 MATERIAL AND METHODS

The study adopted a cross-sectional survey design combining quantitative and qualitative elements, considered appropriate for collecting comparable data across multiple departments and institutions at a single point in time. The research was conducted within the Delta State public sector, which comprises around 30 ministries and more than 20 agencies and parastatals; Delta State lies in Nigeria's south-south geopolitical zone, covers approximately 17,698 km^2, and has an estimated population of close to seven million people across twenty-five Local Government Areas. Eight key Ministries, Departments and Agencies engaged in World Bank procurement and project execution were purposively selected for data collection: the Ministry of Health, the State Primary Health Care Development Agency, the Ministry of Basic and Secondary Education, the Ministry of Environment, the Ministry of Water Resources, the Delta State Universal Basic Education Board, the Ministry of Women Affairs, and the Ministry of Agriculture.

2.1 Study Population, Sample Size and Sampling Technique

The accessible population comprised 1,600 staff drawn from procurement units, finance, environmental and social safeguards, logistics, project-implementation personnel, and previously engaged suppliers across the selected MDAs [12]. Sample size was determined using Taro Yamane finite-population formula at a 5% margin of error, yielding a required sample of 320. Stratified sampling technique (by job profile and educational level) ensured proportional representation across categories, and systematic random sampling was used to select respondents within each stratum; 332 completed questionnaires were returned, of which 320 were retained for analysis after data cleaning.

2.2 Data Collection

Data were collected using a structured questionnaire organized into seven sections (A-G): respondent demographic and professional profile (Section A); risk-identification practices (Section B); risk analysis and assessment (Section C); risk response and mitigation strategies (Section D); risk monitoring and control (Section E); perceived project-performance indicators covering cost efficiency, service quality, stakeholder satisfaction and project timeframe (Section F); and objective project data such as budget, actual expenditure and completion status (Section G). Items in Sections B-F were rated on a five-point Likert scale. Content and face validity were established through expert review by the researchers' supervisors and project/risk-management specialists, and the instrument was piloted among comparable personnel prior to full administration, with minor refinements made from pilot feedback. Internal consistency was assessed using Cronbach's alpha; the five constructs returned coefficients between 0.706 and 0.882, and the overall 30-item scale returned an alpha of 0.943, indicating very good internal consistency.

2.3 Data Analysis

Data were analysed in SPSS. Descriptive statistics (frequencies, percentages, means and standard deviations) characterized respondent demographics and construct-level scores, using the scale midpoint of 3.00 as the benchmark for agreement. Pearson correlation was used to test the bivariate relationships underlying two of the study's hypotheses (risk response with stakeholder satisfaction; risk monitoring with project timeframe), simple linear regression was used to test the other two (risk identification with cost efficiency; risk analysis with service quality), and multiple linear regression - estimated by ordinary least squares - was used to assess the combined and individual effects of all four risk-management dimensions on overall project performance, following the model $PP = \beta 0 + \beta 1RI + \beta 2RA + \beta 3RR + \beta 4RM + e$, where PP is project performance and RI, RA, RR and RM denote risk identification, risk analysis, risk response and risk monitoring respectively. Hypotheses were tested at the 5% significance level (H_0 rejected where $p \leq 0.05$).

3 RESULTS

Of 332 completed questionnaires returned, 320 were retained for analysis after data cleaning (12 were excluded for incompleteness or inconsistency), representing a usable response rate of 96.4%. Table 1 summarizes the demographic and professional profile of respondents: the sample was fairly evenly split by gender and age band, dominated by holders of a Bachelor's or Master's degree, drawn mainly from accounting-related and other technical roles rather than dedicated procurement or project-management titles, with just over half of respondents having 3-5 years of relevant experience, and covering all stages of the project life cycle.

Table 1: Demographic and professional profile of respondents (N = 320)

Characteristic	Category	N	%
Gender	Female	169	52.8
	Male	138	43.1
	Others	13	4.1
Age	20-30 years	42	13.1
	31-40 years	139	43.4
	41-60 years	139	43.4
Educational qualification	BSc	135	42.2
	MSc	151	47.2
	PhD	34	10.6
Professional role	Accounting role	144	45.0
	Procurement Officer	32	10.0
	Project Manager	26	8.1
	Others	118	36.9
Professional experience	0-2 years	79	24.7
	3-5 years	173	54.1
	6 years and above	68	21.2
Sector of project	Health-related	106	33.1
	Construction	89	27.8
	Empowerment programme	49	15.3
	Others	76	23.8
Stage of project involvement	Design stage	42	13.1
	Procurement stage	58	18.1
	Implementation stage	121	37.8
	Completion/close-out stage	99	30.9

Table 2 presents the reliability of the research instrument. All five constructs returned Cronbach's alpha coefficients above the conventional 0.70 threshold, and the overall 30-item scale returned an alpha of 0.943, indicating very good internal consistency.

Table 2: Reliability of the research instrument (Cronbach's alpha)

Construct	Cronbach's alpha	N of items
Risk identification	0.756	6
Risk analysis	0.882	6
Risk response	0.759	6
Risk monitoring	0.739	6
Project performance	0.706	6
All five constructs (overall scale)	0.943	30

Table 3 presents the descriptive statistics for the five study constructs. All five recorded mean scores above the 3.00 criterion mean, indicating general agreement that risk-management practices are present and that project performance is favorably perceived, with risk analysis (M = 3.21) rated marginally highest and risk identification (M = 3.13) rated marginally lowest among the risk-management dimensions.

Table 3: Descriptive statistics of study constructs (N = 320)

Construct	Mean	SD	Min	Max
Risk identification	3.13	0.74	1.00	4.33
Risk analysis	3.21	0.88	1.00	4.83
Risk response	3.20	0.77	1.17	4.50
Risk monitoring	3.16	0.76	1.00	4.33
Project performance	3.23	0.64	1.33	4.33

Table 4 breaks these constructs down to item level. Within risk identification, the use of both quantitative and qualitative identification methods was rated highest (M = 3.40), while the item on risks being discovered only after they become problems returned the lowest, sub-benchmark mean (M = 2.77) - a favorable result, since disagreement with this negatively worded item indicates proactive identification. Within risk analysis, use of standard criteria or scales was rated highest (M = 3.38), while formal assessment of identified risks for likelihood and impact fell marginally below benchmark (M = 2.98). Within risk response, contractual risk-transfer arrangements and clearly assigned response responsibilities and timelines were rated highest (M = 3.32-3.33), while the item on risk prioritization being subjective and unstructured - again negatively worded - fell below benchmark (M = 2.87). Within risk monitoring, the use of monitoring results to inform project decisions was rated highest (M = 3.35), while the item on approved response actions rarely being implemented returned the lowest mean in the entire study (M = 2.55). Within project performance, delivered output meeting required technical/quality standards was rated highest (M = 3.48), while the negatively worded item on significant disruptions hindering objectives fell below benchmark (M = 2.59), which is again a favorable result under reverse interpretation.

Table 4: Item-level means and standard deviations by construct

Construct	Item	Mean	SD	Decision
Risk identification	Project teams systematically identify risks at project start	3.12	1.10	Agree
	Stakeholders are involved in identifying project risk	3.18	1.15	Agree
	An updated risk register is maintained for identified risks	3.16	1.07	Agree
	Newly discovered risks are documented promptly	3.17	1.14	Agree
	Both quantitative and qualitative methods are used to identify risks	3.40	1.06	Agree
	Risks are rarely discovered before they become problems (reverse-worded)	2.77	1.11	Disagree
Risk analysis	Identified risks are assessed for likelihood and impact	2.98	1.15	Disagree
	Standard criteria or scales are used in risk assessment	3.38	1.13	Agree
	Risks are prioritized based on analysis results	3.13	1.14	Agree
	Quantitative techniques are applied appropriately	3.25	1.04	Agree
	Qualitative techniques are applied where appropriate	3.25	1.21	Agree
	Uncertainty and interdependencies are considered during analysis	3.28	1.02	Agree
Risk response	Risk prioritization is subjective and unstructured (reverse-worded)	2.87	1.03	Disagree
	High-priority risks have a documented response plan	3.28	1.08	Agree
	Response plans assign clear responsibilities and timelines	3.33	1.15	Agree
	Adequate responses are provided to identified risks	3.23	1.20	Agree
	Risk-treatment strategies (avoid, mitigate, transfer, accept) are applied appropriately	3.16	1.26	Agree

	Contractual arrangements support effective risk transfer	3.32	1.17	Agree
Risk monitoring	Approved response actions are rarely implemented (reverse-worded)	2.55	0.98	Disagree
	Risk registers are reviewed regularly during implementation	3.23	1.13	Agree
	Early-warning signs and risk indicators are actively monitored	3.28	1.14	Agree
	Changes in risk status are communicated promptly to stakeholders	3.25	1.19	Agree
	Effectiveness of implemented risk responses is evaluated	3.31	1.12	Agree
	Monitoring results influence project decisions and adjustments	3.35	1.30	Agree
Project performance	The project achieved its planned objectives	3.22	1.09	Agree
	The project was completed within the planned schedule	3.46	1.10	Agree
	Delivered output met required technical/quality standards	3.48	0.98	Agree
	Beneficiaries are satisfied with project outcomes	3.33	1.01	Agree
	Procurement supported timely, cost-effective delivery	3.32	0.92	Agree
	The project experienced significant disruptions that hindered objectives (reverse-worded)	2.59	0.95	Disagree

Table 5 summarizes the bivariate tests of the study's four hypotheses. Risk identification showed a significant positive relationship with project cost efficiency ($R = 0.330$, $R^2 = 0.109$, $B = 0.410$, $p < 0.001$): approximately 10.9% of the variation in cost efficiency was explained by risk identification alone. Risk analysis showed a stronger significant positive relationship with service quality ($R = 0.633$, $R^2 = 0.401$, $B = 0.699$, $p < 0.001$), explaining 40.1% of the variation in service quality. Risk response was significantly and positively correlated with stakeholder satisfaction ($r = 0.594$, $p < 0.001$), and risk monitoring was significantly and positively correlated with project timeframe performance, though more-weakly ($r = 0.304$, $p < 0.001$). On this basis, all four null hypotheses (H_{01}-H_{04}) were rejected.

Table 5: Summary of bivariate hypothesis tests

Hypothesis	Relationship tested	Statistic	Decision
H_{01}	Risk identification → project cost efficiency	$R = 0.330$, $R^2 = 0.109$, $B = 0.410$, $p < 0.001$	Rejected (significant)
H_{02}	Risk analysis → service quality	$R = 0.633$, $R^2 = 0.401$, $B = 0.699$, $p < 0.001$	Rejected (significant)
H_{03}	Risk response ↔ stakeholder satisfaction	$r = 0.594$, $p < 0.001$	Rejected (significant)
H_{04}	Risk monitoring ↔ project timeframe	$r = 0.304$, $p < 0.001$	Rejected (significant)

Multiple regression was then used to assess the combined effect of all four risk-management dimensions on overall project performance. The overall model was statistically significant ($R = 0.678$, $R^2 = 0.459$, adjusted $R^2 = 0.452$, $F(4,315) = 66.847$, $p < 0.001$), indicating that the four dimensions jointly explained approximately 45.9% of the variance in overall project performance. Figure 1 summarizes the bivariate relationship between each risk-management dimension and its corresponding outcome (H_{01}–H_{04}) alongside each dimension's unique contribution to overall project performance in the combined model.

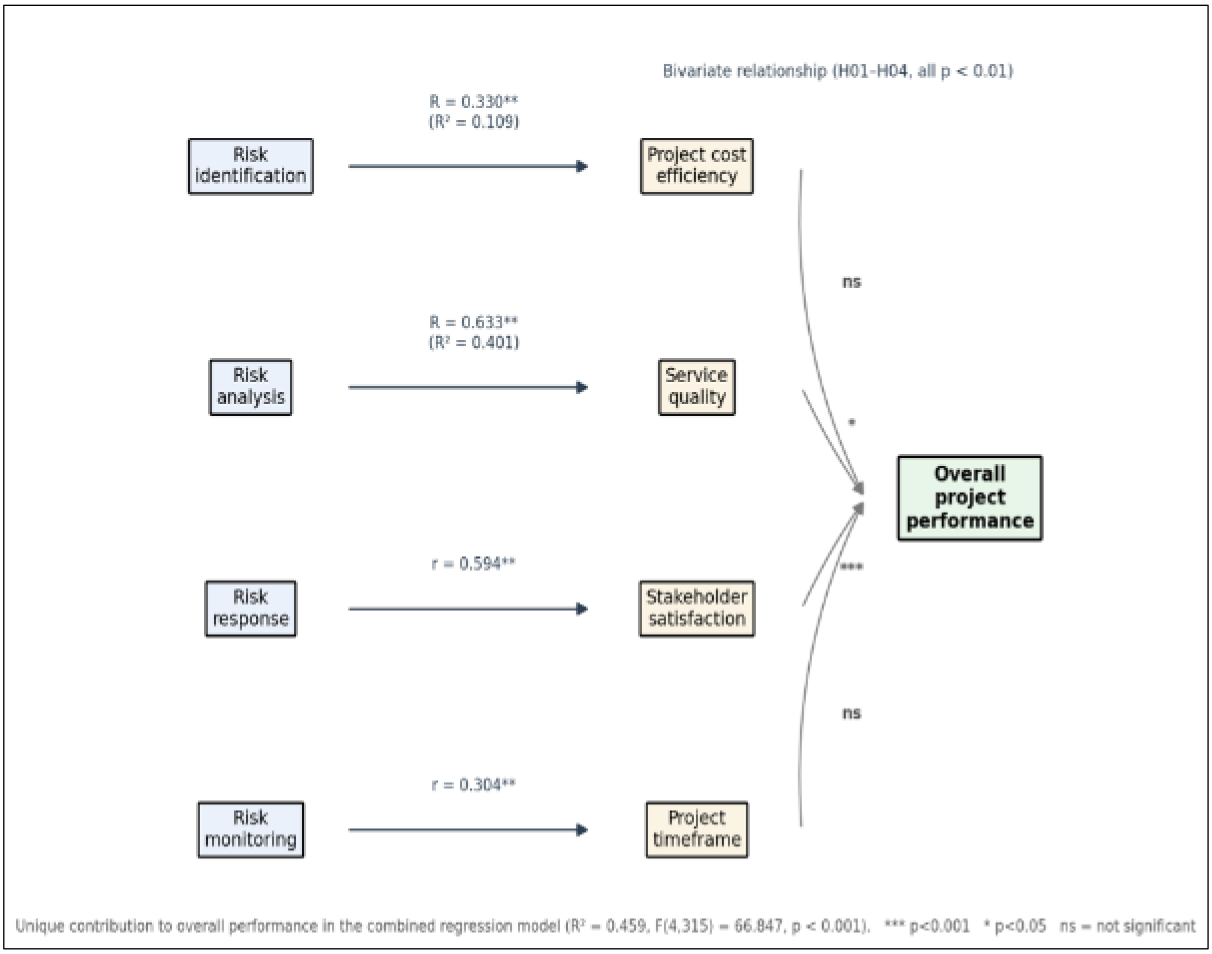

Figure 1: Results diagram showing the bivariate relationship between each risk-management dimension and its corresponding performance outcome (H_{01}–H_{04}), and each dimension's unique contribution to overall project performance in the combined regression model.

Table 6 presents the regression coefficients. In the combined model, risk response (B = 0.301, $p < 0.001$) and risk analysis (B = 0.153, p = 0.033) each made statistically significant unique contributions to overall project performance, while risk identification (B = 0.083, p = 0.163) and risk monitoring (B = 0.049, p = 0.528) were positive but not statistically significant unique predictors once the other three dimensions were controlled for. This does not negate the significant bivariate relationships reported above for risk identification and risk monitoring with their respective specific outcomes; rather, it indicates that once risk analysis and risk response are accounted for, the remaining unique contribution of risk identification and risk monitoring to overall project performance is comparatively small.

Table 6: Multiple regression coefficients for overall project performance

Predictor	B	Std. Error	T	Sig.
Constant	1.364	0.133	10.231	< 0.001
Risk identification (RI)	0.083	0.060	1.399	0.163
Risk analysis (RA)	0.153	0.072	2.143	0.033
Risk response (RR)	0.301	0.080	3.751	< 0.001
Risk monitoring (RM)	0.049	0.078	0.632	0.528

Model summary: R = 0.678, R^2 = 0.459, adjusted R^2 = 0.452, F(4,315) = 66.847, p < 0.001.

4 DISCUSSION

The finding that risk identification significantly predicts project cost efficiency is consistent with evidence from Brazil that early, systematic risk identification during project planning reduces cost overruns and improves budget performance [6], and with Nigerian evidence that estate-development projects with structured risk-identification practices record significantly lower cost overruns than those without [8]. It also echoes long-standing evidence from construction risk management that identifying risk early allows more efficient allocation of contingency resources [9].

The particularly strong relationship between risk analysis and service quality is consistent with evidence that comprehensive risk analysis in donor-funded development projects improves service quality by enabling project managers to anticipate implementation challenges and allocate resources more efficiently [7]. It is also consistent with the service-quality literature more broadly, which links systematic identification and management of service-delivery gaps to improved perceived quality [13,14]: risk analysis that surfaces and prioritises threats to service delivery functions, in effect, as an upstream input into the quality-management process.

The significant relationship between risk response and stakeholder satisfaction is consistent with evidence that organisations implementing timely, well-communicated mitigation strategies experience higher stakeholder confidence and improved project acceptance [15], and aligns with stakeholder theory's emphasis on responsiveness to stakeholder interests as a determinant of perceived organisational performance [16]. Structured response planning - clear responsibilities, timelines and contractual risk-transfer arrangements - is also consistent with stakeholder relationship-management models that link clarity and follow-through to stakeholder trust [17,18].

The significant, if comparatively weaker, relationship between risk monitoring and project timeframe performance is consistent with project-management guidance that continuous monitoring helps ensure emerging risks are identified and addressed before they affect project timelines [4], and with construction-sector evidence from developing countries linking weak monitoring and control to project delay [10,11]. The weaker bivariate effect, and its non-significant unique contribution in the combined regression model, suggest that monitoring's influence on timeframe performance in this sample operates partly through its association with the other risk-management dimensions rather than as a fully independent driver of schedule outcomes.

That risk response and risk analysis - rather than risk identification and risk monitoring - emerged as the strongest unique predictors in the combined model is broadly consistent with enterprise risk-management research showing that the performance benefits of risk management accrue less from any single stage of the risk-management cycle than from how well an organisation acts on and adapts to the risks it identifies [19,20]. This pattern also echoes evidence that megaproject cost and schedule outcomes are shaped less by the existence of a risk register than by the quality of the response and governance built around it [21], and is consistent with developing-country evidence that the practical, response-oriented dimensions of risk management are often the binding constraint on public-sector project performance [22,23]. Consistent with supply-chain and project risk-management literature more broadly, this suggests that institutionalising strong risk-response capability such as clear ownership, contingency resourcing, and contractual risk allocation may do more to lift overall World Bank-assisted project performance in Delta State than further investment in identification or monitoring alone, though all four dimensions remain individually significant for the specific outcomes they were tested against [24,25,26].

5 CONCLUSION

This study examined the effect of risk management on the performance of World Bank-assisted projects in Delta State, Nigeria, using survey data from 320 procurement, finance, safeguards and project-implementation personnel across eight participating MDAs. Risk identification, risk analysis, risk response and risk monitoring were each significantly and positively related to their respective performance outcomes - project cost efficiency, service quality, stakeholder satisfaction and project timeframe, respectively - and jointly explained 45.9% of the variance in overall project performance, with risk response and risk analysis emerging as the strongest unique predictors once all four dimensions were considered together. The results indicate that risk management in World Bank-assisted projects in Delta State is not a single undifferentiated practice but a set of distinct dimensions with different performance consequences, and that strengthening risk-response capability in particular may offer the largest returns to overall project performance. The study contributes sector-specific, sub-national empirical evidence to a literature that has so far concentrated on construction projects and on project performance as an undifferentiated construct, and supports the continued institutionalisation of integrated risk management across the project life cycle in Delta State's World Bank-assisted portfolio.

Recommendations

- Project implementation units should institutionalise structured risk-identification processes at the planning stage, including mandatory risk registers and regular risk-identification workshops involving project teams, technical experts, contractors and community representatives.
- Implementing agencies should strengthen risk-analysis capacity by adopting both qualitative and quantitative assessment techniques and providing regular capacity-building for project managers and procurement officers, given the strong association between risk analysis and service quality.

- Project managers should develop clear, resourced risk-response plans with assigned responsibilities and timelines, and strengthen stakeholder engagement and communication throughout the project life cycle, given risk response's role as the strongest unique predictor of overall project performance.
- Implementing agencies should establish continuous risk-monitoring mechanisms, including regular risk reviews and, where feasible, digital monitoring dashboards, to support early detection of schedule-threatening risks.
- The Delta State Government, in collaboration with the World Bank and other development partners, should develop a standardized, integrated risk management framework spanning identification, analysis, response and monitoring for all World Bank-assisted projects in the state, aligned with PMBOK and ISO 31000 guidance.

STATEMENTS ON COMPLIANCE WITH ETHICAL STANDARDS

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Disclosure of conflict of interest

The authors declare that they have no known competing interests exists amongst them.

Statement of informed consent

Participation in this study was entirely voluntary. Respondents' identities were kept confidential, and data collected were used strictly for academic purposes. Informed consent was obtained from all respondents prior to participation, and institutional permission was obtained from the participating Ministries, Departments and Agencies prior to data collection.

REFERENCES

[1] World Bank. About the World Bank [Internet]. Washington DC: World Bank; 2024. Available from: https://www.worldbank.org/en/about

[2] Project Management Institute. A guide to the project management body of knowledge (PMBOK® Guide). 6th ed. Newtown Square (PA): Project Management Institute; 2017.

[3] World Bank. Operational risk assessment and management. Washington DC: World Bank; 2019.

[4] Project Management Institute. A guide to the project management body of knowledge (PMBOK® Guide). 7th ed. Newtown Square (PA): Project Management Institute; 2021.

[5] International Organization for Standardization. ISO 31000:2018 Risk management – guidelines [Internet]. Geneva: ISO; 2018. Available from: https://www.iso.org/standard/65694.html

[6] Carvalho M, Rabechini R. Impact of risk management on project performance: the importance of soft skills. Int J Prod Res. 2015;53(2):321-340.

[7] Ika LA, Donnelly J. Success conditions for international development capacity building projects. Int J Proj Manag. 2017.

[8] Aikpokhio E, Okorie V, Sule A. Risk management practices and performance of estate development projects in Nigeria. J Prop Manag Dev. 2024;6(1):33-49.

[9] Al-Bahar JF, Crandall KC. Systematic risk management approach for construction projects. J Constr Eng Manag. 1990;116(3):533-546.

[10] Sambasivan M, Soon YW. Causes and effects of delays in Malaysian construction projects. Int J Proj Manag. 2007;25(5):517-526.

[11] Ogunlana S, Limsila K. Performance enhancement of construction projects in developing countries. Int J Proj Manag. 2008;26(7):687-698.

[12] Okonkwo R, Nwankwo N. Research methodology in social sciences. 2006.

[13] Parasuraman A, Zeithaml VA, Berry LL. SERVQUAL: a multiple-item scale for measuring consumer perceptions of service quality. J Retailing. 1988;64(1):12-40.

[14] Bruhn M. Conceptual basics of service quality. In: Quality management for services. Berlin: Springer; 2023. p. 21-40.

[15] Hillson D, Simon P. Practical project risk management: the ATOM methodology. 3rd ed. Vienna (VA): Management Concepts Press; 2020.

[16] Freeman RE. Strategic management: a stakeholder approach. Boston: Pitman; 1984.

[17] Bourne L. Stakeholder relationship management: a maturity model for organisational implementation. 2nd ed. Farnham: Gower Publishing; 2015.

[18] Beringer C, Jonas D, Kock A. Behavior of internal stakeholders in project portfolio management and its impact on success. Int J Proj Manag. 2013;31(6):830-846.

[19] Bromiley P, McShane M, Nair A, Rustambekov E. Enterprise risk management: review, critique, and research directions. Long Range Plann. 2015;48(4):265-276.

[20] Mikes A, Kaplan R. When one size doesn't fit all: evolving directions in enterprise risk management. J Appl Corp Finance. 2015;27(1):37-40.

[21] Flyvbjerg B, Holm MS, Buhl S. Megaprojects and risk: an anatomy of ambition. Cambridge: Cambridge University Press; 2003.

[22] Aigbavboa C, Liphadzi M. Risk management practices in public sector projects in developing countries. Int J Constr Manag. 2017;17(2):1-12.

[23] Wadesango N, Mhaka C, Shava H, Ongayi W. Risk management capacity challenges in developing countries. 2021.

[24] Tummala V, Schoenherr T. Assessing and managing risks using the supply chain risk management process. Supply Chain Manag. 2011;16(6):474-483.

[25] Kutsch E, Hall M. Intervening conditions on the management of project risk. Int J Proj Manag. 2005;23(8):591-599.

[26] Lehtiranta L. Risk perceptions and approaches in multi-organizations: a research review. Int J Proj Manag. 2014;32(4):640-653.