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RESEARCH PAPER · RISK MANAGEMENT

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Purpose	To provide a recommended method for constructing a risk management framework to assist organisations in practice.
Methodology	Literature review of principal risk management journals. Semi-structured interview with a director of an international company with responsibility for risk and sustainability. Inductive thematic analysis.
Findings	A six-step procedure for constructing a risk management framework is proposed, covering: risk environment determination; horizon scanning; risk culture; risk appetite; risk coverage mapping; and Risk Manual creation.
Keywords	Risk management framework, risk universe, risk appetite, risk map, horizon scanning, sustainability.

INTRODUCTION

Every organisation needs to consider risk management, especially in the prevailing volatile environment. A robust risk management framework is essential across all sectors — not just construction. The framework should encompass designing, implementing, monitoring, reviewing, and continuously improving risk management throughout the organisation (Sousa et al., 2012; ISO 31000:2009).

Allianz (2024) identifies the top global business risk categories for 2024: cyber security incidents (36%); business interruption (31%); natural catastrophes (26%); climate change (18%); and political risks (14%). This volatile context makes a structured risk management plan essential.

KEY RISK CATEGORIES FROM LITERATURE

Political Risk

The global free trade economy has given way to 'the new national security economy' (Lee & Glosserman, 2022). Silo-based risk management — each function managing its own risks — creates dangerous blind spots. Horizon scanning covering supply chains, production locations, and sensitive technology is critical. Geopolitical risk demonstrably reduces corporate innovation (Astvansh et al., 2022).

Environmental Risk

Physical risk must now be treated with the same urgency as cyber risk (Herrington, 2023). Extreme weather, political tensions and public health crises all threaten supply chains, assets and staff. Approximately 90% of businesses in climate-disaster zones suffer losses (Collier & Ragin, 2022). Risk planning should include prioritisation, transfer (insurance), avoidance (relocation), and mitigation (detection systems, asset reinforcement) (Macomber, 2022).

Cyber Risk

Cyber attacks breach security in approximately 25% of Fortune 1000 companies (Zeijlemaker et al., 2023). US law now requires formal cyber security policies. Investment in preventative measures, horizon scanning for emerging threats, and alignment with business objectives are all essential. SMEs require proportionate responses — appropriate controls matched to risk level without excessive overhead (Chapelle, 2023).

Risk Tactics

Four tactical responses to project risk events are identified: increase effort under existing arrangements; adjust existing arrangements; create a revised plan; terminate the project (Piperca & Floricel, 2023). 'Nudges' — planned or emergent interventions to confirm or correct project course — also effectively reduce risk (Bukoye et al., 2022). Partnership trust and control must be balanced; when trust erodes, applying structured controls can restore equilibrium (Swärd et al., 2023).

PRACTITIONER INTERVIEW: KEY THEMES

A semi-structured interview was conducted with a director of an international company responsible for risk and sustainability. The principal themes were:

Risk Universe via PESTEL

The risk universe should be mapped using PESTEL (Political, Economic, Social, Technological, Environmental, Legal) to provide a strategic, holistic view of risk exposure — with both challenges and potential rewards identified.

Horizon Scanning

Horizon scanning should be conducted by external agencies, supply chain contacts, and internal teams. Specialists and consultants augment the internal risk function — particularly for internal audit.

Risk Wall

A 'Risk Wall' maps all connected risk elements, revealing overlaps and concentrations. This enables both identification of gaps and removal of excessive duplication in risk coverage.

Risk Manual

A Risk Manual provides guidelines for assessing, managing and monitoring risk. It should be updated regularly and available to personnel at appropriate access levels.

Risk Appetite

Risk appetite varies by area — zero tolerance for health & safety and cyber risks; high tolerance for strategic development where potential loss is accepted to achieve gains.

Risk Culture & Champions

A culture where personnel feel confident discussing risk — supported by risk champions disseminating good practice within their teams — is essential to effective risk management.

> "A risk management framework is a set of deliverables to provide structure to successfully manage and mitigate risks — and ensure this area is managed in a cohesive way."

A PROCEDURE FOR CONSTRUCTING A RISK MANAGEMENT FRAMEWORK

Step	Key Action	Output Document
1. Determine Risk Environment	Process PESTEL data on political, economic, technological and environmental risk to map the risk universe.	Map of the Risk Universe
2. Horizon Scanning	Scan the environment for emerging risks using external agencies and internal teams.	Contract / Agreement
3. Establish Risk Culture	Educate employees on risk awareness. Recruit and train risk champions to manage team-level risk activities.	Procedures / Champion Role
4. Determine Risk Appetite	Consult major stakeholders and regulatory requirements to define risk appetite for key activities.	Stakeholder Agreement
5. Check Risk Coverage	Map all risk provisions to reveal omissions and duplication. Apply detection, mitigation, avoidance and contingency tactics.	Risk Map / Tactics
6. Create Risk Manual	Document all risk procedures — responsibilities, responses and crisis personnel. Update regularly.	Risk Manual / Procedures

CONCLUSION

This paper proposes a comprehensive, structured procedure for constructing a risk management framework applicable to all organisations. By integrating literature insights with practitioner recommendations, it provides a holistic approach covering political, environmental and cyber risk, together with the cultural and operational measures required for sustained risk management capability. Future research should examine the framework across wider sectors and regulatory environments.

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