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Integrating Risk Management into Management Accounting Control: A Contingency-Based Framework for Decision Quality and Organizational Resilience

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ABSTRACT

Management accounting systems are expected to translate strategy into budgets, performance measures, and resource-allocation decisions, yet risk management is often organized as a parallel compliance activity. This separation can produce financially precise plans that conceal uncertain assumptions, performance targets that reward excessive exposure, and risk reports that arrive too late to influence managerial choices. This conceptual paper examines how risk management can be embedded in management accounting control without reducing either function to a formal reporting exercise. Through a structured synthesis of management control, enterprise risk management, contingency, and control-package literature, the paper develops a framework built around four connected mechanisms: risk-informed planning and budgeting, risk-sensitive performance measurement, coordinated controls across the decision cycle, and learning-oriented information and escalation processes. The framework treats risk as an attribute of decisions and accountability rather than as a residual category confined to a corporate risk register. It further explains how governance roles, organizational culture, and contextual conditions shape the appropriate intensity and combination of controls. The analysis contributes an integrated vocabulary for connecting accounting information with risk appetite, decision rights, and organizational learning. For practitioners, it offers design principles for building a proportionate control architecture that supports both prudent constraint and informed risk-taking. Because the framework is conceptual, its propositions require empirical examination across industries, ownership forms, and institutional settings.

KEYWORDS

Management Accounting; Risk Management; Management Control Systems; Enterprise Risk Management; Budgeting; Organizational Resilience.

1. INTRODUCTION

Management accounting provides the informational and organizational infrastructure through which objectives become resource commitments, performance expectations, and accountable action. Budgets, cost analyses, scorecards, and evaluation systems do more than record economic activity: they influence which uncertainties managers notice, which trade-offs they consider legitimate, and which outcomes require explanation [1–3]. This decision-shaping role makes management accounting central to risk control. If risk considerations are absent from plans and measures, a separate risk function cannot easily correct the incentives embedded in everyday managerial decisions.

Enterprise risk management frameworks similarly emphasize the connection among strategy, performance, governance, and information. COSO locates risk within strategy selection and performance review, while ISO 31000 presents risk management as an integrated and iterative organizational process [4, 5]. In practice, however, integration is often incomplete. Risk registers may

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be maintained for assurance purposes while budgets are negotiated elsewhere; key risk indicators may be reported alongside, rather than within, performance reviews; and business units may retain discretion over targets without accepting equivalent accountability for the exposures created. The result is not necessarily an absence of controls, but a fragmented control architecture.

Research on accounting and risk cautions against treating this fragmentation as a simple documentation problem. Risk management is an organizational practice that constructs categories of concern, distributes responsibility, and makes particular forms of uncertainty governable [6]. The growing interdependence of management accounting, governance, and risk therefore raises questions about calculative authority and managerial behavior as well as technical design [7, 8]. Different calculative cultures can produce different responses to apparently similar risk information, including active debate, defensive compliance, or symbolic reassurance [9]. More extensive reporting alone cannot guarantee better control.

The central problem addressed in this paper is consequently one of alignment. A budget can acknowledge uncertainty without becoming a speculative forecast; a performance measure can discourage imprudent exposure without penalizing all negative deviations; and a control system can support escalation without transferring every decision to senior management. Achieving these outcomes requires mechanisms that connect risk appetite to decision rights, accounting assumptions to accountable owners, and performance evaluation to learning. It also requires recognition that formal controls interact with informal norms and that their usefulness varies across organizational contexts.

Accordingly, this paper asks: how can management accounting mechanisms be configured to embed risk management in managerial decision-making while preserving strategic initiative and proportionate accountability? The paper uses conceptual synthesis rather than empirical testing. It integrates established arguments from management control and risk research, compares their implications for recurring accounting routines, and develops a normative framework for design and implementation. No financial model, dataset, or statistical analysis is used; the objective is to clarify mechanisms and relationships that subsequent research can examine.

The paper makes three contributions. First, it reframes risk as a property of decisions, commitments, and accountabilities, thereby moving integration beyond the consolidation of reports. Second, it specifies how planning, measurement, information, and learning controls can operate as a coherent package rather than independent techniques. Third, it identifies contextual and behavioral conditions under which tighter formal control may support or obstruct resilience. The remainder of the paper reviews the theoretical foundations, presents the framework, explains governance and implementation requirements, and discusses implications and research limitations.

2. THEORETICAL FOUNDATIONS AND LITERATURE REVIEW

2.1. Management Accounting as Decision-Control Infrastructure

Management control research provides several complementary explanations of how accounting influences action. Diagnostic uses of control establish targets, monitor variances, and direct attention toward correction, whereas interactive uses stimulate discussion about strategic uncertainties and emerging opportunities [2]. Balanced measurement approaches broaden the informational basis of control beyond financial outcomes [3]. Together, these perspectives imply that risk control cannot be reduced to a single approval rule. It depends on how managers combine target setting, information interpretation, dialogue, and evaluation.

This view also distinguishes decision quality from outcome quality. A favorable outcome may follow a poorly controlled decision, while an adverse outcome may occur despite a reasonable process under uncertainty. Management accounting can make this distinction visible by documenting assumptions,

identifying authorized exposures, and separating deviations caused by execution from those caused by changed conditions. Such documentation supports accountability without converting uncertainty into retrospective blame. It also creates a basis for revising decisions when the premises underlying a plan no longer hold.

Nevertheless, accounting representations are selective. Cost categories, reporting periods, and responsibility centers can obscure interdependencies or encourage local optimization. A unit may reduce discretionary expenditure to meet a budget while increasing operational vulnerability elsewhere. A dashboard may display a stable financial position while supplier concentration, control overrides, or deferred maintenance remain outside its field of view. Risk-sensitive design therefore begins by asking which uncertainties are rendered invisible by existing accounting boundaries.

2.2. Risk Management as Organizational Practice

Enterprise risk management extends attention from isolated hazards to the portfolio of uncertainties affecting objectives. COSO highlights governance and culture, strategy and objective setting, performance, review and revision, and information and communication [4]. ISO 31000 similarly stresses integration, customization, inclusive consultation, and continual improvement [5]. These principles are compatible with management accounting because both concern the allocation of attention and resources. Yet compatibility at the level of principles does not ensure integration in practice.

Organizational research shows that risk management systems acquire meaning through their use. Power argues that the expansion of risk management reorganizes uncertainty around auditable processes and accountable roles [6]. Mikes demonstrates that calculative cultures influence whether quantitative risk representations become objects of challenge or instruments of confirmation [9]. Arena, Arnaboldi, and Azzone further show that enterprise risk management evolves through interactions among actors, technologies, and organizational interests rather than through straightforward technical adoption [10]. Accounting integration must therefore address who can interpret, contest, and act upon information.

A related concern is the tendency of formal risk apparatus to create reassurance without corresponding changes in decisions. Huber and Scheytt describe risk management as a broader dispositif that organizes conduct and responsibility [11]. Applied to management accounting, this argument suggests that risk-adjusted labels, heat maps, or appetite statements may become ceremonial if managers cannot connect them to budget trade-offs and performance consequences. The relevant design question is thus not whether a risk category appears in a report, but whether it alters a commitment, escalation, or evaluation.

2.3. Contingency and Control-Package Perspectives

Contingency research rejects the assumption that one control configuration is universally appropriate. Environmental uncertainty, technology, size, strategy, and interdependence affect the information and coordination demands placed on control systems. Woods shows that enterprise risk management design is shaped by organizational context [12], and Chenhall situates management control design within a broader set of contextual variables [13]. For risk control, this means that extensive quantification, centralized approval, or frequent reporting may be valuable in one setting and burdensome or misleading in another.

The control-package perspective adds that techniques should be evaluated in relation to one another. Malmi and Brown distinguish planning, cybernetic, reward and compensation, administrative, and cultural controls [14]. Grabner and Moers explain that elements of a package may function as complements or substitutes and that apparent inconsistencies can reflect different levels of analysis [15]. Bedford and Malmi likewise demonstrate the value of examining configurations rather than

isolated practices [16]. A risk register, for example, may add little where interactive budget reviews already support effective challenge, but become important when decentralized units lack a common escalation vocabulary.

These literatures leave a practical integration gap. Management control research addresses accounting routines and behavioral consequences, while risk research addresses uncertainty, governance, and organizational practice, but their concepts are often connected only at a general level. The framework developed below links them through the managerial decision cycle. It treats each accounting routine as a site where risk can be identified, authorized, monitored, escalated, and learned from, with the overall package calibrated to context.

3. A FRAMEWORK FOR EMBEDDING RISK IN MANAGEMENT ACCOUNTING CONTROL

The proposed framework is organized around decision-cycle alignment: every material commitment should have an explicit objective, an identifiable uncertainty, an accountable owner, and a review mechanism. Four mechanisms support this alignment. Risk-informed planning connects assumptions and appetite to resource commitments; risk-sensitive measurement connects results to the exposures accepted; coordinated controls connect authorization, monitoring, and incentives; and learning-oriented information processes connect deviations and incidents to revision. The mechanisms are mutually reinforcing and should not be implemented as isolated documentation requirements.

3.1. Risk-Informed Strategic Planning and Budgeting

Planning is the first point at which risk becomes financially consequential. A plan expresses assumptions about demand, capacity, input availability, regulation, technology, and managerial response. Risk-informed planning makes those assumptions discussable without pretending that all uncertainty can be quantified. Each material planning premise should have an owner and a qualitative explanation of why it is reasonable, what would challenge it, and which decision would change if it failed. This approach turns the budget from a fixed promise into an explicit set of conditional commitments.

Risk appetite becomes operational only when translated into decision rules. A general statement that an organization has a low appetite for operational disruption, for instance, needs to be reflected in maintenance priorities, supplier qualification, contingency capacity, and approval thresholds. Conversely, an appetite for innovation should authorize bounded experimentation rather than indiscriminate spending. Management accountants can mediate this translation by showing how alternative commitments distribute resources across protection, adaptation, and opportunity. Their role is not to assign a numerical value to every exposure, but to make trade-offs visible before resources are locked in.

Budget research already recognizes that risk is negotiated through budgeting processes rather than merely appended to them [17]. Budgets can also support strategic change when used as platforms for communication and learning rather than solely as contracts for expenditure control [18]. Building on these insights, organizations can distinguish three budget components: committed resources for baseline operations, conditional resources released when defined premises hold, and discretionary reserves for uncertain events or opportunities. This distinction clarifies decision rights and reduces the need for concealed contingency within line items.

Periodic review should focus on changes in premises and interdependencies, not only on variance from the original plan. A sales shortfall may be less important than the assumption failure it reveals; equally, favorable revenue may conceal unsustainable discounting or customer concentration. Rolling review meetings should therefore ask whether the organization remains within authorized exposure,

whether responses have altered the cost or feasibility of the plan, and whether resources should be reallocated. Such review preserves budget discipline while allowing timely adaptation.

3.2. Risk-Sensitive Performance Measurement and Incentives

Performance systems shape risk behavior by defining success and determining the consequences of deviation. Financial targets can legitimately maintain discipline, but they become hazardous when managers are rewarded for outcomes without regard to the exposures used to achieve them. A risk-sensitive system evaluates both results and decision conduct. It asks whether commitments remained within delegated authority, whether adverse information was escalated, whether controls were overridden, and whether corrective action was timely.

Balanced performance measurement provides a useful starting point, but adding risk indicators to a scorecard is insufficient [3]. Indicators need explicit links to objectives and decisions. A supplier-related measure, for example, should inform sourcing or inventory commitments rather than serve as an isolated warning color. Leading indicators can reveal changing exposure, while lagging indicators document losses, service failures, or control breakdowns. The two should be interpreted together to avoid both premature alarm and retrospective explanation without prevention.

Otley's performance management framework emphasizes objectives, strategies, targets, rewards, and information flows as an interconnected system [19]. Consistent with that view, risk adjustment should occur through evaluation rules and managerial dialogue rather than through a universal formula. Explanations of performance should distinguish execution variance, externally driven change, authorized experimentation, and unauthorized exposure. Ittner and Larcker's emphasis on the economic and measurement foundations of managerial accounting research also supports caution about weakly grounded performance links [20]. Measures should be selected because they represent causal or accountability relationships, not because data are readily available.

Incentives require particular care. Mechanical penalties for every adverse variance encourage concealment and excessive conservatism, while unrestricted upside rewards can encourage risk shifting. Evaluation committees should consider the quality of forecasting, escalation, and response alongside financial achievement. Deferred or discretionary reward elements may be appropriate where exposures materialize over longer periods, but procedural fairness remains essential. Employees should know in advance which behaviors are required and which decisions fall within their authority; retrospective changes to evaluation criteria undermine both trust and reporting.

3.3. Coordinated Controls across the Decision Cycle

A decision-cycle perspective prevents individual techniques from becoming disconnected control islands. Administrative controls define authority and escalation; planning controls establish conditional commitments; cybernetic controls monitor deviations; reward controls shape behavior; and cultural controls influence what employees regard as reportable or acceptable [14]. The effectiveness of the package depends on consistency. It is counterproductive to authorize experimentation culturally while evaluating every unsuccessful trial as a budgeting failure, or to require rapid escalation while maintaining approval channels that cannot respond promptly.

Table 1 summarizes how management accounting mechanisms can be connected across recurring stages of the decision cycle. Its purpose is not to prescribe additional reports for every stage, but to clarify the minimum information and accountability needed for a decision to remain governable. Organizations can begin with material commitments and add detail only where uncertainty, interdependence, or potential impact justifies it.

Table 1. Management Accounting Mechanisms for Embedded Risk Control

Decision stage	Risk-control question	Management accounting mechanism	Governance safeguard
Planning	Which assumptions could materially alter the objective or resource requirement?	Owned planning premises, qualitative scenarios, conditional resource commitments	Challenge of material assumptions and documentation of disagreement
Authorization	What exposure may the decision create, and who may accept it?	Appetite-linked approval thresholds and delegated budget authority	Clear decision rights, segregation of duties, and recorded exceptions
Execution	Are operations remaining within approved conditions and capacity?	Variance review combined with leading and lagging indicators	Defined escalation triggers, response owners, and response deadlines
Evaluation	Did results reflect execution, changed conditions, or accepted exposure?	Contextual performance review and assessment of decision conduct	Consistent evaluation criteria and scrutiny of control overrides
Learning	Which assumptions, controls, or resource allocations should change?	Post-completion review and revision of plans, indicators, and thresholds	Tracked corrective actions and periodic retirement of obsolete controls

3.4. Information, Escalation, and Organizational Learning

Risk information becomes useful when it reaches actors with relevant knowledge and decision rights at the right time. Escalation thresholds should therefore specify not only when to report, but to whom, for what decision, and within what response window. A threshold based solely on financial magnitude may miss rapidly developing operational, legal, or reputational exposure. Qualitative triggers—such as loss of a critical skill, repeated control override, or failure of a key assumption—can be equally important. Escalation should enable informed action rather than demonstrate that a report was transmitted.

Management accountants can improve information quality by reconciling operational narratives with financial representations and by preserving the provenance of important assumptions. Dashboards should distinguish observed facts, estimates, judgments, and unresolved disagreements. Automated alerts may support timeliness, but they cannot determine materiality or resolve conflicting objectives. Clear ownership of data definitions, access rights, and changes to indicators is necessary to prevent apparent precision from concealing inconsistent inputs.

Learning completes the control cycle. Near misses, successful adaptations, failed experiments, and post-completion reviews should be used to revise assumptions, authorities, and resource allocations. Middle managers are particularly important because management control systems influence how strategic information is interpreted and communicated across organizational levels [21]. A learning-oriented review distinguishes a weak decision process from an unfavorable outcome and records the reasoning behind changes. This record reduces repeated debate and supports more consistent future judgment.

3.5. Contextual Calibration and Proportionality

Proportionality is central to the framework. Organizations facing stable demand and limited interdependence may rely on periodic review and clear expenditure authority, whereas those facing rapid technological or regulatory change may require more frequent premise testing and interactive control. High potential impact can justify stronger independent challenge even when the perceived

likelihood is low. By contrast, multiplying approval layers for routine low-impact decisions can consume attention and weaken accountability for material exposure.

Organizational size and capability also matter. Smaller entities may not need separate risk committees or elaborate taxonomies; a management accountant or finance manager can facilitate structured discussion within existing planning meetings. Public-sector and mission-driven organizations may need to consider service continuity and stakeholder obligations that cannot be reduced to financial loss. Regulated entities may require more explicit evidence and segregation of duties. Table 2 illustrates how contextual conditions can alter the emphasis of the control package without changing its underlying logic.

Calibration should itself be reviewed. A control introduced during a crisis may persist after its informational value has declined, while rapid growth may render informal escalation inadequate. Periodic assessment should ask which controls changed decisions, which produced duplicated effort, and where important exposures remain outside review. The aim is an adaptable architecture, not the permanent accumulation of procedures.

Table 2. Contextual Calibration of the Risk-Control Package

Contextual condition	Control emphasis	Expected benefit	Potential failure mode to monitor
High environmental uncertainty	Frequent premise review, conditional commitments, interactive discussion	Faster adaptation without abandoning accountability	Continuous revision that prevents commitment or learning
Stable and repetitive operations	Clear standards, exception reporting, periodic control review	Efficient monitoring with limited administrative burden	False reassurance from stable historical indicators
High interdependence	Cross-functional measures and a designated decision integrator	Visibility of transferred and aggregated exposure	Local optimization and fragmented ownership
Resource-constrained organization	Integration into existing meetings and a small set of material triggers	Proportionate control without a separate bureaucracy	Excessive simplification of consequential exposure
Strong regulatory or public-service obligations	Traceable authority, evidence, segregation, and continuity measures	Defensible decisions and protection of stakeholder obligations	Compliance formalism that displaces substantive review

4. GOVERNANCE AND IMPLEMENTATION

4.1. Roles and Accountabilities

Effective integration depends on differentiated but connected roles. The board or equivalent governing body approves risk appetite, scrutinizes material exposures, and ensures that incentive structures support desired conduct. Executive management translates appetite into strategic choices and allocates resources. Operational managers own the assumptions and responses associated with their commitments. Risk specialists provide challenge, methods, and portfolio perspective, while internal audit offers independent assurance over the design and operation of controls without assuming ownership of managerial decisions.

The finance function occupies a pivotal position because it connects plans, resources, performance, and accountability. Management accountants should act as integrators who test the consistency of assumptions, clarify financial and nonfinancial consequences, and facilitate review. This role requires more than technical reporting competence. It requires the authority to request evidence, the judgment to recognize weak signals, and the independence to present uncomfortable interpretations. If finance

is evaluated solely on reporting speed or budget adherence, its capacity for constructive challenge may be constrained.

Accountability should follow decision rights. Managers cannot reasonably own exposures over which they have no influence, but they can own timely escalation and cooperation. Material decisions that cross responsibility centers require a designated integrator and explicit rules for resolving trade-offs. Documenting these arrangements prevents risk ownership from becoming a generic label attached to every manager while remaining actionable for none.

4.2. Phased Implementation

Implementation should begin with diagnosis rather than taxonomy design. The organization can select a small number of consequential decisions—such as annual investment commitments, major sourcing arrangements, or pricing under volatile demand—and trace how assumptions, approvals, performance measures, and escalation currently interact. Interviews and document review should identify duplicated controls, unclear decision rights, and information that is reported but not used. The objective is to locate decision failures, not to assess compliance with an ideal template.

The second stage is co-design. Finance, operations, risk, and assurance representatives should agree on a limited set of planning premises, appetite-related decision rules, indicators, and escalation triggers. Existing routines should be modified before new committees or reports are introduced. For example, a recurring budget review can incorporate premise changes and authorized exposure, while a performance meeting can separate outcome evaluation from evaluation of decision conduct. Common definitions are necessary, but excessive standardization should not erase important differences among activities.

Piloting provides the third stage. A business unit can apply the revised routines to material decisions and assess whether discussions become more timely, whether responsibilities are clearer, and whether reports actually influence resource allocation. Feedback should cover both missed signals and unnecessary burden. Pilot evidence is organizational learning rather than statistical validation; it supports refinement of the process but does not establish general causal effectiveness.

The final stage is institutionalization. Delegations, meeting agendas, evaluation guidance, and training should reflect the agreed control logic. Senior leaders need to model consistent responses to escalation, especially when bad news affects short-term results. Periodic reviews should retire obsolete measures and revisit thresholds as strategy and context change. Implementation is therefore a continuing governance process, not a one-time systems project.

4.3. Culture, Ethics, and Behavioral Safeguards

Formal integration will fail if employees expect risk disclosure to trigger automatic punishment. Interactive control depends on open debate about strategic uncertainty [2], and constructive calculative cultures depend on the legitimacy of challenge [9]. Leaders should distinguish accountable reporting from blame for uncertainty itself. Near-miss reporting, dissenting assessments, and revisions to earlier judgments should be treated as contributions to control when they are timely and evidence-based.

At the same time, openness must not become an excuse for weak discipline. Control overrides, retaliation, deliberate misclassification, and concealment require clear consequences. Ethical safeguards include confidential reporting channels, transparent investigation procedures, protection against conflicts of interest, and documentation of evaluation judgments. Managers should not be able to redefine an unauthorized exposure as an approved experiment after an adverse outcome.

Behavioral safeguards also apply to experts. Risk specialists can become overly attached to taxonomies, while accountants can privilege measurable financial effects over less tractable

stakeholder consequences. Cross-functional review and explicit records of disagreement can reduce these blind spots. The goal is not consensus on every judgment, but a decision process in which material disagreement is visible, reasons are recorded, and authority is clear.

5. DISCUSSION

5.1. Theoretical Implications

The framework extends management accounting research by locating risk within the design of commitments and accountabilities. Rather than treating risk management as an additional information stream, it shows how uncertainty can shape budget conditionality, evaluation rules, and delegation. This perspective connects diagnostic and interactive control: diagnostic mechanisms preserve boundaries and traceability, while interactive mechanisms enable revision when premises change. Their combination helps explain why control can support adaptation rather than only restriction.

The analysis also contributes to control-package research by identifying decision-cycle alignment as a basis for assessing complementarity. Controls are complementary when a premise recorded in planning becomes an authorized exposure in execution and an interpretive criterion in evaluation. They are inconsistent when one mechanism encourages disclosure and another penalizes it. Henri's resource-based analysis of management control and strategy supports examining how such control capabilities contribute to organizational resources and strategic action [22], while broader reviews of management control emphasize the continuing need to connect technical design with organizational behavior [23].

For risk research, the framework offers a response to concerns about ceremonial formalization. Risk becomes organizationally consequential when it changes the timing, ownership, or conditions of a decision. This criterion shifts attention from the volume of risk documentation to the pathways through which representations affect conduct. It also suggests why identical tools may operate differently across calculative cultures and institutional settings.

5.2. Practical Implications

For practitioners, the first implication is to prioritize decision points over comprehensive inventories. A limited set of material commitments provides a manageable setting for connecting appetite, resources, measures, and escalation. Once these connections function, organizations can extend them incrementally. This approach is especially useful where a large risk register coexists with unchanged budget and evaluation routines.

Second, integration should remove as well as add controls. Duplicate reports, unused indicators, and overlapping approvals can obscure accountability and reduce time for analysis. A useful review asks whether each control changes a decision, supports learning, or provides necessary assurance. Controls serving none of these purposes should be redesigned or withdrawn.

Third, management accountants need a mandate for informed challenge. Their contribution lies in connecting financial representations with operational assumptions and stakeholder consequences, not in claiming predictive certainty. Organizations that preserve this mandate are better positioned to combine prudent constraint with responsible experimentation.

6. CONCLUSION

This paper has developed a conceptual framework for integrating risk management into management accounting control. The framework links risk-informed planning, risk-sensitive performance evaluation, coordinated control packages, and learning-oriented information processes. Its central

argument is that integration occurs when uncertainty influences commitments, decision rights, escalation, and evaluation—not when risk reports are merely appended to accounting reports. Contextual calibration and behavioral safeguards determine whether these mechanisms produce useful control or additional formality.

The framework has practical relevance for organizations seeking to improve decision quality and resilience without building parallel bureaucracies. It positions management accountants as connectors among strategy, resources, accountability, and organizational learning. It also emphasizes that prudent control is not equivalent to risk avoidance: clearly authorized and reviewed exposure can support innovation, while ambiguous responsibility can make even conservative plans fragile.

The study is limited by its conceptual design. It does not test causal relationships, compare organizational performance, or establish that the proposed mechanisms are effective in every setting. Future research should use case studies, surveys, and longitudinal designs to examine how control packages evolve, how managers interpret conditional budgets, and how evaluation practices affect disclosure and escalation. Comparative research across sectors, organizational sizes, and institutional environments would further clarify which elements are foundational and which are contingent.

CONFLICTS OF INTEREST

The author declares no conflict of interest.

REFERENCES

[1] Merchant, K. A., & Van der Stede, W. A. (2017). Management control systems: Performance measurement, evaluation and incentives (4th ed.). Pearson.

[2] Simons, R. (1995). Levers of control: How managers use innovative control systems to drive strategic renewal. Harvard Business School Press.

[3] Kaplan, R. S., & Norton, D. P. (1992). The balanced scorecard—Measures that drive performance. Harvard Business Review, 70(1), 71–79.

[4] Committee of Sponsoring Organizations of the Treadway Commission (COSO). (2017). Enterprise risk management—Integrating with strategy and performance. COSO.

[5] International Organization for Standardization (ISO). (2018). ISO 31000:2018--Risk management: Guidelines. ISO.

[6] Power, M. (2007). Organized uncertainty: Designing a world of risk management. Oxford University Press.

[7] Bhimani, A. (2009). Risk management, corporate governance and management accounting: Emerging interdependencies. Management Accounting Research, 20(1), 2–5. https://doi.org/10.1016/j.mar.2008.11.002.

[8] Soin, K., & Collier, P. (2013). Risk and risk management in management accounting and control. Management Accounting Research, 24(2), 82–87. https://doi.org/10.1016/j.mar.2013.04.003.

[9] Mikes, A. (2009). Risk management and calculative cultures. Management Accounting Research, 20(1), 18–40. https://doi.org/10.1016/j.mar.2008.10.005.

[10] Arena, M., Arnaboldi, M., & Azzone, G. (2010). The organizational dynamics of enterprise risk management. Accounting, Organizations and Society, 35(7), 659–675. https://doi.org/10.1016/j.aos.2010.07.003.

[11] Huber, C., & Scheytt, T. (2013). The dispositif of risk management: Reconstructing risk management after the financial crisis. Management Accounting Research, 24(2), 88–99. https://doi.org/10.1016/j.mar.2013.04.006.

[12] Woods, M. (2009). A contingency theory perspective on the risk management control system within Birmingham City Council. Management Accounting Research, 20(1), 69–81. https://doi.org/10.1016/j.mar.2008.10.003.

[13] Chenhall, R. H. (2003). Management control systems design within its organizational context: Findings from contingency-based research and directions for the future. Accounting, Organizations and Society, 28(2–3), 127–168. https://doi.org/10.1016/S0361-3682(01)00027-7.

[14] Malmi, T., & Brown, D. A. (2008). Management control systems as a package—Opportunities, challenges and research directions. Management Accounting Research, 19(4), 287–300. https://doi.org/10.1016/j.mar.2008.09.003.

[15] Grabner, I., & Moers, F. (2013). Management control as a system or a package? Conceptual and empirical issues. Accounting, Organizations and Society, 38(6–7), 407–419. https://doi.org/10.1016/j.aos.2013.09.002.

[16] Bedford, D. S., & Malmi, T. (2015). Configurations of control: An exploratory analysis. Management Accounting Research, 27, 2–26. https://doi.org/10.1016/j.mar.2015.04.002.

[17] Collier, P. M., & Berry, A. J. (2002). Risk in the process of budgeting. Management Accounting Research, 13(3), 273–297. https://doi.org/10.1006/mare.2002.0190.

[18] Abernethy, M. A., & Brownell, P. (1999). The role of budgets in organizations facing strategic change: An exploratory study. Accounting, Organizations and Society, 24(3), 189–204. https://doi.org/10.1016/S0361-3682(98)00059-2.

[19] Otley, D. (1999). Performance management: A framework for management control systems research. Management Accounting Research, 10(4), 363–382. https://doi.org/10.1006/mare.1999.0115.

[20] Ittner, C. D., & Larcker, D. F. (2001). Assessing empirical research in managerial accounting: A value-based management perspective. Journal of Accounting and Economics, 32(1–3), 349–410. https://doi.org/10.1016/S0165-4101(01)00026-X.

[21] Marginson, D. E. W. (2002). Management control systems and their effects on strategy formation at middle-management levels: Evidence from a U.K. organization. Strategic Management Journal, 23(11), 1019–1031. https://doi.org/10.1002/smj.271.

[22] Henri, J.-F. (2006). Management control systems and strategy: A resource-based perspective. Accounting, Organizations and Society, 31(6), 529–558. https://doi.org/10.1016/j.aos.2005.07.001.

[23] Berry, A. J., Coad, A. F., Harris, E. P., Otley, D. T., & Stringer, C. (2009). Emerging themes in management control: A review of recent literature. The British Accounting Review, 41(1), 2–20. https://doi.org/10.1016/j.bar.2008.09.001.