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A Comparison Study of Risk-based Auditing in Four Developed Countries

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Abstract

Purpose: This study aimed to identify and compare the best practices of a risk-based audit (RBA) approach used in four developed countries.

Design/ Methodology/ Approach: A thorough library search and examination of the literature on the RBA approach was conducted. Denmark, Australia, Canada, and the United Kingdom were selected based on their excellent positions in the Corruption Perception Index 2022 ranking.

Findings: The four countries adopted the Institute of Internal Audit standards in conducting their RBA. All four countries, except Denmark, used the ISO 31000:2018 as a guidance framework. Furthermore, the four countries used comparable risk determination, assessment, and control techniques. Additionally, the RBA risk governance structure of the four countries is based on the Three Lines of Defence concept.

Research Limitations/ Implications: Most of the data were from secondary sources. Only four countries were compared and were selected using only one index. Additionally, the study focused on internal auditing practices as a public governance tool.

Practical Implications: The results presented the opportunity for government internal auditors to reconsider and enhance auditing procedures to increase public sector delivery system efficacy.

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Originality/ Value: This article covers the RBA used by internal auditors in four developed countries. The results could catalyse investigations into the efficacy and best practices of additional elements in public sector governance.

Keywords: Risk-based audit, internal audit, public sector, governance, risk management.

1.0 Introduction

The public sector is the primary provider of services to the public. A smoothly operating public sector ensures a comfortable life for all citizens. Conversely, an underperforming public sector leads to the unsuccessful execution of planned policies. Public sectors worldwide, especially those in developing countries, do not function well due to widespread fraud, poor governance, corruption, and inefficiency (Hartt, 2016; Jones, 2022; Lyra et al., 2022). For example, Shuwaili et al. (2023) stated that there is an increasing trend of fraud, corruption, and inefficiency in expense management in the Iraqi public sector. Such incidences prevent the government from fulfilling the people's aspirations. Furthermore, the government does not fulfil its citizens' needs. Thus, citizens remain unable to enjoy the basic facilities of life. The effects of government delivery system failure and various unethical activities erode public confidence. For this reason, public sectors worldwide must improve their governing effectiveness. Government agencies and institutions must be ready to address public governance challenges and have specific strategies for resolving new issues.

A government with an organized risk management method and system can manage issues effectively. Risk management aims to ensure that all management-related activities effectively and directly accomplish organisational goals (Tchankova, 2002). The internal auditor evaluates the effectiveness of the management's risk management practices and improves government performance. Nonetheless, internal audit function and effectiveness in governance practices remain debated. Mohd Yusof et al. (2016) supported the effectiveness of internal audits in Malaysia when public sector fund leakage is frequently reported in the Auditor General Report and causes substantial national financial losses. Thus, an internal auditing method requires constant improvement. Therefore, internal auditors should consider and comprehend RBA. As RBA uses the greatest available risk analysis, auditors can increase organizational efficiency with its support.

Implementing RBA in the public sector depends on government commitment and determination to improve internal audit service quality. The RBA may lead to less public funds leakage and better government fund management. As the authorities determine an auditing method, government auditing might lack uniformity. The non-uniformity of auditing practices renders it challenging to compare efficiency and effectiveness between governments. Nevertheless, any good RBA practice should be a reference for a government in developing a reliable auditing method. The RBA may be a common and accepted practice in countries with a dependable public administration system but might be a novelty in countries with a complex public administration structure.

Based on the aforementioned issues, this study aimed to identify the best practices of an RBA approach used in four developed countries. This study examined the extent of RBA practice in

the selected countries and how it contributes to public sector management efficiency. Understanding the RBA practices and models in the four countries will be an example and guide the Malaysian government internal audit department in developing an appropriate RBA model.

2.0 Literature Review

2.1 The RBA Approach

Auditors use the RBA approach when conducting an audit, where they focus on analysing and managing different risks that could lead to material misstatements. The RBA approach provides an independent and objective opinion of organisational management on whether its risks are managed to acceptable levels (Knechel, 2007). The RBA focuses on the application and effectiveness of risk management procedures, risk assessment methodologies, and a critical evaluation of the internal control system adequacy and effectiveness (Zainal Abidin, 2017). Furthermore, RBA differs from other internal audits and requires extensive knowledge of the business and its risks. Thus, the approach is frequently considered complex. Nonetheless, the RBA increases auditing efficiency, is risk-focused and -oriented, adds value to the organisation, has a more transparent audit trail, encourages strong risk management processes, and classifies and reports risk appropriately (Chaudhari, 2017).

Risk-based internal auditing focuses on strategic analysis and business process evaluation (Campbell et al., 2006). Additionally, goals, risks, and controls that must combine for organisational success are evaluated (Rivenbark, 2000). Internal auditing ensures that resources are sufficient and directed toward goals by recognizing, evaluating, and tracking organisational risk (Kunkel, 2004). Generally, RBA assesses areas of heightened risk (Griffiths, 2006) and conducts continuous risk assessments (O'Regan, 2002). Management and the board should be informed of the findings from a thorough yearly risk assessment and from risk assessments conducted at the beginning of each internal audit engagement (Jackson, 2005).

2.2 RBA Practices in Four Developed Countries

The Transparency International Corruption Perception Index (CPI) is an appropriate index for identifying countries with strong internal control. The CPI measures perceptions of public sector corruption, which indicate how well national institutions manage and prevent corrupt practices. Countries with higher CPI scores frequently have effective internal control mechanisms, such as transparent processes, accountable leadership, and strong regulatory frameworks. High CPI scores suggest a culture of integrity and ethical behaviour in the government and business sectors, which are essential aspects of robust internal control. As corruption undermines internal control by eroding trust, altering decision-making, and increasing operational risks, countries with lower perceived corruption levels (reflected in higher CPI scores) are likely to have better internal control practices to mitigate these risks.

The CPI provides practitioners with a helpful starting point for creating reform action plans. Customized programs should be highly contextual and adapted to political and bureaucratic situations to be successful (Beschel, 2018). Numerous published articles have used the CPI as a trustworthy metric. For example, Graeff and Mehlkop (2003) reported that the direction

and magnitude of the effect of certain aspects of economic freedom on corruption depend on whether the country is rich or poor. Furthermore, Damania et al. (2004) used the CPI to explore the influence of legal regulation compliance on corruption practice resilience. The following section analyses the RBA practices in Denmark, Australia, Canada, and the United Kingdom.

2.2.1 Denmark

Internal control and supervision are paramount in ensuring responsible public funds management, where responsibility cascades from ministerial leadership to accounting teams. Departments oversee control systems and risk management and emphasise the establishment of relevant guidelines and risk report assessments, particularly audit comments. The Danish governance framework uses the Three Lines of Defence model, in which management addresses the first line, independent oversight units (internal audit) form the second, and external entities (national audit office) constitute the third line. Hence, the model ensures transparency and accountability.

Danish governance and internal audit practices are structured across three national, regional, and local levels and encompass ministries, agencies, regions, counties, and municipalities. The strong position of Denmark in the CPI underscores its commitment to good governance and robust internal audit practices. In Denmark, internal audits are centralised at national ministries, while national-level agencies have independent internal audit departments and central oversight units within the ministries. Remarkably, Copenhagen is the only local government that maintains its Internal Audit Department. Interestingly, Denmark lacks legal mandates for internal audits. Instead, it relies on recognised standards, such as the Institute of Internal Auditors (IIA) and The Good Public Audit Standard (Jóhannesdóttir et al., 2018).

The Danish risk-based internal audit practices are integral to enhancing governance, risk management, and control systems within public sector organisations. Denmark ensures effective governance and transparency by addressing critical risks, utilising technology, promoting compliance, and fostering collaboration, which aligns with international standards and adapts to changing public and private sector landscapes (Government of Denmark, 2022).

The RBA practices in Denmark encompass comprehensive risk assessment, prioritisation of critical risks, integrated audits, data analytics, compliance focus, continuous monitoring, stakeholder collaboration, adherence to international standards, and maintaining independence. Recent regulatory changes strengthened handling of audit comments, centralised reporting of supervision conclusions, and appointed control environment officers in institutions. These changes aimed to mitigate public fund fraud and enhance vigilance. A guide was developed to facilitate the implementation of these new requirements.

A risk management study on a Danish municipality demonstrated that risk management created unanticipated uncertainties rather than reducing uncertainty. Among the uncertainties were the legal aspects of risk management solutions, specifically the document types deemed legally valid, risk management definition and operationalization, and the resources available for expanding risk management. Generally, these uncertainties related to operational managers' professional identities and tasks presented by the framing devices (Vinnari & Skærbæk, 2014). Therefore, internal audit practices should be improved to be more structured and comprehensive.

2.2.2 Australia

In 2023, the IIA Australia released a white paper entitled “Integrated Risk-Based Internal Auditing”. The white paper highlighted that integrated risk-based internal auditing aims to deliver increased value through effective, efficient, and relevant internal auditing. RBA does so by combining aspects, approaches, and techniques into a single audit while focussing on the areas of highest risk to customers, stakeholders, organisations, communities, and the environment. Notably under the IIA Implementation Guide 2010 ‘Planning’, the IIA International Professional Practices Framework (IPPF) states that “the Chief Audit Executive (CAE) is responsible for establishing a risk-based plan to determine the priorities of the internal audit activity. The audit works need to be consistent with the goals and aligned with documented risk assessment, which is undertaken at least annually” (IIA Australia, 2023).

“Internal Audit Manual & Charter 2020-2021” outlines the Information and Privacy Commission (IPC) RBA processes for internal audit management and oversight in accordance with the Treasury Policy & Guidelines Paper TPP 15-03 Internal Audit and Risk Management Policy for the NSW Public Sector (TPP 15-03). The TPP 15-03 Core Requirement 2 requires that the internal audit function be consistent with the International Standards for the Professional Practice of Internal Auditing (IIA Standards) and additional practice requirements established by the Policy (IPC NSW, 2021). Australian government agency internal auditors also refer to “AS ISO 31000:2008 Risk Management – Guidelines” when conducting RBAs (NSW Government, 2023).

Internal audit planning involves the establishment of an Annual Internal Audit Plan (“Plan”) and Internal Audit Project Brief. For example, if there are changing priorities or emerging risks that require adjustment to the Plan, the Audit & Risk Committee will review the proposed changes for approval by the Chief Executive (IPC NSW, 2021). The Plan aims to balance financial, compliance, performance, and operational reviews and between business processes, future projects and change initiatives. The Plan includes a rolling two-year strategic summary of internal audit activity to provide an overview of previous internal audit activity, proposed current-year reviews, and potential reviews identified during the planning (IPC NSW, 2021).

Strategic planning for internal audit and assurance services is crucial throughout RBA planning to guarantee that the internal audit is focused on areas that will yield the greatest value and benefit to the IPC. A risk-based planning process allows for the identification of internal audit engagements in the best interests of IPC and that do not overlap with other internal and external assurance and review mechanisms. The IPC adopted an RBA to determine the priorities for the Plan.

Performing an audit involves the Audit Cycle, which covers all aspects of an audit from initial plan to final resolution of all matters raised. The Audit Cycle is based on the performance standards outlined in the IIA International Standards for the Professional Practice of Internal Auditing (IPC NSW, 2021). The CAE together with the Service Provider (Internal Audit) as in Figure 1 below is responsible for Step 1 of the Audit Cycle; the Service Provider (Internal Audit) is responsible for Steps 2, 3, and 4; and the CAE and the Service Provider (Internal Audit) is responsible for Step 5.



Figure 1: Audit Cycle
Source: Internal Audit Manual & Charter 2020-2021 (IPC NSW, 2021)

2.2.3 Canada

The Canadian federal system of government is divided into federal, provincial, territorial, and municipal levels (Farshadfar et al., 2022). Each level has the authority to determine the accounting policies applied. The Canadian government strongly emphasises the concept of accounting conservatism (Cziffra et al., 2023). Furthermore, auditing quality can be improved by examining the auditor's work through a specific body or evaluating it through other auditors. Dutta (2020) stated that internal audits added value to the federal department by improving management control, governance practices, and risk management. Moreover, the internal audit was placed appropriately in the department, which rendered it more innovative. This result aligned with the role of internal auditors of managing strategic risks and avoiding mismanagement risks (Sakka, 2020).

The Direct Engagement Manual facilitates auditing work in Canada. The manual guides auditors on the basic concepts of auditing and audit procedures, planning, and reports. The manual contains the Chartered Professional Accountants of Canada (CPA Canada) standards of assurance, the Auditor General's policies, and guidance on applying standards and policies. Furthermore, the Treasury Board issued a Risk Management Policy that guides risk management in the Canadian public sector. The policy aims to protect the interests of government rights (government property) and civil servants. Additionally, audit guides and tools are generally used in audit procedures, related tools, and specialised areas. The Canadian Standards on Assurance Engagements (CSAE) 3001 are among the most relevant standards related to risk and audit practices. Based on the standards, auditors must choose the audit type and extent that will be performed and reported and determine the nature, scope, and report. Furthermore, the standard requires auditors to consider and identify risks when planning and conducting audit activities.

The government hopes that the RBA method will focus internal audit resources in the organisation on higher-risk units without neglecting other units. Accordingly, a risk assessment survey and consultation should be conducted with customer management to identify the areas that require audit focus. The process will increase internal audit efficiency and value

(Government of Canada, 2021). An audit of a Canadian public entity reported that there was an integrated risk management process and a clear governance structure to support good risk management practices. Nevertheless, the audit report also suggested implementing an enterprise risk management framework to identify, monitor, and update significant risks (Government of Canada, 2023).

2.2.4 The United Kingdom

The United Kingdom public sector audit shares key similarities with corporate audit, where financial audits are conducted under the International Standards of Auditing (ISA) and financial statements are prepared based on the International Financial Reporting Standards (IFRS). Nevertheless, the public and private sector audits differ slightly in the audit report scope and the complexities of financial reporting complexity in the central and local government bodies. The United Kingdom Public Sector Internal Audit Standards (PSIAS) are based on the IIA international standards, with additional requirements and interpretations directly applicable to all United Kingdom government sectors. The PSIAS requirements apply generally to all United Kingdom public sector engagements but do not include sector requirements or guidance for specific parts of the government (Chartered Institute of Public Finance and Accountancy, 2019).

Risk management in public services can be improved through sufficient time, resources and top-level commitment; clarity regarding responsibility and accountability supported by scrutiny and robust challenge; reliable, timely, and current information; risk management throughout department delivery networks; and the need for departments to continue to develop understanding of the common risks and to cooperate to manage them (National Audit Office, 2011).

A study by the IIA (UK & Ireland) (2005) cited in Nuno et al. (2009) on the development of internal auditing in Ireland reported that among the CAEs, 89% used risk-based methods when preparing annual audit plans, 93% used a risk-based method in their internal audit assignments, 81% liaised with divisional or business heads when compiling their internal auditing plans, 72% worked in accordance with international standards, and 32% were responsible for compliance or risk management. The implementation and operation of RBA in the United Kingdom focuses on: (1) risk maturity assessment, (2) periodic audit planning, and (3) individual audit assignments (IIA, 2014). Under the risk maturity assessment stage, the internal auditor obtains an overview of how the board and management determine, assess, manage, and monitor risks, thus indicating the risk register's reliability for audit planning purposes. During the periodic audit planning stage, the internal auditor identifies the assurance and consulting assignments for a specific period (usually annual) by identifying and prioritising the areas on which the board requires objective assurance. These areas include the risk management processes, the management of key risks, and risk recording and reporting.

The RBA plan must incorporate or be linked to a strategic or high-level statement of how the internal audit service will be delivered and developed in accordance with the internal audit charter and how it links to the organisational objectives and priorities (PSIAS, 2017). Ensuring this alignment is the essence of Standards 2010 – Planning, 2010.A1, 2010.A2, and 2010.C1, where the CAE is responsible for developing a plan of internal audit engagements based on a risk assessment performed at least annually (IIA, 2020). The subsequent step is to conduct

individual risk-based assignments to provide assurance for the risk management framework, which includes mitigating individual or groups of risks. The annual internal audit opinion must conclude on the overall adequacy and effectiveness of the organisational framework of governance, risk management, and control (PSIAS, 2017).

3.0 Research Methodology

This study conducted a library search and reviewed the literature on RBAs and the internal auditing profession to achieve the study objective. The library search included print and online sources, journals, and newspaper articles. The references were collated using Web of Science, Scopus, ScienceDirect, and Google Scholar. Most publications included were published in the last five years.

The Transparency International CPI 2022 was used to select four developed countries for the comparison. The CPI is a ranking system based on expert evaluations and opinion polls that determines the degree of corruption of a national public sector. The index indirectly reflects the national delivery system effectiveness. Furthermore, the researchers could easily obtain and access data on the RBA approach practised in the chosen countries, namely Denmark (#1), Australia (#13), Canada (#14), and the United Kingdom (#18).

4.0 Results and Discussion

4.1 Comparison of RBA Practices Among Four Countries

Valuable insights can be obtained from countries renowned for their audit practices, such as Denmark, Canada, Australia, and the United Kingdom. These countries have developed sophisticated RBA approaches that serve as examples globally. The methodologies of these countries encompass strategies and techniques that can be adapted and integrated into a new audit framework. Studying these best practices enables the identification of commonalities and unique elements that can be incorporated into a tailored RBA approach. Table 1 presents the RBA approach practices in the four countries, where the following comparisons were made: (i) regulatory framework, (ii) use of IIA standards, (iii) risk assessment, (iv) audit planning, and (v) reporting line.

Table 1: Comparison of RBA Practices Among Four Countries

Comparison	Australia	Canada	United Kingdom	Denmark
Regulatory Framework	• Internal Audit Manual & Charter 2020-2021 • Treasury Policy & Guidelines Paper TPP 15-03 Internal Audit and Risk Management Policy for the NSW Public Sector (TPP 15-03) • AS ISO 31000: 2018 Risk Management - Guidelines follow Section 3.6 of the GSF Act 2018 by outlining minimum	• CSAE 3001, Committee of Sponsoring Organizations of the Treadway Commission (COSO)	• ISA UK, International Standards on Quality Management (ISQM) UK IFRS, COSO Framework, ISO 31000:2018, IPPF	• No laws imposed; only applies IIA and National Audit Office (NAO) guidelines
Use of IIA Standards	• Applies IIA Standards	• Applies IIA Standards	• Applies United Kingdom PSIAS • Applies IIA Standards	• Applies Good Public Audit Standard from Denmark NAO • Applies IIA Standards
Risk Assessment	• Examines areas with greatest exposure to key risks	• Identifies and considers significant risks	Five components: • Controlled environment • Risk assessment • Control activities • Information system. • Monitoring controls	• Determines the contextual risk level Identifies programmatic and institutional risks • Prioritises • Monitors risk development during implementation and adjusts risk response measures accordingly

Comparison	Australia	Canada	United Kingdom	Denmark
Audit Planning	• Identification of internal audit engagements • Engagements do not overlap with other internal and external assurance and review mechanisms • Establishment of an Annual Internal Audit Plan and Internal Audit Project Brief	• Audit objectives, criteria, scope, and approach	• Annual internal audit opinion and assurance framework • Links to the organisational objectives and priorities (PSIAS, 2017)	• Assesses the risks • Prioritises the risks • Determines objectives, operations, and key risk areas • Outlines the scope, objectives, and resources allocated to each audit engagement
Reporting Line	• Uses Three Lines of Defence	• Uses Three Lines of Defence	• Uses Three Lines of Defence	• Uses Three Lines of Defence

Table 1 demonstrates that the Australian government audit framework applies the Internal Audit Manual & Charter 2020-2021. Furthermore, the Treasury Policy & Guidelines Paper TPP 15-03 Internal Audit and Risk Management Policy for the NSW Public Sector (TPP 15-03) and AS ISO 31000:2018 Risk Management - Guidelines follow Section 3.6 of the GSF Act 2018 by outlining the minimum requirements to be followed. The internal auditors' fundamental RBA reference is the IIA standards. For planning, internal auditors examine areas with the greatest exposure to the key risks as their base of reference. In the planning stage, internal auditors identify internal audit engagements, ensure that the engagements do not overlap with other internal and external assurance and review mechanisms, and establish an Annual Internal Audit Plan and Internal Audit Project Brief. The independent oversight bodies, external auditors, and internal audits are all part of the Three Lines of Defence model, which encourages responsibility and reliability.

The United Kingdom has a well-established RBA model that emphasises transparency and public trust. The regulatory framework adheres to the ISA, the Committee of Sponsoring Organizations of the Treadway Commission (COSO) Framework (2013), IIA Standards, the United Kingdom PSIAS, and ISO 31000:2018. Audit planning is strategic and considers the most critical government objectives, internal audit opinion, and assurance framework that links to organisational objectives and prioritises risks. Risk assessments in the United Kingdom include quantitative and qualitative analyses, which enable auditors to identify potential pitfalls comprehensively. The risk assessment elements include a controlled environment, risk assessment, control activities, information system, and monitoring control. The Three Lines of Defence model includes government departments and internal and external audit bodies, which ensure layered accountability.

The comprehensive Canadian RBA methodology is well-known. The RBA regulatory framework is governed by the stringent CSAE 3001, the COSO, and the IIA standards. Audit planning in Canada is systematic and emphasises understanding the government objectives, criteria, scope, and audit approach. Risk assessment is data-driven and uses sophisticated

tools and methodologies. Canada also uses the Three Lines of Defence model, which fosters accountability and reliability and encompasses internal audits, independent oversight bodies, and external auditors.

In Denmark, the regulatory framework strongly emphasises transparency and accountability. The Danish public sector applies the IIA standards and adopts National Audit guidelines with government agencies to develop audit plans that align with policy goals and objectives. Risk assessment is integral, and audits are frequently prioritised based on the potential influence on key risk areas by determining the contextual risk level. Denmark utilises the Three Lines of Defence model, which involves government entities, internal audits, and external auditors. This collaborative approach ensures checks and balances throughout the auditing.

4.2 Implications, Limitations, and Future Research

The results provide an overview of RBA practices in Australia, Canada, the United Kingdom, and Denmark, which have a high CPI ranking towards corruption. A high perception of corruption reflects the service quality and public sector governance efficiency. Indirectly, the corruption perception level demonstrates the ability of the public sector to conduct orderly monitoring, control, and risk management tasks and minimise their negative influence. Every government interested in utilizing RBA can implement the strategies employed by the aforementioned countries. Crucially, RBA procedures can proactively detect organizational risks, and strategic decisions should be made based on internal auditors' opinions and conclusions. Nonetheless, considering the structural elements of government public sector capacities is important when establishing RBA. Therefore, the RBA procedures utilized by the four countries might require improvement or modification based on specific national circumstances. The public sector is expected to gain from RBA through more methodical risk management, decreased public fund waste and leakage, and increased societal affluence.

One limitation of this study is the focus on RBA in the four countries, which could have affected a thorough examination of the topic. The primary limitation is that the CPI was the only criterion used to select the four included countries, which are all developed countries. Consequently, the results might not be applicable to other countries. Furthermore, the data used in this study are secondary data.

Nevertheless, these limitations present opportunities for additional RBA studies. Researchers can select other countries for inclusion using other indices, such as the Global Governance Indicators and Sustainable Governance Indicators. Research may concentrate on countries that share a continent, geographic region, or economic position. Considering the respective traits, economic backgrounds, and cultural aspects is critical when comparing countries. Lastly, the results derived from secondary data can be supplemented using the interview approach, where stakeholders, such as policymakers and internal audit practitioners, can be interviewed.

5.0 Conclusion

This study included Denmark, Australia, Canada and the United Kingdom based on their high rankings in the 2022 CPI. The RBA practices of the four countries were compared using library research information. Australia, Canada, and the United Kingdom implemented ISO 31000:2018 in their regulatory frameworks. Additionally, the RBA approaches in the four

countries used IIA standards. Furthermore, the four countries used comparable risk assessment methods, which include risk identification, analysis, evaluation, and treatment. Lastly, the four countries used the Three Lines of Defence model.

The results suggested that other countries seeking to improve their auditing procedures might view RBA as suitable. Understanding the background and capabilities of national public sector resources is necessary to ensure successful RBA implementation. An appropriate RBA approach can positively influence audit quality, and risk management can help improve public sector service quality.

Numerous instances of public sector misconduct cast doubt on the ability of internal audits to effectively manage risks that could jeopardize public sector goals. The traditional auditing methodology that prioritises compliance must be reassessed. Risks in an organization can be managed using the RBA approach. Nonetheless, given the varied and complex composition and structure of national public administration, public sector internal audit faces challenges in using the RBA. Examining how RBA is applied in other countries was necessary to enable other countries to use the results as a reference. Importantly, risk management and RBA methods should be modified to match the current framework of public sector governance.

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