ENABLING THE ACCOUNTANT’S ROLE IN EFFECTIVE ENTERPRISE RISK MANAGEMENT
The IFAC Professional Accountants in Business Committee (PAIB) supports IFAC and its member organizations and professional accountants worldwide who work in commerce, industry, financial services, education, and the public and not-for-profit sectors. It raises awareness of the value of professional accountants working in business and the public sector focusing on areas of importance in preparing a future ready profession.

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Additional risk management resources from IFAC members and others are available on the IFAC [Global Knowledge Gateway](https://www.ifac.org). IFAC publications are published by, and copyright of, IFAC.
OVERVIEW

Enterprise risk management (ERM) needs to be part of the professional accountant mindset and makeup. This report explores the contribution of professional accountants to effective ERM in their roles as chief financial officers (CFO) and within finance functions. To add value, accountants need to be seen as risk experts who are outward-looking and provide valuable insights to manage risk in a way that supports their organizations in responding to uncertainty and achieving their objectives.

Professional accountancy organizations have an opportunity to do more to enable accountants to enhance their contribution to ERM. In finance business partnering roles, there is an expectation that accountants in business need to develop the skills and aptitudes for effective risk management beyond managing financial reporting and compliance risk.

Business requires taking risks and seizing opportunities to achieve success. The accountant’s primary role in ERM is not solely to mitigate risk, but to promote and facilitate effective risk and opportunity management in support of value creation and preservation over time. This involves being focused on the benefits of intelligent risk-taking in addition to the need to mitigate and control risk. ERM requires information and analysis that may indicate success or failure, and support decisions around potential courses of action.

To help IFAC members communicate the critical professional accountant role in ERM, the report includes recommendations for CFOs and finance functions to consider enhancing their contribution to ERM and to ensure that ERM sits at the heart of not only every organization, but also the professional accountant skillset.

The need for effective ERM has never been greater as organizations navigate complex and interconnected risks to their business models and operations. Macroeconomic and geopolitical uncertainties, digital transformation of industries and sectors, cybersecurity, climate change, among other trends present significant uncertainty. The reality is that risk management is underdeveloped in many organizations; a reactive approach to risk management is currently the norm. Risk management is typically siloed rather than seen as a core competence and strategic asset. Consequently, risk management processes are ineffective and inefficient and not seen as adding value to decision making and responding to uncertainty.
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A Risk Management Challenge for the Profession

The experiences of professional accountants in business, as represented on the IFAC Professional Accountants in Business (PAIB) Committee, are that finance and accounting professionals in the finance function are not, in many instances, adequately advancing ERM processes and outcomes in their organizations.

This view is reinforced by a 2017 survey of IFAC member organizations on managing risk. The survey suggested that:

- There is a gap between the risk management knowledge and skills professional accountants in business require and the skills they acquire from their initial professional training.
- Although most include risk management in their professional competency framework, ERM is not always seen as a core competence for professional accountants.
This survey was followed by a number of IFAC member-led interactive workshops to gain the perspectives of young professional accountants on their motivations and perspectives in relation to risk management. These helped to provide a different perspective on the role of the professional accountant in risk management now and in the future.

In workshops run by the Association of Chartered Certified Accountants, the Association of International Certified Professional Accountants, and the Institute of Chartered Accountants of Zimbabwe, participants reported that managing risk is an attractive part of the professional accountant role and that there is a strong motivation to acquire the skills, competency and experience to be effective in ERM. Key insights from these workshops included the need for:

- Both incorporation of risk into entry-level accountancy education and continuing professional development (CPD), with lifelong learning on risk management and emerging risk issues
- Innovation as to how this education is delivered to accommodate busy work schedules
- Interpersonal skills to give finance professionals confidence to apply ERM through the business
- A broader mandate from the organization’s leadership on managing risk, and greater awareness and understanding of the potential contribution of the finance function to ERM.

The overriding message is clear: it is important to better integrate risk management into professional education and training, and to improve the relevance and quality of CPD.
From Mitigating Risk to Managing Uncertainty

To be effective partners and contributors to an organization, accountants need to understand the principles of risk management and how they can be implemented to manage opportunities and threats as part of the existing planning and control management cycle.

A challenge in effectively managing risk is that risk oversight and management are poorly understood, resulting in different interpretations and approaches, which depend on personal experiences, organizational role, and sector. For example, in financial services, or in managing financial performance, the measurement and assessment of risk has been a predominantly quantitative exercise designed to avoid loss or fraud. Since the financial crisis, this approach is recognized as being too narrow to adequately inform decisions and manage uncertainty. In other sectors, specific challenges such as health and safety or digital and cyber risk are predominant risk areas which ultimately shape the overall approach to managing risk.

Risk management can be often seen as a process designed to prevent rather than facilitate an event or activity, such as reacting to crisis. The challenge that arises with applying risk management activities solely through a lens of risk mitigation is that it increases cost with little benefit to the organization’s resilience and success.

Risk management should sit at the heart of every organization. Effective risk management requires different parts of an organization and multiple processes to come together to understand collectively how the organization is exposed to uncertainty, and how this uncertainty may undermine the achievement of business objectives, and the opportunities for growth and innovation. It is about ensuring an organization is safe and resilient, but that it also continues to thrive. As highlighted by the UK-based risk association and representative body AIRMIC, in its report Roads to Revolution, there is risk in not being innovative, and in failing to seize opportunities, particularly those related to digital transformation and resource scarcity.

For organizations outside the financial sector in particular, McKinsey’s 2017 Global Board Survey highlights that risk is a relatively low-priority agenda item at board meetings. The North Carolina State University and American Institute of Certified Public Accountants (AICPA) show in 2018 The State of Risk Oversight: An Overview of Enterprise Risk Management Practices, that risk management practices in most organizations remain relatively immature. Less than 20 percent of respondent organizations report viewing their risk process as being integrated with strategy and objectives.
Many accountants are experienced in risk management and internal control as it relates to financial risk and reporting, which, if not managed properly, can impact the confidence that investors have in an organization. However, their involvement in these areas can lead to a mitigation mindset rather than one that facilitates business enablement and risk taking in the context of value creation.

To avoid a narrow mindset, risk management is defined by leading thinkers as the “effect of uncertainty on objectives” rather than as a specific event. Risk management is therefore fundamentally about making decisions in the context of uncertainty. It involves understanding the past, present and possibilities for the future. ERM processes involve identifying, assessing, and treating uncertainty and related risks and opportunities that could affect the outcomes of an organization’s objectives.

Ultimately, ERM gives the board and managers a better understanding of how risk affects the voice of strategy. It also provides confidence that all levels of the organization are attuned to the risks that can impact strategy and performance, and that these are proactively being managed.

Consequently, leading frameworks such as the Committee of Sponsoring Organizations of the Treadway Committee (COSO) framework, Enterprise Risk Management – Integrating with Strategy and Performance, and the International Organization for Standardization’s (ISO) standard, ISO 31000 - Risk Management, provide approaches that help to develop the culture, capabilities and practices for organizations managing risk in creating, preserving and realizing value. These principles-based approaches to risk management are as applicable to smaller organizations as they are to large ones. Smaller organizations are typically faced with less organizational complexity and bureaucracy but still benefit from a strategic and structured approach.

At the heart of such frameworks is the challenge for organizations to build a practical and effective process that helps them make sense of and act upon all the material uncertainties that could help or obstruct the achievement of their objectives both now and into the future. Board and management oversight of an enterprise-wide risk approach helps ensure that risk awareness and management is embedded into culture and specific risks are properly owned by each team, business unit or functional area. For example, operational risk is primarily the responsibility of line management.
IFAC’s 2015 report, *From Bolt-on to Built-in, Managing Risk as an Integral Part of Managing an Organization*, provides a set of principles to ensure risk management is integrated into the overall management system. It provides financial professionals guidance on extracting maximum value from risk management processes.
The CFO and Finance Function Role in Risk Management

In some organizations, the CFO and finance function role in relation to strategy, performance and risk management has been increasing. However, this is not uniform. Research by EY Professor of Accounting at Wharton Business School, Chris Ittner, entitled *The Role of Finance and Accounting in Enterprise Risk Management*, highlights that many CFOs and finance functions are not driving cross-functional working on risk or facilitating an ERM approach.

This is a missed opportunity. Building on its traditional strengths, the CFO and finance functions are well positioned to provide rich insights that draw upon data and activities across different parts of an organization, and act as a “spider in the web”.

The uncertainty and complexity of operating environments is requiring the CFO and finance function roles in risk management to mature in both private and public sectors and shift beyond managing risk in specific risk areas such as financial risk management.

To be effective in supporting organizations, they need to consider opportunities and risks to value creation and preservation from a more strategic vantage point.

To better deal with uncertainty, the demands from boards and management for more comprehensive, connected and insightful information, better understanding of opportunity and risk, and deeper market and competitor knowledge, has never been greater.

As well as helping to mitigate specific risks, effective ERM enables the unearthing of underlying opportunities resulting from uncertainty, and helps to highlight the changes and investments needed to pursue them.

When it comes to risk management, CFOs or finance directors have traditionally had involvement in a number of dimensions, including:

- Stewardship by ensuring financial and compliance risks are managed effectively and efficiently
- Analyzing and communicating opportunities and risks to the board and others
- Influencing overall risk culture and awareness, and providing integrity, objectivity and the “sanity test” in decision-making at key decision points (such as with mergers and acquisitions and major investments).
Professional accountants working in decision support roles also utilize risk management approaches in most, if not all, aspects of their work, covering:

• Financial and non-financial implications of project/investment proposals and alternative courses of action

• Forecasts that integrate key drivers of value and cost, and therefore risk. Forecasting practices involve testing assumptions and sensitivity analysis of key variables and developing alternative scenarios. This includes reviewing potential positive and negative impacts from external factors

• Risk practices in support of decisions, including identification and analysis of risks, risk weighting and risk adjusted performance measures, sensitivity analysis and scenario modeling

• Incorporating risk into decisions around planning and budgeting, performance measurement and selection of performance indicators, quality management, and business continuity.

Accountants in smaller organizations will often be involved in risk management as part of their everyday activities, particularly in providing insights on current and future risks and opportunities related to key decisions, such as entering new markets or serving new customer segments.
Other Accountant Roles in Risk Management

Although the recommendations in this report relate primarily to the CFO and finance function perspective, accountants in business perform varied roles which require strong enterprise risk management competence and aptitudes. The nature of the contribution of professional accountants depends on their role and scope of influence, for example:

**Independent directors** chairing or participating on audit committees focus on risk around financial reporting, increasingly, they oversee enterprise risk management or parts thereof, as well as additional requirements for more extensive risk reporting.

**Internal audit** provides objective assurance to the board on the effectiveness of risk management, providing both assurance that the material business risks are being managed appropriately and that the risk management and internal control approach is fit for purpose and operating effectively (see Institute of Internal Auditors Position Paper on the Role of Internal Auditing in ERM).

**Treasury** manages risk and reward around financing a business. Treasurers typically manage financial risk, related to, for example, foreign exchange, commodity price, interest rate, and liquidity risk. To manage financial risk effectively, treasury and the business work in close partnership to ensure that treasury’s activity in financial markets properly supports organizational aims.
Recommendations for CFOs and Finance Functions

CFOs with clear risk management responsibilities are in a better position to make individual and functionally greater contributions to strategic and operational risk management. CFO and finance function ownership of risk-related information flows helps ensure risk is managed at all levels within spheres of responsibility consistent with risk tolerances, and with linkage to wider performance objectives and goals. Larger organizations with dedicated risk functions need to find effective ways of co-existing with the finance function in helping create appropriate risk awareness and culture across an organization.

The extent and nature of their involvement will also depend on whether a separate risk management and/or compliance function exists, as is the case in many companies in the financial services sector.

To be an effective business partner that plays a more central and innovative role in risk management, CFOs and finance functions need to consider enhancing their contribution to ERM in three key ways.

1. **Relating risk management to value creation and preservation.**
   The CFO and finance function needs to support boards and management to fully understand risk and the issues that really matter, ultimately helping to evolve and transform business models to ensure resilience. This means ensuring that an ERM approach is in place to identify uncertainties relating to objectives and the business model across all the capitals – financial, human, social and relationship, environmental, manufactured and intellectual – as defined by the [IIRC Integrated Reporting Framework](https://www.iirc.org/).

   Being an effective business partner involves ensuring that the right decisions are made at the right time to create and realize value.

   Too often significant opportunities and risks to value creation are not properly understood and communicated to boards, management and external stakeholders.

   In today’s multicapital world, the drivers of value and cash flow are increasingly derived from intangible assets and non-financial capitals, including brand and reputation, people and culture, data, access to resources, intellectual capital, and innovation. Value and risk in these areas cannot be captured entirely in financial terms or by methods used specifically to quantify financial risk such as value-at-risk, but there can be financial and reputational risk implications in all areas.
Emerging risks and opportunities for value creation also need to be understood in the context of changing dynamics in the business environment and stakeholder expectations. These are usually new and unforeseen sources of risk whose impact is unclear but are likely to change industry dynamics and business models at some point in time. Digital disruption enabled by technological advances is an obvious example, such as with game-changing developments through disintermediation (e.g., from blockchain and internet based business models) and related risk, such as from cyber and digital. Political risk considerations are also a key uncertainty for many larger companies which need to be accounted for and quantified.

For CFOs and finance functions to capture the broader aspects of value creation so they can provide data and insights on all critical aspects of a business and not just the balance sheet requires spending more time bringing together data and insights from across the organization. Managing, interpreting, and forecasting business outcomes and financial consequences will be improved by greater connectivity and integration across people, processes, and systems.

Embracing integrated thinking and integrated reporting provides a framework to facilitate understanding and communication of value creation across financial and non-financial capitals and in the context of stakeholder expectations and key trends such as digital disruption, sustainable development challenges, and changing markets and competition.

2. **Driving insights and enabling decisions.**

An effective contribution to ERM involves enabling decisions and driving insights to decision makers. There are various elements to better supporting decisions in risk management. More informed risk-taking and decision-making requires high-quality information about opportunities and risks and their implications. Ultimately, high-quality information is crucial to good decision making as it reduces uncertainty – and can support a higher risk appetite where appropriate (see Principle F in Bolt-on to Built-in, Managing Risk as an Integral Part of Managing an Organization). Therefore, ERM requires the right data of the right quality to support operations in their daily activities and boards and management in their strategic discussions.

**Tools and techniques**

CFOs and finance functions can improve insights by embracing innovative approaches to facilitate the identification and evaluation of risks and opportunities, and potential consequences. Advanced scenario and risk modeling and analytics helps understand sources of uncertainty, the interconnections and interdependencies between different trends, and sources of risk and potential impacts. Scenario analysis improves dialogue and understanding on opportunities and risks and how they could affect strategic and operational outcomes, and the likelihood and potential timing of various events and consequences, such as drop in sales, rises in inventory, increase in costs and lack of access to raw materials, and how these can be dealt with. Quantifying risks and opportunities can also help visibility, understanding and action.
Risk appetite and tolerances

The CFO and finance function can ensure the organization takes appropriate risk by helping decision makers understand the tolerance for risk versus reward and operate within boundaries. Ensuring risk appetite and related tolerances (acceptable variation in performance) are understood and respected across an organization, and providing support with risk-return trade-offs, is a critical part of supporting organizations in risk management. The finance professional is well-placed to ensure that the organization’s risk appetite is robust enough to support, not hinder, the purpose and strategic ambitions of the organization.

Risk appetite shapes the risk profile of the organization. Risk appetite parameters can be expressed narratively and can have greater precision when targets and ranges are used to specify acceptable types and amounts of risk. Both qualitative statements and metrics help steer decision makers. Balancing opportunity and risk involves risk-return trade-offs, which can be guided by thresholds and limits represented by financial metrics such as economic capital measures, cash-flow at risk, and stress-related indicators.

Enterprise Risk Management: Understanding and Communicating Risk Appetite provides examples of how risk appetite and tolerances are implemented. It is important to note that strategic risk appetite is shaped and evolves through effective internal controls, high-quality information, and high levels of skill and competency throughout the organization.

Risk management awareness and accountabilities

To build risk awareness throughout an organization and to deliver confidence in the risk management approach, the CFO and finance function will need to understand the extent to which the organization has adopted an ERM approach throughout its culture and decisions, and how well risk management processes follow best practices in risk identification, assessment, evaluation, mitigation, and monitoring.

Accountability needs to be clear across responsibility lines (or lines of defense) across the organization. The CFO is well positioned to ensure risk ownership is properly executed in strategic and operational processes across the business, including planning and resource allocation, product-development, production, sales and marketing.

Data and data governance

The proliferation of data helps to enhance ERM, but also provides challenges. The professional accountant’s expertise in data governance and control of financial data can be applied to all types of data. This can include developing common data standards and models and simplifying and enhancing data processes to improve data quality and audit trails.

ERM effectiveness and efficiency is also greatly enhanced by data analytics and visualization, which is increasingly being used by finance functions and internal audit and compliance departments to ensure adherence to risk thresholds, and to restrain subjectivity and biased perspectives in decision making.
3. **Enabling integration and interconnectivity.**

The understanding and management of risk is often locked in siloes and treated as a separate and distinct process in different functions. Consequently, it is difficult to see whether opportunities and risks are managed on an integrated “end to end” basis and whether communication around these is consistent at all levels. The CFO and finance function has an important role in connecting the dots and in integrating risk across functions and processes within a holistic ERM framework. From its vantage point, the finance function is in a good position to be a natural integrator to connect:

- Different parts of the organization to develop a more holistic and business-centric understanding of risk;

- Key processes such as strategy, business and financial planning and risk management, and related processes and systems. Ultimately, management and operations need to determine the impact of risk on goals and objectives, plans, and their implementation; and

- ERM to enterprise performance management. For a coordinated and integrated approach, risk-related metrics need to be incorporated into the same metrics the organization uses to measure success and its performance.

Connectivity is also important in enabling the finance function to incorporate analysis of key risks and opportunities into finance function-led business processes, including planning, forecasting and budgeting, and enterprise performance management, as well as ensuring effective internal controls are in place.

It is important to motivate and incentivize CFOs and their finance teams to work cross-functionally, and across processes and systems, enabling risk to be managed on an end-to-end basis as far as is possible.

With its holistic view across an organization, finance is in a good position to facilitate risk management by breaking down siloes and connecting risk insights across functions and processes to bring the right people, processes and systems together. Rotation of finance staff across the organization can be an effective approach to building commercial experience and business awareness to improve understanding of risk and connectivity. A wider exposure to other parts of an organization facilitates the behavioral change that is needed to support a change process within finance teams.

Upskilling the finance function to add more value to ERM in these ways requires an effective talent recruitment and management strategy to attract, develop, and retain finance talent and the skillsets required to support stewardship and business partnership responsibilities in risk management.
Recommendations for the Professional Accountant Skillset

The following areas of professional education and development are key for professional accountants to gain wider acceptance from others of their potential contribution to ERM. This recognition is critical to ensure their contribution is valued and readily accepted, and will ultimately allow finance to move beyond its traditional remit and add value to a broader ERM approach.

What is needed to excel at ERM?

- Deep understanding of the business and its external environment.
- Awareness of frameworks, models, and tools and how they can enhance practices.
- Enhanced quantitative and statistics skills.
- Ability to lead and communicate across teams.
- Confidence to challenge and ask difficult questions.

Deep understanding of the business and its external environment. To meet the needs of business in ERM, accountants need to understand the strategy and its execution and have a good grasp of its mission, vision and values, and objectives. They need to understand all elements of the business model(s) and value drivers across the organization and its various operating lines. This deep understanding is instrumental in gaining the credibility needed to advocate and challenge how the organization achieves its objectives. Effective risk management responses are also made in the context of how the business creates value, and takes into account stakeholder perspectives and changing dynamics in the external environment. Without this context, it is difficult to provide insights that help to frame and ask the right questions around significant matters of value creation and preservation, and to ensure the finance function is incorporating the best insights into its own processes.

A practical way to achieve this external understanding is for accountants in business to build relationships with key stakeholders such as customers, suppliers, funders, and regulators.

Awareness of frameworks, models, and tools and how they can enhance practices. A strong and connected risk management approach can be delivered using established frameworks (e.g., COSO and ISO) which can be used to...
frame a conversation, help to ask better questions and ultimately drive better dialogue on risk management. Business model frameworks can also help boards, management and finance professionals understand all the key elements of a business in order to ask the right questions about risk and opportunity aligned to value creation. For example, the CGMA Business Model Framework provides a practical guide to help boards and management gain an understanding of their organization’s business model. In particular, it helps the preparation of board and management discussions and decisions by highlighting the material uncertainties in the internal and external environment, as well as significant sources of opportunities and risk. Scenario planning, stress testing and data analytics are also tools increasingly needed in practice.

**Enhanced quantitative and statistics skills.** The quantification and communication of risks enables understanding and visibility on risks and potential actions. Risk valuation and quantification techniques help effectively communicate risk impact and specialist skills are needed to help measure non-tangible assets such as reputation and brand. Statistical, data modeling and analytical skills help provide a good understanding of correlation and confidence limits which are essential requirements in supporting organizational decision-making. Performance metrics are also needed to serve as leading and confirming indicators of success or failure, and ensure they are tracked by the organization for remedial action and organizational learning.

**Ability to lead and communicate across teams.** The boundary of the finance function’s role in risk crosses over with other functions. The reality can be push back from others on finance to concentrate on financial control and compliance. To succeed in enhancing ERM, human skills such as interpersonal, behavioral and people skills are as critical as technical expertise and business understanding in collaborating with and influencing others. Strong leadership and communication facilitates risk awareness and an understanding of the true nature of risks and opportunities. Above all, it can be critical to show understanding and deliver confidence to others to broaden the mandate and role of finance teams in ERM.

**Confidence to challenge and ask probing questions.** When something goes wrong or opportunities are missed, it is often the case that individuals didn’t feel confident enough to raise concerns or to present their ideas during planning. The challenge for leadership is to create a culture that encourages an open exchange of ideas including on difficult issues. Finance needs to add value to the conversation. An open communication process can provide opportunities, and preventative action can save time, effort and avoid value destruction. Constructive challenge, underpinned by independence, objectivity and professionalism, are key characteristics of a professional accountant in all roles and apply equally to presenting opportunities and problems.
Underpinning all these areas is the importance of recognizing one’s knowledge and competency limits. The CFO and finance function cannot know everything and have to be honest about their limits, while at the same time understanding the value of what they can contribute. The interaction with other experts to deal with emerging opportunity and risk areas is critical, particularly emerging and strategic issues such as digital disruption and climate change. Continuous improvement is also an integral element of effective risk management, and requires learning from mistakes, and rapidly changing direction when needed. As in the wider organization, the finance function has to continuously develop its contribution to risk management capabilities and processes so that it can respond to changing needs and expectations for more comprehensive information, and better understand of risks and opportunities.
Implications for Professional Accountancy Organizations

As part of their initial professional training and ongoing professional development, accountants should understand risk, how to apply ERM frameworks and effective risk management tools, and how to integrate risk into the support they provide to decision makers.

Consequently, it is important to:

- Focus more on the specific needs of accountants in business and the public sector on how to support their organizations in ERM. This means emphasizing that risk taking is essential to business success, and accountants that manage risk effectively allow their business to pursue more opportunities.

- Place more emphasis on effective ERM implementation in addition to managing financial and compliance risk.

- Ensure accountants acquire broad-based competency in all key elements of risk management. This might involve strengthening risk management in competency frameworks and curricula through the lens of the business and managing uncertainty.

- Enhance lifelong learning opportunities by leveraging your membership for case studies that can be shared, and quality trainers and speakers for events, webinars and podcasts.
Further Reading and Useful Resources

From IFAC Members

- **ACCA, Rules for Risk Management: Culture, Behaviour and the Role of Accountants** — Integrated risk management means managing risk in a way that is part of the core management process. It involves looking at risk holistically across the organization at all levels. It requires risk awareness among key decision-makers, and among those providing the data that inform decisions. As accountants in business provide decision support, this approach to risk management puts accountants in a very important position in facilitating a built-in rather than bolt-on approach.

- **CGMA Business Model Framework, Connecting value generation for the long term** — a practical guide to help boards, senior executives and staff quickly understand their organization’s business model and helping to connect key decisions and activities associated with how a business model contributes to wider value generation; and CGMA, Risk Management Tool and Risk Heat Map - A risk heat map is used to present the results of a risk assessment process visually and in a meaningful and concise way. Whether conducted as part of a broad-based enterprise risk management process or more narrowly focused internal control process, risk assessment is a critical step in risk management.

- **Risk Culture: How to get it right** — Risk culture is the foundation upon which any successful ERM programme is built. Without a good risk culture, even the best frameworks, policies and processes will not pre-empt adverse outcomes for a company. This publication shows how good risk culture facilitates business growth, and how it helps businesses to make risk-aware decisions in today’s dynamic business environment.

- **ICAEW, Risk Management: mindfulness and clumsy solutions** — helps managers in all functions who are being asked to pay more attention to the challenges of uncertainty.

- **IMA, Enterprise Risk Management: Frameworks, Elements, and Integration** — a Statement on Management Accounting (SMA) providing perspective on the most effective ERM frameworks and the role of the management accountant.

- **IMA, Enterprise Risk Management: Tools and Techniques for Effective Implementation** — highlights tools and techniques for facilitating successful ERM implementation.
From Others

- **The Strategic Financial Executive: Managing Risk in a Disruptive World** – In a dynamic environment of disruption, the role of the financial executive or CFO in managing an enterprise’s risk and creating corporate value is expanding. Successful financial executives today must possess key strategic skills to optimize their enterprise’s business model and market value.

- **Roads to Resilience - Building Dynamic Approaches to Risk to Achieve Future Success** – the key questions that boards should ask of themselves to future-proof the organization and its business model(s), and developing an organizations’ capability to manage risk.

- **Roads to Ruin - A study of major risk events: their origins, impact and implications** – the report demonstrates, through the case studies, that risk is at the heart of strategy, and that boards and specialist risk functions must work more closely together to avoid or mitigate the catastrophic consequences of events.

- **Roads to Revolution: Digital Transformation: Reshaping Risk and Resilience for the Future** – provides pragmatic advice for risk professionals and board members, executives and other top management. It is aimed at those who want to ensure that risk management, resilience and digital transformation permeate their organizations to constantly protect brand and reputation.

- **Board Oversight of Long-Term Value Creation and Preservation, What Needs to Change?** – Regulatory-driven board risk oversight has focused on protecting the public and entity value preservation. Highly influential institutional investors now call on boards and CEOs to oversee and provide long-term value creation strategies, together with their assessment of the risks to those objectives.

- **Risk management –the revealing hand** – An academic but accessible critique of risk management, drawing on the lessons of seven case studies to show how an effective risk management function can foster highly interactive dialogues to identify, assess and mitigate risks in a cost-efficient manner. Includes useful and practical insights on risk appetite.

- **Value and Resilience through better risk management** – this article provides a useful overview of strategic risk management.

- **The CFO as Chief Risk Manager** – this article highlights how CFOs can play a critical role in helping organizations proactively manage risk and create value.

- **The Global Risks Report 2018** – now in its 13th edition, this report is produced annually by the World Economic Forum and provides a useful overview of key risks and scenarios for horizon scanning and strategic planning purposes. This edition includes a useful section on Risk Reassessment which explores resilience and cognitive bias.
The Committee of Sponsoring Organizations of the Treadway Commission (COSO)

- The COSO Enterprise Risk Management - Integrating with Strategy and Performance addresses the evolution of ERM and the need for organizations to improve their approach to managing risk to meet the demands of an evolving business environment. This new version replaces COSO Enterprise Risk Management—Integrated Framework from 2004.

- The COSO Enterprise Risk Management - Framework and Compendium Bundle – a compendium of its illustrative examples to support the implementation of COSO’s ERM Framework.

- COSO Enterprise Risk Management Certificate Program – This certificate program offers you the unique opportunity to learn the concepts and principles of the updated ERM framework and be prepared to integrate it into your organization’s strategy-setting process to drive business performance.

- Enterprise Risk Management: Understanding and Communicating Risk Appetite – Risk appetite is an integral part of enterprise risk management. It represents the amount of risk, on a broad level, an entity is willing to accept in pursuit of value.

International Standards Organization (ISO)

- ISO 31000:2018 provides guidelines on managing risk faced by organizations. The application of these guidelines can be customized to any organization and its context. The framework provides a common approach to managing any type of risk and is not industry or sector specific.