PwC Middle East Risk Study 2024

Evolution of risk management in banking

How financial institutions across the region are transforming risk management function in a disruptive landscape

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Foreword

It is with great pleasure that I present to you our paper, “Evolution of risk management in banking,” which explores the he dynamic risk management landscape through the lens of Chief Risk Officers (CROs) across the Middle East. In a region marked by rapid economic growth and geopolitical complexities, risk management has become more critical than ever. This paper provides insights into how banks are adapting to an ever-changing risk environment, highlighting strategies and innovations shaping the future of financial stability.

The first theme, “Risk Reimagined: Navigating Complexity and Change” examines how banks are addressing unprecedented challenges, from global economic shifts to technological disruptions. CROs are increasingly using advanced analytics and emerging technologies to enhance risk assessment frameworks, ensuring agility and resilience in the face of uncertainty.

The second theme, “Empowering Workforce Transition: Redefining Productivity Through Modernisation” highlights the importance of equipping teams with the necessary skills and tools to manage risk in a digital age. Modernisation extends beyond technology — it’s about building a workforce capable of thriving in today’s dynamic environment.

Finally, “Unlocking long-term value and driving superior performance: Strategic Investments in Growth and Capability Evolution”, emphasises the need for strategic investments in AI, machine learning, ESG capabilities, and enhanced ESG risk frameworks to manage growing environmental and social risks effectively.

As the risk management landscape continues to evolve, banks must foster a culture of continuous improvement and strategic foresight to ensure sustained growth and competitive advantage. This paper offers valuable perspectives and actionable insights for navigating this complex journey.

I hope you find the paper insightful.

Sincerely

Sanjay Jain

Partner - ME FS Consulting Leader / ME Insurance Leader, PwC Middle East

Introduction

In today’s fast-evolving financial landscape, effective risk management has become more than just a safeguard—it’s a competitive advantage. Banks face unprecedented challenges, from complex new regulations to rising cyber threats. Amid this turmoil, robust risk management is crucial not only for safeguarding financial stability but also for capitalising on growth opportunities.

PwC Middle East interviewed Chief Risk Officers (CROs) and senior risk professionals from 38 banks across the region, uncovering key trends, challenges, and opportunities in the sector.

Banks today face more than traditional risks. The rise of digital banking has introduced new risks, particularly in cyber security and data privacy. Simultaneously, banks are grappling with environmental risks and geopolitical uncertainties, adding layers of complexity to their operations.

“In an era of unprecedented change and complexity, risk management continues to evolve within the banking sector. This is not just a strategic imperative but a fundamental necessity”

Anand Balasubramanian

Partner, Financial Services Consulting – Risk and Regulatory

“Banks must continually innovate and adapt their risk management practices to navigate new challenges, from technological disruptions to evolving regulatory landscapes tactical”

Shubham Agarwal

Partner, Financial Services Consulting – Risk and Regulatory

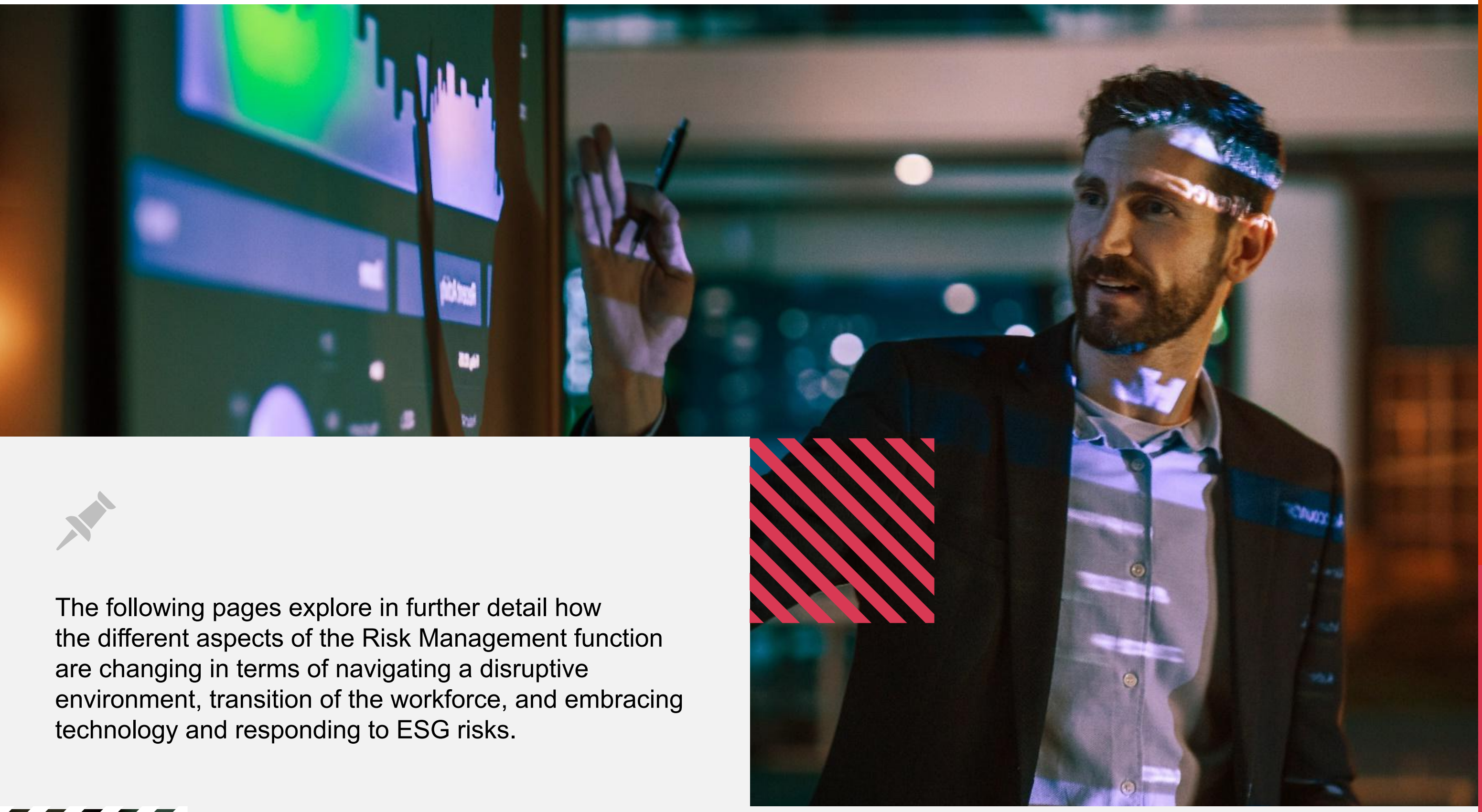
Evolution of Risk Management: Key Findings

The banking sector is undergoing a significant transformation in risk management, driven by rapid digitisation and the rise of fintech. Traditional banks face new challenges as they adopt advanced technologies like AI and machine learning, which have accelerated automation and product innovation. However, a gap has emerged between regulatory bodies and bank leadership, as regulators are cautious and often unprepared to fully embrace these innovations, creating friction in the industry's evolution.

Risk management now extends beyond credit, market, and operational risks to include critical areas like cybersecurity, where many banks still rely on outdated infrastructures that may not withstand sophisticated threats. The rise of digital banking has intensified concerns around fraud and cyber risks, while increased regulatory scrutiny demands more time and resources, often at the expense of proactive risk management.

The role of Chief Risk Officers (CROs) has evolved, with greater integration into the first line of defence and broader responsibilities, including reputation risk. This shift reflects a move from reactive oversight to proactive strategy, driven by technological advancements and a complex regulatory landscape.

The following sections explore how risk management functions are adapting, focusing on workforce transitions, technology integration, and the approach to ESG risks.



The following pages explore in further detail how the different aspects of the Risk Management function are changing in terms of navigating a disruptive environment, transition of the workforce, and embracing technology and responding to ESG risks.

Risk Reimagined: Navigating Complexity and Change

Leading through disruption: Risk strategies for the modern age

In the banking sector, the focus on non-financial risks—such as cybersecurity, data privacy, and fraud—has intensified. The rapid evolution and increasing impact of cyber-attacks make them more challenging to manage than traditional credit risks. Additionally, the rise of digital and geopolitical risks has further complicated the landscape, heightening awareness of reputation risk and its potential to significantly impact a bank's value.

There is a notable shift towards automating underwriting processes and integrating AI to enhance the analysis of macroeconomic scenarios. This strategy is aimed at reducing reliance on third-party data providers and improving the efficiency of risk management practices. As banks become increasingly data-driven, they are transitioning from a reliance on human judgement to leveraging data and automation for decision-making.

Operational risk management has also undergone substantial changes, with a greater emphasis on collaboration with business units during product development and the strengthening of governance frameworks. The role of the CRO has expanded, becoming more integrated with the first line of defence and reflecting the broader range of responsibilities that go beyond traditional risk management.

The Digital Asset revolution: Adapting to thrive

The interaction with technology in the banking sector has evolved significantly, transitioning from basic Excel sheets to sophisticated, integrated systems. This evolution requires risk managers to deepen their understanding of technology to collaborate effectively with IT teams. Despite investing in technological advancements to remain competitive, traditional banks often lag behind fintech companies in terms of speed and capability.

One of the major challenges banks face is the management and storage of data, particularly the shift from unstructured historical data to formats that facilitate machine learning analysis. Automation has become an essential tool, not only for routine reporting but also for measuring risk. However, the effectiveness of automation is often hindered by weak data governance frameworks. Additionally, while central banks remain cautious and sceptical about cryptocurrency, banks are increasingly leveraging analytics and machine learning to improve credit risk prediction and management, while also addressing cyber and digital risks.

The introduction of various digital products and the accompanying need for stringent data protection measures have significantly reshaped the risk landscape. New technologies are introducing additional cybersecurity challenges. Digital banks often boast superior systems and data infrastructures, highlighting the urgent need for traditional banks to upgrade their legacy systems to remain competitive.

> Whether driven by regulatory requirements or internal initiatives, whenever a new product, service, or risk profile is assessed, there is always a critical component related to cybersecurity—particularly data protection and privacy. Combating fraud becomes essential in the context of digital access and the increasing speed of transactions.

Chief Risk Officer,
Large KSA-based Bank

Empowering Workforce Transition: Redefining Productivity Through Modernisation

Breaking barriers: Turning challenges into opportunities

The landscape of risk management in banks is undergoing significant transformation driven by technological advancements and evolving regulatory requirements. The demand for specialised skill sets, particularly in data science, AI, and cybersecurity, is becoming increasingly critical. Banks are now seeking professionals who not only understand these technologies but can also seamlessly integrate them into operational processes, shifting the role from traditional workers to strategic copilots.

A major challenge faced by banks is the high turnover rate in critical areas such as fraud risk, technology risk, data protection, and privacy. This turnover disrupts productivity and underscores the urgent need for robust training and upskilling programmes. Despite these initiatives, attracting and retaining talent with the necessary comprehensive skill sets remains a significant hurdle. As a result, banks often turn to outsourced resources for functions such as fraud monitoring and model validation due to the scarcity of in-house expertise.

The move towards automation and AI necessitates a workforce capable of leveraging these technologies to drive efficiencies and enhance model creation. However, the traditional risk management skill sets are proving inadequate for these new demands. There is a growing need for professionals with strong quantitative skills and the ability to effectively communicate complex analyses, ensuring that the integration of technology into risk management processes is both effective and impactful.

Harnessing generational change: A strategic imperative

Generational shifts in the workforce add complexity to bank risk management. Younger employees, more adaptable to new technologies and fintech models, must be integrated with senior staff to create balanced, high-performing teams. Additionally, the global and remote nature of today's workforce requires a greater focus on empathy and mental well-being, especially as deliverables increase.

The role of the Chief Risk Officer (CRO) has evolved to encompass both financial and non-financial risks, such as cybersecurity and fraud prevention. Some institutions are establishing separate risk committees to address these diverse risks, and boards increasingly seek members with cybersecurity expertise to navigate the complex landscape.

Traditional silos between the first and second lines of defence are breaking down, driven by regulatory demands for greater collaboration, while the third line remains independent but more engaged. This integration enhances the ability to manage risks and meet regulatory expectations.

Fraud management is also shifting from a reactive detect-and-respond approach to a proactive, prevention-focused strategy integrated with cyber risk management. This change demands a workforce with cyber threat expertise and automated processes to reduce manual workloads. Attracting top talent in these areas, though challenging, is essential for maintaining a strong risk management framework.

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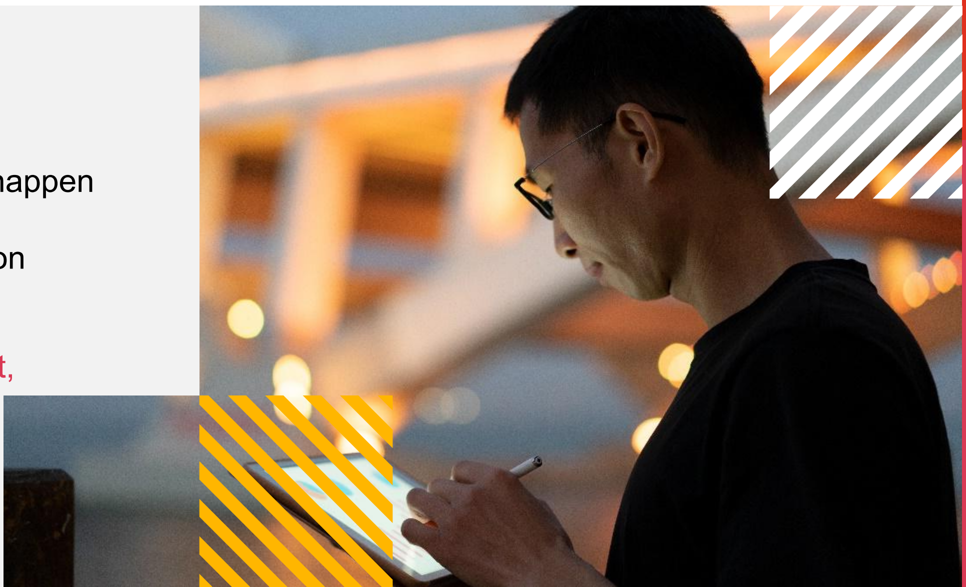
We need people who can help work happen – as a copilot. We don't want workers but people who understand automation and support work as it happens.

Head of Enterprise Risk Management,

Large UAE-based Bank



Unlocking long-term value and driving superior performance: Strategic Investments in Growth and Capability Evolution

Harnessing technology for intelligent risk processes

Risk management in the banking sector is transitioning from a tactical to a strategic function, driven by advancements in IT and automation. Integrating automation into regulatory reporting has emerged as a top priority, highlighting the importance of establishing a robust, strategic data architecture to support risk management efforts. This evolution reflects a growing understanding that effective risk management depends on sophisticated data systems, surpassing traditional tactical approaches.

Cloud computing has become a key focus area, driven by the need to manage data across geographically dispersed locations. However, regulatory constraints often limit the full-scale adoption of cloud solutions, requiring banks to implement country-specific approaches. In parallel, banks are exploring the integration of challenger models, with expectations that these innovative models will become standard practice in the near future.

Despite advancements in other areas, risk management in banks has been slower to adopt new technologies due to several challenges. Key obstacles include the lack of fit-for-purpose solutions, the inadequacy of AI and ML models in processing the Arabic language, and the misalignment of skill sets required to integrate advanced technologies into risk systems. While banks have conducted various proofs of concept, the inefficacy of current models in Arabic limits their application in critical risk management functions, such as collections and credit underwriting.

Mature dialogue between regulators and banks is crucial, particularly in addressing the challenges of maintaining clean, long-scale data. While technology is recognised as a key enabler, securing sponsorship for risk management projects often proves challenging unless mandated by regulatory requirements.

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Given the dependency on IT, risk management no longer views system and automation as tactical but strategic. Conversations with the central data team are no longer tactical.

Chief Risk Officer,

Large UAE-based Bank

Unlocking long-term value and driving superior performance: Strategic Investments in Growth and Capability Evolution

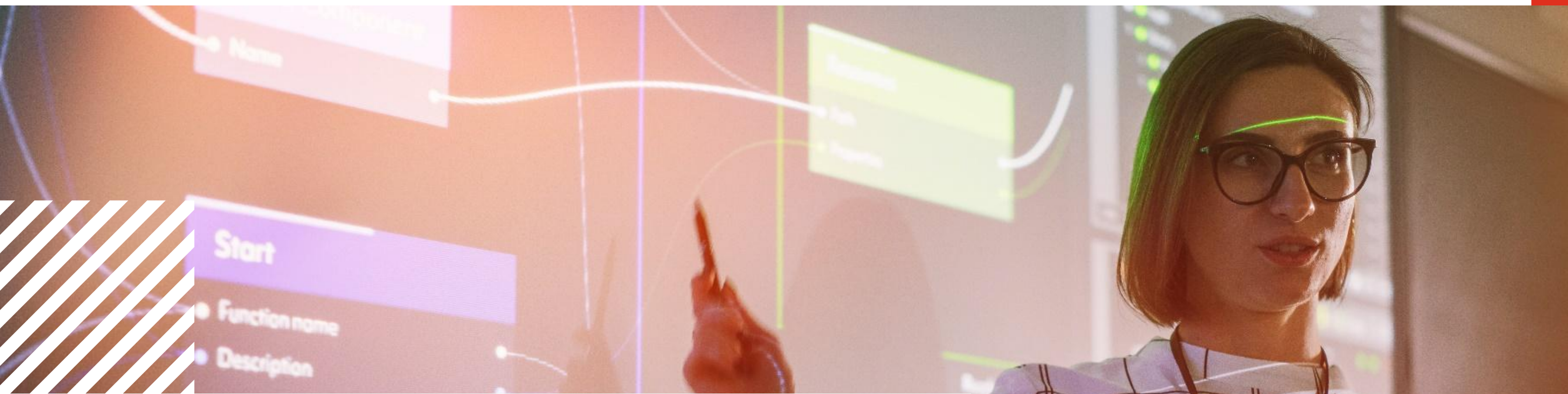
Embracing Artificial Intelligence and Machine Learning

The integration of artificial intelligence (AI) and machine learning (ML) in banking presents a complex landscape, highlighting both significant opportunities and challenges. Banks are increasingly collaborating with business, data, and technology teams to unlock AI's potential. Investments in AI are on the rise, with a particular focus on use cases such as early warning systems, macroeconomic modelling, compliance, and signature verification. However, regulatory hesitance and concerns about the maturity and reliability of AI-generated outputs remain substantial hurdles, limiting broader adoption and implementation.

AI and ML applications in risk management remain limited, as banks often face challenges in securing approval for business cases related to technology risk investments. For instance, spending on cybersecurity is frequently minimal, driven by the perception that existing risk management practices are adequate. Despite these obstacles, the journey towards AI adoption has commenced, with banks experimenting with AI to identify and mitigate biases. These efforts aim to enhance business processes and achieve productivity gains, signalling a gradual progress in integrating AI and ML into risk management functions.

Credit underwriting is emerging as a promising area where AI can automate decision-making using historical data, while call centre operations and collections also stand to benefit from automation. Despite the potential, these technologies introduce non-financial risks, such as data privacy and algorithmic biases, and the regulatory framework for AI is still in its early stages.

Although AI and ML adoption in banking is in its infancy, its evolution points to a future where it will play a pivotal role in managing liquidity risk, credit risk, and customer engagement, enhancing banks' ability to anticipate and meet customer needs. From a board-level perspective, AI is increasingly recognised for its potential to improve productivity and cost management, signalling a strong push for broader AI adoption in the coming years.



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Risk management has changed from oversight and reactive to very proactive. Risk management is now involved in shaping up strategies and identifying target markets. It's no longer only caveats requirement and credit risk. It's beyond that.

Chief Risk Officer,

Large UAE-based Bank

Unlocking long-term value and driving superior performance: Strategic Investments in Growth and Capability Evolution

ESG: Enabling transparent risk management and impact assessment

Building ESG capabilities within banks is increasingly dependent on external partnerships, driven by the growing complexity of climate risk modelling and the need for specialised expertise. While customers may not yet prioritise a bank's ESG initiatives, sophisticated investors and regulators are pushing the agenda, highlighting the critical importance of implementing robust ESG frameworks to meet evolving expectations and regulatory demands.

Regulators are accelerating ESG integration, by issuing handbooks that outline requirements for environmental risk assessments, capital allocations, and credit evaluations, compelling banks to align with these evolving frameworks. In response, banks have proactively incorporated ESG into their value propositions, focusing on addressing both environmental and societal impacts as part of their long-term strategy and commitment to sustainability.

A two-pronged approach to ESG risk management is emerging, focusing on both regulatory compliance and training in environmental risk assessments. While this approach is still in its early stages, banks expect swift progress as formal regulations take shape. This underscores the critical need for well-defined governance structures and effective social messaging to navigate the evolving ESG landscape and align with stakeholder expectations.

Risk management has been a significant catalyst for cultural transformation within banks, supported by shifts in both individual and organisational behaviour changes. Additionally, the Central Bank's thematic reviews and emerging regulatory drivers further underscore the growing relevance of ESG, positioning it as a critical component of banks' long-term risk strategies.

Key findings from our latest sustainability survey show that companies in the region are making sustainability a focal point of their corporate strategic agenda. Better sustainability monitoring and reporting, and stronger commitments to a net zero future than last year can help drive measurable progress on reducing carbon emissions.

Four in five executives in our survey indicate that their companies now have a formal sustainability strategy in place – and more than half say this strategy is fully embedded across their organisation.

Digital banks, being less exposed to ESG regulatory changes, benefit from advancements in social and financial inclusion, positioning them as leaders in these areas. Smaller banks also find ESG disclosures more manageable due to their limited scope, suggesting that evolving ESG requirements will have a more profound impact on larger institutions engaged in large-scale projects.

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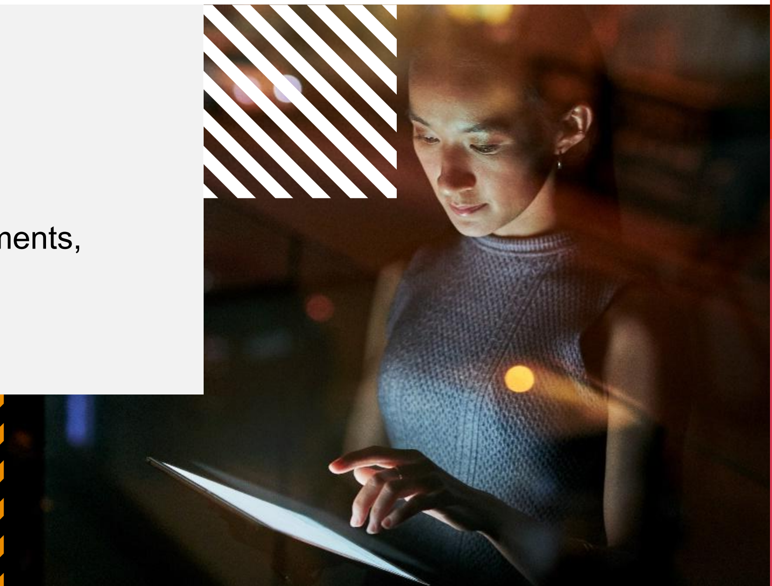
Compared to other areas in banks that have made significant strides in technology and data advancements, risk management remains less developed.

Chief Risk Officer,

Large KSA-based Bank



Recommendations and the way forward

Banks need to adopt a holistic approach that integrates advanced technologies, strengthens regulatory compliance, enhances cyber and digital risk management, and cultivates a robust risk culture to effectively address the multifaceted challenges posed by rapid technological advancements, regulatory complexities, and emerging risks. The following are a set of recommendations for banks to navigate these challenges:

Embrace advanced technologies

Adopt AI and automation: Integrate AI and machine learning into risk management processes such as credit assessment, fraud detection, and macroeconomic scenario analysis. These technologies can enhance accuracy, efficiency, and predictive capabilities, allowing banks to anticipate and mitigate risks more effectively.

Upgrade cybersecurity infrastructure: Invest in state-of-the-art cybersecurity solutions to protect against sophisticated cyber threats. This includes deploying advanced threat detection systems, conducting regular penetration testing, and ensuring robust incident response mechanisms. Collaboration with cybersecurity experts and continuous training for employees on cyber hygiene are also critical.

Leverage data analytics: Utilise big data and advanced analytics to gain deeper insights into risk patterns and trends. By harnessing the power of data analytics, banks can identify potential risks earlier and develop more targeted mitigation strategies.

Strengthen regulatory compliance and engagement

Streamline regulatory reporting: Automate regulatory reporting processes to meet increasing regulatory demands efficiently. Implementing advanced reporting tools can help reduce the manual workload and ensure timely and accurate submissions to regulatory bodies.

Enhance regulatory dialogue: Maintain open and proactive communication with regulators to align on expectations, share insights, and collaborate on addressing emerging risks. Regular engagement can help anticipate and adapt to regulatory changes effectively.

Develop comprehensive compliance frameworks: Establish and continuously update compliance frameworks that address both current and emerging regulatory requirements. Ensure that these frameworks are integrated into all aspects of the bank's operations and are aligned with local and international standards.

Recommendations and the way forward

Focus on cyber and digital risks

- **Develop a holistic cybersecurity strategy:** Create a comprehensive cybersecurity strategy that includes regular training for employees, continuous monitoring of cyber threats, and collaboration with cybersecurity experts. This strategy should address data protection, privacy, and fraud prevention.
- **Integrate cyber risk into Enterprise Risk Management (ERM):** Ensure that cyber risk is a core component of the bank's ERM framework. This involves assessing the impact of cyber incidents on the bank's operations and financial health and developing response plans.
- **Implement advanced fraud prevention measures:** Employ sophisticated fraud detection and prevention systems. Regularly audit and update these systems to stay ahead of evolving fraud techniques, particularly in the context of digital banking.

Adapt to emerging risks

- **Integrate ESG and climate risks:** Incorporate ESG risks into the risk management framework. Develop capabilities to assess and manage ESG-related risks and ensure compliance with emerging ESG regulations.
- **Prepare for geopolitical risks:** Monitor geopolitical developments and their potential impacts on the bank's operations. Develop contingency plans to mitigate the effects of geopolitical risks and ensure business continuity.

Cultivate a strong risk culture

- **Empower the Chief Risk Officer (CRO):** Ensure that the CRO has the authority and resources needed to manage the bank's risk effectively. Support the CRO in engaging with regulators and integrating risk management into the bank's strategic planning.
- **Encourage accountability:** Establish clear roles and responsibilities for risk management across the organisation. Define the three lines of defence model and ensure that each line understands its role in managing risks.

Recommendations and the way forward

Invest in talent and skill development

- **Attract and retain skilled professionals:** Focus on hiring and retaining professionals with expertise in data science, cybersecurity, and advanced risk management techniques. Offer competitive compensation and professional development opportunities to attract top talent.
- **Upskill existing workforce:** Provide ongoing training and development programs to upskill current employees in areas such as AI, machine learning, and advanced analytics. This will ensure that the bank has the necessary skills to manage evolving risks.
- **Promote cross-functional collaboration:** Encourage collaboration between risk management, IT, and other business units to enhance the integration of risk management into the bank's overall strategy.

Enhance governance and oversight

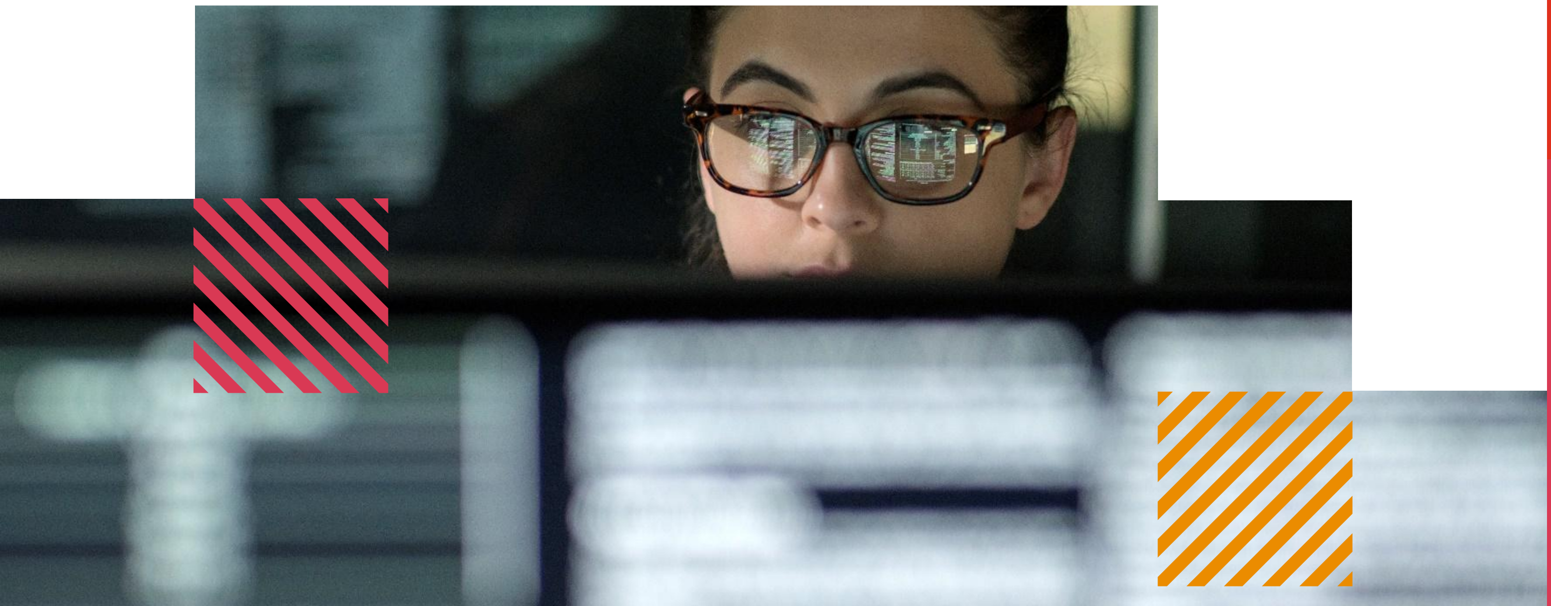
- **Strengthen governance structures:** Establish robust governance structures to oversee all aspects of risk management. Create dedicated committees for financial and non-financial risks to ensure comprehensive oversight.
- **Implement a comprehensive erm framework:** Develop and implement an ERM framework that integrates all types of risks, including credit, market, operational, cyber, and ESG risks. Regularly review and update this framework to reflect changing risk landscapes.

Recommendations and the way forward

Address workforce transition and modernisation

- **Adapt to workforce changes:** Recognise the evolving qualifications and technical needs of the workforce. Recruit individuals with expertise in data science, AI, and cybersecurity. Emphasise the importance of understanding automation and supporting work processes.
- **Foster empathy and mental well-being:** Ensure that the mental well-being of employees is taken care of, recognising the pressures from regulatory demands and deliverables. Promote empathy and effective communication within the workforce.
- **Encourage generational shifts:** Embrace the generational shift in the workforce, leveraging the fresh perspectives and technological adeptness of younger employees. Provide training and upskilling opportunities to ensure they can adapt to new risk management practices.

Implementing the strategies above will help banks maintain a proactive approach to risk management, leveraging technology, fostering a strong risk culture, and staying ahead of regulatory change.



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Thank you!

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