

Operational Risk Management (ORM)



Business Drivers & Client Questions

- What are regulator expectations pertaining to operational risk management? What does that look like in day-to-day business?
- How does your operational risk maturity compare to our peers?
- How do organizations deploy the three Lines of Defense risk management model without creating duplicative or redundant work?
- How can you encourage your front line unit resources to take more ownership of risk? How do you clarify the responsibilities of the 1st vs. 2nd Lines of Defense?
- What can be done to encourage the desired risk culture and risk management behaviors?
- How can your organization deploy the Enterprise Risk Appetite Statement at the business level?
- What risk and control metrics do you need to be monitoring and how frequently?
- What tools or processes can be deployed to further automate risk reporting and make it more conclusion based and actionable?
- What can be done to help minimize unexpected operational losses?



ORM Framework

KPMG has developed a wide-ranging Operational Risk Management Framework that is scalable to individual needs, assists clients with addressing increased regulatory expectations, and strengthens existing risk infrastructure.

ORM Framework





ORM Framework Elements

The Operational Risk Management Framework is comprised of seven critical elements and seeks to address regulatory expectations by leveraging applicable KPMG methodologies related to enterprise risk management. A high level description of these key elements can be found below.



Risk Strategy & Risk Appetite

Articulation of an organization's desire to incur operational risk as it balances pursuit of rewards.



Risk Governance

Defined organizational structure and processes which support appropriate oversight and defined roles and responsibilities for the management and reporting of operational risk.



Risk Culture

Collective knowledge and understanding of organizational values. Risk culture drives behaviors by reinforcing those which safeguard the bank and customers.



Operational Risk
Assessment &
Measurement

Qualitative and quantitative processes in place which allow identification, assessment and measurement of existing and emerging risks.



Operational Risk Management & Monitoring Management's approach to manage, monitor, mitigate or accept operational related risk.



Operational Risk Reporting & Insights Internal and external reporting of risk and relevant information which provide insight into the effectiveness of operational risk management processes.



Operational Data & Technology

Management of technology infrastructure and risk data to provide valuable information to risk stakeholders.



Operational Risk Framework Maturity Model

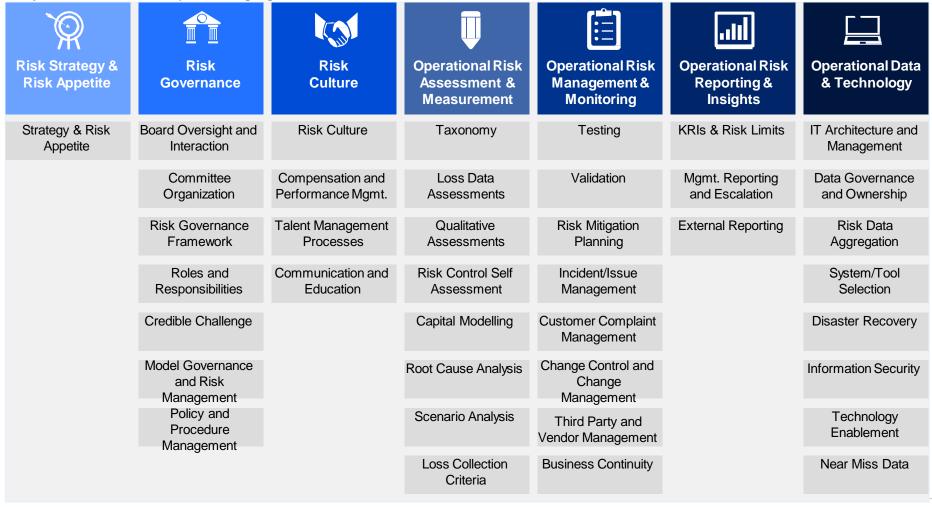
Operational Risk Frameworks will vary based on a firm's size, complexity and regulatory categorization. The following provides a high level overview of how operational risk components evolve as firms mature and address emerging regulatory expectations.

,			
	Newly Established	Evolving	Mature
Risk Strategy & Risk Appetite	Strategy and risk appetite defined in silos, regulatory ORM capital only	Strategy and risk appetite defined in tandem, economic ORM capital calculated at enterprise level, allocated to business level	Strategy and risk appetite defined in tandem and cascade to the business level level, economic capital incorporated into product pricing
Risk Governance	Ad hoc discussions in risk management forums with no business representatives, basic ORM policies in place	ORM committee established (with business partners), ORM Framework established, program specific polices in place, three lines of defense defined	Business owned risk teams, credible challenge mechanisms, roles and responsibilities well defined /accepted, BOD informed of risk taking
Risk Culture	"Risk management deals with risk", incentives based on growth goals	"Risk is a necessary evil", ORM is a discussion topic in performance management, reactive ORM training after loss events	"Everyone plays a role in risk management", incentive plans linked to losses, reputation, customer impacts, etc. preemptive risk training programs
Operational Risk Assessment & Measurement	Qualitative enterprise assessments	Qualitative and quantitative enterprise assessments, informal scenario analysis (not linked to Basel categories)	Qualitative and quantitative business assessments, scenario analysis informs capital modeling, internal/external loss data considered
Operational Risk Management & Monitoring	ORM programs in silos, incomplete coverage, monitoring performed solely by ORM	Full internal coverage, linkages between ORM programs, monitoring performed by ORM and Business	Integrated data / correlated to generate "risk intelligence" that supports decision making / strategic planning, identify ORM trends/thematic events
Operational Risk Reporting & Insights	Report card on status of ORM program or qualitative reporting capabilities	Enterprise reporting including Key Risk Indicators (KRIs) and tolerances	Consistent reporting structure, across businesses, business level KRIs and tolerances, defined escalation/breach protocols
Operational Data & Technology	Operational programs/reporting heavily manual	Some automation, but disparate risk data centers/owners	GRC platforms, automated operational programs/reporting with high confidence in data



Key Components of the ORM Framework Elements

Operational risk elements previously defined have been detailed into key components. These key components link to recent regulatory guidance on minimal standards for enhanced risk management and advanced measurement approaches. A strong, mature operational risk program will likely address all of the components highlighted below.







Element	Component	Component Description
Risk Strategy & Appetite	Strategy and Risk Appetite	, , , , , , , , , , , , , , , , , , , ,



Element	Component	Component Description
	Board Oversight and Interaction	Clarified responsibilities, defined accountabilities, and interaction chains for the Board and Senior Management. Provides visibility into an organization's risk profile and business operations to drive effective risk oversight while complying with regulatory requirements.
	Committee Organization	Defined escalation and reporting path structure to fulfill governance and oversight of risk areas.
901	Risk Governance Framework	The organization's Operational Risk Framework, commensurate with size and risk profile of an organization, outlining the various components of risk management and how Operational Risk Management responsibilities are fulfilled.
Risk Governance	Roles and Responsibilities	Defined ownership and accountability of the three Lines of Defense, including business leadership, independent corporate operational risk and internal audit, charged with identification, measurement and monitoring of risk.
Risk	Credible Challenge	Feedback loop facilitating independent challenge by second and third Lines of Defense of business risk decisions and activities to drive consistency in risk assessments across the first Line of Defense.
	Model Governance and Risk Management	Robust model governance structure which encompasses model development, model review and model usage standards.
	Policy and Procedure Management	Documentation guiding risk management behaviors and outlining the approach to identify, measure, monitor and control operational risks, including activities and guidelines put in place to develop standardized polices and procedures.





Element	Component	Component Description
	Risk Culture	Common understanding and values embedded through all levels of the organization which support and provide appropriate standards and incentives to drive behaviors.
ulture	Compensation and Performance Management	Compensation, incentive and promotion policies which align to the Operational Risk appetite, establish and reinforce desired risk culture, and balance revenue growth with expected risk management results.
Risk Culture	Talent Management Processes	Resources have appropriate knowledge, skills and training to fulfill risk management responsibilities, and are deployed appropriately to meet the organization's risk management and strategic objectives.
	Communication and Education	Belief and commitment to continuous improvement to enhance management of risk. Open dialogue yielding enhanced comfort, raising concerns and questioning status quo.





Element	Component	Component Description
	Taxonomy	Consistent definition and common architecture for risk terminology and organization allowing for enhanced consistency in data aggregation and reporting.
ment	Loss Data Assessments	Analysis of incurred and historical operational loss data to align capital allocation requirements.
Measure	Qualitative Assessments	Operational Risk assessment processes which rely on management expertise to evaluate likelihood and severity of risks.
Operational Risk Assessment & Measurement	Risk Control Self Assessment	Creation of risk assessment governance, training, roles and policy to embed risk assessment throughout the enterprise. Identification of risks and evaluation of controls using granular rating methodology.
sk Asses	Capital Modeling	Aids in more accurate capital allocation methodologies and effective link with risk appetite framework, improving enterprise-wide understanding of risk. Quantitative measurement of a firm's risk profile/capital based on empirical data, expert opinion or both.
tional Ris	Root Cause Analysis	Analysis of incurred losses to identify process or control failure which led to the loss event and may necessitate changes or enhancements to existing control processes.
Opera	Scenario Analysis	Level of challenge, bias and documentation. Methodology to review data sourcing approach and assess theoretical soundness of model methodology underlying assumptions and algorithms used. Test model implementation accuracy, model sensitivity and model performance.
	Loss Collection Criteria	Defined thresholds for collection of losses which may be material to capital calculations.





Element	Component	Component Description
	Testing	Use test demonstrating that the Operational Risk model is operationalized and embedded into business processes. Pre-implementation testing to ensure business and operational requirements are met.
ing	Validation	Review of business processes to provide management assurance that risk stakeholder needs are met.
Monitor Monitor	Risk Mitigation Planning	Identification, planning and completion of activities to reduce risks to acceptable levels.
gement &	Incident/Issue Management	Approach and process to identify, capture and manage events and extreme events impacting an organization.
sk Manae	Customer Complaint Management	Defined process and responsibilities for capture, reporting and resolution of customer complaints.
Operational Risk Management & Monitoring	Change Control and Change Management	Operational Risk assessments and approval and implementation processes to facilitate review and approval of new businesses, products and technology.
Opera	Third Party and Vendor Management	Policies and processes for managing third party and vendor relationships and ensuring their business interactions with bank employees and customers align with an organization's risk appetite and applicable laws and regulations.
	Business Continuity	Business resiliency and continuity plans which ensure continued operation of critical business functions with limited losses in the event of severe business disruption.





Element	Component	Component Description
y & Insights	KRIs and Risk Limits	Dynamic governance, monitoring, analysis and reporting to rapidly manage issues and strengthen process and control environment. Integrated risk profile that highlights key exposures and provides risk intelligence across business groups, processes and products, and supports a credible capital model. KRIs and Risk Limits should be focused on most relevant and strategically important risks.
Risk Reporting	Management Reporting and Escalation	Processes to monitor and escalate risk to appropriate risk stakeholders throughout an organization. Defined processes/procedures to manage and escalate risk tolerance breaches and provide adequate risk transparency to the Board.
Operational I	External Reporting	Processes to fulfill stakeholder and shareholder reporting and risk transparency and to fulfill regulatory reporting requirements.





Element	Component	Component Description
	IT Architecture and Management	Design, development and ongoing maintenance of centralized data repositories and robust technology infrastructure to support operational risk identification, measurement and monitoring.
	Data Governance and Ownership	Control mechanisms to develop common data definitions and establish data ownership and data quality standards.
inology	Risk Data Aggregation	Infrastructure and capabilities to ensure data is appropriately aggregated to provide timely and accurate representation of an organization's risk profile.
Operational Data & Technology	System/Tool Selection	Selection of technology tools which meet business, financial and operational risk management requirements.
ional Dat	Disaster Recovery	Programs in place to enable business continuity of key business processes in the event of a disaster.
Operati	Information Security	Enterprise-wide, cross-functional programs highlighting roles of IT and the Business in managing threats and vulnerabilities in protecting employee and customer data.
	Technology Enablement	Implementation support for operational risk management technology.
	Near Miss Data	Process to analyze incidents which could potentially result in losses to identify required improvements to processes or controls to mitigate future losses.



Defining Lines of Defense: 1st, 2nd & 3rd

How do regulators define the Lines of Defense?

Any organizational unit or function that is accountable for either credit risk, interest rate risk, liquidity risk, market risk, operational risk, compliance risk, strategic risk, legal risk or reputational risk and performs the following:

1st Line of Defense

- Engages in activities designed to generate revenue or reduce expenses
- Provides operational support or servicing to any organizational unit or function
 - Provides technology services to any organizational unit or function

 Any organizational unit that is independent from front line units and has responsibility for identifying, measuring, monitoring, or controlling aggregate risks

2nd Line of Defense

Any organizational unit within a bank that is independent from front line units and risk management and designed to evaluate the adequacy of and compliance with policies, procedures, and processes established by the first line and independent risk management under the risk governance framework

3rd Line of Defense

What are the primary objectives?

- Owns the risks associated with their activities by assessing and managing risk
- Implements action plans to strengthen risk management or reduce risk, given changes in the unit's risk profile
- Identifies, measures, monitors, reports, and controls risk consistent with the Bank's risk appetite statement

- Oversees the Bank's risk-taking activities and assess risks independent of the front line units
- Designs a risk framework commensurate with the Bank's risk appetite statement
- Identifies, measures, mitigates, monitors, and reports the risk management practices of Business Groups, Geographies, IT Infrastructure, Support Functions, and Associates
- Performs independent review and objective assessments of adherence to policies, procedures, and internal controls
- Conducts financial, operational, technology, risk management, compliance, and fiduciary audits on a routine basis



Roles & Responsibilities Defining Lines of Defense: 1st, 2nd & 3rd

Risk Type	1 st Line of Defense		2 nd Line of Defense	3 rd Line of Detense
BSA / AML / OFAC	Associates Business Groups Geographies BSA Operations / Enhanced Due Diligence		BSA / AML / OFAC Team Compliance and Regulatory Risk Team	Credit Risk Review Internal Audit
Compliance	Associates Associates Business Groups Geographies IT Infrastructure Operations	iittees	Compliance and Regulatory Risk Team Legal	
Credit	Business Groups Geographies Underwriters Problem Asset Mgmt Collections	Oversight Committees	Credit Risk Team Risk Analytics	
Market & Liquidity	Corporate Treasury	ance/	Market / Liquidity Risk Team	
Operational	Associates Business Groups Geographies IT Infrastructure Operations Finance Underwriters	Governance,	Operational Risk Team Procurement Human Resources	
Strategic / Reputational	Business Teams IT Infrastructure Operations		Corporate Strategy Team Legal	

Who performs risk management functions within the Lines of Defense?

Lines should be defined based on **function performed** not **organizational alignment**



1st I inc of Defense

Key Differences Between 1st and 2nd Lines of Defense

Area	1st Line of Defense	Commonalities between 1st & 2nd Lines	2 nd Line of Defense
Governance & Culture	 1st line adheres to Enterprise Risk Appetite Statement and develops Business Risk Appetite Statements 	 Both 1st and 2nd line monitor adherence to established risk limits, as applicable 	 2nd line develops and administers the Enterprise Risk Appetite Framework, Risk Management Framework, and identifies risk liaisons
Policies & Procedures	 1st line establishes business policies and / or procedures to address risks / changes and communicates to all associates 	Both 1st and 2nd lines identify emerging risks or changes and monitor regulatory changes in the industry	 2nd line interprets applicable laws, regulatory guidance, etc. and establishes corporate policies and provides guidance to business policies
People & Skills	See next column	 Both 1st and 2nd lines ensure associates have necessary skills, adequate training to fulfill responsibilities, and continuously assess staffing levels Both 1st and 2nd lines develop risk performance metrics and succession 	 2nd line assists with content creation and delivery of training
		plans for key personnel	



Key Differences Between 1st and 2nd Lines of Defense (Cont'd)

Area	1 st Line of Defense	Commonalities between 1st & 2nd Lines	2 nd Line of Defense
Monitoring & Testing	 1st line monitors adherence to policies and / or procedures through real time (Quality Control) and post process testing and / or monitoring (Quality Assurance) within respective areas 1st line escalates issues identified through QA / QC to impacted areas / businesses 1st line monitors business risk through 1st Line Risk Assessments 1st line executes risk management programs 1st line escalates risks / issues and develops corrective action plans to mitigate risk 	Both 1st and 2nd lines respond to regulatory requests	 2nd line establishes select enterprise wide testing and / or monitoring programs and performs targeted assessments of higher risk processes 2nd line develops framework for monitoring risk, provides effective challenge to the 1st line and monitors aggregate risk levels 2nd line develops and administers risk management programs 2nd line monitors closure of higher risk issues
Information Reporting & Technology	 1st line establishes reporting routines, owns data quality, and is responsible for technology system recoverability 		2 nd line monitors aggregate risk profiles, communicates regulatory data retention requirements, and monitors disaster recovery testing



Key Differences Between 1st and 2nd Lines of Defense (Cont'd)

Area	1st Line of Defense	Commonalities between 1st & 2nd Lines	2 nd Line of Defense
Risk Management Processes	 1st line assesses risk impacts of changes to the organization 	 Both 1st and 2nd lines monitor customer complaints and evaluate new initiatives / new products 	 2nd line provides subject matter guidance on potential impacts of changes and reviews requirements to ensure risks are addressed (including
11000000	 1st line (Business) develops business requirements and (Ops & Tech) translates into a functional design 	new madavee, new producte	
	1st line (Business) confirms business requirements are fulfilled and (One & Teach)		regulatory requirements)
	requirements are fulfilled and (Ops & Tech) tests design specifications against business requirements		 2nd line monitors enterprise product suite to ensure adherence to regulatory / corporate guidelines 2nd line reviews operational loss events 2nd line develops and
	 1st line analyzes client risk profiles to confirm alignment with risk appetite 1st line establishes controls to prevent operational losses 		
	 1st line executes vendor management & 3rd party compliance programs 		administers vendor management and 3rd party compliance program
IT Service Delivery	 1st line implements policies and process to address data accessibility, quality, and security 		 2nd line provides oversight and effective challenge of incident management, data management, and data classification 2nd line performs IT Compliance assessments to evaluate key vulnerabilities
	 1st line establishes and maintains access control and software management policies 		
	and procedures and manages service availability to defined targets		
	 1st line maintains procedures to measure, analyze, and manage incidents and problems 		



Roles & Responsibilities - Perspectives on the Three Lines of Defense

Three Lines of Defense is a useful framework for defining the approach to risk governance. However, it is not always well understood.

6

- Establishing ownership and management of risk within the business is essential to successful implementation of the three Lines of Defense.
 - Three Lines of Defense is best seen as a series of guiding principles which drive the establishment of roles and responsibilities of individuals and functions that are compatible within a coherent structure. There is not a singular right answer and structure may vary across organizations, businesses, and risk types.
 - The failings attributed to the model as a result of the financial crisis were failings of implementation with, in particular, a failure to achieve #2 above but also a failure of the 2nd line to apply its veto to excessive risk taking. **Most banks have not yet evolved to a position where risk ownership and management are embedded in the 1st line**
 - Most banks have significantly increased headcount in the 2nd and 3rd Lines of Defense as they aim to enhance their risk management and control frameworks, whereas, it is expected that embedding risk ownership and management in the 1st line successfully should result in a reduction in the resources required in 2nd and 3rd line functions.
 - The processes by which the 1st line takes and manages risk must be transparent to facilitate effective oversight and control by the 2nd line and assessment of the overall effectiveness of the combination of the 1st and 2nd lines by the 3rd line.

Risk Appetite Statement & 1st Line Risk Assessment

Key Components of Effective Risk Management

Framework

Risk Appetite Framework

Provides overarching methodology and framework for developing, effectively utilizing, and maintaining the Enterprise and Business Unit Risk Appetite Statements

Board of Directors Risk Appetite Statement

Enterprise-level statement that defines the amount of risk the bank is willing to accept to achieve its strategic objectives, in terms of its impact on Earnings, Capital, Liquidity and Stakeholder Confidence

Risk Category Level Statements

Details the Board of Directors Risk Appetite Statement by the 8 key risk categories to further define the appetite for each risk type

Business Unit Risk Appetite Statements

Translates the Board of Directors Risk Appetite Statement and the Risk Type Statements down to the level at which strategy is developed (where possible)

Key Risk Indicators

Monitors risk by providing an early indication that risk levels are increasing, so that appropriate action plans to mitigate risk can be taken

Performance reporting against Business Line Risk Appetite Statements (RAS) and Key Risk Indicators are key components of the 1st Line Risk Assessments

1st Line Risk Assessments

Provide a consistent method of viewing and reporting on risk profile in the 1st Line of Defense. Method for reporting performance against business line risk appetite evaluating risk profiles of the business



Risk Appetite Statement & 1st Line Risk Assessment

Risk Appetite Statement

Common Challenges

- Linking Risk Appetite Statement to overall corporate strategy/business objectives and embedding a strong risk culture
- Aligning business strategy, risk profile, and capital plan with risk appetite
- Effectively cascading Risk Appetite throughout the firm, from enterprise level, to risk statement level, to LOB level
- Capturing material types of risk facing the firm, including those qualitative elements of risk which are often not easily measured (e.g., reputation risk)
- Designing Risk Appetite Statements to help drive decision making based on risk
- Using risk appetite proactively to consider business opportunities and strategic options
- Ability to identify and aggregate risk within and across legal entities, business lines, products and services, and geographies

Risk Appetite Statement Critical Components

- RiskAppetite Statements are forward-looking and tied to strategy and core business objectives
- Business strategy and budget plans are aggregated and aligned to Risk Appetite via an iterative process
- Training and communication tie risk appetite to day-to-day decision making
- RiskAppetite contains both qualitative components and quantitative limits (Metrics/tolerances help quantify risks)
- Both OCC and Federal Reserve Categories of Risk are included within the RAS
 - Compliance, Credit, Interest Rate, Legal, Liquidity, Operational, Price, Reputational, Strategic
- Quantitative limits should incorporate sound stress testing processes
- The suite of risk limits should include concentration risk limits
- Use common, easy to understand language
- Include metrics/tolerances which serve as early-warning indicators of emerging risk
- Incorporate robust limit breach protocols, including escalation, reporting, and remediation, as appropriate



Risk Appetite Statement & 1st Line Risk Assessment

Tools to Measure Operational Risk

Risk and Control
Self-Assessment
(RCSA)

Operational risk tool to document key business processes, identify key risks and controls (primarily operational) and measure the levels of inherent / residual risk within key processes

How the Tool Informs Operational Risk

Measures the inherent and residual risks of the business and identifies areas of high operational risk and control adequacy. High risk processes can be monitored through KRIs / KPIs

Operational Metrics

Key Risk Indicators (KRI) or Key Performance Indicators (KPIs) to monitor current risk levels in the business or forecast when processes / controls may be under stress and could result in a failure

Metrics and tolerances monitor levels of risk, indicate higher risk areas, and trigger action when risk levels are rising

Operational Losses

Quantifies operational loss events that have occurred and identifies thematic or similar type events

Quantifies historical operational losses within the business requiring root cause analysis

Root Cause Analysis

Analysis of large operational losses to identify opportunities to enhance process / controls to prevent future operational losses

Identifies the root cause of operational losses and alerts the business of high risk areas / processes

Scenario Analysis

Development of hypothetical scenarios to measure the likelihood and severity of this event. This type of exercise also identifies downstream impacts and stresses business continuity plans

Analyzes the potential outcomes of various hypothetical situations and informs capital modelling for operational risk

New Initiatives Risk
Assessments / Other
Governance

Identifies significant changes to the organization likely impacting existing processes / controls prior to implementation

Analyzes potential operational risks associated with change to identify increasing risk in people, process, and technology



Risk CultureRisk Culture Basics

What is Risk Culture?

- Attitudes within the firm regarding taking and managing risks
- Culture varies between firms, but can also vary between businesses at the same firm
- Culture and attitude change over time

How is Risk Culture developed?

- Formally- Policies, codes of conduct, codes of ethics, statements of values, etc.
- Informally- Behaviors that are condoned, encouraged, or rewarded. Behaviors observed in senior management.
 Consistencies or inconsistencies between official statements and actual results, as well as incentives and desired behaviors.

What does culture need to be?

- Sensible, informed risk taking is part of doing business
- There is transparency and consistency in actions, communications, and incentives
- There is active and acknowledged ownership of risk by risk generators
- Risk generators are held accountable for management of their risks
- There is open communication no blame, no shame
- Mistakes = Learning Opportunities

"...if there isn't an appropriate risk culture in the first Line of Defense, no amount of money spent in the second and third Lines of Defense can make up for it in managing risk and protecting the company..." -paraphrase, Senior Supervisors Group (FSB)



Risk Culture - What Drives Culture?

Purpose & Responsibility

Risk is everyone's business.
Leadership and staff feel
accountable for managing risks
and actively engage others for
assistance as required

Risk Education

The organization invests in education and continuous improvement of it's risk management competencies

Risk Management Value & Adoption

Leadership and staff have a common understanding of the value risk management brings to the organization. Risk is considered decision making processes

Open Communication

Leadership and staff use a common risk vocabulary and discuss risks in open, honest forums

Challenge Culture

Strong

Risk Culture

Leadership and staff are comfortable challenging the status quo to impact positive change

- Tone at the top Board and Senior management demonstrate strong risk culture in communications and behaviors
- Risk in decision making Risk considerations are assessed when making business decisions
- Response and reinforcement Leadership and staff are encouraged to raise potential issues rather than "sweep under the rug"
- Alignment of compensation Compensation and incentives link to risk management performance, not only production volumes



ORM FOCUS Areas

- "Effective" Operational Risk Management
- Cyber risk
- Third party risk management (lifecycle view)
- New Products (lifecycle view)
- Model risk management
- Risk Culture, Conduct, and Behavior
- Front line ownership of risk Second line oversight
- Risk and Control Self Assessment (RCSA) linked to forward looking KRIs
- Front line quality assurance
- Front line operational risk deep dives (product, process, platform)







kpmg.com/socialmedia

The information contained herein is of a general nature and is not intended to address the circumstances of any particular individual or entity. Although we endeavor to provide accurate and timely information, there can be no guarantee that such information is accurate as of the date it is received or that it will continue to be accurate in the future. No one should act on such information without appropriate professional advice after a thorough examination of the particular situation.

© 2017 KPMG LLP, a Delaware limited liability partnership and the U.S. member firm of the KPMG network of independent member firms affiliated with KPMG International Cooperative ("KPMG International"), a Swiss entity. All rights reserved. NDPPS 591094

The KPMG name and logo are registered trademarks or trademarks of KPMG International.