



RISK MANAGEMENT

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BACKGROUND

A holistic approach to managing risk: A banking imperative in the digital world

Risk management is at an inflection point. Will financial institutions continue with their traditional methods or instead fundamentally rethink how risk is managed in today's rapidly digitalizing paradigm?

Globally, financial service companies have grappled with their industry's evolution costing them hundreds of billions of dollars ever since the unprecedented subprime mortgage crisis began in the United States in mid-2007. This crisis' snowball effect proved extreme financial complexity is the new normal in today's environment of volatility and uncertainty.

Accordingly, financial institutions have long been adopting robust Governance, Risk and Compliance, also known as GRC systems, through a set of tools and processes joined around three tactical areas: Corporate Governance, Risk Management and Regulatory Compliance, with the aim to improve operational performance, reduce risks and ensure regulatory compliance.

In the not too distant past, "risk management" for many types of financial institutions primarily meant managing the financial aspects of risk such as the portfolio risk of a bank for example. Many financial institutions now are viewing risk from more of a holistic, enterprise-wide perspective.

However, today's digital revolution drastically increasing the availability and use of data and the speed at which decisions are made. Consequently, it is becoming the most effective enabler to boost a distinctive competitive advantage in an ever changing landscape of disruptive technologies such as cloud, mobility, artificial intelligence (AI), internet of things (IoT), and big data analytics.

This paradigm shift from physical to digital also comes with its share of associated threats that can be inflicted by an array of financial and non-financial risk exposures, be it operational, compliance, technological, cyber, reputational, natural hazard etc. Such risks have continued to gain mindshare among regulators, executives and Boards. In turn, they demand visibility into exposure and status so they can effectively manage and evaluate their GRC activities.

62%

of organizations have experienced a critical risk event in the past three years and only 36% of organizations have a formal enterprise risk management (ERM) program.

*Disaster Recovery Journal (DRJ) -
Forrester Research, The State of
Enterprise Risk Management, 2019*

87%

of organizations see tech risk management as a siloed, reactive process rather than “an organization-wide function for proactive risk management.”

*KPMG - Forbes Insights, Disruption Is
the New Norm: Tech Risk Management
Survey Report, 2018*

13%

of organizations consistently use key risk indicators (KRIs) to understand and manage IT risk.

*KPMG - Forbes Insights, Disruption Is
the New Norm: Tech Risk Management
Survey Report, 2018*

The ability to stay on top of threats, protect their brands and financial strength, and safeguard their reputations are traits that impact the confidence a bank's customers and partners are willing to place in their institution. As a result, forward-thinking executives now recognize that integrating an effective risk management capability into the strategic planning process can not only be a source of competitive advantage but also help prevent the next crisis.

Path Solutions provides banks and FIs with Risk Management (RM), a single, central and responsive GRC platform for proactively identifying, evaluating, managing and reporting on all risks as you chart your digital transformation.

CHALLENGES

Risk and compliance teams traditionally operate on spreadsheets and/or independent GRC tools to monitor fragmented types of risks. While this approach has been serving them for the past couple of decades, it cannot survive in the dynamic environment where data is growing exponentially, new products are added regularly, and new tools are emerging faster than ever. This is creating a set of challenges such:



Operating across decentralized and siloed data



Difficulty complying with increasingly complex regulatory requirements



Inconsistency in procedures and processes across environments



Delayed response to new emerging risks



Technological innovations and the increasing penetration of smart devices

Risk and compliance teams really need to keep pace, and they need to implement a flexible and scalable tool - what they need is a strategic, integrated, and digital GRC that adopts a holistic approach to risk management and compliance.

COVID- 19 IMPACT

Risk respects no boundaries. Enterprise risk management (ERM) must be better positioned to nimbly assess risks in today's agile-minded and rapidly changing business environment. ERM requires reassessing risks more frequently, more than once per year, to keep a forward-looking posture to identify new and/or emerging risks.

In a rapidly evolving operating environment colored by social disruption, workplace changes and transformative technologies, Financial institutions must embrace more efficient, flexible, insightful and strategic solutions to prepare for the unexpected, namely and relevantly, an unforeseen pandemic. COVID-19 has altered and accelerated the environmental challenges FIs were already confronting in managing risk, highlighting the need for a more holistic, data-driven approach to risk management. Such catastrophic events are triggers for the crucial implementation of ERM. Going forward, institutions must improve data governance and invest in new, more efficient technologies to better manage known risks and identify emerging vulnerabilities.

OPPORTUNITIES

Integrated risk management systems enable risk-based decision making and promote better understanding of enterprise wide risks. They also provide a wide range of benefits:



Provide a single source of truth with 360-degree view into the organization's risk landscape



Enhance agility in venturing into new products and business opportunities



Eliminate data silos and provide a single endpoint for risks across departments, business units and platforms



Automate manual processes and streamline risk and compliance teams' tasks



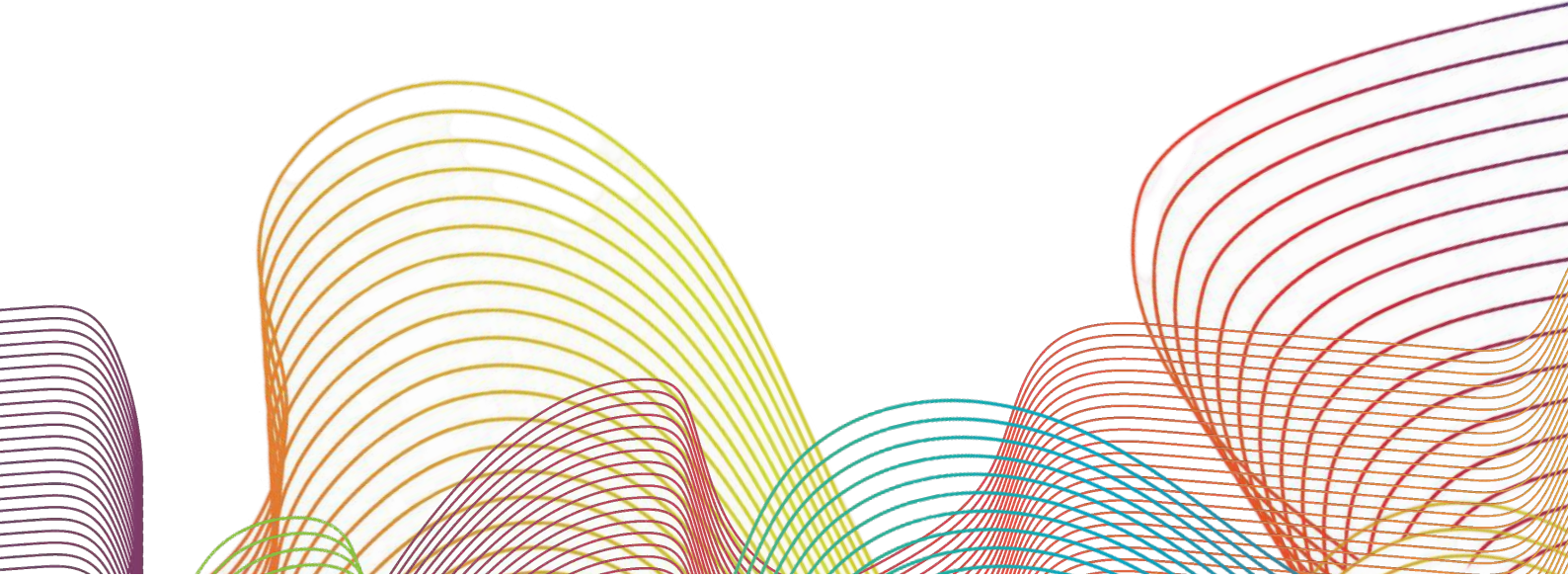
Holistic and consistent view of balance sheet



Robust risk management and internal controls optimize performance for the business

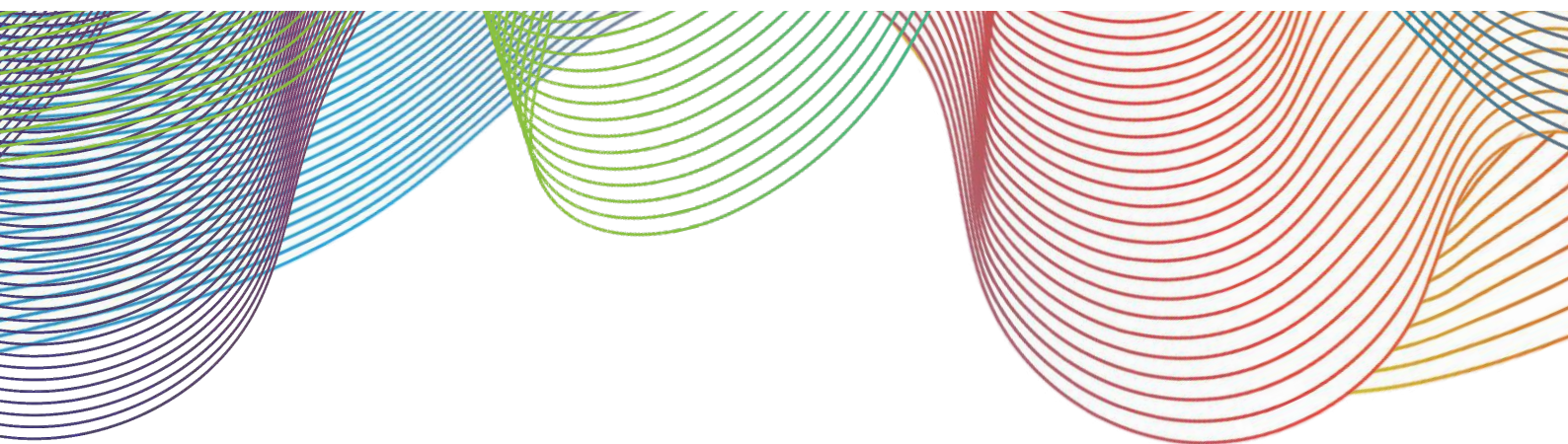
“ A risk management strategy reduces siloed risk domains and supports dynamic business decision making via risk-data correlations and shared risk processes. ”

Gartner's July 2019 Magic Quadrant for Integrated Risk Management Solutions



“ By 2025, risk functions in banks will likely need to be fundamentally different than they are today. As hard as it may be to believe, the next ten years in risk management may be subject to more transformation than the last decade. And unless banks start to act now and prepare for these longer-term changes, they may be overwhelmed by the new requirements and demands they will face. ”

- McKinsey



RISK MANAGEMENT

Our RM solution provides an integrated and flexible framework with advanced capabilities such as risk calculators and risk heat maps for risk analysis and monitoring. The solution fully supports your institution's requirements from risk identification and assessment to risk response, aggregation and communication.

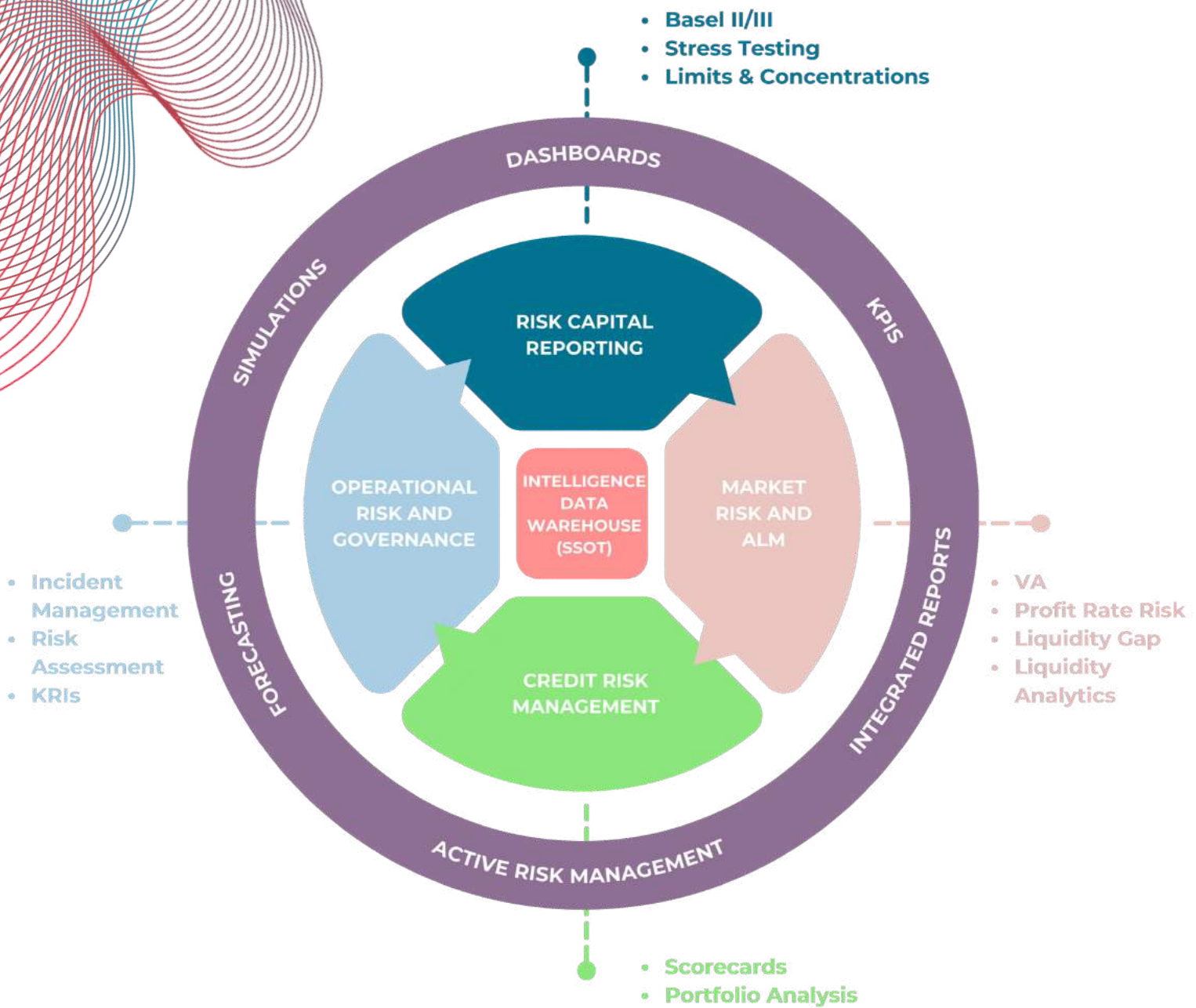
Path Solutions' integrated Risk Management (RM) solution is built on a scalable Intelligence platform providing the single source of truth for an overall risk management and digital strategy.

Our modular RM solution is a unified platform that allows for transparency across all facets of integrated risk management, starting from reliable raw level data and leveraging business intelligence technologies to effectively transform it into powerful insights for board-level decision making, to keep up with the pace, volume, and complexity of digital change.

RM provides a powerful, highly parameterized, and yet easy-to-use solution for several risk areas and compliance requirements. It allows financial institutions to proactively manage their risks through various detailed management and analytical features, such as what-if analysis, sensitivity analysis, and stress testing. It also offers ready-to-deploy comprehensive dashboards, reports, and analytics tools for both regulatory and the institution's own risk management needs.

RM also delivers an enterprise-wide view of the bank's position in stressed conditions thus allowing them to improve capital management and capital planning. It offers a useful base for the communication of key risks across the organization, enables management to set limits for risk tolerance, and redesign their risk strategies if required, while helping the development of risk mitigation or contingency plans across a range of stress conditions.

ARCHITECTURE



KEY FEATURES

Risk Capital Reporting

This component handles the calculation of Risk Weighted Assets (RWA) and Capital Adequacy Ratio (CAR) and supports compliance with the Basel II/III Accord and IFSB Capital Adequacy standards. The solution is comprised of pre-packaged regulatory reports for Basel II and Basel III along with flexible parametrization to cover regulatory changes. It enables institutions to keep the exact amount of capital needed, free up additional capital and identify top exposures, both in terms of measured risks and unmeasured uncertainties.

RWCR Calculation

- Dynamic capital definition
- Risk Weighted Capital Ratio (RWCR)
- Segmental RWCR by branches or departments
- Credit risk calculation including dynamic exposure class setup, optimized collateral distribution and granular analysis on the RWA composition
- Market risk SA and IMA for benchmark rate risk, equity risk, foreign exchange risk, inventory risk and commodity risk
- Operational risk capital calculation BIA/STD/AMA

Basel III Capital Calculation

- Leverage ratio
- Liquidity coverage ratio
- Net stable funding ratio
- Legal liquidity

Stress Testing

This tool will expose potential threats and losses to the bank's portfolio, as well as monitor and mitigate potential exposure concentrations. It provides a forward-looking methodology in quantifying risk for board members to adjust risk tolerance, all while assisting in taking optimal decisions for lending and refinancing.



KEY FEATURES

Market Risk and ALM

VAR Engine

VaR calculations can be applied to specific positions or portfolios as a whole or to measure firm-wide risk exposure, using multiple approaches according to the bank's risk tolerance.

Yield Curve Simulations

The tool will allow for dynamic and automatic calculation of PnL according to different shifts of Yield curve and according to each product's specific conditions.

Hedge Effectiveness Testing

The solution provides multiple such as Dollar Offset Approach, linear regression analysis and Volatility Reduction Method (VRM).

Cash Flow Discounting

The cash flow discounting tool is used for calculating PV of cash-flows derived from different products using a uniform standardized manner.

Profit Rate Analytics

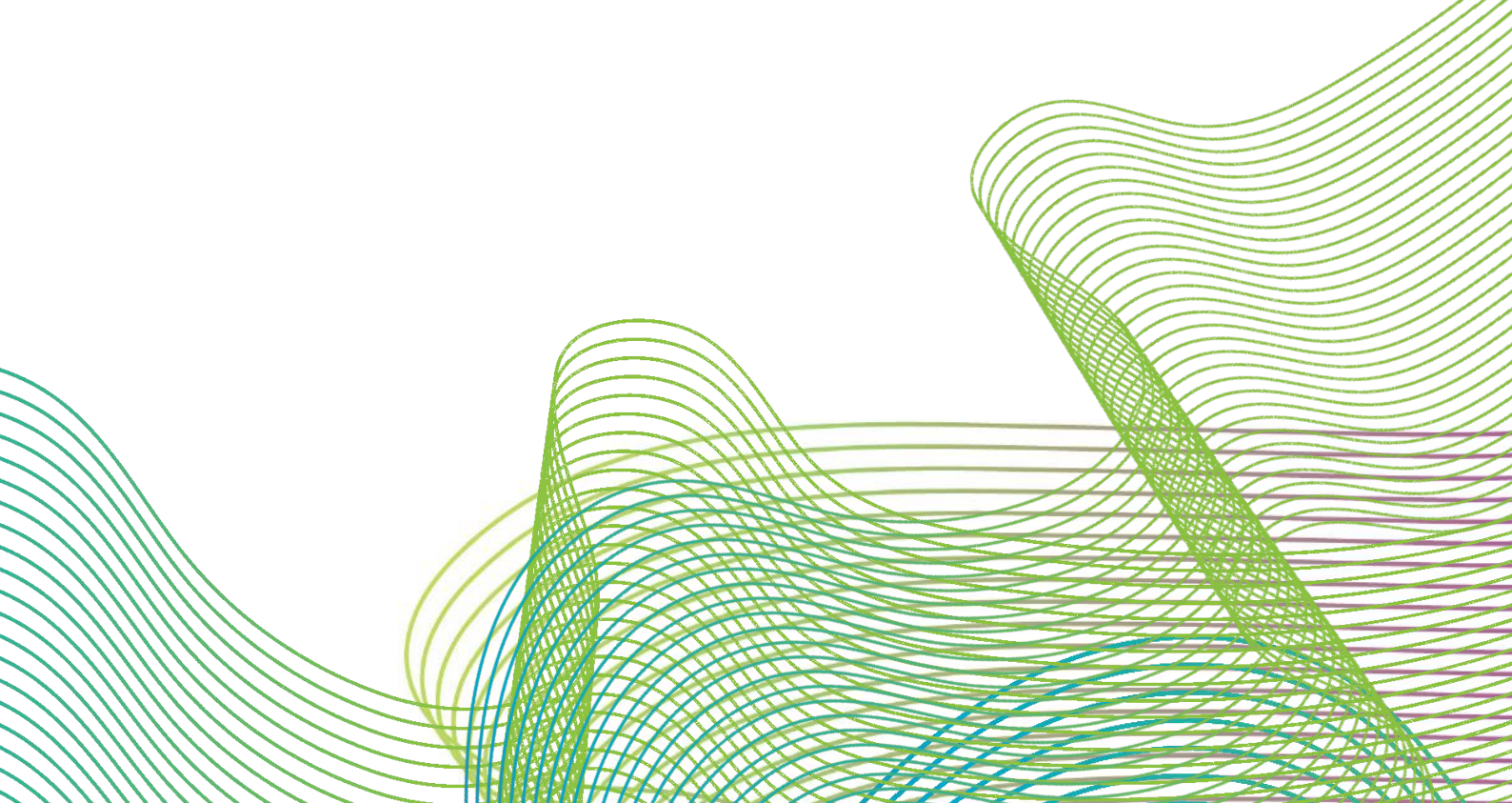
This tool provides dynamic NII and MVE calculation to showcase the income sensitive to market rates and its effect on the market value of the bank's equity. The bank can set up a dynamic and flexible balance sheet structure.

Liquidity Gap Reporting

The tool offers dynamic and flexible maturity gap reports keeping treasury constantly aware of where their cash is, where it's originating, and where it's needed. This allows a better understanding and management of potential issues associated with liquidity, counter parties and currency. The banks can define their own term structure and construct a forward schedule schema for automatic recognition of cash flows and mismatches.

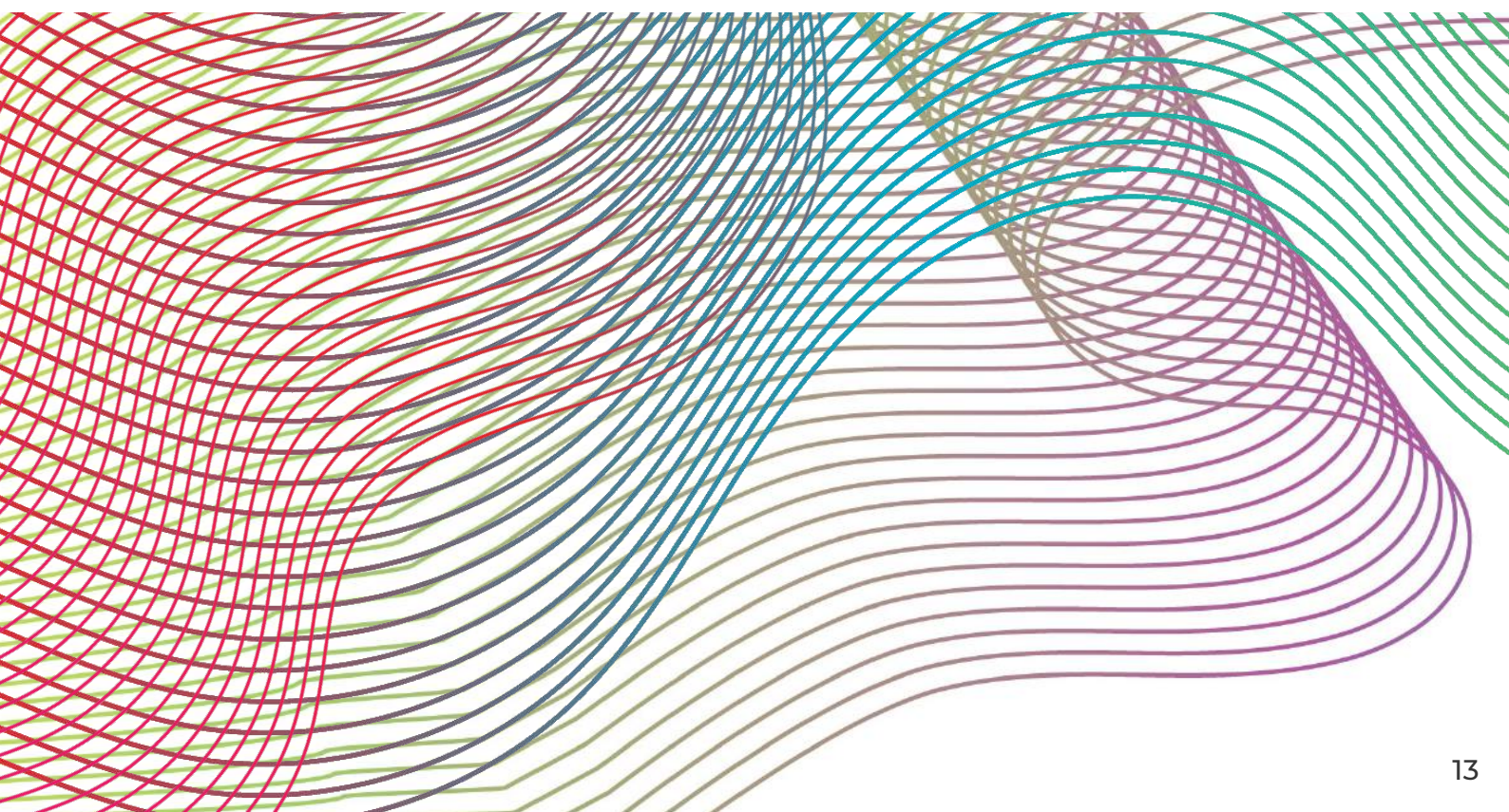
Liquidity Analytics and Key Liquidity Indicators

This tool delivers multiple liquidity indicators such as: balance sheet management, modeling of volatile deposit and trend analysis, liquidity early warning signals, and more.



“ **Risk Management technology and services market forecast for 2020 is \$7.3 billion with projected growth to \$9.3 billion by 2023. Digital transformation is rooted in the development of new digital products and services designed to propel a company’s future growth. These new digital products and services create a host of new risks that require IRM technology.** ”

Gartner's Emerging Technology Analysis: Digital Risk Management Report





KEY FEATURES

Operational Risk and Governance

Incident Management and Data Collection or Events Transactions

This tool serves for the identification, collection, reporting, and management of operational risk loss incidents in the financial institution.

Risk Register

This is a tool that groups together all the actual and potential risks of a financial institution to identify, analyze and manage the operational risks. Additional analysis can be run on the collected information, such as listing risks according to probability of occurrence or loss amounts.

Business Continuity Management

This tool provides a framework to ensure the resilience of the financial institution to any eventuality helping ensure business continuity to customers and protection of the financial institution's reputation. This tool allows the user to document key elements of the BCM, such as Business Impact Analysis (BIA) exercises, Initial Damage Assessment, action log and others.

Risk and Control Self-Assessment

This is a powerful tool that allows a financial institution to identify, assess, and mitigate potential key operational risk incidences that can occur. RCSA is highly parameterized and boasts several reports, tracking sheets and heat maps.

Key Risk Indicators - Key Control Indicators

This important tool gives the financial institution a flexible platform to map every risk indicator to a control along with thresholds and automated alerts sent when the latter is breached.

KEY FEATURES

Credit Risk Management

Vintage Analysis

This tool provides the vintage analysis report that calculates the percentage of past dues delinquency rate for the unsettled payments according to different time periods.

Credit Portfolio Analysis

This tool provides reports that allow the financial institution to monitor its retail exposures and predict delinquencies. This powerful tool allows a financial institution to perform customer and industry profiling and run several analyses on financing portfolio, such as product analysis, global financing analysis, and sector analysis.

Concentration & Limit Management

This tool provides reporting on concentrations across ratings and currencies. It also compares it to the regulatory limit associated by currency and by rating.

Risk management is not a static exercise but a continuous journey to improve an organization's ability to anticipate and manage its risks.

KPMG – The Journey to ERM 2.0

WHY RISK MANAGEMENT?

- ✔ **Higher quality information:**
Integrating RM information allows management to make more intelligent decisions, more rapidly.
- ✔ **Process optimization:**
All non-value-added activities are eliminated and value-added activities are streamlined to reduce lag time and undesirable variation.
- ✔ **Better capital allocation:**
Identifying areas where there are redundancies or inefficiencies allows financial and human capital to be allocated more effectively.
- ✔ **Improved effectiveness:**
Overall effectiveness is improved as gaps are closed, unnecessary redundancy is reduced, and GRC activities are allocated to the right individuals and departments.
- ✔ **Protected reputation:**
Reputation is protected and enhanced because risks are managed more effectively.
- ✔ **Reduced costs:**
Reduced costs help to improve return on investments made in GRC activities.
- ✔ **Investment Reimbursement:**
Greater transparency and visibility enable management to undertake initiatives with the most optimal risk/reward outcomes.



CONCLUSION

Monetizing the investment and the way forward

Institutions that fundamentally transform how they manage risk can become more dynamic and capable of responding quickly to new developments. In the new digital era, investing in risk management platform will allow you to:

- Play a greater role in the organization's strategic decision making.
- Expand risk management capabilities through all three lines of defense.
- Secure talent with the right risk management skills and business experience to effectively manage risk.
- Be agile to react quickly to the unanticipated developments inevitably arising in today's uncertain environment.
- Leverage emerging technologies to create a new digital environment able to substantially reduce costs while simultaneously improving the ability to proactively identify and manage risks, and do so at a lower cost.

Each financial institution will need to decide whether to continue with business as usual, running the risk of being unprepared for new risks and falling behind their peers and regulatory expectations... or ride the digital seismic wave seizing the opportunity to take risk management to an entirely new level that truly provides the capabilities to support the organization's strategic plan.

ABOUT PATH SOLUTIONS

*Path Solutions is a Fintech digital solution provider serving 140+ Islamic financial institutions across 40 countries with a comprehensive set of services that brings unique convergence of domain and technology. The company's new age initiatives – Digital & Social Banking, Mobility, Business Analytics, Risk Management & Compliance solutions cater to the evolving need for speed, reach and predictability. Its multi-award winning Islamic core banking platform **iMAL** is based on an open architecture, and supports open banking through open APIs and web services. Path Solutions' total commitment to open standards enables its clients to benefit from the latest technology advances ensuring business agility, continuity, data integrity and availability, and low downtime delivering a significant and immediate ROI.*

*To know more, please visit **www.path-solutions.com***

DISCLAIMER

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