Facilitating "sound practices" in risk management with IBM® OpenPages® Operational Risk Management

Contents:

Executive summary

This whitepaper discusses operational risk management in the context of "Sound Practices for the Management and Supervision of Operational Risk," a paper from the Basel Committee that provides an outline for building an effective ORM framework to deliver a better return on investment and improved business performance.

Risk management in the current post-meltdown economy is perhaps the single largest challenge organizations are facing in today's troubled corporate climate. The events of the last few years have prompted executives to focus their operational sights on risk management and take measures to evaluate how a well-defined risk strategy can drive business performance, even in the most perilous economic environment.

Factors such as increased transaction volumes, dependence on new technologies, the internet and mergers and acquisitions have introduced higher degrees of complexity and uncertainty in business operations.

In addition, rising shareholder influence and the recent high-profile financial fiascos resulting from the financial meltdown have led to increased regulation and anticipated legislation to ensure that risks are being managed in a more effective and auditable fashion.

As a result, organizations' boards of directors now assume a greater degree of accountability and have begun to fully understand the importance of instilling a risk-aware culture to gain better visibility of corporate risk. To achieve these goals, organizations need to foster a risk-based approach to enterprise governance, where all employees view risk management as an integral part of their daily responsibilities. Whether employees are IT, audit, compliance or business line managers, there is always a risk of non-compliance risk of IT security or regulatory non-compliance, operational risk and so on. To be effective, a risk-based strategy requires cross-departmental collaboration and coordination to create a common language for risk and synchronize the activities of the different operational functions.

The importance of risk management

The risk universe is wide and varied, typically divided into interdependent yet distinct realms. In the banking world, this translates into credit, market and operational risk along with, but not limited to, interest rate risk, reputation risk, liquidity risk and legal risk. The first two disciplines – credit and market risk – are well established in financial services firms with comprehensive tools and methodologies in place for lenders and traders.

Credit and market risk are managed in the context of consciously taking on risk for an expected and calculated reward. Operational risk, in contrast, is the management of risks that occur as a result of conducting business. Despite its inherent connection with business culture, operational risk remains a vast territory that lacks in both structure and tool maturity for many organizations.

As a result, over the past twenty years it has been estimated that an average of $15 billion (US) in annual losses have occurred within financial institutions alone.[1] World markets continue to see an increase in corporate failures leading to massive losses for stakeholders of all sizes. For instance, the disaster at Barings PLC in 1995 led to a loss of $1.47 billion and eventual corporate bankruptcy based on the actions of a single rogue trader operating outside of the firm's risk tolerance measures. Furthermore, Kidder, Peabody took a loss 350 million dollars due to a model error in its system's profit calculations. Enron, Tyco International, WorldCom, and Global Crossing represent additional examples of fraud and mismanaged risks that extend outside of the financial services industry.

More recently, numerous financial institutions involved in mortgage-backed securities ignored risk warnings and, as a result of the actions of typically a small business unit, leading institutions such as Lehman Brothers, Fannie Mae and Freddie Mac, have been either left in ruins or bailed out by government funding. Such occurrences illustrate the importance for risk management measures to ensure that organizations are consciously working to reduce losses within an acceptable, ethical and sustainable framework that will positively affect business performance. They have also spawned the need for loss data consortiums to provide benchmarking and indexing. For instance, the Operational Riskdata eXchange Association (ORX) is an operational risk loss data consortium for the financial services industry founded by and composed of over fifty member banks. ORX holds, collects and categorizes standardized loss data from all over the banking industry in order to improve its members' collective capacity to understand and quantify operational risk.

The Enterprise Risk Management (ERM) framework presented by the Committee for Sponsoring Organizations of the Treadway Commission (COSO) has done much to bring the discipline of risk management to the forefront of the corporate world, and a great many practitioners – both inside and outside of financial services – have chosen to apply its tenets to their organizations. Sarbanes-Oxley, AML, the USA Patriot Act, the Basel Accords and numerous other pieces of legislation have also fueled the fires of risk awareness set by the corporate scandals and losses of the last decade. The complexities and risks in the current climate call for a more disciplined approach to "the risk of loss resulting from inadequate or failed internal processes, people, systems or external events."[2]

The need for sound business practices

With the investment community demanding better accountability, operational risk has developed into a focal discipline – in part as a result of the Basel Committee's proposal to introduce a charge for operational risk through the Basel II capital accord. It is clear that a capital charge only requires banks to have a cushion against default and does not square attention on reducing loss. Regardless, the Basel Accord delivered a framework for risk management that helped introduce the Advanced Measurement Approach (AMA) to further encourage advances in Operational Risk Management (ORM).

The ability to enforce sound practices

In February 2003, the Basel Committee also issued "Sound Practices for the Management and Supervision of Operational Risk," a paper that provides an outline for building an effective ORM framework that promises to give organizations a better return on investment.

The Sound Practices paper outlines 10 principles that are applicable not only to banks, but to numerous organizations across varying industries. The following sections demonstrate how these principals easily align to IBM® OpenPages® Operational Risk Management, a comprehensive software solution that enables organizations to manage operational risks and minimize losses by converging the identification, assessment, monitoring and mitigation processes.

Principle I: Board approval

"The board of directors should be aware of the major aspects of the bank's operational risks as a distinct risk category that should be managed, and it should approve and periodically review the bank's operational risk management framework. The framework should provide a firm-wide definition of operational risk and lay down the principles of how operational risk is to be identified, assessed, monitored and controlled/mitigated." [3]

Tasked with providing principles to guide senior management policy development, the board must have the right tools in place to assess how well the corporate ORM framework aligns with the organization's risk tolerance and appetite. A technology solution such as IBM® OpenPages® GRC Platform enables this by providing a foundation for an effective ORM framework and affording deep insight into the company's risk profile.

Additionally, the board is required to review the framework regularly to ensure that necessary revisions, with regard to changing internal and external dynamics, are covered. OpenPages ORM provides the board with the necessary metrics and business intelligence required to make such an assessment possible. Combined with a robust reporting engine, OpenPages ORM also delivers the right risk information to the board to help validate framework viability as well as understand and assess the organization's major risks. This allows the board to gain true insight into the risks that affect business objectives as well as the knowledge of what to do when performance does not meet expectations. This visibility also gives the board the ability to subsequently approve the framework with unswerving confidence.

Principle II: Independent internal audit

"The board of directors should ensure that the bank's operational risk management framework is subject to effective and comprehensive internal audit by operationally independent, appropriately trained and competent staff. The internal audit function should not be directly responsible for operational risk management." [4]

OpenPages ORM enables Internal Audit to verify easily that the approved framework has been deployed correctly and transparently.

By accessing the audit trail of risk and control self assessments, loss event tracking, key risk indicator monitoring, and policy and procedure acknowledgement and adherence, OpenPages ORM presents Internal Audit with a comprehensive picture that can help shape the audit plan and facilitate required remediation. Opportunities for convergence also rise to the surface as Internal Audit reacts to many different risk and compliance initiatives (such as SOX, ERM and Basel). This translates into less time and resources spent on internal and external audits as well as the elimination of redundancies and duplication of effort associated with multiple assessments.

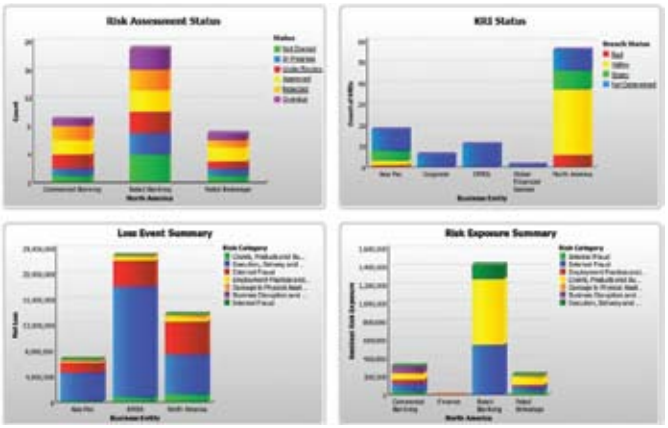

Figure 1: OpenPages ORM dashboards deliver actionable reporting on current state of risk.

Principle III: Senior management implementation

"Senior management should have responsibility for implementing the operational risk management framework approved by the board of directors. The framework should be consistently implemented throughout the whole banking organisation, and all levels of staff should understand their responsibilities with respect to operational risk management. Senior management should also have responsibility for developing policies, processes and procedures for managing operational risk in all of the bank's material products, activities, processes and systems." [5]

For a framework to receive organization-wide buy-in, all tools must be easy-to-use and demonstrate value for business users. OpenPages ORM automates the process of identifying, measuring, and monitoring operational risk, integrating all risk data in a single solution. By providing a configurable workflow, OpenPages ORM also ensures that all relevant stakeholders can easily perform the tasks they have been assigned. This helps senior management drive adoption of and accountability for the implementation of the framework.

With the right ORM framework in place, decision makers can be sure that the policies, processes and procedures they have designed are deployed with accountability at every interval of the process and within each business unit. OpenPages ORM enables these policies and procedures to be stored and automatically associated with all relevant components of the framework, including individual objects in the library of processes, risks, and controls, as well as risk assessments, losses and key risk indicators (KRIs).

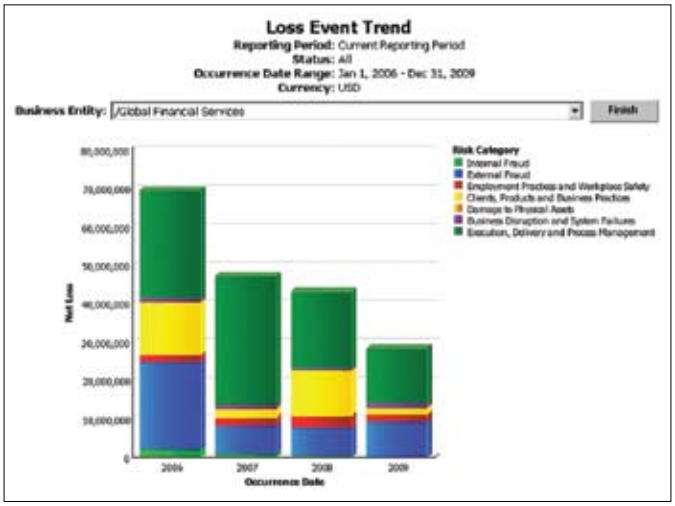

Figure 2: Loss event data can be analyzed and trended across time

Principle IV: Risk identification and assessment

"Banks should identify and assess the operational risk inherent in all material products, activities, processes and systems. Banks should also ensure that before new products, activities, processes and systems are introduced or undertaken, the operational risk inherent in them is subject to adequate assessment procedures." [6]

Understanding that a comprehensive ORM framework also needs to automate the process of identifying and assessing risks, OpenPages ORM allows for the flexible and intelligent configuration and development of assessment tools to ensure an optimal level of incentive and a minimization of system gaming. Such assessments allow for both qualitative and quantitative risk measurement, enabling business managers to analyze risk profiles easily and efficiently for the entire organization. As a result, this process helps to determine and/or substantiate an organization's risk appetite and tolerance levels.

KRIs are another critical component of an effective ORM framework, serving as early warning indicators for high-risk areas throughout the organization. OpenPages ORM associates KRIs with risks and controls and enables automatic input from various data sources to track periodicity and thresholds. These thresholds are determined based on the knowledge derived from managerial experience and the assessment process. When these thresholds are approached or breached, automatic notifications are sent to the appropriate personnel so that timely action can be taken to minimize losses and avoid exposure.

Collection loss data is another key component of a complete ORM framework. The Loss Event database in OpenPages ORM provides a central repository for tracking losses and near-misses along with critical aspects of these losses, including loss and recovery amounts, accountability and root causes. This enables events to be analyzed and action plans created to reduce future losses occurring through the implementation of additional controls or the redesign of failed processes. Additionally, OpenPages ORM statistical and trend analysis gives insight into expected and unexpected losses across time horizons and provides input for capital allocation engines.

Principle V: Risk Monitoring and Reporting

"Banks should implement a process to regularly monitor operational risk profiles and material exposures to losses. There should be regular reporting of pertinent information to senior management and the board of directors that supports the proactive management of operational risk." [7]

The breadth of data that is gathered and stored in the ORM framework must be easily customized with intelligent reporting tools like filters, in-context data, and interactive dashboards to provide relevant insight to decision makers. In addition to the use of KRIs, which offers forward-looking visibility into potential high-risk areas, OpenPages ORM also provides executive dashboards and management reports that deliver vital metrics and valuable information on key risks and losses as well as on the status of the company's risk management processes.

OpenPages ORM also enables losses to be logged in a timely manner and facilitates the type of analysis that can minimize impact and remediate the control structure. Heat charts that graphically display severity and probability measures provide insight into the levels of existing and possible exposure, empowering management to take action should residual risk remain outside of acceptable limits.

Principle VI: Risk mitigation

"Banks should have policies, processes and procedures to control and/or mitigate material operational risks. Banks should periodically review their risk limitation and control strategies and should adjust their operational risk profile accordingly using appropriate strategies, in light of their overall risk appetite and profile." [8]

Internal controls are essential to enhancing efficiency, reducing the risk of losses, aiding the compliance of laws and regulations, and guaranteeing the reliability of financial reporting. Controls are necessary to ensure key risks are mitigated to prevent, for example, the types of losses associated with lack of segregation of duties (for example, Barings PLC), fraud (for example, WorldCom, Enron) and system errors (for example, Kidder, Peabody).

OpenPages ORM offers best-in-class functionality for internal controls tracking, testing and monitoring. The solution's strong features and flexible workflow help to ensure controls are documented correctly, designed appropriately, and operating effectively. Should deficiencies in the internal control framework be found, issues can be identified and action plans initiated and monitored to ensure all gaps are closed in a timely manner by the responsible personnel.

Principle VII: Contingency and continuity planning

"Banks should have in place contingency and business continuity plans to ensure their ability to operate on an ongoing basis and limit losses in the event of severe business disruption." [9]

Disaster Recovery Plans (DRPs) have gained momentum in the last 20 years due to the accelerated adoption of technology across global businesses. Business Continuity Planning (BCP) has become a broader extension of the DRP, including all processes, procedures, decisions and activities that are essential to ensuring that organizations can continue to function through operational interruptions. OpenPages ORM can help organizations identify and assess key risks in this area. The policies and procedures developed for BCP and DRP as well as the risks, controls, and mitigation strategies designed to minimize loss can also be managed cohesively within the application.

Principle VIII: Supervisors requirement

"Banking supervisors should require that all banks, regardless of size, have an effective framework in place to identify, assess, monitor and control/mitigate material operational risks as part of an overall approach to risk management." [10]

Principle IX: Supervisors requirement

"Supervisors should conduct, directly or indirectly, regular independent evaluation of a bank's policies, procedures and practices related to operational risks. Supervisors should ensure that there are appropriate mechanisms in place which allow them to remain apprised of developments at banks." [11]

OpenPages ORM addresses principles VIII and IX, which focus on the role of the supervisor, by providing a unified platform that effectively communicates the status of an organization's ORM framework with supervisors and management.

Principle X: Disclosure

"Banks should make sufficient public disclosure to allow market participants to assess their approach to operational risk management." [12]

The final principle outlined by the Basel Committee addresses public disclosure for the marketplace. A recent report by Forrester Research revealed that institutionalizing governance, risk, and compliance procedures throughout the organization results in benefits in the areas of efficiency, risk reduction, and overall strategic performance.[13] Studies also show that good business governance leads to a higher stock price.[14]

OpenPages ORM gives organizations confidence that they are managing risk in a way that is designed to maximize shareholder value through the alignment of risk/reward opportunities and strategic objectives. This assurance can then be readily communicated to the investment community.

Conclusion

Effective ORM practices are not just for the banking world. The Sound Practices paper issued by the Basel Committee provides a valuable guide for organizations across all industry verticals that are building a reliable ORM framework. In order for that framework to yield the business benefits associated with visibility into an organization's real risk profile (that is, to minimize losses, maximize efficiencies and reduce earnings volatility), comprehensive software solutions like OpenPages ORM must be effectively employed.

OpenPages ORM presents an easy-to-use, web-based enterprise software solution that enables organizations to identify, measure, monitor, and manage operational risk on an integrated, company-wide basis. With IBM OpenPages, risk managers reduce the likelihood of unexpected business events, resulting in improved operating margins, minimal earnings volatility, increased efficiency, eased regulatory burdens, and optimal capital allocation reserves.

About IBM Business Analytics

IBM Business Analytics software delivers complete, consistent and accurate information that decision-makers trust to improve business performance. A comprehensive portfolio of business intelligence, predictive analytics, financial performance and strategy management, and analytic applications provides clear, immediate and actionable insights into current performance and the ability to predict future outcomes. Combined with rich industry solutions, proven practices and professional services, organizations of every size can drive the highest productivity, confidently automate decisions and deliver better results.

IBM Corporation
Route 100
Somers, NY 10589

Produced in the United States of America
May 2011

1 Douglas G. Hoffman, "Managing Operational Risk: 20 Firmwide Best Practice Strategies". Wiley Finance, 2001.

2 Basel II Accord, Operational Risk definition. http://www.bis.org.

3 Basel Committee on Banking Supervision, "Sound Practices for the Management and Supervision of Operational Risk. BIS, February, 2003.

4 Basel Committee on Banking Supervision, "Sound Practices for the Management and Supervision of Operational Risk. BIS, February, 2003.

5 Basel Committee on Banking Supervision, "Sound Practices for the Management and Supervision of Operational Risk. BIS, February, 2003.

6 Basel Committee on Banking Supervision, "Sound Practices for the Management and Supervision of Operational Risk. BIS, February, 2003.

7 Basel Committee on Banking Supervision, "Sound Practices for the Management and Supervision of Operational Risk. BIS, February, 2003.

8 Basel Committee on Banking Supervision, "Sound Practices for the Management and Supervision of Operational Risk. BIS, February, 2003.

9 Basel Committee on Banking Supervision, "Sound Practices for the Management and Supervision of Operational Risk. BIS, February, 2003.

10 Basel Committee on Banking Supervision, "Sound Practices for the Management and Supervision of Operational Risk. BIS, February, 2003.

11 Basel Committee on Banking Supervision, "Sound Practices for the Management and Supervision of Operational Risk. BIS, February, 2003.

12 Basel Committee on Banking Supervision, "Sound Practices for the Management and Supervision of Operational Risk. BIS, February, 2003.

13 McLeanm Chris. "How to Measure the ROI of a GRC Platform". Forrester Research, Inc., January 24, 2011.

14 Shane A. Johnson, Ted Moorman, Sorin Sorescu. "Governance, Stock Returns, and Market Efficiency". Texas A&M University, April 8, 2005. Retrieved from http://www.unh.edu/acfi/ted-Governance.pdf.

Please Recycle

YTW03163-USEN-01