

An Oracle Thought Leadership White Paper  
July 2009

# Uncertainty Management:

## Risk and Performance, Two Sides of the Same Coin

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## Introduction

“All of management’s value is derived from managing uncertainty.”<sup>1</sup>

The bottom-line role of management is balancing performance and risk to create stakeholder value. This requires both performance management and risk management. Performance management focuses on achieving the desired goals and targets of the organization, but is often practiced in business silos based on the organizational structure and decision authorities in place. Risk management is another critical discipline, yet is hardly ever performed across an entire organization. Performance management and risk management are often pursued as different and separate activities; frequently disconnected from each other. This, simply, should not be.

EPM is a management discipline that embraces and combines all management processes. These management processes include strategic ones, such as gain-to-sustain, investigate-to-invest, and design-to-decide, as well as tactical and operational management processes, such as plan-to-act, analyze-to-adjust and record-to-report.<sup>2</sup>

EPM creates a competitive advantage for those organizations that adopt it by enabling them to reach a state of, what we call, “management excellence”; anticipating and responding to changing business conditions faster and with more insight than their peers, improving their strategic agility to act on those insights, and improving alignment and collaboration between individual business units and external stakeholders.

Enterprise risk management (ERM) is a management discipline which is performed to deal with possible threats to the organization and seize opportunities in line with business objectives. By identifying and proactively addressing risks and opportunities, business enterprises protect and create value for their stakeholders including owners, employees, customers, regulators, and society overall.

To succeed, in a sustainable way, performance and risk management must be performed in tandem across the entire organization. These disciplines should not be performed as separate activities as they are two sides of the same coin. What’s the name of that coin? *Uncertainty management*.

Any management decision inherently carries some uncertainty. It doesn’t matter if the decision is about an investment, a new product introduction, or budget plans for the future, there is always a

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<sup>1</sup> Patrick Leach (2006), *Why Can't You Just Give Me the Number?*, Probabilistic Publishing.

<sup>2</sup> Oracle White Paper (2008), *Management Excellence: How Tomorrow's Leaders Get Ahead*. Available from: [www.oracle.com/epm](http://www.oracle.com/epm)

chance that the expected outcome may not be achieved. Performance and risk, therefore, are two important perspectives from which uncertainty in making business decisions should be studied.

### Information Is The Key In Reducing Uncertainty

Management needs accurate information to understand what happened in the past, why it happened, and what the underlying deficiencies or variances and deviations are. Furthermore, management needs to consider what might happen in the future, how to deal with it, and what likely business scenarios might impact performance.

Enterprise Performance Management (EPM) and Enterprise Risk Management (ERM) are two disciplines that together can provide the critical, accurate information needed to reduce the level of uncertainty.

EPM processes focus on identifying how to take advantage of opportunities and turn them into sustainable successes for the business. ERM looks at the exactly same opportunities, but with a focus on identifying; what risks exist, which factors influence these risks, quantifying and qualifying the impacts to the business, and how to deal with the impacts. The difference is in the point of view or perspective from which things are observed.

Today, many companies continue to ignore or misunderstand the opportunities that are derived from proper risk management. By establishing a consistent and disciplined process for managing enterprise risk, organizations can improve the predictability of their business results and reduce share price volatility.<sup>3</sup>

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<sup>3</sup> Adapted from *Risk Management – Protect and Maximize Shareholder Value*, Oracle White Paper (2009), Available from: [www.oracle.com](http://www.oracle.com)

## Extending Operational Excellence with Management Excellence

For decades, organizations gained an essential competitive advantage through Operational Excellence; optimizing transactional business processes by reducing cost, increasing speed, and improving the quality. As most organizations have already invested heavily in Operational Excellence, this strategy has lost most of its competitive edge. Customers have come to expect good quality, in a timely fashion, for a reasonable price from all vendors. The competitive advantage for the coming years will come from extending Operational Excellence with Management Excellence, which is all about optimizing management processes by becoming smarter, more agile, and better aligned.

Information is the key asset upon which the three pillars of Management Excellence all rely to beat the competition. Information is also the asset that can also help reduce uncertainty.

### Management Excellence and Reducing Risk

So what is Management Excellence<sup>4</sup> and how can it help mitigate uncertainty? Management Excellence is a framework of defined management processes that, when implemented well, achieves EPM. To understand how it can help diminish uncertainty, we must first understand the principles of Management Excellence and the framework used to implement it.

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<sup>4</sup> *Management Excellence: How Tomorrow's Leaders Will Get Ahead*, Oracle white paper (2008), Available from: [www.oracle.com/epm](http://www.oracle.com/epm).

## The Three Pillars of Management Excellence

- SMART** Smart, successful companies today are able to leverage existing data derived from both internal and external sources. With better insight, these companies can move faster than the competition and gain a competitive edge. Smart companies match the right technology with the best methodologies and processes to turn vast amounts of data into meaningful information that supports decision-making across the organization. The driving factors and the impact of identified risks can be exposed and hidden risks, revealed.
- AGILE** Smart organizations must also adapt to changing circumstances: Global competition and adjacent markets bring new entrants and new technology developments which may require new business models. Agile organizations can determine how changes in the market affect them and are able to identify alternative actions easily. Agile organizations can take an active role in driving change into a market and use its flexibility to take risks other competitors may be reluctant to try.
- ALIGNED** Agility must also include collaboration throughout the organizations the value chain in order to innovate and be successful. Aligned companies have evolved from a command-and-control approach to a collaborative model that incorporates contributions from all stakeholders and shares information through integrated systems and processes. Hence, aligned companies have a much broader understanding of external risks and risk factors

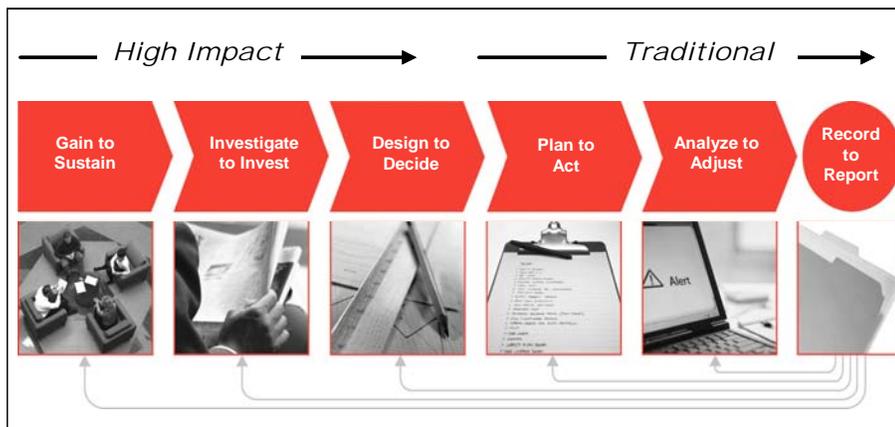
Management Excellence can only be achieved when EPM and ERM come together. A balance between the chances and opportunities pursued and the risks and rewards associated with them must exist. But risks and opportunities can be found outside the organization or inside the organization. To get a complete picture of risk and opportunity and how they impact the organization, two perspectives should be considered; the view from outside the organization looking inward, and the view from inside the organization looking outward.

The following table shows the two perspectives and how they relate to the three pillars of Management Excellence.

MANAGEMENT EXCELLENCE PILLARS	OUTSIDE-IN	INSIDE-OUT
Smart	Identify external performance drivers and risk factors	Detect changes, variances and deviations in operations to minimize risks and optimize performance
Agile	Identify and prepare for performance and risk optimized business models	Fast adaption of business processes to changing circumstances. Leverage opportunities and reduce failure risks.
Aligned	Align contributions, requirements and external risks with external stakeholders	Align performance and risk management across departments, functions and entities

## Management Excellence Framework

The Management Excellence framework, called Strategy-to-Success, offers a method by which companies can implement Management Excellence. This framework consists of six well-defined management processes and includes both the outside-in and inside-out perspectives. Each management process has a role to play in managing risk.



The three “traditional” performance management processes represent the inside-out perspective. The focus is on the depth of information needed. The idea is to plan and manage how the organization is going to achieve the goals and objectives set through the strategy formulation processes. These three management processes are Plan to Act, Analyze to Adjust and Record to Report.

The three “high impact” management processes represent the outside-in perspective. They are considered high impact as these processes can provide a better competitive advantage than by only focusing on the more traditional management processes – which most organizations already do. The focus of the high impact processes is on the breadth of information needed. As an extension of Porter’s concept of defining an organization’s value chain across its business processes, the framework expands the scope of performance and risk management to include the less traditional areas of performance management, such as considering all the stakeholder requirements and contributions, understanding market opportunities and developing the best business model. The idea is to evaluate and identify the assumptions, objectives, and targets for the organization in the light of external factors and drivers. These three management processes are Gain to Sustain, Investigate to Invest and Design to Decide.

Each of the six processes in the Management Excellence framework has a role to play in performance management and uncertainty management. Let’s dig a little deeper into each process to better understand what they entail and the role they play.

## Risk Meets the Stakeholders



**Gain to Sustain** is the management process for connecting corporate strategy with the interests of key stakeholders including employees, customers, suppliers, regulators, citizens and investors. The purpose of this process is to ensure that a company gains all the necessary contributions from its stakeholders to drive business performance, while meeting the required stakeholder expectations.

Organizations operate in a network of different stakeholders. Each of those contributes to the performance of the organization. For instance:

- Employees contribute labor
- Shareholders provide capital
- Suppliers and partners provide materials and services to design, build and sell products
- Customers provide demand
- Society provides an infrastructure
- Regulators ensure fair competition

We can only count on stakeholder contributions if we also acknowledge stakeholder requirements. We need to map those contributions and requirements and use it as the basis for a performance management strategy.

In New York City, more than 40 city services leverage Oracle's BI capabilities to manage the performance of all agencies with identical and aligned performance indicators. In addition, the city has established a credible and trustworthy reputation by publishing all performance indicators and improvements gained on their public website.

This process focuses on proactively managing the reputation risk. No organization can afford to damage its reputation, as this has the potential to harm the organization's business, possibly forcing them to shut down. In order to build trust and confidence, regulators, shareholders, investors and creditors expect timely, accurate and complete reporting of the financial statements and important operational figures. At any time, organizations need to be able to respond to inquiries quickly, accurately and completely.

Suppliers and channel partners not only expect timely payments, they also expect information about performance goals and objectives. As a reliable partner in the stakeholder network, reputation is built on the transparency and clarity of the information provided and shared.

Society at large, employees, and customers also want to understand the organization's view of their social responsibility. Sustainability reporting is quickly becoming an important capability for EPM solutions. Companies need to collect, analyze, and share information about the positive or

negative impact of their business on the environment, on society (local and, in some cases, internationally) as well as sharing their economic results.

## Risk and Opportunity in the Marketplace



**Investigate to Invest** is the management process for identifying, evaluating and creating the most attractive market opportunities for investment. The purpose of this process is to select strategic alternatives to generate the highest returns. It is used to determine which existing markets to focus on, which ones to enter, and from which markets to retract. This process involves combining external information, such as market intelligence and competitive intelligence with internal analysis of the product or service portfolio performance as well as customer and geographic performance.

Understanding market dynamics is the first crucial step in evaluating strategic alternatives and market risk. As new products roll out and new competitors enter the market, consumer behaviour changes, the pace of business accelerates, and most organizations collect sufficient external data to predict future trends. Information typically resides in a competitive intelligence (CI) function which is separate from internal information about resources and activities that are often housed within extensive business intelligence (BI) systems. Rarely are the two combined.

FIAT has implemented analytics for car sales in 32 countries including details, such as individual sales channels, fuel types, and chassis types. This information is invaluable for uncovering new market hotspots and buying trends. Combining external market and competitive intelligence with internal portfolio and customer profitability analysis is the key to making smart invest and divest decisions.

Boeing uses strategic and predictive modeling to find out which projects in the portfolio have the highest chance to be successful and the lowest risk of misaligning Research and Development spending.

Combining them in this management process will provide the information needed to understand the market opportunities, but also quantify the market risks. For example, the Investigate to Invest process enables you to address the following questions:

- What is the risk that prices will drop significantly?
- What is the volatility of customer demand in the market segments?
- Will the competitive landscape change?
- What is the impact and risk that substitute products will be introduced?

But risk also offers an opportunity. Organizations with superior insight into the market risks and risk factors can leverage this as a competitive advantage. They gain greater agility to take risks competitors can not handle and from which they typically shy away.

## Risk-adjusted Business Model Design



**Design to Decide** is the management process for designing the business infrastructure and partner network to deliver value to customers in the most profitable way. The purpose of this process is to select the optimal configuration in connecting the company's value chain. This process involves scenario analysis to determine the company's product portfolio, outsourcing strategy, business partners and channels, acquisition and divestment strategy as well as its financing strategy.

Companies have many different strategic options for shaping an organization. Should they innovate and grow by creating new products or acquiring them through partners? Which activities should they outsource and which are best kept in-house? And when it comes time to downsize, should they divest a business unit or reduce capacity throughout the business? These questions cannot be answered by calculating the return on an investment; they must be aligned to the needs of the market. The Design to Decide management process is the key to strategy formulation. It helps companies decide how to realize the highest returns for all stakeholders in the most appropriate markets.

Through EPM, a printing company accelerated the way it assesses and integrates acquisition targets. As a result, the company has been able to maintain a complex, long-range, financial model of its business, test scenarios for their impact on financial and operational performance, and set earnings expectations for quarterly communication with financial analysts. Thus strategic risks were taken that competitors resisted taking creating a competitive advantage for the printing company.

All these fundamental business model decisions have inherent strategic risks that need to be discovered and addressed. The risks of an acquisition, for instance, need to be qualified and quantified, and then compared to the risks of alternative options, such as in-house development or entering into a strategic alliance or joint venture. Just looking at and evaluating the expected performance is insufficient.

To create successful strategies, companies are applying scenario analysis; an approach that had some popularity in the 1970s and 1980s and is re-emerging as a strategic performance and risk management initiative today. Scenario analysis helps organizations to identify the most successful strategies; the ones that hold up across the greatest number of identified possible future scenarios.

Proactively managing strategic risks also includes financing and hedging strategies, key instruments to reduce the uncertainty and ensure sustainable performance despite fast changing market conditions.

It is the nature of strategic business model decisions to have a huge impact on the performance, and often it takes years to implement. For this very reason, in the Design to Decide management process, performance and risk management are inextricably linked.

## Risk meets Operational and Financial Planning



**Plan to Act** is the management process for aligning the organization from the corporate level to the business units, as well as across business functions in order to achieve its goals. The purpose of this process is to optimize capital and resource allocations across the organization in order to effectively execute its strategy. This process involves aligning targets from strategic to operational levels, resolving gaps between financial plans and operational constraints, and continuously forecasting to keep the organization on track.

In this step of the Management Excellence framework, we return to the more traditional view of performance management where management sets goals and creates plans to reach them. It closely monitors progress against the plan and analyzes differences. The team then reports results and adjusts its goals to align with the feedback. Where Plan to Act differs from typical planning is in the frequency of the exercise. Rather than an annual financial exercise, planning becomes more operational in nature so that the company continuously balances the needs of the market and stakeholders with the capacity of its internal resources and activities.

Flexible planning is paying off for a wide variety of organizations. Olympus, the camera manufacturer, has implemented rolling six-month forecasts for each retailer and for each product. It can now match its purchasing activities to its forecast, reducing inventory and freeing up capital.

Heineken, the famous beer company, has adopted a centralized rolling forecast that is aligned with its strategic goals. Its managers can access the forecast online, which helps them to make better business decisions.

Next to identifying operational risks, continuous financial and operational planning is crucial to mitigating risk. Agility is a key pillar to achieve Management Excellence and, from a risk management perspective, continuous planning is a key exercise to prepare for changes that might happen. Companies can afford to take higher risks with an agile planning system. Being faster to adapt to changes doesn't take market, price, product quality and other operational risks away completely, but it definitely reduces the impact on the company.

Rolling forecasts are an essential component of enterprise performance and risk management. Every change in the market or internal capacity leads to a new operational forecast and financial prognosis. Variance analysis is no longer based on the budget, but becomes a relative comparison between the organization and the rest of the market.

The current global recession clearly demonstrates that “over-optimistic” plans based on ambiguous performance goals, which have not taken into account associated risks, can be dangerous and misleading.

## Add Risk-Based Analysis to Performance Monitoring



**Analyze to Adjust** is the management process for analyzing deviations from a company’s goals in order to take corrective actions. The purpose of this process is to detect variances between execution and plans, analyze the causes and trends of these variations, and determine the best possible responses. This process involves actions ranging from immediate tactical responses, such as changing a customer’s credit status, to adjusting the business plan or even re-evaluating the strategy, depending on the magnitude of the impact.

Business strategies live or die based on how well a company executes them. Insight, strategies, and plans remain theoretical until someone puts them into action and watches closely to see how they perform. But performance management needs to do more than monitor individual processes. It must overlay the various business domains and create insight into causal relationships.

Leading organizations are already using continuous monitoring effectively.

When Charles Schwab deployed sales analytics to 1,700 consultants, it found that between 5% and 9% of all alerts resulted in new sales opportunities.

APC installed financial analytics in just four weeks and now has continuous monitoring and control over costs, revenues, and shareholder value.

At the same time, risks inherent with any operation need to be monitored and managed. The same cause, event, and effect-based analysis that helps to optimize performance also mitigates the operational risks. For example, if a customer shifts to a competitor because of poor product quality delivered from their original supplier, this action both reduces the risk (having a poor quality product) and improves performance (having good quality product delivered to the customer). Ongoing analysis and monitoring is important to detect hidden risk in a very early stage. Hidden risks have an unfortunate tendency to grow fast<sup>5</sup>. Identifying them too late might have significant impact on the business.

In addition, risk management forces us to permanently monitor and control the implementation of governance and compliance rules. Who has access to what information? How are processes

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<sup>5</sup> Stulz, R. „Six Ways Companies mismanage risk.“ *Harvard Business Review* (March 2009).

performed following the rules of segregation of duties? Can we track all changes made? These are all important questions to prevent fraud and ensure consistent and transparent execution of the business processes.

To overcome this problem, leaders in performance and risk management are implementing master data management strategies so that all domains use the same product, customer, organization, and other reference tables. Many operational performance and risk-related measures can be standardized. Standards enable us to benchmark operational excellence and the operational risks at the same time.

## Share Insight on Performance and Risk Management



**Record to Report** is the management process for providing strategic, financial and operational feedback to understand how a business is performing. This process involves collecting, transforming and delivering relevant, timely and accurate information to all stakeholders inside and outside the organization, in order to provide insight into how their expectations have been met. To provide relevant feedback to all constituents, performance indicators and risk indicators need to be united. To avoid unpleasant surprises and to understand the performance outcome, we must report on the risks managed in the company at all levels, no matter if it is a strategic, financial, operational, internal or external risk.

Some of the world's leading organizations are there already. Alcoa, the world's biggest producer of aluminum, uses EPM to complete its yearly financial close for 58 lines of business in just five days. More than a thousand Alcoa managers now have the insight to produce accurate forecasts on a global scale. With insight like this, Alcoa is well placed to identify changing conditions and take appropriate actions.

Every time a company goes through the Management Excellence cycle, it needs to learn from the experience. Feedback completes the process. Accordingly, companies must establish performance and risk indicators at every step of the framework. Operational management needs real-time information, business planners need performance variance analysis, and strategists need feedback on progress made toward over-arching goals and a comparison to the overall market. All stakeholders benefit from seeing how they have contributed and what requirements they have met. Stakeholders also need to be assured that governance and compliance controls are in place and monitored in order to sustain trust and credibility. Detecting and preventative controls need to be in place, and results communicated to the respective stakeholders, such as regulators and investors.

Recording and reporting on risk and performance indicators enables organizations and their stakeholders to make better decisions based on reliable, transparent, and comprehensive information, thus reducing the level of uncertainty and leading to a true competitive advantage.

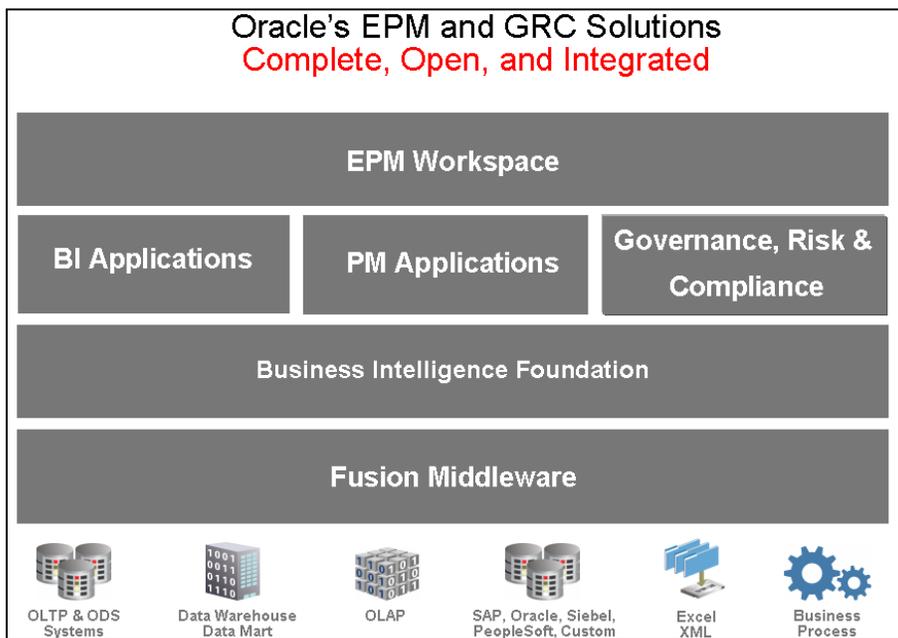
## Management Excellence and Risk Management

As you have seen, each of the six Management Excellence processes plays a specific role in Enterprise Performance Management, and Enterprise Risk Management. The following figure summarizes each process and the roles they play.

PROCESS	ENTERPRISE PERFORMANCE MANAGEMENT ROLE	ENTERPRISE RISK MANAGEMENT ROLE
Gain To Sustain <i>Understand the stakeholder environment.</i>	Identify the key stakeholders, their contributions and requirements.	Proactively manage your reputation risk.
Investigate To Invest <i>Scan the market.</i>	Evaluate the market dynamics, investigate in the most attractive segments as well as areas to divest.	Evaluate market, customer, price and competitive risks to justify investment decisions.
Design To Decide <i>Strategize about the business model.</i>	Perform scenario analysis, what- if analysis and simulations. Compare alternative business models to pursue the identified markets.	Honestly and clearly identify strategic risks and important internal and external risk factors.
Plan To Act <i>Manage the business plan.</i>	Perform all financial and operational planning cycles to translate the strategic goals, targets, and assumptions into executable plans.	Prepare to manage operational risks. Identify tolerance levels and potential plan variances.
Analyze to Adjust <i>Run the business operations.</i>	Monitor all business activities to disclose exceptions, deviations and performance gaps. Take the necessary actions or make the right adjustments to the plans, budgets, and forecasts.	Detect concealed operational risks. Analyze impact and effects of identified risks.
Record To Report <i>Provide feedback on all levels.</i>	Measure business results and deliver the relevant information to the right constituents at the right time.	Communicate on all risk categories across the enterprise and beyond.

## EPM and ERM Solutions

Since managing uncertainty is crucial to every successful business, it makes sense that the Management Excellence framework can help you strike the right balance of EPM and ERM. Oracle's EPM and GRC (Governance, Risk and Compliance) solutions provide the key capabilities needed to support the six Management Excellence processes in the framework. Managing the uncertainties of business requires a complete, open and integrated system delivering all the capabilities needed to manage the risk and performance.



EPM connects management processes by extending the key capabilities of traditional performance management with the high impact capabilities of strategic, financial and predictive modelling thus bringing together strategy formulation and strategy execution.

GRC enhances strategy formulation and execution by enhancing all performance management related capabilities with risk identification, quantification and qualification. Business Intelligence helps organizations drive feedback from the Management Excellence processes through a wide range of technologies that support dashboarding, monitoring, querying, reporting, and analysis.

EPM and GRC together enable companies to manage the uncertainties they face and take advantage of opportunities competitors can't see, are not able to drive, or are resistant to pursue in the absence of best-in-class risk management.

Only Oracle provides a *complete* set of solutions covering all the Management Excellence processes that are *integrated* on a common platform and are *open* to non-Oracle solutions.

<b>COMPLETE</b>	Complete because you can use our solutions from the board room to the front-line, with solutions that support your strategic, operational and financial decisions. And with solutions that provide you built-in best practices for every line of business and for your industry.
<b>OPEN</b>	Open because your solution can access any data source from Oracle and non-Oracle systems. Open to many business applications including Oracle applications like EBS, JDE, PSFT and non-Oracle applications like SAP. Open on the infrastructure front, including application servers, directory services, SOA suites etc. and open to different styles of analysis from pure relational, to ROLAP, to OLAP.
<b>INTEGRATED</b>	Integrated because you will have solutions that share common installation, common calculations and reporting tools; Solutions that share data and metadata that make them easier to deploy and maintain, and solutions that are integrated with your operational ERP system so you can drill-down to transactional data.

## Next Steps for Success

Managers are responsible to manage organizational performance, take care of risk and, ultimately, to create value for the stakeholders.

- **Use** the Management Excellence framework to assess the six management processes that should exist in your organization.
- **Assess** the extent to which your existing systems and applications support these important management processes which embrace performance and risk management.
- **Identify** and **address** the gaps where capabilities are deficient and could cost you precious market share.

Oracle's technology can provide you with all the capabilities you will need to achieve performance and risk management in tandem, via the Management Excellence framework, and to roll it out across your organization. With Oracle technology, uncertainty management can certainly be managed.



Uncertainty Management  
July 2009  
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