



PUTTING IT ALL TOGETHER

A unified approach to performance management



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The content providers for this paper were:

Gary Cokins, a solutions manager with SAS, as well as an internationally recognized expert, speaker and author on the subject of advanced cost management and performance management systems. Gary can be reached at gary.cokins@sas.com.

Chuck Pirrello, a product manager with SAS. Chuck can be reached at charles.pirrello@sas.com.

Executive summary

It was inevitable that a new term would surface for “next generation” performance management on the enterprise level and that term is unified performance management. Its distinguishing traits over the initial so-called integrated performance management framework are:

- A shift in emphasis to predictive analytics and proactive decision making from simply monitoring and querying historical results.
- It is anchored by dynamic (not static) strategic direction-setting followed with alignment of operations using objectives-setting, modeling, forecasting, planning, budgeting and target setting for accountability (based on key performance indicators or KPIs).
- It is truly cross-departmental information and collaboration based on business issue-related decisions with an emphasis on trade-off analysis and what-if scenarios.
- A broad number of methods and systems involved (e.g., ERP, CRM, Six Sigma); not a narrow view of just financial planning and control.
- It is end-user defined and driven, while information-technology enabled.
- Leverages a single enterprise information platform (EIP). Deploys the potential power resident in business intelligence (BI) systems. Applies real-time data when applicable. It is like an auto-pilot for the organization.
- It has exception reporting with alert messaging supported by automated information drill-down for root-cause analysis and corrective or opportunistic actions.
- A shift from just monitoring results for control to determining the decisions and actions for improving performance. uses

Performance management – from managing to improving

There is a big difference between formulating a strategy and executing it. Executives are capable of setting a direction and creating a reasonably good strategy to get there, but their frustration has been the failure to successfully implement it. Fortune magazine estimates that 70 percent of strategies are unsuccessfully implemented. The increase in involuntary CEO turnover rates is evidence of this. Surveys by the Chicago-based executive employee recruiting firm Challenger, Gray & Christmas Inc. repeatedly reveal increasing rates of involuntary job turnover at the executive level compared to a decade ago. Recent measures for 2006 report a “pace to smash the record of CEOs who bowed out (in 2005).”¹

Scorecards and dashboards have been heralded as effective tools for the executive team to use to communicate and cascade strategy down through managers and employees to improve performance. But even with scorecards and visual at-a-glance dashboards displaying KPIs, is that enough? Or do they only provide one component of delivering economic value creation through achieving a company’s strategy? Ultimately, an organization’s interest is not just to monitor a dashboard’s dials but more importantly to move those dials. That is, reporting historical performance information is a minimum requirement for managing performance.

What is needed beyond reporting and querying historical data are the right actions and decisions to improve – and to increase the certainty that manager and employee decisions will lead to improvement. An obvious set of actions is to retain, grow, acquire and, in some cases, win back customers. Customer-focused decisions involve determining which types of customers to target and, subsequently, how much is just enough to spend on them with sales efforts and differentiated service levels without going overboard – and consequently destroying shareholder or owner wealth. So, customer value management (a level beyond customer relationship management) is another component in performance management’s portfolio. Yet another component is productivity improvement based on initiatives like continuous process improvement and Six Sigma quality management.

Performance management as a portfolio of solution methodologies

Performance management, the subject of this white paper, is all about improvement – synchronizing improvement in the value of customers with economic value creation to stockholders and owners. Its scope is obviously very broad, which is why performance management must be viewed at an enterprisewide level.

¹ Jones, Del, “Turnover for CEOs is on record pace,” *USA Today*, July 12, 2006, p. 2B.

Like an investment portfolio, performance management is made up of many components that are integrated across all departments and business functions. Dashboards that display KPIs, customer value management and productivity increases are merely three examples of its components. There are many more. All these components have interdependencies, so we know they should be integrated. They are like pieces of a tabletop jigsaw puzzle that everyone knows somehow fits together; but the picture on the box top is missing! Performance management provides that picture of integration both technologically and socially. Performance management makes executing the strategy everyone's number-one job – it makes employees behave like they are the business owners.

Performance management also involves identifying opportunities for improvement across an organization, and then making the selected opportunities pay off. Performance management is a continuous, enterprisewide framework, not a one-time analysis or event. Its goal is to optimize the performance of both the entire organization and individual employees. Optimizing involves balancing, and one objective of performance management is to avoid improving one department to the detriment of another, thus degrading overall organizational performance.

Some people consider “optimization” not only an unattainable state of perfection, but more critically as the enemy of just being good, because of the excessive administrative effort and cost required to attain optimization. Performance management is about being practical, not theoretical. It is doable by applying a common sense view that an organization is a set of interdependent moving parts, like circular cog gears in a machine. The key is to synchronize those parts to constantly move faster and better and in the right direction. Success is all about having direction, traction and speed. Most organizations have difficulties with all three. Effective performance management resolves the difficulties.

In a nutshell, performance management provides employees – ranging from front-line workers to the CEO at the top – with visibility on how well their organization is performing and the right levers and dials to further improve performance. It aligns behavior from the vision of top desk to the actions at the desktops.

The evolution of performance management

There's some confusion and ambiguity over exactly what performance management is. There is no consensus. To complicate matters, its definition keeps shifting. One popular description is that it's a combination of processes, systems, methodologies, software and metrics needed to manage an organization's enterprisewide performance. But this description is somewhat vague and abstract, because it doesn't describe what performance management actually does. Further, performance management is often defined too narrowly as only better budgeting, planning and cost control using dashboards and query tools. It is so much broader.

The focus of PM should be extended beyond financial information and the financial functions. PM's overarching framework includes risk management, robust forecasting, multidimensional views of information and quantifying the financial outcomes that are the consequence of non-financial operational decisions and actions. It entails the continuous, closed-loop, integrated procedures that span the complete planning and control cycle for managing of the executive team's strategy and its linkage to operations. It is end-to-end, traversing the entire value chain from customer-facing CRM systems to supply chain management systems and the operations processes in between. So, there is no single performance management methodology because it is the integration of multiple methodologies – methodologies that managers and employees are usually already familiar with.

No strategy or plan is static – today they must be dynamic to adapt to constantly changing environments. Consequently, predictive analytics is essential to completing the full vision of unified performance management, and it is the basis for continuous planning and target-setting that agile and adaptive organizations require. Predictive analytics shorten the time to discover possible outcomes, thereby lengthening the time managers have to influence those outcomes.

From a birds-eye view, the basic purpose of performance management is risk-based decision making, which – by providing facts, intelligence and transparency – assists the executive team with determining which direction to go (i.e., the strategy); when to change course; and the best use of resources to get to their ultimate destination (i.e., actions and execution). It is the old cliché of “doing more with less,” but combined with a risk-mitigating compass that accepts uncertainty as a given.

Performance management – an overarching solution to business pressures

Regardless of how one defines performance management and its ambiguous descriptions without consensus, performance management may be better understood by first understanding what forces and pressures have created the recent intense interest in it. This way, one can better understand how performance management – this assemblage of interdependent methodologies – concurrently resolves a multitude of challenging business problems.

Understanding the issues and problems performance management addresses will also provide a better appreciation as to why information access must be made conveniently available to all employees – from specialists to casual users. Further, PM's emphasis on right-time information for the right people means that the specification and reporting of information will, gradually, no longer be defined by the IT or accounting departments as it has been in the past.

There are seven major forces behind the interest in performance management due to its ability to resolve these problems (we have already touched on problems #1 and #6):

- 1) **Failure to execute the strategy** – We have already mentioned this. Although executive teams typically can formulate a good strategy, their major frustration has been failure to implement it. The increasing rate of involuntary job turnover of CEOs is evidence. A major reason for this failure is most managers and employees cannot explain their organization’s strategy, so they really do not know how what they do – each week or month – contributes to their executives’ intent. Strategy maps, balanced scorecards, KPIs and dashboards are the components of PM’s suite of solutions that address this.

- 2) **Unfulfilled ROI promises from transactional systems** – Few, if any, organizations believe that they realized the expected ROI that initially justified their huge IT investment in major systems (e.g., CRM, ERP). Performance management is a value multiplier that unleashes the power and payback from the raw data produced by these systems. PM’s analytics increase the leverage of CRM, ERP and other core transactional systems.

- 3) **Escalation in accountability for results with consequences** – Accelerating change that requires quick decisions at all levels is resulting in a shift from a command-and-control managerial style to one where managers and employees are empowered. A major trend is for executives to:
 - Communicate their strategy to their workforce.
 - Ensure that the workforce understands it and is funded to take action.
 - And then hold managers and employee teams accountable.

There is no place to hide in an organization anymore. Accountability has no teeth without having consequences. PM is increasingly integrating KPIs from the strategy scorecard with employee compensation reward systems.

- 4) **The need for trade-off decision analysis** – Internal tension and conflict are natural in all organizations. Most managers know that decisions they make that help their function may adversely affect others. They just don’t know who is affected or by how much. A predictive impact of decision outcomes using analytics is essential. PM provides analytic tools ranging from marginal cost analysis to what-if scenario simulations that support resource capacity analysis and future profit margin estimates.

- 5) **Mistrust of the managerial accounting system** – Managers and employees are aware that the accountants’ arcane “cost allocation” practices using non-causal, broad-based averaging factors (e.g., input labor hours) to allocate non-direct, product-related expenses result in flawed and misleading profit and cost reporting. Consequently, they do not know where money is made or lost or what drives their costs. PM embraces techniques like activity-based costing and lean accounting (which, arguably, are similar techniques) to increase cost accuracy and reveal and explain what drives the so-called hidden costs of overhead.

- 6) **Poor customer value management** – It is more costly to acquire a new customer than to retain an existing one. In addition, products and standard service lines in all industries have become commodity-like. This shifts the focus to require a much better understanding of channel and customer behavior and costs. Understanding is also needed to know which types of existing customers and new sales prospects to grow, retain, acquire or win back using differentiated service levels – and how much to spend on each type that is worth pursuing. PM includes sales and marketing analytics for various types of customer segmentations to better understand where to focus the sales and marketing budget for maximum yield on potential. Return on customer is an emerging term.
- 7) **Dysfunctional supply chain management** – Most organizations now realize it is no longer sufficient for their own organization to be agile, lean and efficient. They are now codependent on their trading partners, both upstream and downstream, to also be agile, lean and efficient. To the degree that their partners are not, then waste and extra costs enter the end-to-end value chain. Sadly, there have been centuries of adversarial relationships between buyers and sellers. PM addresses these issues with powerful forecasting tools, increasing real-time decisioning and financial transparency across the value chain.

Given this list of seven problems or forces above, what then is the answer for executives who need to expand their focus beyond cost control and short-term goals toward economic value creation and other more strategic directives? How do they gain control of the direction, traction and speed for their enterprise? And how can managers and employees improve their decision making? As mentioned, the answer is unified performance management.

Unified performance management – the final evolutionary stage?

Primitive forms of performance management existed decades ago. These forms were present before performance management was given a formal label by the information technology research firms and software vendors. In reality, performance management existed well before there were computers. Organizations made decisions based on knowledge, experience or intuition. This worked to a certain extent because they had more time to measure the impact of their decisions and react to them. However, today's decision, assessment and reaction time is much shorter than in the past. Initially, computers helped the problem of not having enough data upon which to base decisions by allowing for the collection and storage of large amounts of it. But this led organizations to complain they were drowning in data while starving for information—thus distinguishing the word “information” as the transformation of raw data into a more useful form. In the 1990s, with the speed-up of integration of computer technology—both at a technical level of data base management and a business level of user-friendly software applications for all employees—the term performance management took root.

Now a higher and advanced level—unified performance management—is being referenced. Unified performance management is typically mounted on a single enterprise information platform (EIP) to assure that all end-users have a reliable computing environment. It is not bounded by just better basic reporting, planning, query and analysis capabilities. Unified performance management goes much further than those basics by integrating with the things that people enmeshed in minute-to-minute operations do—communicate, debate, inform, educate, prioritize, schedule and make decisions. That is, a unified performance management framework fosters cross-departmental employee collaboration, which is foundational to healthy organizations (e.g., high employee morale, motivation and attitude) that tend to excel.

An attractive feature is that using the technology of unified performance management does not require advanced degrees in statistics or software programming, because its ease-of-use has escalated to the level that casual users and clerical workers can master the tools and techniques. This is important because, as organizations have discovered, they have all this data stored and available for analysis. Their next problem is that their employees often need to make timely decisions, but are challenged to make sense of the data overload.

Unified performance management provides managers with analytic capability and, in particular, the ability to predict potential future outcomes by leveraging predictive analytics. In the past, uncertainty and randomness were either ignored or acknowledged in a naïve way. Many decisions were gut-feel and had more time to be developed and honed. But today, reliable forecasting and planning is essential to shifting from a reactive to a proactive decision-making organization in much less time than ever before.

Performance management is typically thought of on a strategic level, with an emphasis on aligning operations with the executive team's strategy. Strategy maps capture the executives' mission based on their business knowledge and help determine KPI selection for analysis.

But performance management also applies on an operational level for productivity improvement. Here, a performance management framework manages business processes (and what the Six Sigma quality management and "lean management" communities refer to as "value stream centers"). For operational improvement, its focus is on streamlining processes, speeding throughput and removing waste. Real-time "business activity monitoring" (BAM) is emerging as a technique for white-collar jobs where any deviations outside of upper and lower control boundary limits (a tradition of manufacturing statistical control systems) can be instantly detected and automated alerts communicated to employees and managers.

Organizations need top-down guidance with bottom-up execution. PM does this by converting plans into results. A common observation from information technology research firms and PM practitioners in the field is the need to break down functional barriers such as those that exist between sales, operations and finance.

Traditional improvement initiatives typically address a single department's short-term needs, such as for better data mining. PM recognizes these may result in one-off single-point (or partial) solutions with fragmented data that results in sub-optimal performance. PM provides an enterprisewide view. It is like an autopilot for the organization. Much of the navigation and steering is automated, which frees up time for all employees to devote to better direction setting (i.e., the executive team) and answering the subsequent question, "How are we going to get there?"

Unified performance management is no longer hype. It is the real deal.

Using various flavors of analytics is key to unified performance management

Improving an organization's level of performance from its current level obviously requires understanding what is happening (e.g., its processes, demand requirements and external environment), deep thought, sense of future direction and analysis. The last item—analysis—is critical.

Effective analysis balances goals against limitations and constraints to answer questions about current and future actions and decisions that produce outcomes. These questions can include:

- Is what we are trying to accomplish possible?
- How are we doing now?
- How can we do better?
- What is the best we can do?
- What are our choices as conditions change?

Professor Tom Davenport of Babson College authored a January 2006 *Harvard Business Review* article proposing that the next differentiator for an organization's competitive advantage will be analytics. He has coined the phrase "competing on analytics" and observes that companies that dominate their markets are increasingly aggressive analytic competitors. His premise is that change at all levels has accelerated so much that reacting after-the-fact is too late and risky. He asserts that organizations must anticipate change to be proactive rather than reactive, and that the primary way is through robust quantitative analysis—including modeling techniques and inferencing algorithms—that are both backward-looking for understanding and forward-looking for problem solving and decision making.

There many types or "flavors" of analysis that enable an organization to improve and a unified performance management framework includes all of them.

The power of predictive analytics and forecasting

The inclusion of predictive analytics is crucial to completing the full vision of unified performance management. No organization can be effective by only looking through its rear-view mirror. Only through the windshield can you see how winding the road is. And by having your car's bright lights on, you can better anticipate potential obstacles or curves. Predictive analytics for improved forecasting gives decision makers better visibility into future behavior and more time to take action and influence outcomes.

The breadth and scale of events to be predicted is increasing, and forecasting is no longer limited to demand and supply planning. It embraces business problems unique to different industries—e.g., manufacturer warranty claims or telephone service customer retention analysis and call center staffing.

Predictive analytics become an obvious feature of unified performance management once you reflect on the full vision of performance management: to understand where an organization has been and why, and then to determine strategy-aligned actions for decision making with realistic target setting.

The quantity and quality of data will continue to increase. But perhaps more significant than improvements in statistical forecasting models will be an increase in the kind and amount of data available for use in forecasting. Retail point-of-sale (POS) data is now widely available, making product consumption directly visible to consumer product manufacturers. Web site traffic is another new data point, and several services now provide weather-related data, economic indicators and other types of information that forecasting models can readily use.

Forecasting has obviously come a long way from the oracles at Delphi or astrologers who dispense guidance for a fee. However, even with access to terabytes of data, powerful computers and large-scale statistical software, there are situations where human judgment is still a necessary component of the forecasting process. Consensus and collaborative forecasting initiatives do pose the risk of “contaminating” what should be an objective and scientific process with personal biases and political agendas. Social dynamics are always present when it comes to planning. However, a structured approach to incorporating human judgment can mitigate these risks and become an essential component of the unified performance management vision—including automated rule-based decision making.

Performance measurement dashboard

KPI selection and interactions

Executive teams increasingly communicate strategy to employees to align their work and priorities, but then also hold employees more accountable for results based on measures. Selection and validation of the correct or best measures is a constant debate. Statistical correlation analysis can determine the degree of “lift” that various cascaded KPIs have on the higher level enterprisewide KPIs—hence this analysis validates or improves the KPI selection. Scorecard interaction analysis measures the degree of influence on attaining individual strategic objectives in the strategy map.

Statistical correlation and statistical modeling (e.g., regression analysis) are special applications that support the PM component of strategy maps and balanced scorecards. They can be used to measure the impact of various KPIs and business drivers on performance results. One must always remember that correlation does not equate to causation; however, it does expose relationships useful to understanding the impact of changes. This type of analysis aids in knowing which measures are more correct to select and focus on. In addition, beyond just monitoring KPIs, this type of analysis can automatically uncover previously unknown statistical relationships that may suggest causes and effects that can be used for predictive power.

Traditionally, statisticians mainly have been involved with quality control and improvement of operational processes, but now there’s a trend toward applying statistical thinking at the executive and strategic levels to achieve superior organizational performance. Two different performance measures exist: Those of current performance and those that are prognostic of future performance. The former after-the-fact measures often are highlighted by financial results reporting and are referred to as lagging indicators; they are often used for troubleshooting. In contrast, the latter requires an understanding of the more subtle leading indicators. The premise is that KPIs can be devised as predictors of success (e.g., attaining strategic objectives). With solid statistical analysis, complicating factors for understanding can be overcome, such as time-lag sequence dependencies among KPI data, and some KPIs themselves contribute and lead indicators to a success measure that is two or more KPI steps removed. Statistical analysis uncovers these relationships.

As an example, with regard to detecting interactions amongst multiple KPIs, regardless if they are leading or lagging measures, scorecard analytics can detect when two KPIs interact to influence a strategic objective in the strategy map. If observed, then this is an improvement on the independent influence of each KPI on the strategic objective. The interactions can be compounding or dampening. With compounding influence, the sum is greater than the parts. This is when two KPIs are both increasing and the resulting increase in attaining the objective is greater than the independent KPI increases. With a dampening influence, both KPIs increase, but the simultaneous increases offset what would be an expected higher increase in attaining the objective. Interactions among KPIs are hard to judge by viewing indicators on a dashboard (e.g., “All the indicators increased, but I’m not sure if the strategic objective was attained as much when the second KPI increased.”). Scorecard analytics identifies the interaction and highlights it.

Scorecard analytics are also useful to finding unknown or counterintuitive relationships between strategic objectives and KPIs. A KPI might not be “hard-wired” to its strategic objective measure. That is, if a lagging KPI increases, how much did leading indicators that influence contribute? An example is a lagging KPI of a customer satisfaction index. Leading KPIs might be “Customer Wait Time” and “Product Returns.” In this case, the leading KPIs are thought to influence the objective and analytics can quantify the degree of influence.

Fortunately, analytics technology is no longer the impediment it was several years ago; today it is proven. Predictive analytics is now feasible due to the combination of massive amounts of economically stored business intelligence and powerful statistical software that can combine months and years of detailed historical data with other factors to provide previously undetected patterns and reliable forecasts. In addition, given all of the new and massive amounts of data that is becoming available, the more advanced forecasting software is capable of automatically distinguishing the useful variables from the extraneous ones.

Performance management leverages business intelligence

Most folks can agree on two things related to performance management:

- 1) Business intelligence (BI) involves raw data that must first be integrated from disparate source systems and then transformed into information.
- 2) Performance management leverages that information by adding context for the information and insights to causal relationships.

Information is much more valuable than data points, because integrating and transforming data using calculations and pattern discovery results in potentially meaningful information that can be used for decisions. For example, an automobile manufacturer’s warranty claims can be analyzed globally to detect a design problem. Or, the history of an individual’s credit card purchase transaction data can be converted to information that, in turn, can be used by retailers to better serve the customer or provide customized offers to entice them to buy more.

A recent survey by the global technology consulting firm Accenture reported a growing disenchantment among senior US executives with their BI capabilities. Their organizations need much more than a display of data in terms of reporting, querying, searching and visual dashboards. As mentioned in the introduction, an organization’s interest is not just to monitor the dashboard dials, but more importantly to move those dials. That is, reporting performance information is minimally required for managing; what is needed are actions and decisions to improve.

The demand for information, including from the Internet, will intensify with pressure from increasing regulatory governance and accountability for results. Unified performance management leverages BI information to provide managers and employee teams at all levels with the ability to move directly toward defined strategic objectives. They must leverage data from the past, the present and about the future, and convert operational information into financial information that is in monetary terms—the language of money that is typically used to judge the major decisions.

Some organizations have made a substantial investment in BI for better control and functionality to collect, validate, purify and aggregate raw transactional data and to provide basic analysis. This was a worthy investment, because BI gives organizations consistent, accurate and trustworthy data, thanks to the power of BI software and its centralized data. Everyone can rely on BI data without debate. Taking this to a next level, PM converts that BI data, often with complex data manipulation, into timely, relevant and actionable information on every manager and employee desktop—not just to the super-analyst who traditionally has been the primary user of BI data. PM enables BI to be more operational by linking goals and targets with recorded results.

Some confuse supplying the necessary information for making decisions with the process of determining and subsequently justifying optimal decisions. There is a distinct difference. Good data gathering can create a huge and vast variety of views, but it cannot tell you how to use the information to decide actions. It cannot help you sort through the myriad of possible decisions to select the actions that produce the best results. When faced with a broad array of choices, organizations typically fall back on “rules of thumb,” time-worn decision rules or “gut feel,” choosing the decisions that appear safe, customary or intuitively best. Without analytic techniques (e.g., optimization) and their resulting structured decision-guidance, the organization would never know just how much better it could improve its performance.

Performance management, with its added power to plan and model with intuitive ad hoc analytic means, is the next generation of business intelligence solutions. PM facilitates the crucial social and collaborative dynamics of planning and coordination among employees in multiple functions, such as marketing and operations, by leveraging BI data. As important, PM resolves a weakness in some BI offerings—death by details. In some cases too much data can be as harmful to good decision-making as too little data. Excessive data can result in devoting too much time and effort to analysis thus drawing down the more valuable payback from actually making the decisions and taking the subsequent actions.

BI is an enterprise information platform for querying, reporting and much more, making it the foundation for effective performance management. PM drives the strategy and leverages all of the processes, methodologies, metrics and systems that monitor, manage and, most importantly, improve enterprise performance. Together, BI and PM form the bridge that connects data to decisions. The two are inseparable. Unified performance management is an indispensable extension of BI.

Consistency in data is crucial for effective PM because PM assumes that all reporting, business plans, KPI targets, dashboards and so on are derived based on the same assumptions, shared definitions and source data.

In short, PM enables executive teams to see possibilities of their future sooner providing them more time to alter their course. PM then allows the executives to align the work and priorities of their employees with the executive team's ongoing strategic objectives; and finally, PM provides everyone with robust analytics, including predictive analytics, to enhance and improve planning, resource allocations (e.g., budgeting) and decision making.

Moving toward real-time information and business activity monitoring (BAM)

PM resolves siloed approaches by linking interdependencies among strategy, operations, customers and finance. And cycle times between events and reporting is radically compressing to the point where real-time data about what is happening can be meshed with operating rules to dynamically adjust processes—whether they are corrective or opportunistic. Real-time information, bolstered with reliable forecasting and predictive analytics filtered with business rules, empowers managers and employees with actionable information for decisions. The value of information increases the more easily it is accessed and the more timely it is delivered.

A solid BI base with an integrated enterprise information platform and a single application suite enhances the capabilities of predictive analytics. The more fragmented an organization's applications, with multiple databases and user interfaces, the more troublesome it can be to project reliably accurate forecasts.

Metrics management – balancing historical variances with plans

Performance management is evolving as a “best practices” portfolio of methodologies supported by software technology—not the reverse. Software is certainly an enabler to PM, but unlike transactional software (e.g., the basic functionality of ERP software or sales order entry software), the key to performance management is in the thinking—how do I analyze what eventually I must improve?

With executives constantly fine-tuning and adjusting their never static strategy, this means that to communicate their strategy, there must be metrics management with commensurate additions of new KPIs (and deletions as well—not that some KPIs become unimportant but less important; KPIs should be few yet vital to assure focus). The strategy should be communicated with both organizational scorecards and personalized ones—ideally with the latter scorecard linked to the compensation and reward system of individuals to reinforce motivation.

Some executive teams thrive on management by exception by reporting variances while others have shifted their emphasis away from control toward anticipatory planning of future required resource types and levels to match demand—capacity and capability management. A unified performance management framework can accommodate both management styles:

Automated variance analysis

This type of manager's interest is in quickly identifying variances from expected plans, determining their magnitude and relevance, and formulating action plans as a reaction. This is often slowed by the sheer volume of planned data followed by actual reported results that can create a mountain of variances. The good news is that performance management brings speed and efficiency with its drill-down and drill-through capabilities. This accelerates analysis that serves the primary questions that variance analysis answers: how much deviation from plan, why, what is the underlying root cause, what actions to take and what will be the impact of those actions?

A bias toward resource capacity planning and adjusting

The type of manager who emphasizes a shift from control to planning does so because he/she views a declining interest in traditional cost control via “cost variances” between plan-authorized (e.g., budgets) and actual results. This is because, increasingly, much of the organization's expense structure (i.e., its capacity) cannot be heavily or quickly influenced, added or removed. Further, future demand levels often fluctuate with volatility, so it is conceivable that overreacting to a past unfavorable variance by removing resources could jeopardize meeting future demand. These managers prefer to anticipate demand levels and adjust resource types and levels accordingly in advance rather than react to variances after the fact.

Key questions answered by performance management

Performance management blends an autocratic command-and-control style of management with the agility of an organization to operate in a sense-and-respond mode—adapting and responding to unexpected results or new opportunities.

By positioning PM's various portfolio components with access to a technical enterprise information platform, all employees can answer the basic questions daily:

- “How are we doing on what is important?”
- “Why?”
- “What should we be doing?”

Although good for their designed purposes, transaction-based information systems, like ERP, do not display the relevant information required for decision analysis and, ultimately, decision making. Transactional systems may provide some of the raw data, but only by using a BI system with a unified PM framework to transform that raw data into decision-based information can the potential ROI trapped in that raw data be unleashed and realized financially.

A flexible information platform that uses open standards but can reconcile multiple and disparate data sources and applications is essential to completing the full vision of unified performance management. Some software vendors boast that they offer the tools and information platforms to complete this full vision; however they often offer separate applications for a single business process as well as a kluge of software from acquired vendors with different legacy software code. This requires complex rather than the seamless integration, which distinguishes unified performance management from one interfaced with bolt-ons and reconciliation problems. For an effective performance management framework, organizations need to view their entire business applications portfolio as one integrated, complementary and consistent systems architecture.

Management's quest for a complete solution

Many organizations jump from improvement program to program hoping that each new one may provide that big yet elusive competitive edge. However, most managers would acknowledge that pulling one lever for improvement rarely results in a substantial change—particularly a long-term sustained change. The key for improving is integrating and balancing multiple improvement methodologies. In the end, organizations need top-down guidance with bottom-up execution.

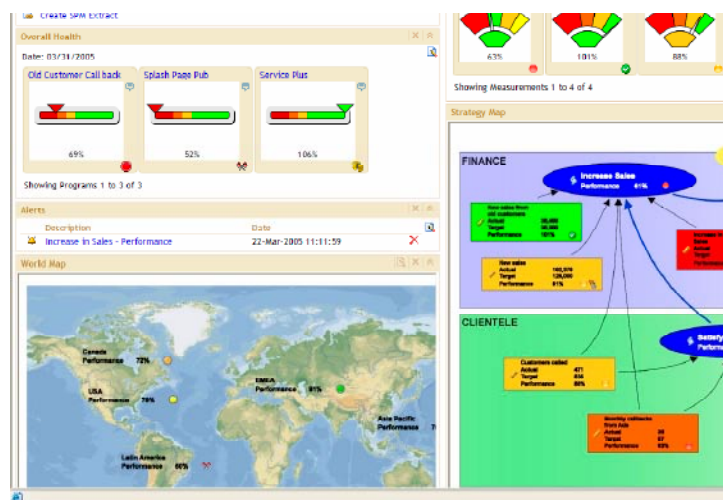
Organizations that are enlightened enough to recognize the importance and value of their data often have difficulty actually realizing that value. Their data is often disconnected, inconsistent and inaccessible, due to too many non-integrated single-point solutions. They have valuable, untapped data that is hidden in the reams of transactional data they collect daily. Unlocking the intelligence trapped in mountains of data has been, until recently, a relatively difficult task to accomplish effectively.

Fortunately, innovation in data storage technology is now significantly outpacing progress in computer processing power, heralding a new era where creating vast pools of digital data is becoming the preferred solution. As a result, there are now superior tools that offer a complete suite of analytic applications and data models that enable organizations to tap into the virtual treasure trove of information they already possess to enable effective performance management on a huge scale. Performance management is the integration of these tools and methodologies. The PM solutions suite provides the mechanism to bridge the business intelligence gap between the CEO's vision and employees' actions.

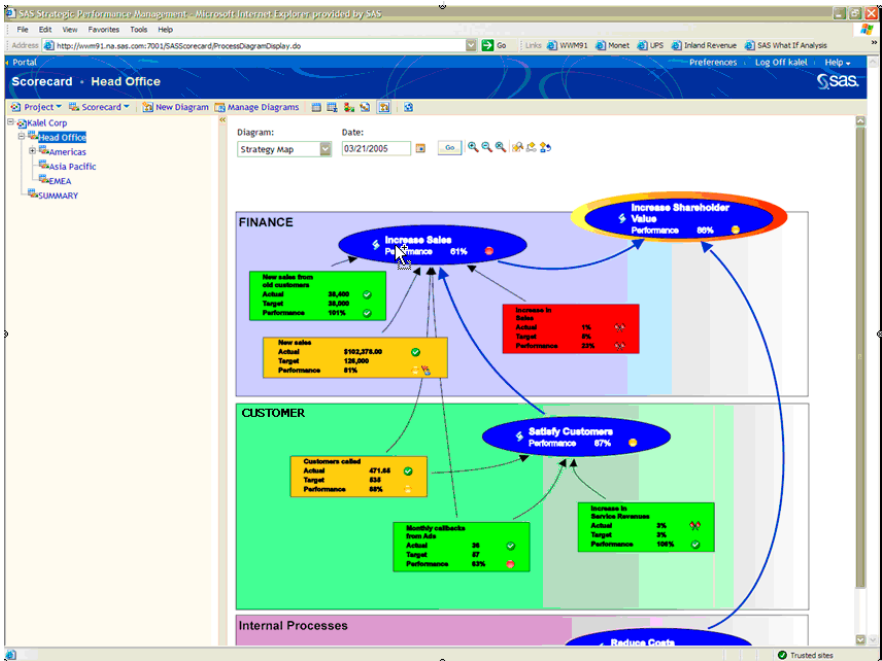
Appendix – SAS® Strategic Performance Management

Drive superior performance with a powerful, Web-based solution for dashboards and scorecards

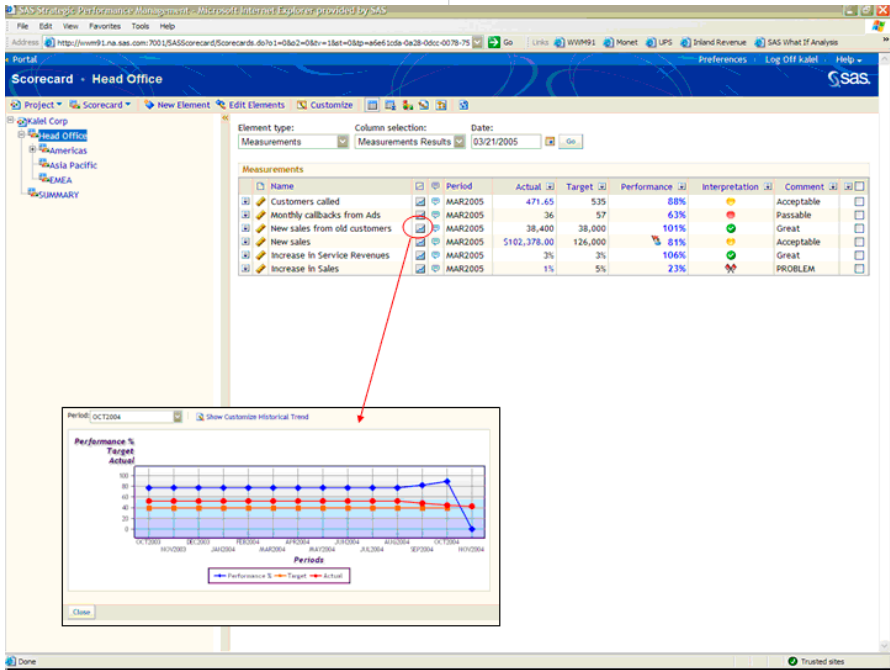
SAS® Strategic Performance Management is a Web-based application for designing, building and managing scorecards, dashboards and diagrams, including strategy maps. This solution provides an interactive and collaborative environment to help you communicate organizational goals and strategies, monitor performance against targets and identify opportunities for improvement.



SAS® Strategic Performance Management



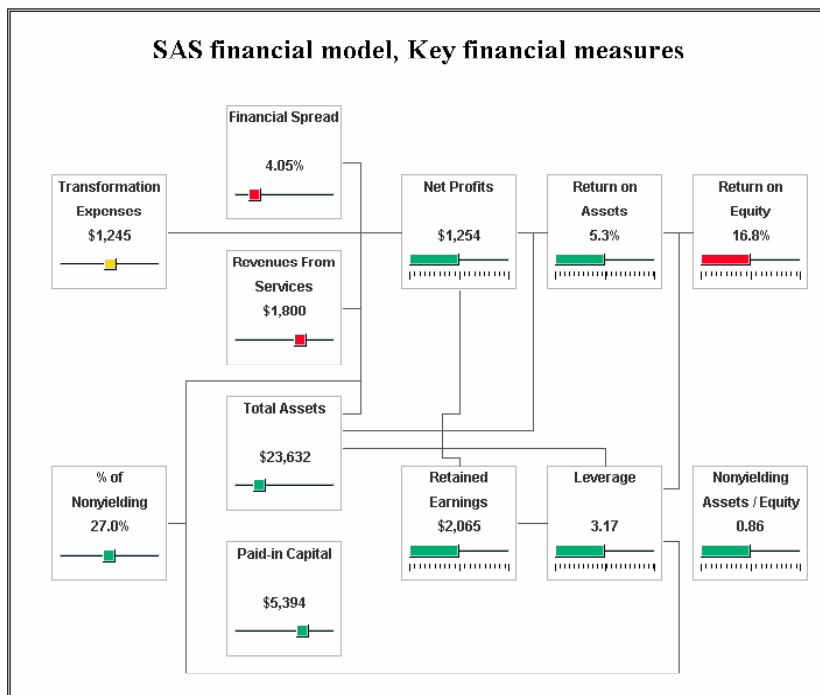
Strategy map for SAS Strategic Performance Management.



Trend graph from SAS Strategic Performance Management.

PUTTING IT ALL TOGETHER

Used with SAS Analytics, SAS Strategic Performance Management helps companies to understand the strength of relationships between KPIs, goals and objects. Understanding the relative strength of these relationships allows for predictive analytics for improved forecasting. Decision makers have better visibility to future behavior and greater time to take actions and influence outcomes. SAS Analytics provides managers with analytic capability and, in particular, the ability to predict potential future outcomes by leveraging predictive functionality





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