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Global Survey
Analysis: Full Report

20 Years of Measuring and Managing Business Performance

From KPIs and Dashboards to Performance Analytics and Big Data

By Bernard Marr

In 2012, in recognition of the 20th anniversary of the Balanced Scorecard, the Advanced Performance Institute (API) and Actuate surveyed over 3,000 companies, asking them about their use of performance measurement and the Balanced Scorecard. The results revealed evolving philosophies towards Business Performance Management, but also unveiled habits that continue to hold some organizations back. In this analysis of key results from *Measuring and Managing Performance – A Global Study,* learn how far the world has come in measuring and managing organizational performance, and how far it still needs to go.

Business Performance Management (BPM) as we know it today came into existence with the emergence of tools such as the Balanced Scorecard, Key Performance Indicators (KPIs) and the Total Quality Movement. It is now 20 years ago that the idea of the Balanced Scorecard was first introduced by Drs. Robert Kaplan and David Norton in a *Harvard Business Review* article in 1992. Since then, it has become one of the world's most popular business tools, helping companies measure and manage their performance. Over recent years, BPM ideas and tools have evolved and we have seen many innovations.

While the initial focus was on collecting and reporting a small number of 'balanced' KPIs to manage and monitor the strategy execution in companies, the latest evolutions of BPM leverage the ever-increasing amounts of data we now have access to and combine innovative tools for financial management, with predictive analytics, Business Intelligence, big data analytics and interactive performance reports streamed to our mobile devices with up-to-date data visualizations. Today, companies are bringing together traditional performance measurement approaches with innovative analytics approaches to create performance analytics that drive fact-based decision-making and generate truly powerful competitive advantages.

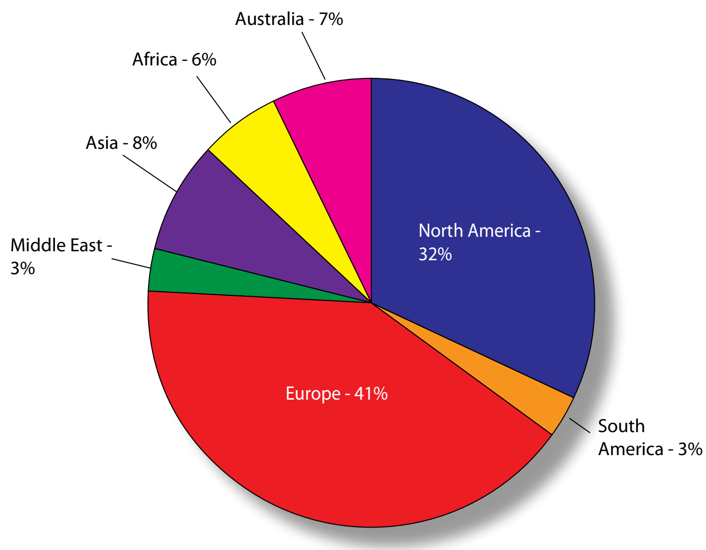
Top-performing organizations today integrate strategic and operational performance insights, generated from traditional KPIs as well as from an analysis of the ever-increasing amounts of data generated by the Internet, social media, and our phones and devices. This allows them to not only measure current performance more accurately but they can use the insights to predict future performance as well as identify and evaluate new opportunities and risks.

The Advanced Performance Institute and Actuate have taken the 20th anniversary of the Balanced Scorecard as an impetus to take stock of the current performance management practices in companies across the globe. We wanted to understand the adoption levels of different tools and most importantly the maturity levels of systems and approaches in use today.

The resulting study, *Measuring and Managing Performance – A Global Study,* found that while most companies do measure, monitor and analyze their performance, not all are generating the level of benefits we would expect from their efforts. Based on our research we have created a Business Performance Management maturity model that identifies the key components that need to be in place to generate true competitive advantages from leveraging modern BPM approaches.

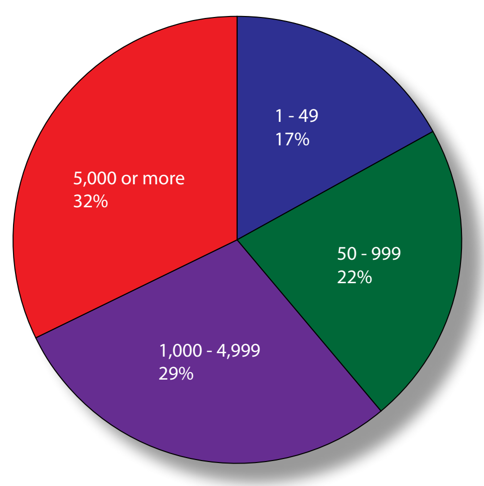
About This Survey

Measuring and Managing Performance – A Global Study had responses from over 3,000 companies (3,083 to be exact) across all continents, making this one of the largest and most comprehensive studies ever conducted in the field of enterprise performance management. The main participants were based in North America (32%) and Europe (41%) followed by Australia (7%), Africa (6%) the Middle East and South America (3%).



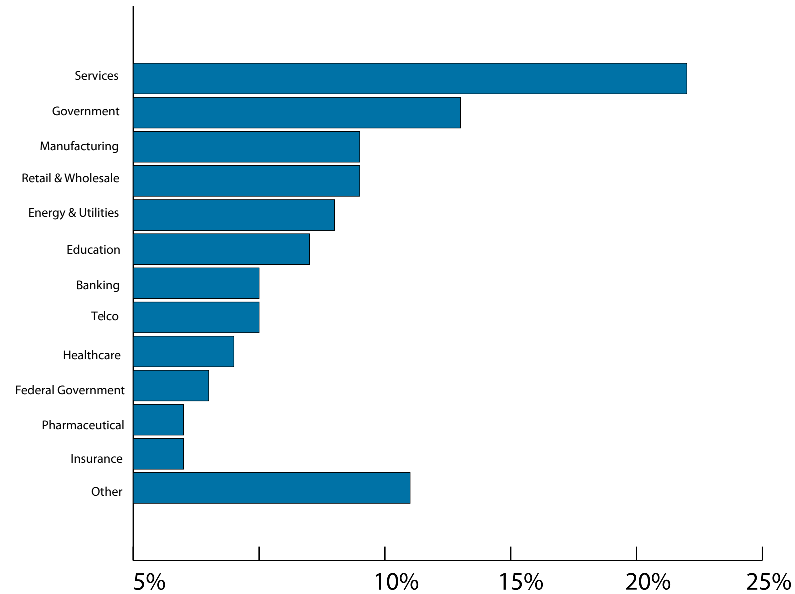
[**Figure 1:** Breakdown of survey respondents by location.]

The companies represented in the study varied from large multinational companies to small- and medium-sized enterprises. A good cross section was achieved, with large companies of 5,000 or more employees creating the largest individual group.



[**Figure 2:** Breakdown of survey respondents by number of employees.]

In terms of industry sectors, again we achieved a good cross section with representatives from all major sectors. The largest individual group is represented by the services sector, with almost a quarter of all participants falling into this category, followed by government, retail and wholesale, manufacturing, and energy and utilities – all with around 10 percent each.



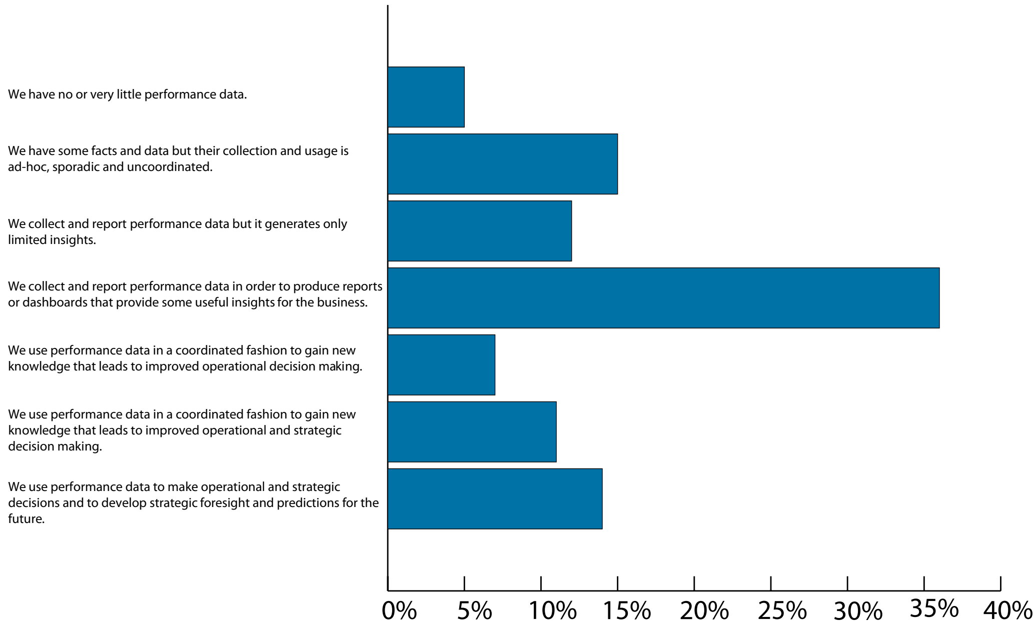
[**Figure 3:** Breakdown of survey respondents by industry sector.]

PART I: BPM – THE CURRENT STATE OF PLAY

After 20 years of BPM practices it is worth establishing what the current state of play is – or what approaches companies are using to measure and manage their performance. Before the emergence of BPM practices, companies had little or no performance data and therefore little insights into their actual performance and improvement priorities. With the introduction of Total Quality tools and KPI systems such as the Balanced Scorecard, companies started to collect and analyze performance more systematically, leading to better decision-making – both operationally and strategically. Another development has seen the introduction of performance reports and dashboards to inform executives, but in practice we often see them without targets, benchmarks or comparatives to provide a full picture of performance. In our survey we asked participants to identify which of the statements in Figure 4 below best describes their current approach to measuring and managing performance.

What is somewhat surprising is that five percent of respondents reported that they have no or very little performance data, and therefore no or little insights and decision-support information. A further 15 percent reported that their approach to measuring and managing performance generates some facts and data but the collection and usage is ad-hoc, sporadic and uncoordinated. This indicates that 20 percent of companies haven't really benefited from the development of BPM tools and practices and are somehow 20 years behind the times.

Then there is another group of respondents (12%) who reported that they collect and report performance but that it generates only limited insights. This is something we see a



[**Figure 4:** Which of the following statements best describes your company's approach to measuring and managing performance?]

lot in practice, where companies spend extensive amounts of time and effort collecting and reporting data, but it doesn't necessarily lead to better-informed decision-making. The largest group among our respondents (36%) reported that they collect and report performance in order to produce reports or dashboards that provide some useful insights for the business. Many companies produce dashboards and reports without really questioning the relevancy and usefulness of the data they contain. This study makes a strong case for companies to move beyond simply reporting data in 'pretty' dashboards. Reaching higher levels of BPM maturity will enable companies to reap step-changing business benefits.

About one-third of the companies in our survey reported higher levels of maturity and benefits. In the more mature approaches to measuring and managing performance companies collect data in a coordinated fashion that leads to improved operational decision-making (7%) and improved strategic decision-making (11%). The most sophisticated approach to BPM is one where performance data is used to make both operational and strategic decisions and where companies use it to develop strategic foresight and make predictions for the future – 14 percent of the respondents in our survey believe that this is what their company is doing.

Generating operational insights rather than strategic insights indicates that the performance management focus is more operational or functional (e.g. measuring operational effectiveness, quality, production, sales or marketing, etc.). Here performance management activities can lead to great insights and improved decision-making for parts of the company, but without generating the strategic insights that influence wider decision-making beyond functional boundaries. This is likely to generate decision-making that is not aligned behind a uniting strategy. For the companies that report that they generate strategic insights (as opposed to operational insight) the problem is the other way around. They have created measures and analysis approaches for the overall strategic direction of the business but have not yet managed to cascade the approach into the operational units, therefore also running the risk of creating a disconnect between strategy and operations.

The most sophisticated companies use data and performance information to generate both operational and strategic insights that improve decision-making throughout the whole of the organization. And those companies go further and use the data and analysis to generate strategic foresight and predictions for the future.

There is usually a strong correlation between the maturity of the performance management approach and the tools being used. In the next section we will discuss what tools companies are using to measure and manage their performance.

What Tools Do Companies Use to Manage Their Performance?

There are many tools companies use to manage and improve their performance. We wanted to understand what tools were most common among the companies that took part in this study. The most common tool was the use of Key Performance Indicators (KPIs). Over two-thirds of all companies stated that they use KPIs and looking at the responses in more detail indicates that the actual number is even higher, as some respondents stated they use tools such as dashboards, benchmarking or Balanced Scorecards instead, and those usually require KPIs as well. So we can safely say that KPIs are the most popular performance management tool in use today.

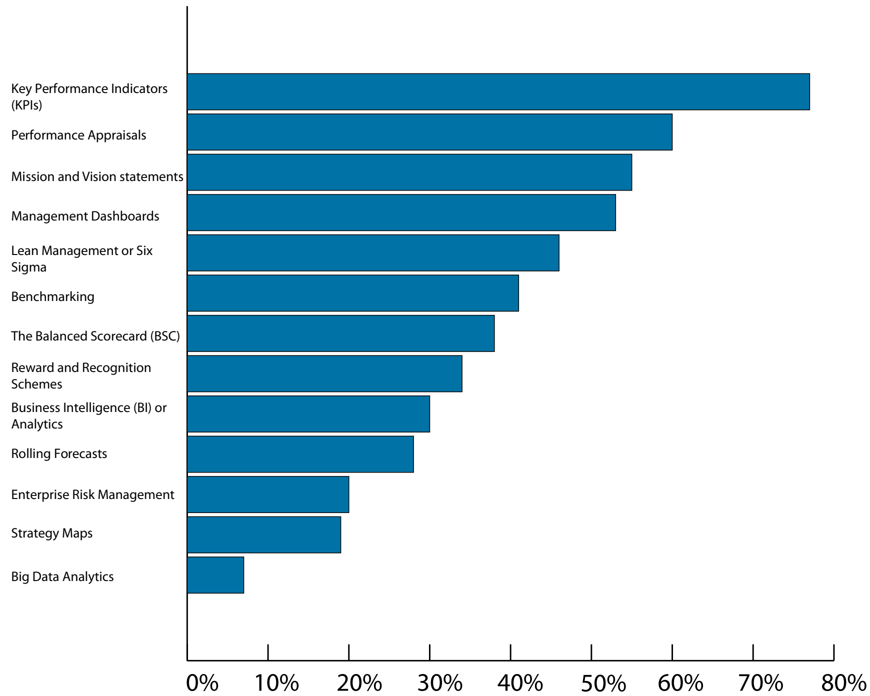
Performance appraisals are the second most widely used performance management tool. Sixty percent of respondents stated that their company uses performance appraisals to manage business performance. We also found that, similarly to the use of KPIs, performance appraisals are used by companies of all sizes and across all industries.

Another popular tool used by over half of the companies in this study are mission and vision statements. These tools provide organizations with a common purpose and direction, which make sure that all efforts to improve performance are pointing in the same direction. Having a clear purpose and direction can also help to provide focus for other performance management tools such as KPIs, performance appraisals and benchmarking. Without the strategic direction it is harder to set targets for KPIs, assess individual performance and find the right benchmarks.

The fourth most popular management tool – with just over half of all companies in our survey stating they use them – are management dashboards (also referred to as Executive Dashboards). Management dashboards bring together performance information (often in graphs, charts and traffic lights) in a concise display so that performance levels are easier to communicate and understand.

Just under half of all companies in the *Measuring and Managing Performance* survey report that they use lean management or Six Sigma approaches to manage their performance. Compared to previous studies in the field it looks as if the usage of lean approaches has increased, which might reflect the state of the world economy at the moment and the need to improve efficiencies and cut costs.

Benchmarking is another popular tool, with 41 percent of respondents stating that they use it. Benchmarking also goes hand in hand with the application of lean management



[**Figure 5:** Tools for Business Performance Management]

approaches, where benchmarks are used to identify improvement targets. Interestingly, the fact that 41 percent use benchmarking and 77-plus percent use KPIs indicates that over one-third of companies use performance metrics without comparative benchmarks.

The Balanced Scorecard (BSC) is used by 38 percent of all companies in our study. Our figures are in line with findings in other studies and indicate that the use of this popular management tool is still on the rise. But even though satisfaction levels with the BSC seem to be high, previous studies have shown that many companies fail to apply the tool to its fullest potential. Modern Balanced Scorecards contain a Strategy Map as one of the main components. Strategy Maps create a single-page picture of the key strategic objectives and the way they lead to business success. A number of research studies have shown that Strategy Maps create strategic clarity that is needed to drive performance management and performance improvement activities.

Interestingly, our survey finds that only about half of the companies that use a BSC also use a Strategy Map. Compared to previous studies, this number indicates that more BSC users are now creating a Strategy Map. However, it still means that half of all BSC users are not creating modern best practice scorecards by creating a Strategy Map. Most importantly, it means that they are missing out on the powerful ability of Strategy Maps to bring everyone onto the same page.

Reward and recognition systems are another tool used by companies to drive performance improvement. The idea is that if people are rewarded and recognized for delivering results that this will motivate them and improve business performance. Just over one-third of all companies in the *Measuring and Managing Performance* survey reported that they use reward and recognition systems in their business.

Traditionally, companies have used their performance data, including KPIs, to monitor whether they are reaching their strategic goals or not. They act as navigation instruments and early warning systems. However, more and more companies combine the traditional performance management processes with other data-driven approaches to analyze and predict performance. They use analytics and Business Intelligence (BI) tools to better understand the factors that truly drive performance and create an ability to predict future financial performance. Just under one-third of all companies that responded to our study use Business Intelligence and analytics tools to manage performance. This figure is a little lower than expected. Our experience and other studies show that more companies use BI and analytics tools. However, maybe the low number in our survey indicates that many are not making the connection between BI, analytics and managing business performance. Many companies use BI and analytics in isolation, specifically business functions such as marketing or finance, but few use it more strategically to drive overall business performance. Companies often create silos for BI and analytics and other silos for KPI measurement and reporting. In practice, this means that companies are missing out on the ability to leverage wider data sets to support their strategic decision-making. Leading companies are now integrating KPI reporting and analytics more closely, enabling them to use wider data sets to, for example, test their strategic assumptions or use external data sources to identify new opportunities and threats in the market.

Recent developments in our ability to use and analyze vast quantities of data (such as web logs, data from our mobile devices and phones, search engine stats, etc.) and less structured data sources (including conversations on social media platforms such as Facebook and Twitter, videos, etc.) have opened up new opportunities. People refer to it as big data analytics and the *Measuring and Managing Performance* survey found that seven percent of companies are already using big data analytics. The idea behind big data analytics is basically that companies use and analyze larger and more complex sets of data to inform their decision-making – data sets that were previously unthinkable to analyze. Analyzing big data would, for example, allow companies to better understand customer or employee behaviors by using their own KPIs, transactional data and weblogs and combining this with video tracking, social media postings and search engine data to get much richer insights.

Another tool companies use to manage their performance is rolling forecasts, meaning they regularly revisit their original forecasts (and related budgets) and revise them in light of new insights. Instead of an annual budgeting process, companies revise their forecasts and budgets maybe monthly or quarterly. In our study we found that almost one-third of the companies already use rolling forecasts. Especially when combining forecasting with insights from BI, analytics and big data analysis can help companies generate real competitive advantages by making their performance management more agile and relevant.

The final tool used to manage business performance is enterprise risk management. Enterprise risk management is basically the flip side of enterprise performance management. The former is concerned with monitoring the achievement of business objectives while the latter is concerned with monitoring the risks of not achieving business goals. Managing enterprise risks becomes most effective when it is closely aligned with the strategic performance management approach – that way companies can not only develop KPIs to monitor performance but supplement them with KRIs (Key Risk Indicators) to monitor potential risks to future performance. Our study showed that 20 percent of the companies surveyed use enterprise risk management as a tool to manage performance.

How Many Tools Do Companies Use to Manage Their Performance?

It is common that companies use a number of tools to manage performance. For example, those that use tools such as the Balanced Scorecard would also use KPIs and often benchmarking and dashboards. We found that only the minority of companies relies on a single tool to manage their performance. Two-thirds of the companies surveyed use three tools or more and just under half of them use five tools or more. Using more than five tools to manage performance isn't a problem as long as the tools are aligned with each other. We too often see cases where KPIs are not linked to the Balanced Scorecard or Strategy Map or where risk management, forecasting, BI or performance appraisals are done in isolation of the other strategic performance management processes. This often leads to siloed insights, data overload and confusing results in performance reporting.

Which Business Perspectives Do Companies Measure and Monitor?

Data and performance indicators are the vital navigation tools that help us understand whether companies are on the right track or not. While for companies financial performance is the ultimate goal, financial information is only telling you whether you have done the right things in the past. Today's financial performance is a so-called lagging indicator that is no predictor of future results. This is why companies are looking at other areas of performance that may be leading indicators of future results, including how your customers are feeling about your products and services, whether you are generating loyal customers, or whether you are improving internal efficiency and have engaged employees.

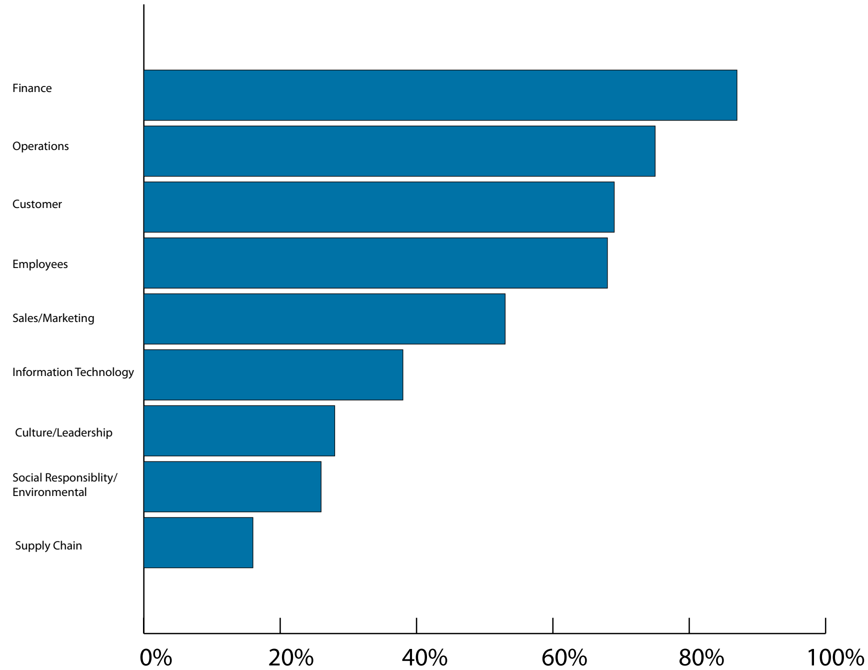
Our survey found that financial performance is still the most measured aspect of any business, with 87 percent of all respondents stating that they are measuring it. The fact that 16 percent of survey respondents were government and federal government organizations, as well as some other not-for-profit organizations, might explain why this is not 100 percent. If we exclude the government organization the percentage of companies who measure financial performance becomes almost 100 percent. However, given the pressure on companies, government organizations and not-for-profits to deliver more with less it is still surprising that almost 13 percent of respondents do not have performance measures for their financial performance.

The second most popular business perspective for which companies have performance measures in place is operational performance (75%) followed by customer (69%), employees (68%), and sales and marketing (53%). Lower numbers of companies also measure aspects of IT performance, culture and leadership, social responsibility and environmental performance, as well as supply-chain performance. See Figure 6 for a breakdown of the results.

Compared to previous studies, more companies seem to measure operational performance and employee performance. The increased focus on operational performance might reflect the economic downturn and the need to save costs and improve internal efficiency.

The big question is: is performance management making a difference?

Many performance management tools have shown very high satisfaction ratings in previous user surveys. For example, a recent global survey of management tools conducted annually by Bain & Company shows that users of the Balanced Scorecard, mission and vision statements, and benchmarking report some of the highest satisfaction levels.



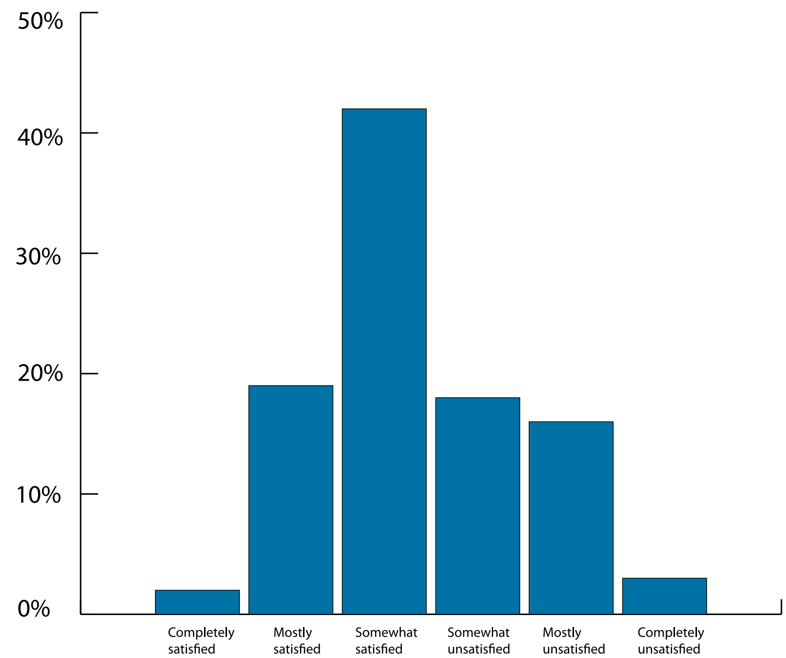
[**Figure 6:** What business perspectives do you measure and manage?]

In *Measuring and Managing Performance* we found that satisfaction levels were somewhat subdued. While the majority of respondents say that in general people in their company are somewhat satisfied (42%) or mostly satisfied (19%) with their performance measurement and management activities, there were also 18 percent stating that people are somewhat unsatisfied and a further 16 percent saying people are mostly unsatisfied. Three percent even stated that people are completely unsatisfied, compared to two percent who say people are completely satisfied. This shows that there is still a lot of work to be done – far too many respondents are not happy with the way performance is measured and managed in their companies. See Figure 7 for the results.

Being satisfied or not is all well and good but what is really important is whether companies get business benefits from their performance management activities. In our survey we asked the participating companies about the benefits they gain from measuring and managing performance.

The shocking finding is that one-fifth of all the companies in the survey stated that they are getting very limited or no benefits from using performance measurement and performance management. This identifies a huge level of waste (considering the time and efforts spent on collecting, analyzing, reporting and reviewing performance data).

Most companies (61%) stated that senior management teams get insights into how well the company is performing. This is good news but considering the other results in Figure 8, it also shows a typical disconnect: performance management is seen as something done for the senior management team, but something that is less relevant for operational or front-line teams and middle managers. Less than half of the respondents felt that measuring

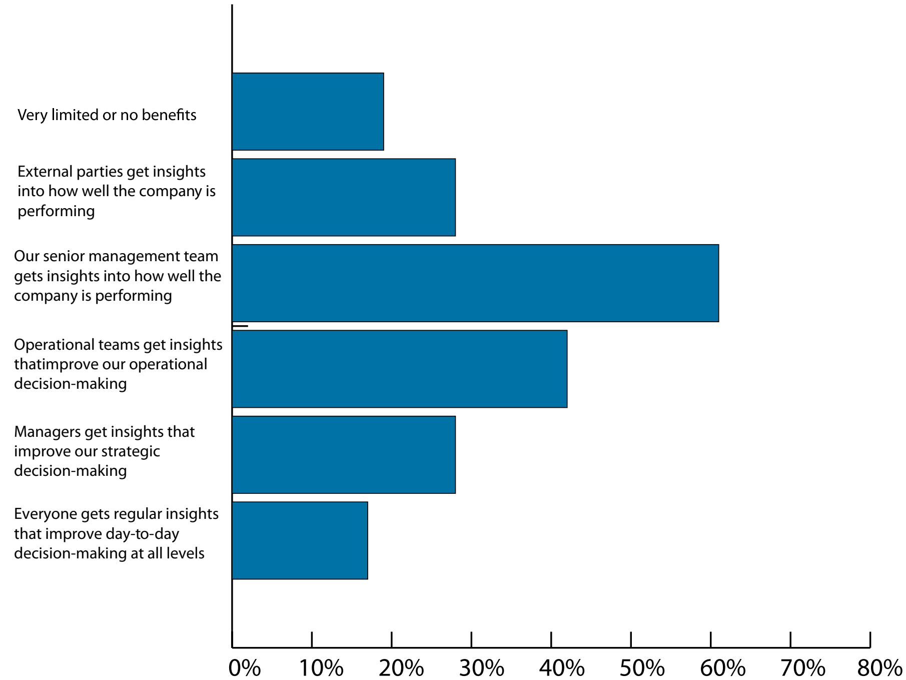


[**Figure 7:** Performance management satisfaction rates]

and managing performance would provide operational teams with insights that improve operational decision-making. And less than one-third of companies in this survey believed that measuring and managing performance would provide managers with insights that improve strategic decision-making.

These findings support what we often observe in practice, where performance management activities are seen as 'something you do for senior management, so they can check on performance levels.' In order to be truly valuable, everyone in the company needs to get benefits from performance measurement, analytics and performance management activities. It has to improve decision-making at all levels of the organization. Our study revealed that only 17 percent of respondents believe that everyone in their company is getting regular insight from their performance measurement and management activities, improving day-to-day decision-making.

The limited satisfaction levels and benefits that companies derive from their performance management and measurement activities raises an important question: Which companies do generate the biggest benefits and what makes them different? In order to answer this question we have analyzed our survey data using regression and correlation analyses to find out the key differences between those companies that reported only very limited benefits and low levels of satisfaction and those that reported high satisfaction levels and true business benefits of improved operational and strategic decision-making throughout the entire company. This allowed us to create a performance management maturity model.



[**Figure 8:** Benefits realized from performance management.]

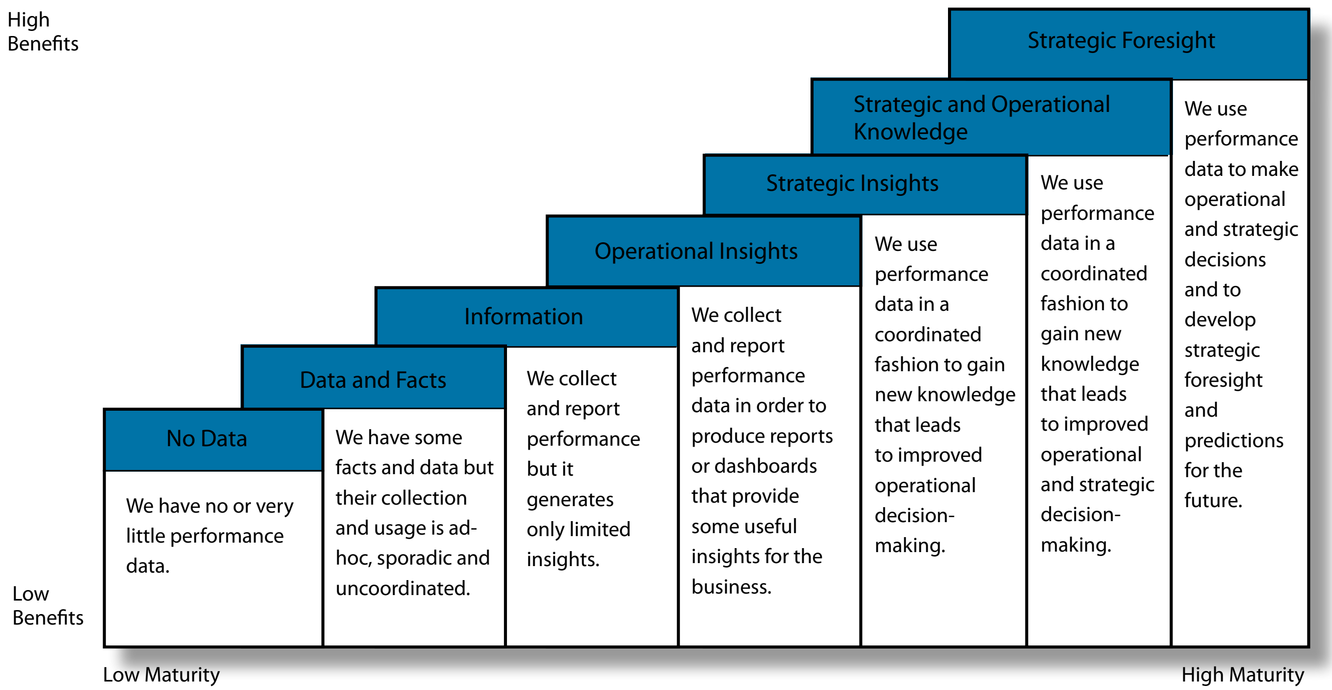
PART II: BPM MATURITY MODEL

What we found in our survey is that companies with more mature approaches to measuring and managing performance also report higher satisfaction levels, while those with little data, uncoordinated approaches and limited insights report lower satisfaction levels. Companies that use performance data to make both strategic and operational decisions and develop strategic foresight report the highest benefits.

For our maturity model we can break down the business benefits generated by measuring and managing performance into the following levels:

- The highest level of business benefits is strategic foresight, where data is used to generate predictive models to inform decision-making and the future direction of the organization.
- The next level of business benefits is to generate strategic and operation knowledge – i.e. information the company can and will act on.
- The next level down is strategic insights followed by operational insights. Insights are pieces of information that a company might be able to act on.
- Next down in terms of benefits is information, which is basically data that is contextualized, but may or may not be useful or relevant to the company.
- At the bottom of the model we have facts and data, which is basically raw data but without context to make it useful.
- Finally, we have no data (and therefore no information, insight or knowledge).

In Part 1 we discussed the different levels of maturity in approaches to measuring and managing performance. These basically strongly correlate with the levels of benefits outlined in the maturity model below.



[**Figure 9:** BPM Maturity Model.]

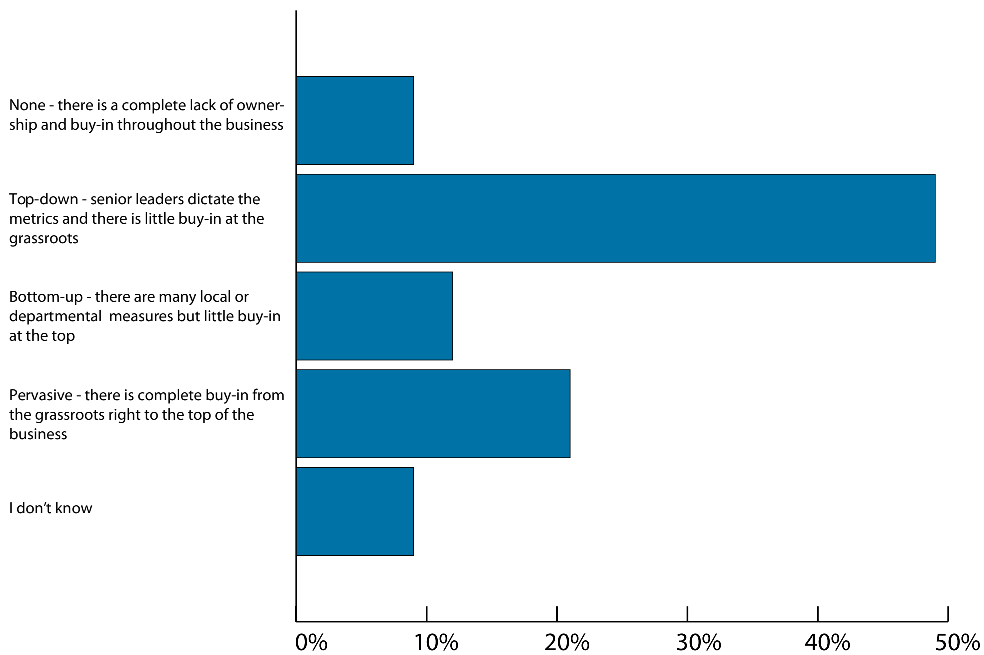
Our survey identified seven important factors that influence the level of satisfaction with the BPM approach and the level of benefits companies derive from their efforts to measure and manage performance. These factors help us establish the level of maturity of any BPM approach. We find that the most mature implementations have these factors in common:

- Buy-in and ownership of BPM is pervasive throughout the business
- The reason for measuring and managing performance is internal and voluntary
- Companies align strategic measures with operational measures
- There is an alignment between traditional performance measurement and performance analytics
- The focus of measuring and managing performance is now and the future
- There is a focus on data quality
- Companies use dedicated technology to measure and manage performance

Let's look at each of the elements in turn.

Factor 1: Buy-in and Ownership

Like with any management initiative, if there is no ownership and buy-in, then the implementation is likely to fail or deliver very limited benefits. The same is true for BPM. Our experience shows that without buy-in from the top leadership team, any BPM approach will fail. The top team in a company needs to lead and spearhead the implementation. However, what we find is that there often is buy-in at the top and little at the bottom of the organization. This indicates that BPM is seen as a top management initiative – often along the lines of 'senior management is checking on us' – or that the grassroots disagree with the measures and analysis performed or feel that the consolidation and scoring exercises are flawed, but are too disconnected to discuss the problems because they're not part of the strategic measurement effort. In order to enable a successful BPM implementation, it is absolutely vital that companies create pervasive buy-in and communicate the need and reasons for measuring and managing performance throughout the organization, creating a closed loop where everyone receives data from the same system and there is trust and transparency in that data. Figure 10 below breaks down the responses in the survey, where about half of the respondents see top-down buy-in with little buy-in at the grassroots. Nine percent reported a complete lack of buy-in and 21 percent reported pervasive buy-in. Based on our experience, the lack of buy-in at the grassroots level is caused by a lack of engagement in the design and communication of the BPM approach as well as a lack of trust in the data quality or in how the data might be used. A closed-loop system where everyone understands the rationale of the BPM approach and has access to the data will help eliminate this problem.

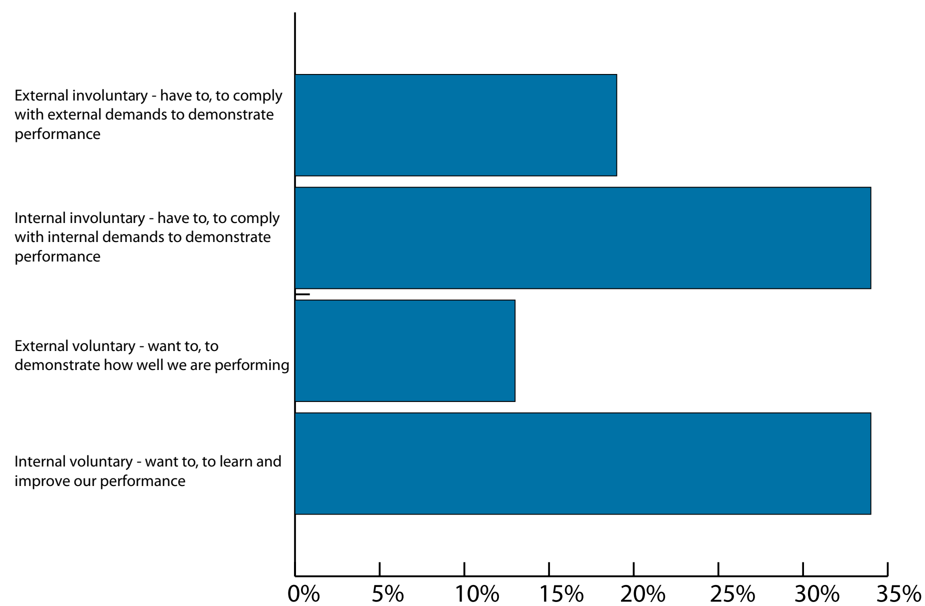


[**Figure 10:** In your company, which of the following best describes the 'ownership and buy-in' into performance measurement?]

Factor 2: Motivation for BPM

Having the right reasons to implement BPM is another key success factor. The most mature and successful implementations are those where BPM is introduced voluntarily by the company to improve its decision-making and generate new insights and understanding that drive performance improvement. If it is instead introduced because of external needs to report (often the case in government organizations where central government or regulatory bodies force the reporting against targets) then there will often be resistance. Involuntary reasons can also be internal, where maybe internal quality departments or senior management teams are seen as forcing performance reporting and measurement.

Our survey indicates that about one-third of companies do implement performance measurement and reporting for the right reason, namely to improve learning and performance. This is contrasted by another third that sees it more as an internal pressure to report upwards and demonstrate performance. This 'Big Brother' type of approach usually leads to a lot of resistance. Nineteen percent of companies reported that the main motivation for measuring and reporting performance is to comply with external demands to demonstrate performance, while 13 percent reported the main motivation as voluntarily, providing information to external organizations.



[**Figure 11:** Which best describes the main motivation for performance measurement and reporting in your company?]

Factor 3: Integration of Operational and Strategic Approaches

Traditionally, KPIs have been used by organizations on two different levels:

- Strategically. To monitor the execution of the strategic goals and objectives (e.g. high-level KPIs based on the strategic objectives of an organization such as financial performance or customer satisfaction).

- Operationally. To monitor and improve operational performance (e.g. operational effectiveness metrics such as quality measures, waste levels, capacity utilization or process optimization metrics).

What many companies are struggling with is the alignment and integration of strategic and operational metrics. Operational measurement is too often still done without aligning it with the strategic measures. This can therefore create a disconnect between strategic and operational priorities. What we find is that those organizations that are generating higher levels of benefits are those that integrate both a strategic and operational approach to BPM. In *Measuring and Managing Performance,* we found that companies who only use KPIs to measure and report operational performance report low levels of benefits. The study also found that companies that have strategic KPIs but don't align them with operational metrics also report low benefits. However, those companies that integrate them and use strategic and operational KPIs and align them with Strategy Maps or Mission and Vision Statements report the highest levels of satisfaction and benefits.

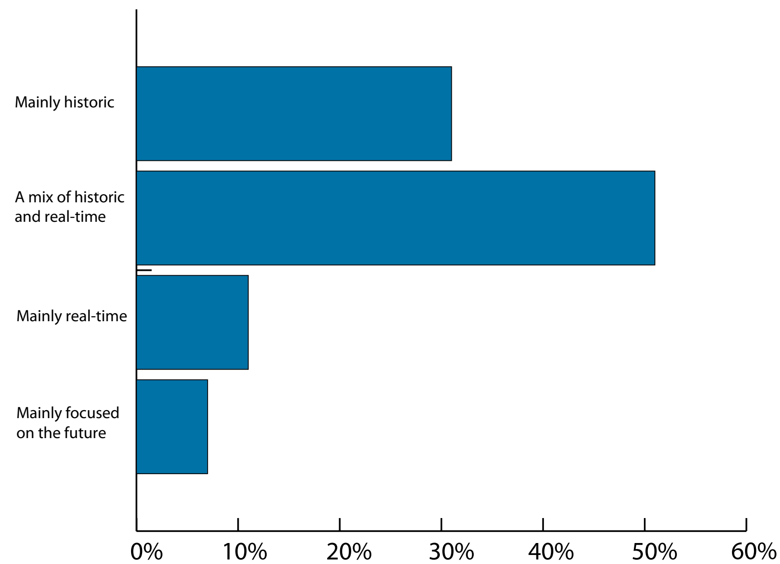
Factor 4: Integration of Performance Measurement and Analytics

Another factor that is becoming a differentiator is the level of integration between traditional KPI measurement and analytics. While KPI measurement is more static, with a focus on high-level indicators to monitor performance against high-level goals (the 'how well are we doing against our plan?' question), analytics is more dynamic, using wider and larger data sets to challenge the business (the what, why and how questions). Those companies that reported that they combine approaches such as KPIs and Balanced Scorecard with Business Intelligence and analytics generate more benefits in the form of richer and more comprehensive business insights. Bringing together strategic KPIs with analytics also ensures a more real-time view of the business where traditional KPIs often provide a historic view and analytics a more real-time approach. This is something we will discuss in more detail as part of the fifth factor below.

Factor 5: Time-Focus of BPM

Traditionally, performance data was used to report historic information – for example, financial performance of the last quarter, success of the last marketing campaign or results from a staff survey. More sophisticated approaches and the use of information technology allow companies to track performance much more in real time, creating a more integrated approach where measures are consolidated and reported as things actually happen. Especially with the emergence of sophisticated or predictive analytics tools, companies can now use their data to look into the future. In order to be truly effective, any performance measurement and management activity should be concerned with the next quarter and the things to do to improve performance in the future. But instead, many companies still focus their activities on the past.

Our survey found that about one-third of companies report that their performance measurement activities mainly focus on the past, while half believe it is a mix between historic and real time. Eleven percent see their focus as mainly real time while seven percent focus mainly on the future (see Figure 12 for a breakdown).

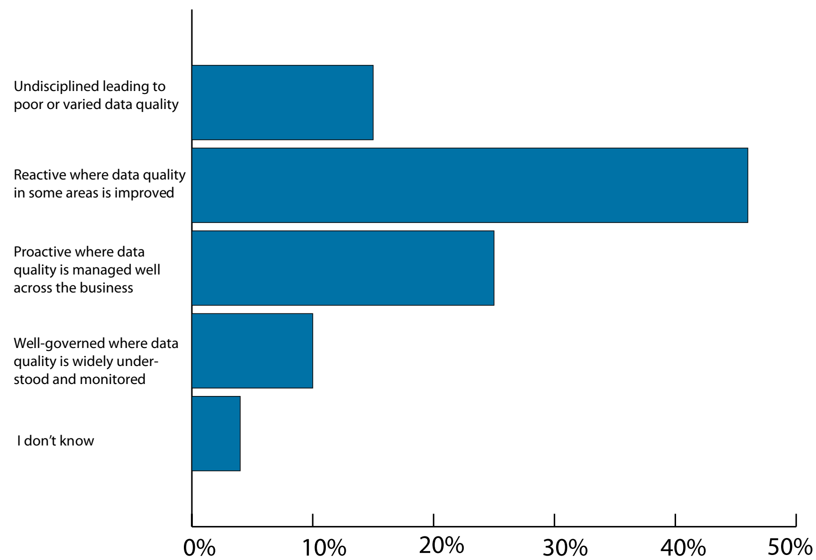


[**Figure 12:** Which of the following best describes the main time focus of performance measurement activities in your company?]

Factor 6: Data Quality

Another critical success factor for more mature and successful BPM implementations is making sure data quality in the organization is good. The famous quote 'garbage in, garbage out' sums the problem up. If we want good insights that lead to improved decisions that drive future performance then we need data we can trust. There is no point putting in place sophisticated performance reporting and shiny dashboard solutions if the underlying data is not reliable.

Over recent years (and with the emergence of more capable analytics tools) companies have become more aware of the need to manage data quality. However, the results of our survey indicate that there is still a long way to go for most companies. The most sophisticated companies have well-governed data quality management process that allows them to manage and monitor data quality throughout the organization. In our survey, 10 percent of respondents reported that they have a well-governed data quality management. One-quarter reported that they proactively manage data quality throughout the company. The majority, however – almost half of the companies in our survey – stated that they have only reactive data quality management (i.e. they're looking at areas where data quality has become an issue). Fifteen percent said their data quality management is undisciplined, leading to poor or varied data quality.



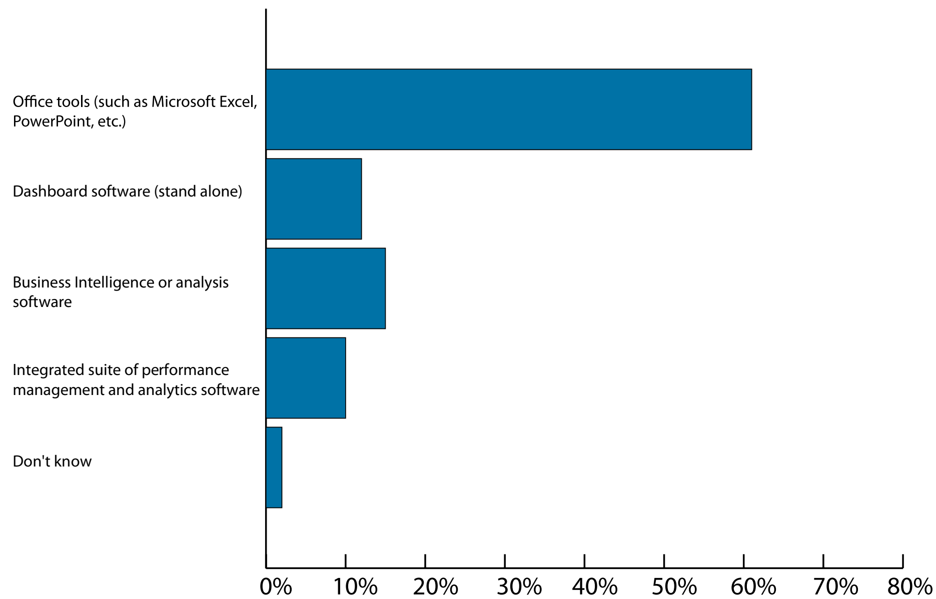
[**Figure 13:** Which of the following best describes the focus on data quality in your company?]

Factor 7: BPM Technology

Technology to support BPM activities has evolved massively over the past few years. Initially the focus was on storing and reporting performance information using databases and dashboard solutions. More mature approaches then allowed companies to create closed-loop systems that help to integrate operational and strategic performance data and align traditional performance measurement with analytics. This allows companies to analyze the data and integrate performance reporting with, for example, financial management tools or other tools such as risk management or project management. Today's sophisticated solutions need to do everything, combining integrated BPM platforms with the ability to perform predictive and big data analytics, along with root-cause analysis on past and future data, all to enable companies to visualize performance in interactive graphs and reports delivered to mobile devices over the Internet. These capabilities can serve to neutralize some of the issues listed in Factors 1 to 6 above, creating a more transparent company.

Many previous studies have shown that using an integrated performance management and analytics suite generates the most benefits, while most companies still use office tools as their main IT tools to collect, store, analyze and report performance information. Office tools have many limitations, though, when it comes to interactivity, data presentation, data storage, data security, and quality control. Similar to other studies, we found that 61 percent of companies in our survey use office tools such as Microsoft Excel and PowerPoint as their main tools to report and analyze performance. Twelve percent use dashboard software, 15 percent Business Intelligence or analysis software and only 10 percent use integrated performance management and analytics software.

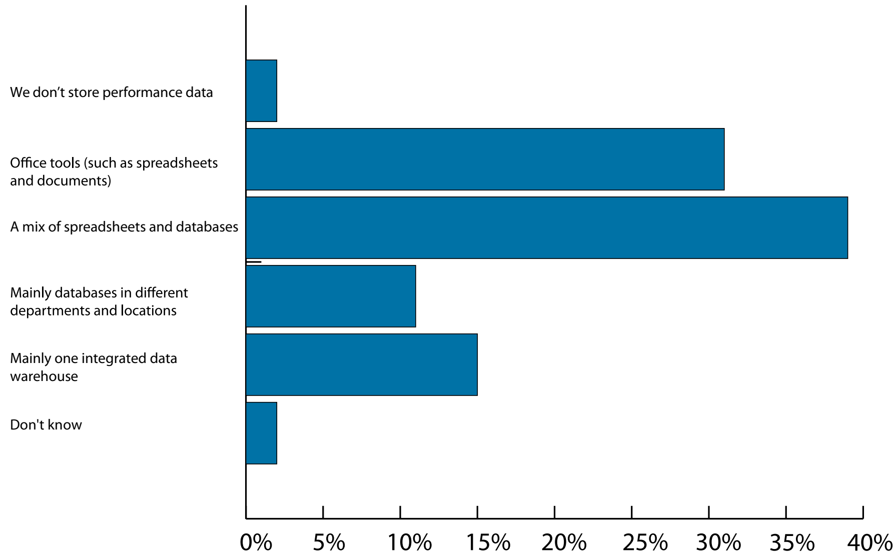
In terms of maturity, using office tools delivers the fewest business benefits and user satisfaction levels. Dashboard solutions and BI or analytics software products improve data reporting and visualization as well as analysis capabilities. Dashboard solutions are usually simpler to implement and use but generally have less analysis functionality (even though this is changing quickly). Business Intelligence and analytics software do provide the analytics capabilities but are often more difficult to use and implement. Solutions that support a continuum of needs work best, allowing organizations to embrace performance measurement at a level they're comfortable with, gradually moving away from simple reporting towards predictive .



[**Figure 14:** Which of the following best describes the main technology your company uses to report and analyze performance data?]

Analyzing and reporting performance data is the front end, while the back end is where the data is stored. In an ideal world there would be an integrated data warehouse that holds all the performance information in order to feed performance reporting and analytics. Having data stored in office tools such as Microsoft Excel makes it very hard to analyze data across different data sets and it is very easy to override spreadsheets, therefore losing some of the organizational memory and making it difficult to ensure data integrity.

Our survey found that the majority of companies still use a mix of spreadsheets and databases (39%) as their main technology to store performance data. This is followed by almost one-third that use office tools such as spreadsheets and documents as their main data storage technology. Eleven percent report they use a number of different databases in different departments and locations – again, this can make it difficult to bring data together for analysis. Fifteen percent report that they have one integrated data warehouse to store their performance data.



[**Figure 15:** Which of the following best describes the main technology your company uses to store performance data?]

PART III: FINAL ANALYSIS AND CONCLUSIONS

This survey is one of the largest and most comprehensive studies ever conducted in the field of enterprise performance management. It provides an overview of the current state of play and enabled us to create a BPM maturity model that companies can use to assess their own level of maturity and identify gaps in their own implementations.

We have been able to demonstrate that companies that use the right performance measurement and management tools are able to gain insights that drive improved decision-making and performance, while companies that measure both strategic and operational insight and can integrate the two have a higher chance of success, creating a platform for root-cause and predictive analytics for better decision-making. However, we also found that just having tools in place will not deliver any benefits unless they are used in the right way.

In addition to this, we have been able to identify seven factors that are associated with more mature and successful BPM approaches. Companies with the most successful and mature BPM approaches are those that:

- Create buy-in and ownership of the performance measurement and management activities throughout the business
- Are motivated by the internal need to make better decisions and improve performance
- Ensure that there is close integration between the strategic and operational measures and BPM approaches
- Create a tighter integration between traditional KPI approaches and analytics
- Create a clear focus on data quality to ensure the raw material for their performance insights is reliable
- Focus their performance measurement and analysis activities on the future
- Use integrated performance management and analytics software applications

Actuate: The BIRT Company

Actuate – The BIRT Company™ – founded the BIRT open source project, which serves as the foundation of ActuateOne®. ActuateOne applications deliver the most insights to the most people – ensuring organizations are ready for Big Data and touch devices. ActuateOne empowers developers to deploy business analytics and customer communications applications with one BIRT design to access any data, provide one user experience for any user, supported by one platform for any cloud, on-premise or touch device deployment.

Advanced Performance Institute

The Advanced Performance Institute (API) is a world-leading independent research and consulting organization specializing in organizational performance. The institute provides expert knowledge, research, consulting and training on concepts like strategy management, performance management, analytics, Business Intelligence, Key Performance Indicators and big data. The aim of the Advanced Performance Institute is to provide today's performance-focused companies, governments and not-for-profit organizations with insights, advice and services that help them deliver lasting change and superior performance. The institute has a long and successful history. It was established in the mid-1990s and has continuously grown to its current world-leading position with clients from across the globe. It is headquartered in the United Kingdom and operates across Europe, the United States, the Middle East and Australasia.

For additional insight into tools, case studies and a solution overview to help drive your organization to a successful BPM initiative go to: www.actuate.com/BSCturns20

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