

16 Advanced Analytics

Moving the Needle of Business Performance*

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Introduction

Digital transformation is fully upon today's organizations. The advent of cloud computing, social media, advanced analytics, the Internet of Things (IOT), mobile computing, artificial intelligence (AI), and robotic process automation (RPA) have not only led to a bevy of new business acronyms, but also to fundamental changes to the way organizations do business. And, with this dawn of digital change comes business disruption. Even the most staid, traditional companies are finding that their core business models are being disrupted in ways that were not foreseen even two years ago. There are new ways to engage customers and new ways to transact with partners. There exist shifting value models that replace asset intensity with IP development and monetization and customer focus. The Hackett Group's data illustrates these disruptive changes in the following graphic, which breaks down "digital" into core technology components and their expected business impact today and in two to three years. The spikes are significant and material (see Figure 16.1).

These are placing unprecedented stress on business models and professionals themselves. Think of how Uber replaced a traditional taxi model and created a multi-billion dollar business in a matter of years—all without owning a single car. Disruption will result in a new set of winners and losers, perhaps even greater than the change experienced in the Industrial Revolution.

When one thinks of the disruptions that the digital age presents to today's companies, one must contemplate new risks associated with digital business as well. Each day, newspapers provide evidence of the challenges and risks that the blossoming interconnected environment presents to the business world. The Hackett Group's empirically derived benchmarking and research database shows that executives are exceptionally concerned with areas such as cyber/information security (67%), intensified competition (58%), and disruptive innovation (56%). Clearly the changes to business models are increasing the nature and intensity of risk and the need to manage it carefully

Emerging Technology Adoption—Finance

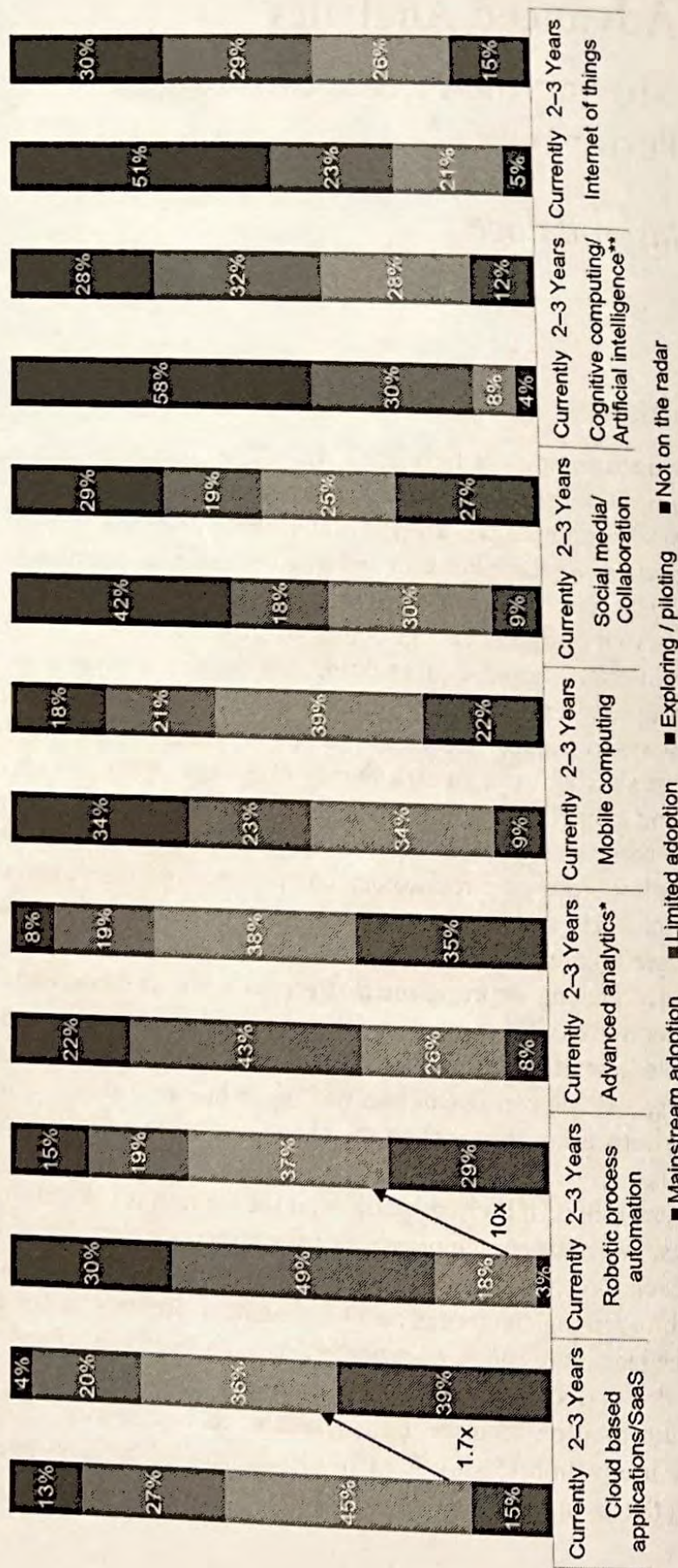


Figure 16.1 Emerging Technology Adoption in Finance

Source: Key Issues Study—The Hackett Group—2017

and thoughtfully. See the following graphic for how dramatic the new age of technology has become. The Hackett Group's maturity model outlines where organizations were with technology even ten years ago (Platform 1.0) and then continued to make dramatic investments in data and system integration (Platform 2.0), only to find that predictive insights and advanced analytics were still not at their fingertips. In Platform 3.0, organizations have begun to shed the complexities of internal technology residence in replacement with cloud adoption, but equally, if not more importantly, have begun to be open to broader sets of data and new tools "on top" of the stack to help make sense of the numbers (see Figure 16.2).

So, with these dramatic business changes and a more tenuous risk climate, how ready are today's organizations to navigate the impacts on their businesses? The short answer: not very. Many organizations are poorly positioned to seize on the opportunities that the digital age is fast-presenting (Figure 16.3). The Hackett Group's research reveals that executives across the business overwhelmingly agree that digital age change will fundamentally change the way business will be done, but only a minority appear to be prepared for this shift.

When contemplating the net impact of these changes, one message becomes increasingly clear: a major determinant for winning and losing in the digital age will be an organization's ability to capture and enrich data, and leverage information as an asset in the market. Successful firms are moving from "those with the assets and scale win" to "those with the information and insights win."

Rather than thinking in far-flung visionary terms, it is grow increasingly clear that these capabilities will be largely evident in the marketplace survivors by 2020, and with others left far behind. The Hackett Group thinks of this as the "2020 Analytic Firm of the Future," which will be characterized by a service delivery model of highly nimble systems meshing internal and external data to support analysis and insights by the analytic professional; all held together with newly emerging organizational and governance constructs.

Advanced Analytics Defined

What exactly are advanced analytics? In some ways, advanced analytics is easier to define by articulating what it is not. Its characteristics are largely different from more traditional analyses done by mainstream organizations.

Characteristics of Advanced Analytics

Velocity vs. Exactitude

The first area of differentiation from more traditional analysis is the importance of speed. Speed is the priority at the expense of the typical precision that entails a financial, operational, or sales analysis. Executive questions

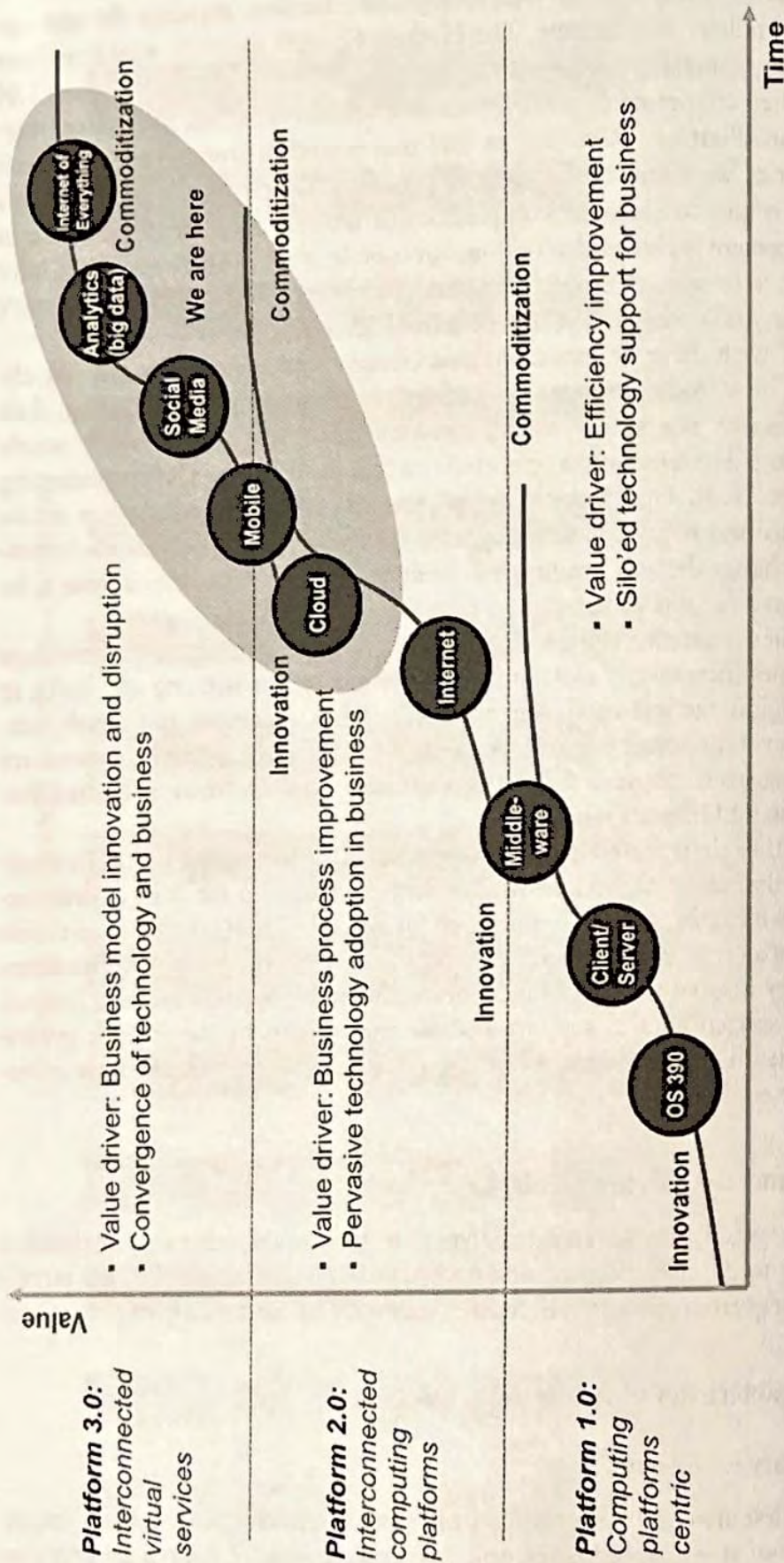


Figure 16.2 The Hackett Group's Maturity Model
Source: Key Issues Study—The Hackett Group—2017

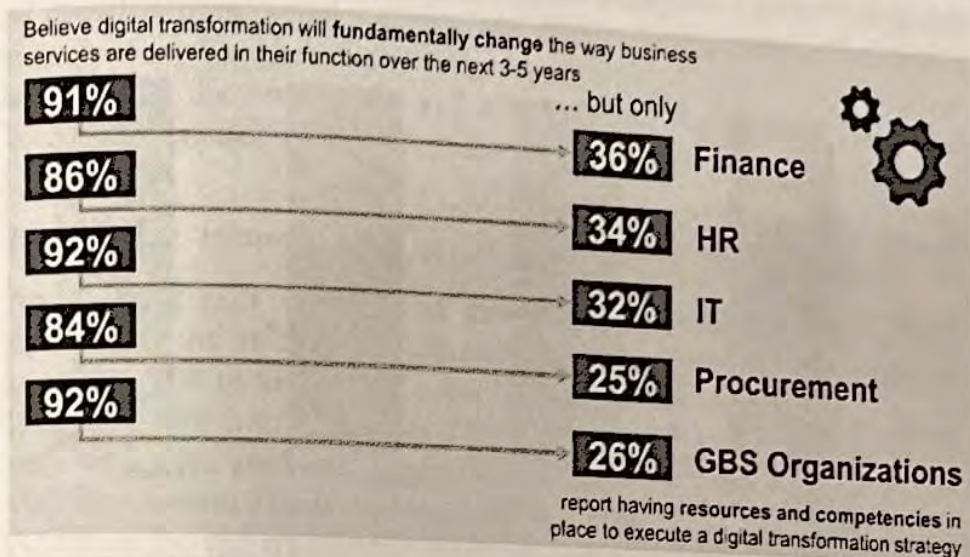


Figure 16.3 Digital Transformation Impact and Readiness

Source: Key Issues Study—The Hackett Group—2017

are usually at the core of these, in which a query is launched regarding a spending category, a product, or a customer, for instance. What typically results from these is one to two weeks of work by 10–15 staff pulling data from multiple, highly invested technology tools, pushing this data through various email chains and ultimately being aggregated in a spreadsheet and painstakingly formatted into a presentation deck. Advanced analytics breaks this vicious cycle. In the new paradigm, hypotheses are set and nimble methods to prove or disprove them are launched, often in significantly fewer cycles and with far more importance attached to absolute precision of the numbers. Advanced analytics seek to interpret and inform trends, not pinpoint the variances between one account and another. This presents one of the first major cultural shifts to the future analytic professional (about which more later).

Direction vs. Precision (or the “Fear of Failure” Paradigm)

The next concept associated with advanced analytics is the employment of the 80/20 rule when completing an analysis. In a typical setting, analysts respond to their natural desire for perfection, the direction of those around them, or both to focus on very high levels of precision in the work that they prepare. This is completely counter to the advanced analytic model: run enough analysis to see the patterns and then make recommendations and act upon them. In fact, The Hackett Group has proven with empirical data that less depth in analysis produces a more statistically valid forecast than otherwise (Figure 16.4). In this case, the company’s analysis proves that spending less time and going into less detail tends to yield better accuracy in forecasted earnings.

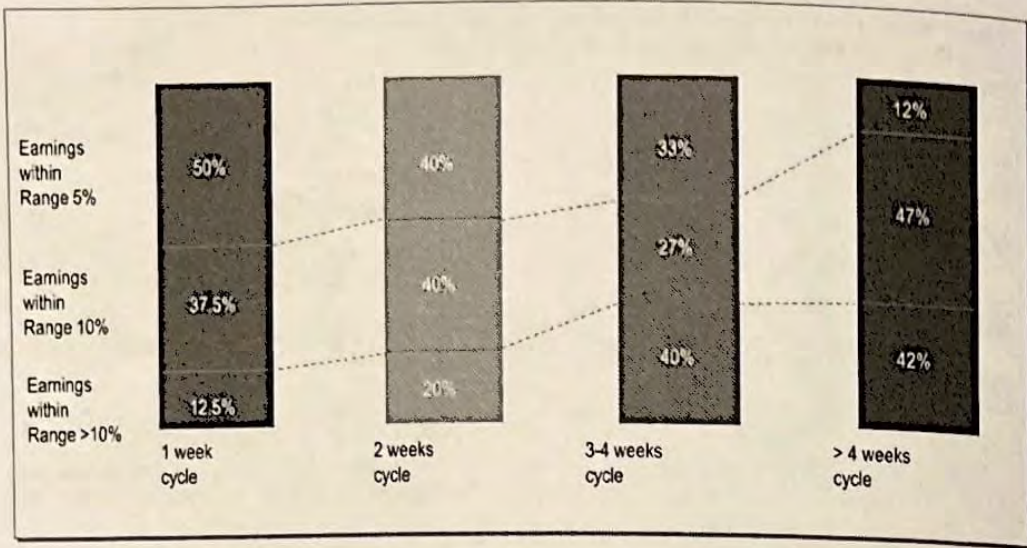


Figure 16.4 Relationship Between Cycle Time and Accuracy

Source: Performance Study—The Hackett Group—2010

Deployed vs. Centralized

There are many opinions on this topic, ranging from the organizational adoption and deployment of Centers of Excellence (COE) in a more centralized model to the self-service concept of a more widely deployed and decentralized model of accessing and analyzing the various components of the business. High performers utilize both COEs and self-service models, and in the 2020 future state, one would expect a much more capable analytics professional who partners with the business to not only interpret, but predict and influence performance. The COE will house the data scientists for the highly developed analytics as well as do the critically important yet painful work of data management, data governance, technology harmonization, and deployment. Executive sentiment and technology trends suggest that the idea of limited information availability is going to be quickly replaced with a model of dissemination of vast amounts of data to the masses, who have the tools and training to navigate and analyze in new, simple, and effective ways.

Fewer vs. More in the Analysis

Here is the next paradoxical shift in the rationale: with advanced analytics, as the speed of end-to-end analysis increases, combined with the analytic IQ of the deployed analytics professional, one could conclude that even more people will be involved in the analytic process. This is a very likely scenario, but in a much nimbler model. More people will be involved in analytics, but there will be far fewer “reviewers and checkers” among them. Layers of approvals, validations for non-value-added adjustments based upon the

"gut instinct" of midlevel management will be replaced with small groups of multifunctional people proving and disproving hypotheses, interpreting data, and feeding the results to the organization. These "analytics pods" will become the new normal and even begin to challenge the traditional hierarchical models of business today.

Predictive vs. Historical

Another big shift in advanced analytics again relates to the cultural dynamic found in many organizations today. Traditionally, executives urgently want to know why something happened, which spins the analytic functions into numerous cycles of research and explanation, but only with data available internally, which only further impairs the true visibility of root causes and external factors for performance variances. Additionally, the traditional model launches these explorations at the quarter-end business review, making any efforts to use the resulting analysis to influence or redirect past decisions impossible. The advanced analytic model fundamentally shifts the questions that an executive would ask, from "Why did that happen?" to "What would happen if. . .?" and therefore challenge the analytics professional to leverage historical data, external data, tools, and analytic methodologies to inform and influence future business decisions.

Correlations vs. Spreadsheets

Statistics or decision support has tended to be an arcane set of activities that only a small group of people in the organization are permitted to conduct. Those days are over. Companies do not need to create large communities of data scientists within the hallways of industry, but firms need to develop individuals who can leverage the power of statistical analysis, driver data, and correlations to interpret and predict performance without the overlay of human instinct. Over time they will be able to deliver far more predictable and reliable bands of expected performance outcomes.

Impact vs. Content

This shift might seem trite, but is responsible for vast amounts of hours spent by analysts in the traditional model. In the new model, 100-page PowerPoint decks will be replaced with one-page "analytic pull sheets," five-page analytic justifications and ten-page executive/board briefings in a standard format. Furthermore, these artifacts will be augmented by vast amounts of information deployed to decision makers daily via their preferred channel. Interactive "war rooms" of offices with machine learning and AI will focus executives on emerging or urgent topics in a way that supports decisive action.

The Hackett Group's Value Performance Framework and Analytic Methodology

The table is set for the strategic rationale for advanced analytics as well as the characteristics and how they have changed the game from a more traditional analytic assignment. What is the next step? Through the company's research and work with clients, it is clear that a Value Performance Framework is required before tactical analytics can be pursued (Figure 16.5).

While many frameworks exist in today's business marketplace, the point is to anchor on one that aligns the organization's mission, vision, and values with the set strategic objectives. After that, the cascade can occur from objectives to targets, measures, and ultimately, prioritized analytics. Why is this important? Because as firms pivot to the analytic enterprise there is a need to acknowledge that it will not happen with dramatic increases in functional budgets; rather, it will have to happen with savings achieved from efficiency gains. Thus, analytic advancements must be directly aligned with the objectives of the company and how these objectives will be achieved going forward.

The cascade is critical (Figure 16.6). For instance, if an organization aspires to grow revenue through new product launches, how should this be measured? Does everyone understand these targeted growth areas? And are the organization and the various functions involved aware and directly responsible for those performance levels at a tactical level?

The other tier of the framework that is essential is that of key performance indicators (KPIs). Chapter 10 describes these in detail, but in terms of advanced analytics, they are again essential to the cause. When firms execute analyses using internal and external data sources, statistical mechanisms and correlations, and advanced tools, there is a need to deliver meaningful insights on the KPIs that matter to the business. Often, this is a combination of predicted KPI results that balance across efficiency and effectiveness metrics. This creates an environment that allows realization of the opportunity of advanced analytics.

The Analytic Toolkit and Methodology

There is a vast array of methods at the disposal of the analytic professional. Part of the challenge facing organizations today is building institutional and individual knowledge of these methods and, most importantly, knowing when and how each should be applied. Figure 16.6 presents a list of analytic and data collection methods.

Many opportunities are arising for education courses that can help develop these skills. One thing that is vitally important prior to jumping into an analytic exercise is to appropriately frame the situation. Simply stated, firms need to ask better questions if better answers are intended.

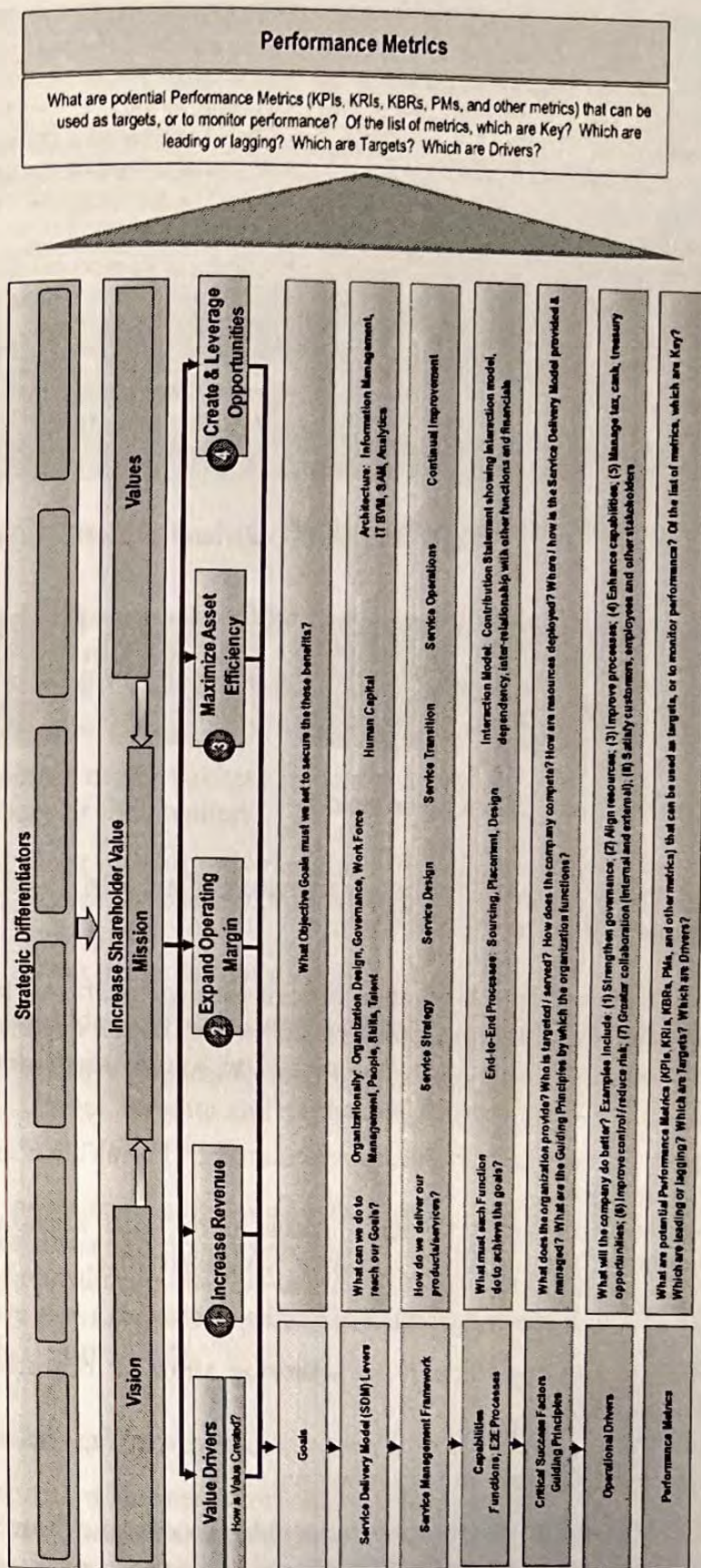


Figure 16.5 The Hackett Group's Value Performance Framework

- Benchmarking
- Business Cases
- Business Activity Modeling
- Constraints Analysis
- Cultural Analysis
- Data Flow Diagrams
- Data Modeling
- Financial Analysis
- Impact Analysis
- Interviews
- Lessons Learned
- Metrics and Key Performance Indicators (KPIs)
- Mind Mapping
- Observations
- Organizational Modeling
- Process Analysis
- Process Modeling
- Prototyping
- Record Sampling
- Risk Analysis and Management
- Roles and Permissions Matrix
- Root Cause Analysis
- Data Samplings
- Survey or Questionnaire
- System Event Analysis
- SWOT Analysis
- Use Cases and Scenarios
- Value Chain Analysis
- Work Measurement
- Workshops

Figure 16.6 Analytic and Data Collection Methods

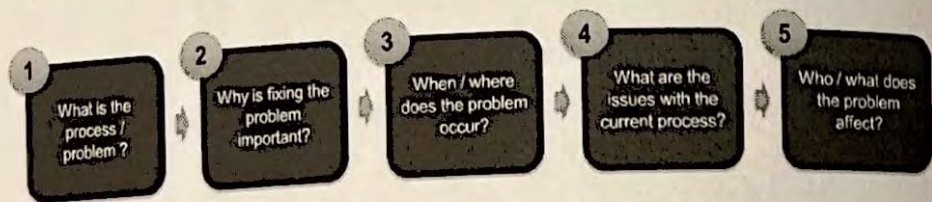


Figure 16.7 Problem Decomposition Framework

The following problem decomposition framework (Figure 16.7) provides a structure to assist in that framing activity.

1. Problem Decomposition: It is often difficult for organizations, let alone individuals in those organizations, to define the issues needing to be addressed, but this early step is essential to avoid misguided work efforts.
 - a. A problem statement should be articulated and be as clear and concise as possible.
 - b. Expanded problem statements should delve into areas such as “who, what, where, when, and why” characteristics.
2. Rationale: What is the reason for addressing this issue?
 - a. What are the impediments to achieving strategic objectives and value creation?
 - b. Problems are likely to have upstream, downstream, and external consequences within the organization.
3. Evidence: When and where does the problem occur and how does it manifest itself in the business?

Guiding Principle	Considerations
Use analytics to find and address root causes rather than symptoms	Ask the 5 whys to be sure you are addressing root cause
Use analytics to improve business capabilities (process, data, people and technical) rather than just focus on technical	Analytics is not a tool or "big data", but a set of techniques, technologies and skills that can be leveraged to improve capabilities and decision making
Use analytics to find the creative solutions rather than prescribed or predefined solutions	Oftentimes the value of analytics is the discovery of new opportunities "on the margin". Key mantra – "Think Differently"
Use analytics to drive for feasible solutions rather than all possibilities	Brainstorm possibilities then leverage hypothesis to test analytics of highest speed to value or success outcomes that optimize use of limited resources
Use analytics across the full lifecycle rather than focusing on one of the areas	Focusing on only one aspect of the analytics lifecycle will limit outcome achievement. Different techniques will be needed across the full spectrum
Use analytics to drive discussions for negotiation, issue resolution and decisions rather than conflict avoidance	Using analytics to drive an improved outcome will and should cause conflict. Techniques will need to be utilized to turn the conflict, often negative, to positive and constructive tension
Use analytics to improve business agility rather than perfection	Focus on feasible and probable...80/20 rule is always in play...quicker, better, faster...

Figure 16.8 Effective Analytics Guiding Principles

- a. Understand the scope of the analysis: in what ways is the problem confined?
- b. Stress the need to seek data without forming a preconceived notion of the root causes.
4. Business model/process impacts: Articulate the issues within the taxonomy of the business.
 - a. What are the activities and tasks that are affected?
 - b. Where are the handoffs across functional groups, external parties, or both?
 - c. What are potential root causes?
5. Stakeholders: Who is being affected by this issue and in what ways?
 - a. Identify impacts to functions and individuals.
 - b. Gather insights and perspectives as to root causes, but as hypotheses—not as facts.

The problem decomposition framework can be very effective in helping to set the analytic journey up for success, but it is only the start. When broadly considering the end-to-end cycle of a value-added analytic exercise, there are several guiding principles that are proven guardrails for effective analysis (Figure 16.8).

Technological Implications

It is important to note some rather dramatic shifts in the technology landscape that need to be factored into a company's analytic plans. The technologies have become so much more functional and integrated that they must

be addressed and considered as a key strategic enabler to a high-performing analytic environment.

Data, Data, Everywhere. . . .

The architectures of enterprise data warehouses and the means to implement and maintain these behemoths have been recently changed—not abandoned in many cases, but augmented with additional architectures that can vastly speed up analysis. Data lakes are challenging the paradigms of the non-technical businessperson, but the concept is simple: gather all relevant internal and external data, as is, and apply analytic tools “on top” to gain insights.

Now, data is still data. Everyone has challenges of data quality and definitional integrity. Again, while the fight needs to be waged for common account, product, customer, and service masters, the analytic world cannot wait. The 80/20 rule kicks in and decisions get made and margins get influenced, using the data available, however imperfect.

More Effective Governance

Some of The Hackett Group’s Fortune 500 clients have found themselves at some point with a “data governance council” that has managed to convince executives that very little can be done until data standards are fully unwoven and rewoven. To facilitate advanced analytics, firms need to create an environment in which analysts know: who owns what data, how they can access it, who has responsibility for data quality/validation, and whether definitions require updating. Companies need to treat analysis like the financial closing process and rigorously execute, as opposed to engaging dozens of people in conference rooms monthly in an exercise with ultimately little value.

Virtualization and Information Delivery

The author has assisted clients for 30 years on these topics and the idea of an “executive cockpit” has always been out there. Historically, the difficulties of technology and architecture alignment have left those executives largely underserved and dissatisfied, but they have been a patient group. The technology available today has nearly eliminated these barriers. CXO cockpits can now have dynamic feeds to various systems and find correlations with external data. They can refocus the executive on areas with high variances, and can “learn” along the way via AI so that the summary information delivered is the most relevant for the time and consumer. All of this can now be done and delivered via every available channel and mechanism.

Rapid Deployments, Agile Developments, Yet Gentle Care in Broad Adoption

With the advent of cloud and new delivery models, it is important to note that any organization that wants to embrace an improvement in advanced analytics can do so without a three-year, \$100M broad-based systems integration initiative. It is proven through The Hackett Group's client work that great pilots can be executed in a 4 to 10-week timeframe that prove or disprove the hypotheses mentioned earlier in the chapter. But, the high performers think carefully about broad-based adoption of these analytics—"What analytics should be done daily? weekly? monthly? ad hoc?" This has prevented the institutionalization of new analyses that are not yet required or have limited value added.

The 2020 Analytic Professional

Where does the reader go from here? Best practice suggests that one does not go and seek new IT solutions, but rather, reflect on the capabilities of the professionals in their respective organizations and say, "How do we raise our individual and collective analytics IQ?"

The analytic professional is a core component to this sea of change in business operations. Rather than be replaced with automated results, the resource needs to become the true "handyman" of analysis—tapping into tools and data and methods that can allow him or her to approach predicted financial outcomes from potential operational or sales decisions that can help maximize the profit of the enterprise. It may be easier to think of this in terms of "from" actions and "to" actions as it relates to the analytic professional of 2020:

From (less of these skills and activities):

- Data collection
- Data reconciliation and bridging
- Report creation
- Rote budget and forecast preparation and bottom-up plan creation for mature parts of the business
- Period-end slideware creation
- Spreadsheet maintenance and management

To (more of these):

- Solution hypothesis development
- Correlations and business driver analysis
- Versioning and scenario modeling of potential outcomes
- Interactions with business partners proactively to scope and shape analytic needs consultatively
- Use of methods and tools that stretch past the spreadsheet dogma

- Situational/ad hoc analysis to prove or disprove root causes of variance or future performance
- Governance over data changes and expanding data needs across the enterprise

Let us translate these statements into a relevant talent model for the new analytic professional (Figure 16.9).

Business drivers: the new model requires professionals to not only hear about business pressures, but understand them in the context of the strategic objectives of the organization and where the critical inflection points are that will make or break performance.

Technology drivers: the new model also requires analytic professionals to demonstrate a distinctively new acumen for how tools can be leveraged to support business insight. They will understand the organization's current and directed technology strategy and will be ambassadors for the journey. They will enthusiastically seize on every mechanism at their disposal to advance analytic insights.

Functional drivers: the analytic professional of 2020 needs to bring a consultative mind-set and delivery model to their role in the business. This requires the development of skills such as internal "client" engagement to explore and understand challenges and scope out specific analytics that can meet those needs; an ability to operate in an unpredictable environment and create value through "mini-projects," as opposed to repeated tasks; and a "bedside manner" that helps the business leader grasp the realities of

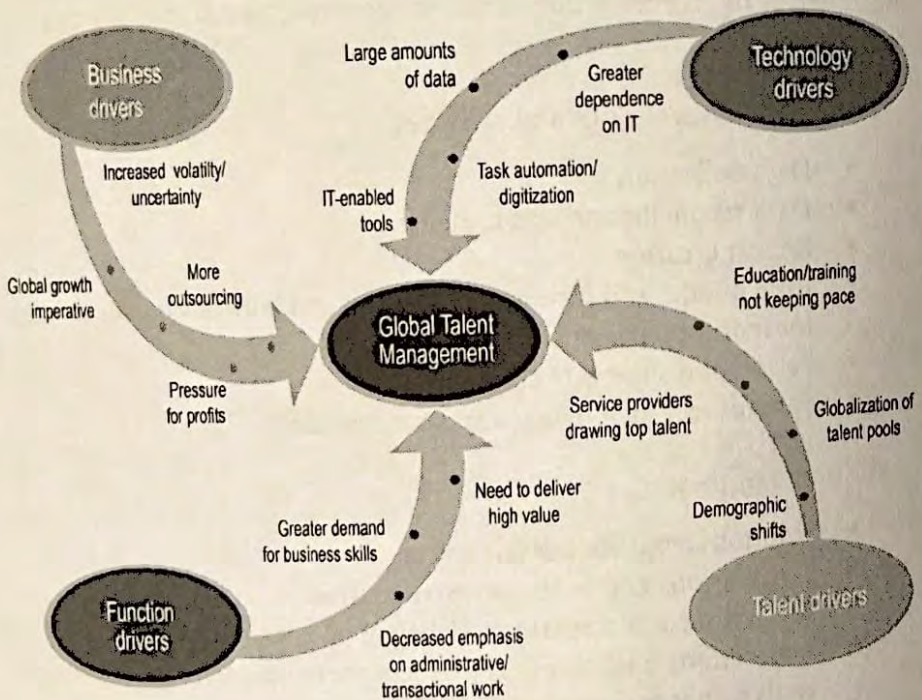


Figure 16.9 The Hackett Group's New Analytic Professional Talent Model

the digital era without overwhelming them along the way. Certainly, a new functional set of disciplines is emerging.

Talent drivers: as it relates to talent, the 2020 analytic professional needs to demonstrate a comfort level with the new modes of conducting business such as virtual teams, conference calls, video conference, social platforms, global engagement models, and so on. The new analytic professional needs to be comfortable with ambiguity, dealing with global resources, and interactions with business partners who are not traditionally evident in today's model.

What Does Analytics 2020 Hold for Us?

With all the ground that was covered in this chapter and the book overall, the question that emerges is, "What does the future hold?" Many executives are asking themselves this question and are trying to balance the "art of the possible" with the practical, pragmatic realities of how their business has traditionally worked, served customers, and created value for stakeholders. The Hackett Group's numerous client engagements, performance studies, and empirical research has shown that the future is going to be quite different from business as usual.

One can expect to see large swaths of highly manual, traditional bodies of work replaced and enhanced with AI; machine learning applied to ever-larger segments of data; broader, more integrated end-to-end decision platforms; and cross-platform robotics solutions. For instance, given all the newly available technologies and analytic methodologies, why shouldn't at least 80% of the thousands of hours dedicated to business planning and forecasting be automated, limiting the need for human intervention to interpretation (a "hands-free forecast")—while simultaneously delivering predictions that are far more accurate to gauge and shape business direction. Similarly, why can't these same technologies automate the thousands of hours spent collecting, reconciling, and creating reports and slideware to explain historical results? Automating these manual efforts is not constrained by technology, but rather by enterprise culture and the lack of integration and alignment of tools and data already resident in the business. The winners will be the organizations willing to change their cultural norms and embrace analytics as a driver of competitive advantage.

To secure this advantage, The Hackett Group recommends three immediate steps:

1. Establish an analytic road map: complete an honest assessment of the organization's current capabilities across the organizational structure, functional model, and comprehensively across the service delivery model components (people, technology, information, governance, process, etc.). Work with executives to clarify potential future capabilities and prioritize where value can be created and develop a phased journey map over a three-year period with numerous delivery points along the way.

2. Launch analytic pilots: as described, these solutions are more agile than traditional efforts, so seek areas where controlled hypotheses can be developed and leverage tools and methods to run pilots in a four-to-eight-week window for each. Establish executive access and governance to the results and course correct from learnings from each, as well as publish the successes and value created along the way.
3. Assess and address the organization's "analytic IQ": the human component of analytics is critical in the future state. What and where are the current organization's capabilities? Where are the gaps? How well do today's development/learning plans and competency models reflect the analytics skills desired by the organization, and how should they be enhanced? What vehicles are available to develop analytic skills efficiently? Exploring these questions will lead to a journey map for the professionals that will create the path to improving skills in the area and benefits to the business along the way.

Case Studies

Building Materials Company—Data First: Analytics to Identify and Exploit Efficiencies

The company had grown for decades through acquisition in a multi-business unit model with decentralized decision authority, resulting in over 500,000 performance reports and over 150 ERP/reporting systems across the footprint. This resulted in below-peer efficiency and effectiveness levels in finance and IT functions.

Challenge

Lack of capability to efficiently and effectively conduct exploratory analysis at a large scale within a multitude of data sources, helping analytics to identify and exploit efficiencies on the bottom line within various operational areas, and to grow revenues and markets for the top line.

Solution

Business and IT teams agreed on a pilot to understand the impact of sale value of homes with their products and ROI from the investment.

- IT team deployed big-data technology capabilities to efficiently and effectively conduct exploratory analysis at a large scale within a multitude of data sources.
- Business team leveraged The Hackett Group's business insights framework, conducted exploratory analysis, and discovered analytic evidence driven by data that showed.

- Company products increase the value of a home, and make consumers feel safer and more secure with their residence.
- The value of certain products is known to increase the value of an address in its resale value, and more than other competitive providers.

Benefits

- Higher close rate and shortened sales cycle.
- Mobile-ready field sales analytics tool with near real-time data and capabilities to show the measurable increase in value of sold homes providing evidence on what the local ROI is for a given marketplace from the investments.
- The average homes in your neighborhood, saw an average increase of 10% more closed sale value when Product XYZ was part of the home.
- The rep can select on the mobile device the defined territory to bring back the results.

Large Mobile Telecom—Data-Driven, Evidence-Based P&L Forecasting

Challenge

Complexity in its driver-based planning process, specifically related to the model used to forecast the corporate P&L. Inability to determine which of the 170-plus drivers used for forecasting bore any resemblance to what was being forecasted and supported by evidence. At issue was the inordinate amount of time and energy spent in the forecasting process to arrive at forecasts that were not known to be accurate or reliable.

Solution

An evidence-based approach to driver identification on this project by determining which drivers share variability with what is being predicted. Without sufficient shared variability, forecasting is guesswork. The team reduced the number of evidentiary drivers from over 170 to approximately seven, while at the same time improving the accuracy of the actual forecast.

Benefits

- Vastly reduced complexity in the forecasting model.
- Automated modeling to allow analysts to examine anomalies instead of spending time specifying the model.
- Reduction in forecasting errors of more than 5%+ (\$100 million+).

Large Industrial Manufacturer—Self-Service Analytics and a Digital Data Storefront

Challenge

The company determined that an analytics platform would place the power of data availability in a user's hands, relieving the data-request burden on various internal IT processes. It would also make certain data more readily available for the user to navigate irrespective of where, what, and when the data is accessed.

Solution

The company is building an analytics platform that leverages Hadoop as a back-end solution to store the data. It chose Denodo as a data-virtualization layer to define the data structure and map relationships. The two are joined in a way that is masked to end users, yet allows them to select the data they want to use to conduct analytics. The team further extended this solution to include natural language processing and Tableau for presentation and simulations that supported users' inquiries into the data without technical SQL language coding or modeling skills. Natural language processing was also leveraged for navigation so that users only have to speak to the application and tell it to what screen to navigate next.

Benefits

- "Storefront" effectively and efficiently delivers data as self-service.
- Simulation capabilities allow for prescriptive analytics; it is expected to instill a data-driven decision-making culture.
- Analyst access to data without burdening IT; reducing costs and improving delivery of data and analytics for decision-making.
- CFO "cockpit" view that focuses on actionable data.
- Machine learning to present data based on the user's role, updated daily.

Consumer Packaged Goods Company—Determining Where Products and Customers Make (or Lose) Money

Challenge

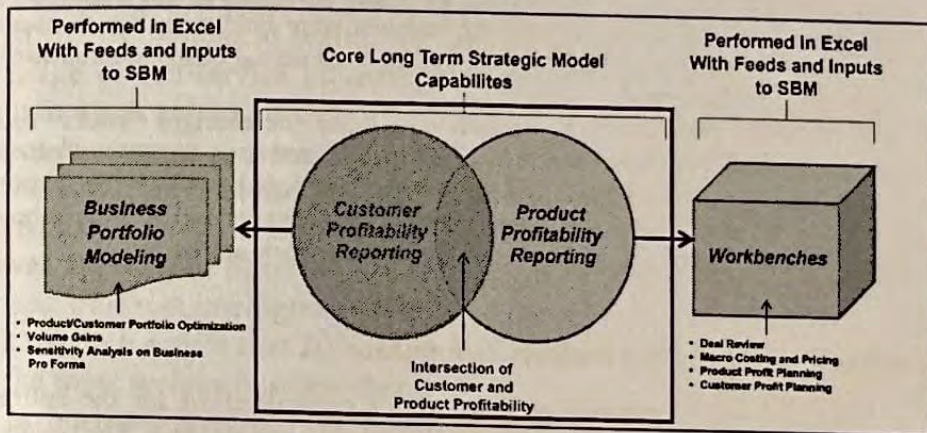
Contributors to the company's situation included its own network over-capacity, poor fill rates and service levels, and challenges in understanding the real underlying profitability of their product/customer portfolio. In response, the company launched a transformational program to address these challenges

and reposition itself to enhance its financial performance within a challenging market.

Solution

S&OP tools and analytics further exposed a disconnect between overall sales volume (which was correct in totality) and the split by customer and product, which precluded the company from taking definitive actions on specific products or customers. To solve this challenge, a strategic business model was implemented that allowed the organization to review existing product and customer profitability easily. The model also allowed the company to generate pro forma modeling of the impact of common business scenarios such as price increases, higher costs of raw materials, competitive deal reviews, and so on. This multidimensional tool sourced data from disparate systems to paint a complete picture of company performance.

The diagram below illustrates how all the components work together.



The enhancements to the pricing and profitability analysis capabilities enabled the company to more accurately interpret shifts in the marketplace and respond with decisions that enhanced profit margins and economic returns. By focusing on a sustainable platform, the solution's tools and capabilities may be used daily by the organization to plan, react, and influence decisions based on facts.

Keys to Implementing Sustainable Change

Designing and deploying the tools and processes within these areas was a significant effort, but the organization was determined to ensure that the changes were fully, widely, and permanently adopted. This required attending to all aspects of managing and adopting the new capabilities by the legacy organization. Some of the most successful tactics used are described below:

- **Executive engagement**—When the program was initiated, the executive team dedicated time every week to ensure that the effort was appropriately focused and scoped. They participated in numerous workshops to evaluate

designs, continually driving the message to the organization that this is critically important, and will fundamentally change the way the business operates.

- **Ongoing focus on the target**—The business situation and the targeted performance levels were determined at the start of the transformation, widely communicated, and continually reinforced throughout the effort. As such, the targeted performance levels (both financial and operational) served as guardrails to support decision-making and issue resolution during the effort.
- **Introducing new talent to the table**—While the transformation largely relied on adoption of changes by the legacy resource base, the executive team honestly assessed where the strengths and gaps existed in these key functional areas, and introduced new hires who brought a fresh point of view and greater levels of expertise with the targeted future-state operating model.
- **Iterative “develop and adopt” methodology**—The analytic tools and workbenches to support daily pricing decisions and assess performance were not developed in the traditional sense of formally completing a design phase, then moving into build/test. Rather, after the core model and logic were developed, several iterative working sessions were held with future users to present, refine and validate functionality, with actual business situations simulated for relevance.
- **Use of “start-stop-continue” models**—To make the changes “stick,” the teams developed detailed, tactical lists of specific activities for each affected functional area that should “start,” “stop,” or “continue” in the future model. This process led to meaningful discussions as individuals interpreted these changes in relation to their current work activities.

The Net Result: Improved Business Performance

The 12-month transformation program was a difficult effort for the entire organization, one requiring a high level of resources and attention. The results were significant and positive, however. The company built a new, foundational S&OP process that better aligns demand, supply, and economic performance, thereby enhancing service levels and managing cost. The organization also enhanced its pricing and profitability analysis capability, which allows it to better interpret and respond to the marketplace in a way that protects and enhances margins.

The net result is a business in a tough industry segment that has reset its EBITDA performance after the 2008–2009 economic downturn, with embedded capabilities to better plan, react, and guide business decisions in years to come.

Note

- * Noting significant contributions from The Hackett Group’s Advisory, Enterprise Analytic Institute, and Advanced Analytic practices.