Launching an Insights-Driven Transformation

Building and Sustaining Analytics Capabilities across the Enterprise

High performance. Delivered.
Analytics, as a business discipline, has been on many corporate agendas for a number of years now. Leaders across industries recognize that, in today’s competitive landscape, insight-driven decisions are the key to developing a competitive advantage. However, we believe that the use of analytics to create a competitive advantage is about to become even more widespread. The increased growth in data sources and the ubiquitous nature of analytics is creating an environment where robust analytics capabilities are needed just to keep pace. To prepare for this environment and try to attain the most value from their data, many companies are evolving beyond just using analytics and are transforming themselves to build an insight-powered enterprise.

To help gain a greater understanding of these transformations, we studied what the most analytically mature companies are doing differently to understand the tangible value from analytics, and how their practices might be adopted by companies less far along the maturity curve. We also drew upon our own insights, taken from working with companies in varied industries and geographies, to look at ways in which companies can improve their analytics operating models to better leverage their analytics investments.

We see many companies accelerating their investments in analytics capabilities and strategies. We found that companies are establishing a center of gravity for analytics led by a Chief Data and Analytics Officer (CDAO). Companies are also creating agile analytics governance and value realization offices to help ensure that they are getting an appropriate return on analytics investments. In addition, they are paying close attention to talent sourcing and planning as talent is in short supply. They are focusing on faster deployment of new analytics capabilities and tools by piloting with the intent to scale. Finally, they are focused on raising the analytics IQ of the entire organization through training programs and new ways of working, such as using immersive analytics environments.

We believe that this focus on building analytics capabilities can increase as companies come under pressure to demonstrate the value from analytics. Our recent Winning in Analytics research study supported this notion by showing that high performing companies are embedding predictive analytics insights into key business processes twice as much as low performers, they are winning the competition for analytics talent through multi-pronged talent sourcing strategies, they are leveraging more advanced tools and techniques, and investing at a much higher rate. In fact, we found that 53 percent of high performers plan to significantly increase their analytics investment over the next three years, compared to only nine percent of low performers. This is creating a competitive landscape of “haves” and “have nots” in which many companies are undertaking major transformational initiatives to catch up with the high performers who have been building their capabilities for years. In order to drill down on these findings in Winning in Analytics research, we conducted a deep-dive benchmarking study on analytics operating models in order to better understand how high performing companies are organizing their capabilities.

ANALYTICS OPERATING MODEL BENCHMARKING STUDY—METHODOLOGY

To better understand how companies are structuring their analytics organizations and incorporating analytics into decision-making processes, Accenture conducted an analytics benchmarking study based on detailed online interviews with more than 100 companies around the world.

Respondents held titles of director and higher and 75 percent were from C-suite roles. Companies included a range of industries and geographies and were selected on the basis of their analytical sophistication.
Just a few years ago, companies were still in exploration mode, trying to balance the benefits of centralized analytics resources against their business units’ demands for ready access to analytics expertise. The Analytics Operating Model Benchmarking Study suggests that companies are looking to more aggressively transform their analytics operating model and drive change, with the most mature companies well along the path to an agile, integrated analytics operating model (as seen in Figure 1 below) with representation at the most senior levels of the organization. Accenture has worked on defining an operating model framework to account for activities supporting performance and applying analytics within the organization.

**FIGURE 1: Analytics Operating Model Framework**

- **Vision & Strategy**: Defining the overall vision, priorities and journey for analytics across the enterprise along with associated value proposition
- **Organization Structure & Talent Strategy**: The people, their skills and experience, and the organizational structure needed to support analytic transformation
- **Data to Analytics Insights**: The roles and processes required to analyze data and uncover insights
- **Capability Development**: The industrialization of functional and technical analytics capabilities and skills to move up the analytics maturity scale
- **Sponsorship & Governance**: The process to obtain executive sponsorship, financial support, and manage and prioritize the analytics demand and supply
- **Data & Information Mgmt.**: The capabilities to identify, govern, and manage the data architecture, data structure, data quality and security
- **Insight-Driven Decisions**: The processes to deliver insights for consumption by the business to make smarter decisions
- **Outcome Measurement**: The processes to assess the value of analytic insights as well as track the benefits realized over time

*Process-centric components*
In the Analytics Operating Model Benchmarking Study, we concentrated our efforts on companies with characteristics identified in earlier studies as indicative of high analytics maturity. We did not include companies at what we refer to as Stage 1 (low levels of investment and/or little management commitment to analytics) or Stage 2 (scattered pockets of analytics capabilities.) Rather, we interviewed companies at Stage 3 (coordinated analytics integration, with a data-driven architecture in place), Stage 4 (enterprise-wide analytics with a clear talent development strategy in place) and Stage 5 (Analytics is seen as a strategic competitive advantage with a true commitment by leaders in terms of time and focus and C-level accountability.)

We found as a result of the studies performed that companies with mature analytics operations generally share five key characteristics.

1. They establish a Center of Gravity for analytics.

Companies with high maturity levels (Stage 5 companies) were more likely to have established a center of gravity for analytics activities, often in the form of a Center of Excellence (CoE) or similar concentration of talent and resources. For example, over three-quarters of Stage 5 companies had concentrated their strategy and planning activities, versus less than half of those at Stage 3 maturity levels. Other activities such as analytics modeling and structured reporting, as well as strategic functions like supplier management, talent planning, portfolio governance, and outcome tracking, were more likely to be concentrated at Stage 5 companies. Establishing a center of gravity for key resources builds capabilities, but it also supports consistency and high standards while allowing functional resources to focus on key business problems and applying insights.

While this trend continues, companies also realize that it is important to counterbalance this collection of specialized resources with local decision-making closely connected to the business functions. One of the more interesting findings in our study was that some companies plan to distribute certain activities back out to the business functions in the future once the standardized processes are in place. This is similar to the path that a global consumer packaged goods (CPG) company, an early adopter of analytics, has taken over the course of its journey. In 2013, the company CEO stated that the company needed to put people with data analysis skills close to the business operations to solve key problems.4 This was after they had spent years creating a center of gravity focused on building foundational analytics capabilities.

2. Chief Data and Analytics Officers

Leadership is another key element. Nearly 40 percent of the companies we surveyed said they are elevating analytics by creating a Chief Data and Analytics Officer (CDAO) role responsible for both the vision and the implementation of the enterprise analytics strategies. But Stage 5 companies were nearly twice as likely as Stage 3 companies to have the analytics lead at the C-level of the organization.

The CDAO is often responsible for developing goals, strategies and plans to support the information, reporting and analytical needs of the company, but also acts as an agent to change the analytics culture of the company. One of the CDAO’s biggest challenges is how to design an effective operating model that will convey this change throughout the organization. We have heard from the CDAOs of large, high performing organizations that the analytics journey used to be an out-of-body experience that most struggled to understand, while today analytics is an in-body experience that needs to become part of the cultural DNA.
Market Archetypes as an Organizational Construct

We found that companies are investing considerable time and resources in building operating models, and many are thinking along non-traditional lines. Global CPG companies, for example, cluster capabilities within similarly mature markets, rather than by traditional geographic boundaries. For example, a company might have a group of resources focused on building Marketing Spend Optimization models for the UK, Japan, and Mexico if those markets are of a similar level of maturity in terms of data, tools, and processes. For some companies, clustering markets by capability has proven to be a cost-effective approach to allocating scarce analytics resources.

A Global Consumer Products Company Established a New Analytics Organization to Target $1 Billion in Potential Benefits

Senior leadership at a global consumer products company recognized the need to build analytics as a core capability to generate actionable insights and fuel a competitive advantage. The company’s competitors were investing heavily in analytics, and its customers expected them to have these capabilities—especially to understand the increasingly unpredictable and individualized behavior of shoppers.

The company recognized that fundamental capability gaps severely limited their ability to advance and scale analytics capabilities. Despite significant investment, analytic maturity was still very basic and hindered the delivery of needed insights. Accenture partnered with senior leadership to align on the analytics vision and strategy. This included a comprehensive analytics diagnostic, prioritization of functional analytics capabilities to assist in driving value, a data and technology strategy, and the design of a new, global, cross-functional operating model to help the organization become more competitive.

Another core output of the program was the design of a dedicated, cross-functional integrated analytics organization with a “center of gravity” for insights and analytics capabilities. This new organization would employ standardized analytics processes but balance them with local execution. It would also include capabilities such as data science and data discovery, along with an agile governance framework to focus on improving investments and deploying needed capabilities faster.

By outlining a roadmap with a multiyear target of $1 billion in gains through improved governance and advancing priority analytics capabilities, including business planning, commercial analytics and insight capabilities the project team was able to secure funding approval and mobilize this new organizational structure.
They employ “agile governance.”

Traditional governance models are often thought of as sluggish, with a focus on standards and processes, but today, high performing analytics leaders are building thin, horizontal governance structures, focused on outcomes and speed to value, rather than creating hierarchies that are slow to adapt.

These structures take a “test and learn” approach to rolling out new capabilities. They establish success criteria, with regular checkpoints for measuring performance against these criteria. They also employ “fail fast” techniques, rapidly rolling out new ideas and capabilities and testing them repeatedly. If an idea is not working, it is dropped quickly, so that the company does not continue to invest in something that does not add value.

Structured Innovation

Another element of agile governance is a structured innovation process. Leaders may set up innovation or “SWAT teams” with a mandate to focus on key business questions for a concentrated period of time, often as short as 30 days. Or they may use a form of open sourcing; a large global retailer, for example, established an Innovation Forum through which everyone in the organization (including contractors) could submit ideas for solutions to problems posed by senior leadership. The leadership team chose the best idea at the end of each designated period and provided resources for the winner to go forward and build out the analytics solution.

Executive Scorecards

Perhaps the most critical part of establishing an agile governance structure is ensuring that it uses the key metrics that are most important to the business. To this end, CDAOs are designing executive scorecards to track performance against these key metrics, which might include:

• **Speed to standing up priority capabilities**—How quickly was an initiative tested and/or piloted

• **Pace of adopting new capabilities**—Identifying and tracking the adoption of priority capabilities, and compressing the time from pilot to industrialization

• **Value realization**—Defining overall value delivered through the analytics initiative or project

Value Creation Offices

Leaders are also instituting value creation “offices” to spearhead outcome tracking against key metrics and to ensure that the value from analytics is realized. These “offices” have involvement from senior leaders with accountability for analytics as well as program management office resources who can develop templates and processes as needed. Some of the key success factors for these offices include their ability to design and implement a closed loop process for identifying and measuring the value of each analytics project or initiative. If the analytics initiative fails or does not meet the identified baseline value, the closed loop process should incorporate that learning back into future cycles.
They create a inter-disciplinary, high-performing analytics team.

Companies with advanced analytics capabilities field teams with diverse skills. Talent is organized effectively and there are innovative programs to keep the best talent engaged. The Analytics Operating Model Benchmarking Study shows that these companies use multiple talent sourcing options, including, but not limited to, internal development and hiring, but they are also attracting more talent from other companies.

Analytics Pod Structures

It remains difficult, if not impossible, to find all of the skills required for analytics success within any one individual. Many mature companies, therefore, are establishing “pod” teams (as seen in Figure 2) which have a mix of roles, including data scientist, analytics modeler, visualization expert, data engineer, business analyst and business domain expert. By combining these capabilities, analytics pods can take an integrated view of business problems.

At less mature (Stage 3) companies, more of these individuals tend to remain aligned with the IT organization. More mature companies have a greater percentage of modeling and discovery resources aligned with a standalone analytics function. However, skill requirements change as analytics capabilities mature; Stage 3 companies call for more data modeling and stewardship, while Stage 5 companies—who are past the core challenges—need more data scientists and other specialized roles.

Analytics Career Paths

Analytics talent tends to follow non-traditional career paths in response to the value that this talent tends to place on becoming subject matter experts in finding insights in large data sets, often instead of following traditional managerial career paths. In fact, Accenture has created an entire new talent segment and set of career paths for its talent pool of more than 1,200 data scientists and statisticians, with different performance management metrics and individualized career paths. Other companies are encountering similar talent planning challenges and are responding with a variety of methods including varied work assignments and compensation based on technical competency.

Talent Sourcing

Leading analytics companies create mechanisms to source the best talent for their organization. They may, for example, build their brands internally and externally, marketing themselves as the destination for top talent. A major global retail describes itself as “The Best Place to Build Your Data Science Career.” Other companies use crowdsourcing, sponsoring competitions and offering prizes to solve problems. Still others run open challenges or “hackathons” that provide incentives for people to respond to and solve business problems.

Some companies even partner with academia to source talent. A leading global brewer recently announced a partnership with a leading university to open a state of the art data analytics center. The lab will focus on data analytics, developing data research and innovation to solve problems ranging from assortment optimization, social media and market trends to large-scale data initiatives, bringing together the universities’ top talent with the company’s portfolio of leading beer brands in a vibrant environment designed to stimulate innovative thinking. Accenture has also developed partnerships with the Massachusetts Institute of Technology and Stevens Institute to develop innovative analytics solutions through world-class research and collaboration.

Talent Retention

Analytics talent is seen as being in short supply. Given that there does not appear to be a solution to the talent shortage in the near future, it is important for analytics organizations to focus on talent retention by developing reward and incentive programs that keep these individuals engaged. We have seen that a key to retention is keeping the analytics resources challenged. Many of our financial services clients are seeing a boomerang effect as analytics talent left to go to high tech companies in the last 5-7 years and that talent is now returning to Financial Services as the business problem set to solve is more interesting and complex than at the high tech companies, which keeps the advanced analytics talent engaged and constantly learning. This engagement has resulted in higher retention over time.
FIGURE 2: Analytics Pod Team

Focus and Proficiency

- Advanced Analytics
- Business Acumen
- Communication & Collaboration
- Creativity
- Data Integration
- Data Visualization
- Software Development
- Systems Administration

low

med

high
They deploy new capabilities faster.

One of the biggest challenges for analytics organizations is to establish an operating model with a view to scaling priority capabilities, especially in light of the roadblocks posed by existing analytics skills and in-place data architectures. Leading analytics organizations deploy new, agile technologies, as well as hybrid architectures and specifically designed toolsets, to help achieve speed to capability and desired outcomes. One distinguishing characteristic of fast-moving companies is that they pilot with the intent to scale; that is, they establish the right mindset, processes and accountability in advance, then move quickly to test, learn, refine and implement.

We believe that scaling priority capabilities requires new approaches and mindsets for many organizations. These organizations may need to “unlearn” what has already been learned; for example, they may need to bring the data to the analytics, rather than the other way around. There may also be differences in the way teams with statistical backgrounds tackle scaling problems, using a hypothesis/test/verify framework.

Many organizations have already begun addressing these issues. Within the Analytics Operating Model Benchmarking Study, 68 percent of respondents said that the need for a relentless focus on scaling key, priority capabilities was a top learning gained from designing and implementing their analytics organization. By prioritizing the scaling of capabilities, companies stated that they were able to optimize analytics investments, rationalize vendors and suppliers, improve talent acquisition, and rationalize data and tools.

Using Analytics to Re-think and Revamp Consumer Engagement

The consumer banking operation of a major multinational bank was suffering drop-offs in their net promoter scores and wanted to understand why. They had a very complex and convoluted technology environment with a slow, costly and inflexible legacy infrastructure. It took on average 9-12 months to develop and deploy new models (for example, credit risk scoring for loans or credit line increases).

The bank had a vision of leveraging analytics to improve their overall customer experience yet they needed the technical capability to enable this strategy. They also wanted to leverage big data technologies as an alternative to traditional approaches for both speed to capability and cost benefits.

Accenture worked with the bank on a data and analytics strategy evaluation leading to a roadmap for them to become more dynamic and more real-time, and to improve the customer experience. The first area of focus was to revamp the technology infrastructure so that the bank could achieve desired outcomes. The next step was to develop a data library using open source technology rules engines for the real-time scoring of credit line increases for customers. This helped produce an increase in annual operating income.

With the data and rules engine, the bank was able to identify the cause of the drop-off in customer satisfaction—and it was not what they had thought. The most affluent customer segments were the most digitally savvy, and they were dissatisfied with their experience on the Web and on mobile devices. The bank had thought that service fees were the issue, and while service fees were an issue across all segments, the key issue for the most profitable customers was the online and mobile experience.

The bank is now moving towards an “always on” capability to improve the customer experience and thereby improve customer retention and profitability. By leveraging an inter-disciplinary blend of skills—data scientists, visualization experts, data architects, and business domain experts—the bank was able to understand the insights and act quicker to design and implement solutions. This innovative project at the core of the bank’s operating system helped the bank realize a faster return on its technology and analytics investments.
They work to raise the company’s analytics IQ.

The final distinguishing characteristic of leading analytics organizations is their commitment to raising the “analytics IQ” of all roles within the enterprise. They may, for example, implement an Analytics Academy that provides analytics training for functional business resources in addition to the core management training programs. Within the analytics organization, the Academy may focus on developing business and communications skills to make sure that the insights obtained are put to good use within the business units. And it may provide training courses to raise the business and analytical acumen of the IT organization.

The Intelligent Enterprise

Leading analytics organizations—those surveyed by Accenture as well as those we have worked with directly—have a vision of what might be termed the “intelligent enterprise.” They are training resources to use new tools and techniques to improve decision-making throughout the enterprise and they are also implementing innovative technologies such as advanced data visualization to communicate the value of analytics to business units, core functional teams and IT.

Some companies use the Accenture Connected Analytics Experience or build their own immersive environments that leverage visualization techniques to provide greater context for the information presented as well as the trends that are being illustrated. They are moving away from traditional presentation tools and are leveraging more interactive tools to improve collaboration. To encourage use of these new interactive tools, these companies might set up contests where resources can earn badges and certifications based on insights developed and actions taking within the tool.

This holistic, interactive learning approach where business, analytics, and IT resources are equipped with new immersive tools, techniques, and formal training opportunities allows companies to: 1) activate leaders by focusing time, funding and attention on desired behaviors and skills; 2) shift behaviors and mindsets to engrain new habits, and 3) embed behaviors into business processes and metrics, all in service of driving a cultural transformation.
Accelerating the Analytics Journey

As our research findings and client experience indicate, high performing companies are accelerating their investments in order create a more effective analytics operating model and drive an analytics transformation. We have identified three immediate priorities that companies can take to kick start their journey.

As analytics grows in importance and commands a greater share of enterprise resources, companies will need to transform their analytics operating models, or, where transformation has been completed, to refine those models to reflect changing realities. These include vast new quantities of data (from the Internet of Things and elsewhere) needing organization and analysis, as well as new technologies and competition for scarce resources in talent and other areas.

Many of the companies we studied, and many of the companies we work with, have extracted enormous value from analytics and are significantly increasing their investments in hope of accelerating new product development, opening new markets, enhancing their customers’ experience and ultimately becoming an insight-driven enterprise.

There is, however, much more to be done. Functional business leaders recognize the promise of analytics and will continue to apply pressure to increase returns on investment and to develop and employ accurate metrics that reflect the value added through greater insights and faster, more informed decisions. We believe that organizational considerations—including an operating model that centralizes expertise while building stronger connections with business and IT (bridge roles)—can support an insights-driven cultural transformation as the competition for better and more powerful analytics accelerates.

1. **SELECT AN AGILE APPROACH.**

   Start by aligning on the North Star for analytics by determining where your company is in its journey and what it needs to do to develop sustainable capabilities to reach its goals. This is often driven by an understanding of the organization’s existing talent, tools, and investments so that gaps, redundancies and opportunities can be identified. Knowing the current landscape will also help to prioritize investments in capabilities and will serve as an input to the analytics operating model, governance structure and ways of working between the functions. It is also important to identify a Chief Data and Analytics Officer or equivalent individual with the authority and accountability to initiate and manage the journey.

2. **DEVELOP INDUSTRIALIZED EXECUTION CAPABILITIES.**

   Experiment with team structures and other approaches to ensure that talent from all required disciplines is identified, organized effectively, and retained. Companies should explore non-traditional ways of identifying “diamonds in the rough” or untapped analytical talent such as innovative marketing or partnerships with academia. Once the talent has been hired, analytics pods often serve as a means to effectively deploy analytics resources. Further, look at governance as a way to quickly empower and drive programs, rather than as a control function that only slows things down. Lastly, identify the top priority capabilities to invest in, relentlessly concentrate on proving the value in days and weeks (not months), and identify a path to scale once the value has been proven.

3. **SUSTAIN THE CHANGE.**

   Make a candid assessment of the company’s analytics IQ and undertake programs, such as implementing an Analytics Academy, to raise the business acumen for analytics resources and the analytics acumen of business resources. This also includes implementing interactive learning plans and innovative technologies such as advanced visualization, immersive environments and collaboration tools.
References


2 Ibid


Contact us

Brian McCarthy
Managing Director—Accenture Analytics
Analytics Advisory Practice
+1 678 488 8744
brian.f.mccarthy@accenture.com

Robert Berkey
Managing Director—Accenture Analytics
Analytics Transformation
+1 917 817 5923
robert.e.berkey@accenture.com

Chad Vaske
Manager—Accenture Analytics
Analytics Advisory Practice
+1 507 360 4464
chad.a.vaske@accenture.com

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