

For: Enterprise
Architecture
Professionals

Your Business Is Only As Fast As Your Data

by Michele Goetz and Nasry Angel, February 2, 2015

KEY TAKEAWAYS

Focus On Speed, Quality, And Self-Service -- The New Data Management Mantras

Old guiding principles, such as centralized control and rigid requirements, should be replaced with agility and flexibility, and should enable business users to explore and find what they need.

Tell Me How Good Your Data Is . . . I'll Tell You How Well You'll Perform

There's plenty of available data. But how good is it? EA pros who concentrate on consistently building on data quality will bring the business and technology management organizations together. With quality data, executives are generating new business models to win, serve, and retain customers, not merely reporting on what already happened.

Data Is The First Stop In Your Digital Business Transformation Journey

Data builds a better picture of what your customers want across different channels and helps you understand how well you are serving them. Innovation within data management practices will make new insights possible.

Your Business Is Only As Fast As Your Data

Executive Overview: The Data Management Playbook

by [Michele Goetz](#) and [Nasry Angel](#)

with [Leslie Owens](#), [Emily Jedinak](#), and Shaun McGovern

WHY READ THIS REPORT

The last business revolution emphasized faster and more efficient business processes. Today, we live in the information age where competitiveness and growth is fueled by what you know and how well you use what you know. The way your firm provisions and manages data has to change in order to keep up with empowered customers and nimble competitors. This report lays out the new imperative for enterprise architecture (EA) professionals to work to enable self-service access to real-time data. It explains how enterprise architects can use the twelve reports in the data management playbook to discover, plan, act, and optimize your data management practices. This is an update of a previously published report; Forrester reviews and updates it periodically for continued relevance and accuracy.

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The data management playbook is based on data analysis of a 2014 surveys fielded to business and technology decision-makers, client inquiries, and interviews with industry thought leaders.

Related Research Documents

[Stretch Your Data Management Capabilities](#)
December 8, 2014

[Design Tomorrow's Data Management For Agility In Context](#)
May 7, 2014

[How To Make A Business Case For Data Investment](#)
January 10, 2014



COMPETITIVE ADVANTAGE IS NO LONGER FIRST TO MARKET; IT IS FIRST TO VALUE

A majority of data management professionals see competitive advantage and business performance as determined by the value of your data.¹ However, early adoption of lower cost, higher performance data capabilities does not guarantee success (as seen with first generation implementations of big data and cloud platforms that languished in pilot stages).² Today, fast followers can take advantage of more mature, modern, and packaged data solutions that require less coding, less integration, and lower cost to performance.³

SLOW AND INACCESSIBLE DATA IS THE KISS OF DEATH

Thanks to cloud computing and the mobile mind shift, executives, employees, partners, and customers are connected and empowered to access information and communicate. This open, always on, and ready ecosystem demands real-time access to trusted data.⁴ As a result, enterprise architects must cope with new complex requirements for users, applications, and processes regarding the availability of business data. Any data bottleneck in this digital network can mean millions in lost revenue due to missed sales opportunities, customer defection, inefficient supply chains, and uninformed strategic decisions. Forrester finds that:

- **Businesses can't get the data they need fast enough.** The relevance and value of data is tied to how up-to-date it is and how available it is to use. For example, Maple Leaf Foods relied on traditional business performance dashboards that created blinders on market conditions and trends. By implementing an in-memory data platform to deliver real-time, self-service analytics, Maple Leaf Foods analysts achieved a hundred- to thousand-times faster performance to generate more queries and insights to the business at the point of need.⁵
- **Data volume and variety are crushing business systems.** Forty percent of technology and business decision-makers' firms grapple with a growing volume and variety of data when it comes to orchestrating their business intelligence strategies.⁶ In addition, Forrester clients struggle to know what data is available and how to wrangle different data from various sources. Today, most big data deployments are built in silos, largely to address specific business needs: collecting sensor data to support smart metering, web clickstream data to support customer analytics, or geolocation data to support customer personalization. These silos create a major challenge for EA pros — especially when it's time to integrate them.
- **The mobile mind shift pushes on data.** Increasing customer engagement (53%), increasing customer satisfaction (36%), and generating direct revenue (35%) are the top mobile objectives of marketing executives.⁷ To meet each objective, a marketer must know about customer needs, likes, and dislikes. Of course digital engagement with customers creates an upsurge of metadata and that data needs to be classified, linked, and exposed. Today, a customer master typically contains only 25 to 250 data elements and omits the thousands of metadata attributes to create mobile moments.⁸

- **Rigid prioritization and planning processes deliver on yesterday's demand.** Long-term projects lag behind business demand creating significant technical debt and ineffectiveness for the business.⁹ Technology can partially provide fast data, but change is also needed in the way data capabilities are developed. Tesco's Andy Ruckley, head of technology database and information platforms, asked his team to find a "big bang" solution to their data management and quality challenges. The response: a three-year project. Ruckley's reaction: "I might as well have resigned there and then." Instead he put into place a six-month project to overhaul the data warehouse environment using Agile development methods.¹⁰
- **Tougher compliance requirements make a more secure data platform obligatory.** Amid an increased threat level for both internal and external intrusions, enterprise architects are seeking new ways to enhance data security. Today, many mission-critical data management repositories are highly vulnerable due to poor security practices and weak access control measures.¹¹ Data privacy laws are getting tougher, and regulations, such as payment card industry (PCI), Health Insurance Portability and Accountability Act (HIPAA), and The Gramm–Leach–Bliley Act (GLBA), are requiring firms to implement stronger global data security measures.

The CIOs' organization may be confident about data delivered in a managed production environment, such as an enterprise application and data warehouse. In those environments, data lineage and transformations during sourcing and integration are critical to implementation. However, when enterprise architects consider the entire data supply chain from capture to consumption, they see the data bottlenecks due to data quality issues and misalignment of data to business need. Symptoms of "slow data" include data fragmentation and duplication, and stories of excessive time spend validating reports before using the analysis and broken processes.

LEVERAGE DATA MANAGEMENT TO MEET THE DEMANDS OF DIGITAL DISRUPTION

In order for organizations to delight increasingly empowered customers they must rethink their approach to data. Rigid, centralized data management practices won't work. To remain competitive, organizations must have flexible data management practices that provide the business with answers to their strategic questions. Forrester's data management playbook provides a fresh approach that will help enterprise architects build a next-generation data management practice (see Figure 1). To achieve a successful outcome, enterprise architects should:

1. **Discover how to use data to win.** Envision a next-gen data management practice designed for agility and context. The main priority: keep up with your customer's needs by enabling business users to explore data to fuel innovation. Adopt data capabilities that help unify the front and back office and offer the flexibility to link with a variety of information channels. Build the business case with business metrics like revenue and profitability rather than total cost of ownership. Employ design thinking to narrow the gap between business priorities and data capabilities.

2. **Plan with the intention of fueling a digital business.** Collectors, investors, and innovators are useful archetypes against which organizations can measure themselves. Once organizations know their archetype, they can then lay out a strategic plan that mirrors their organizations business plan. Plan for the fact that modern data strategy and architecture matures in stages. Build a road map that will take you beyond maintaining systems of record.

3. **Act to build an agile, elastic data management practice.** Successful firms have frameworks to understand how data management capabilities map out to organizational resources. Agility, however, doesn't mean skipping over data governance. It means investing in it to more closely measure and drive performance. In this light, enterprise architects should evaluate tools and technology first on proof of capability rather than features and functions.

4. **Optimize by spreading trust throughout the business.** Untrusted data drives business users away. Managing data quality consistently unites tech management and business organizations. Data can influence business processes and the business strategy. Forrester's data management capability model helps create an environment that fosters continuous improvements. The goal is to help EA pros meet compliance regulations, make faster decisions, and adopt new, increasingly sophisticated customer experience (CX) management practices that fix what's broken and prevent future problems.

Figure 1 The Data Management Playbook

DISCOVER	PLAN	ACT	OPTIMIZE
Vision	Assessment	Organization	Performance Management
Landscape	Strategic Plan	Processes	Benchmarks
Business Case	Road Map	Tools And Technology	Continuous Improvement

SUPPLEMENTAL MATERIAL

Survey Methodology

Forrester's Business Technographics® Global Data And Analytics Survey, 2014, was fielded to 1,658 business and technology decision-makers located in Australia, Brazil, Canada, China, France, Germany, India, New Zealand, the UK, and the US from SMB and enterprise companies with 100 or more employees. This survey is part of Forrester's Business Technographics® and was fielded from January 2014 to March 2014. ResearchNow fielded this survey on behalf of Forrester. Survey respondent incentives include points redeemable for gift certificates. We have provided exact sample sizes in this report on a question-by-question basis.

Each calendar year, Forrester's Business Technographics® fields business-to-business technology studies in 10 countries spanning North America, Latin America, Europe, and Asia Pacific. For quality control, we carefully screen respondents according to job title and function. Forrester's Business Technographics® ensures that the final survey population contains only those with significant involvement in the planning, funding, and purchasing of business and technology products and services. Additionally, we set quotas for company size (number of employees) and industry as a means of controlling the data distribution and establishing alignment with IT spend calculated by Forrester analysts. Business Technographics® uses only superior data sources and advanced data-cleaning techniques to ensure the highest data quality.

ENDNOTES

- ¹ Source: Forrester's Q1 2013 Global Data Governance Online Survey.
- ² Big data implementation plans (within the next 12 months) jumped six percentage points between 2012 and 2014 among North American and European technology and business decision-makers. However, big data capability expansion only increased by one percentage point. Sources: Forrester's Business Technographics® Global Data And Analytics Survey, 2014 and Forrester's Forrsights Strategy Spotlight: Business Intelligence And Big Data, Q4 2012.
- ³ To learn more about meeting your complex business demands, see the July 2, 2013, "[Data Technology Pathfinder](#)" report.
- ⁴ Based on conversation with clients when this report was reviewed in 2014, Forrester found analysis from this report to still be relevant. To learn more about Forrester's vision for mobile marketing, see the September 26, 2012, "[The Always Addressable Customer](#)" report.
- ⁵ To learn more about how Maple Leaf Foods uses SAP Hana to enable faster business analytics, see the October 28, 2013, "[Case Study: Maple Leaf Foods Relies On SAP Hana To Enable Faster Business Analytics](#)" report.
- ⁶ Source: Forrester's Business Technographics® Global Data And Analytics Survey, 2014.

- ⁷ Source: Forrester's Q2 2014 Global Mobile Executive Online Survey.
- ⁸ Based on analysis of master data management inquiries and client projects defining customer master Q2, 2013 to Q3, 2014. Source: November 14, 2014, "Data Governance Disrupts The MDM Status Quo" Webinar (<https://www.forrester.com/Data+Governance+Disrupts+The+MDM+Status+Quo/-/E-WEB18284>).
- ⁹ Leading firms are embracing DevOps to realize the Agile promise of faster delivery, while late majority firms work to adopt Agile at enterprise scale. Agile techniques speed development; DevOps speeds delivery. Funding and prioritization mechanisms must change to match the pace of Lean and Agile processes. See the November 13, 2014, "[Predictions 2015: Modern Apps Mean New Technologies, Processes, And Skills](#)" report.
- ¹⁰ Source: Antony Savvas, "Tesco shines spotlight on agile data warehouse overhaul," ComputerworldUK.com, October 21, 2014 (<http://www.computerworlduk.com/news/it-business/3581814/tesco-financial-misreporting-nothing-do-with-big-data/>).
- ¹¹ Forrester's data security and privacy playbook shows you how to avoid the hype and take a holistic and long-lasting approach to data security. Using our Data Security And Control Framework, integrated with our Zero Trust Model of information security architecture, we help you make substantive changes to your processes (defining, dissecting, and defending your data) and arm you with an arsenal of security technologies and services that together help you design and implement effective data security. See the May 27, 2014, "[Protect Your Intellectual Property And Customer Data From Theft And Abuse](#)" Executive Overview report.

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By strengthening communication and collaboration across business lines and building a robust, forward-looking EA program, you help transform your organization's business technology strategies to drive innovation and flexibility for the future. Forrester's subject-matter expertise and deep understanding of your role will help you create forward-thinking strategies; weigh opportunity against risk; justify decisions; and optimize your individual, team, and corporate performance.

« ERIC ADAMS, client persona representing Enterprise Architecture Professionals