

Whitepaper

NewVantage Point: Principles for a Successful Data Strategy

by Paul Barth, Managing Partner

NewVantage Point! is published by NewVantage Partners, a boutique management consulting firm which serves as trusted advisors and senior consultants to Fortune 1000 clients. NewVantage provides independent, expert, perspectives through executives and industry thought-leaders who have “sat in the chair”. Our goal is to help organizations mitigate the risk of large-scale business and technology transformation initiatives by providing a critical link between business and technology strategy and capabilities. NewVantage Point! is published on a periodic basis to share our perspectives with a broader executive audience.

Questions and comments can be directed to Randy Bean, Managing Partner, at rbean@newvantage.com.

NewVantage Point Summary

Many Fortune 500 companies are recognizing enterprise data as a strategic business asset. Leading companies are using troves of operational data to optimize their processes, create intelligent products, and delight their customers. Conversely, increased demands for regulatory transparency are forcing companies to capture and maintain an audit trail of the information they use in their business decisions.

Introduction

Despite tremendous advances in information technology of the last decade, large companies struggle to access, manage, and leverage the information that they create in their day-to-day processes. The rapid growth in the number of IT systems used to operate a company has resulted in a complex and fragmented landscape, where potentially valuable data lays trapped in fragmented, inconsistent silos of applications, databases, and organizations.

Experience has shown that this is not a technology problem—it is a business problem. Creating an effective data environment requires change and coordination across the board, with business and IT joined at the hip. To ensure success, they must create a practical data strategy that guides process changes as well as ongoing investments in their data assets.

In our work with Fortune 100 companies over the last 10 years, we have identified four principles behind a successful data strategy. These principles align and focus the strategy, breaking initiatives into manageable projects with a measurable business benefit. Principles are presented as questions that business and IT must answer; the answers to the questions provide a framework and priorities to drive implementation of the strategy.

How Does Data Generate Business Value?

Improving the quality or accessibility of enterprise data is not an end in itself—it is merely an enabler for creating business value. The data strategy must be driven by an understanding of how information can enable or improve a business process. For example, increasing cross-sales (the business value) requires data about your current customers and the products they own (the data). Reducing the cost of manual reconciliation for financial reporting (the business value) requires standardizing and consolidating redundant and inconsistent data across business applications (the data).

The table below lists five categories of business value delivered by data improvements, along with examples from our experience with our clients.

| | |
|--|---|
| Operational Efficiency | <ul style="list-style-type: none"> • Top 5 Card: Marketing process from 45 days to 1 day • Top 10 Insurance: Product to market 50% faster |
| Retain and grow revenue | <ul style="list-style-type: none"> • Top 5 Bank: Web generates 60,000 mortgage leads • Top 10 Bank: Channel analytics increases service-sales 300% |
| Establish barriers to competition | <ul style="list-style-type: none"> • Top 5 Insurance: Segmented renewals increase 20% • Top 5 Retirement: Personalized planning increases retention |
| Reduce risk | <ul style="list-style-type: none"> • Top 5 Bank: Product master eliminates \$10MM errors • Top 5 Insurance: Book of record meets regulatory needs |
| Drive insight and innovation | <ul style="list-style-type: none"> • Top 5 Card: Market analytics consulting • Top 3 Market Data: Creation of new, tailored data products |

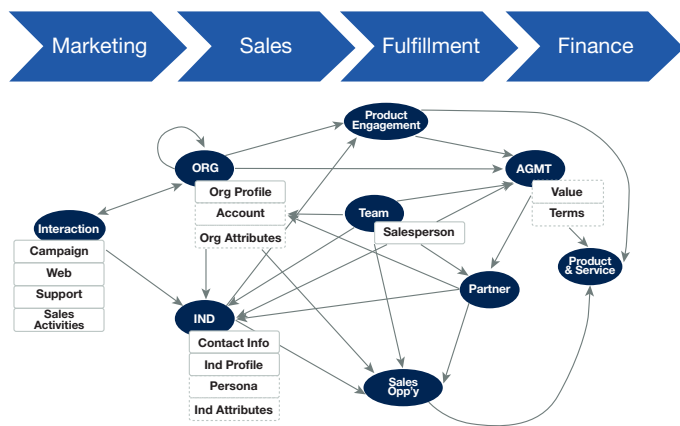
The data strategy does not need to identify all possible business benefits, but it should define several that are material to the business and measurable. Establishing some early, visible benefits is important to launching the data strategy and giving it momentum.

What Are Our Critical Data Assets?

Not all data in the business is critical — in fact most data is specific to an application, business function, or transaction. Data that is critical typically has two characteristics:

- it is associated with something of long-term value to the firm (e.g., product, customer, financial information)
- it is used across multiple systems and business processes.

The diagram below shows an example of critical data assets:



The chevrons along the top depict a high-level process flow through marketing, sales, fulfillment, and finance for a top 10 technology company. Marketing creates interaction information as it reaches out to organizations and individuals through its marketing campaigns. As sales leads emerge, a salesperson is assigned, partners are engaged, and sales opportunity information is maintained throughout the sales process. When an agreement is reached, terms are shared with product fulfillment to deliver the product and maintain support. Finance and sales validate commissions with the sales teams and partners. Management uses an end-to-end view of these processes to evaluate the effectiveness of its pipeline and make ongoing improvements in and across the areas.

This process analysis reveals several critical data assets and associated attributes. For example, customer organization and individual information is used by every one of the process

steps. If this information is siloed and inconsistent, customers will get inconsistent messages and service, process owners will have difficulty measuring their effectiveness, analyses will not reconcile, and implementing new controls or improvements will require changes within each process step.

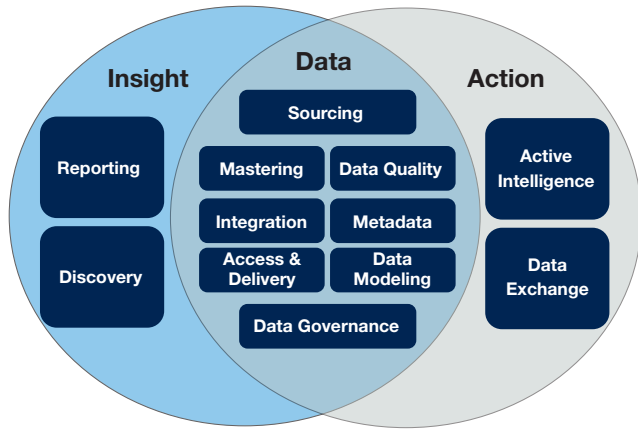
Conversely, improvements to these critical data assets will likely yield business benefits in all five of the categories listed above. In our experience, identifying and improving critical data assets in large companies can yield tens of millions of dollars in benefit, and justify millions of dollars of investment in implementing a data strategy.

However, we believe it is just as important to keep the set of critical data assets as small as possible. Note that there are very few attributes listed above; the most critical data asset for these subject areas is a common identifier. Maintaining the unique identity of customers, products, interactions, and contracts is the foundation linking information across the enterprise. Once that is tackled, attributes can be added to the enterprise record incrementally over time.

What Is Our Data Ecosystem?

For most businesses, data is an active asset that is captured, created, enhanced, and used in many business processes and applications. To manage this dynamic environment, the flows of data across systems and processes need to be organized in a coherent way. We use a business architecture — not a technology architecture — to define core data capabilities that business and technology must create together. These capabilities organize technology platforms and business processes based on their function in the ecosystem: capturing and creating data, cleansing and organizing it, mining business insights from it, and using those insights to drive intelligent actions in the business. By capturing data that measure the outcomes of our actions, we create a closed loop that allows companies to use their data to test, learn, and improve their processes.

The diagram below depicts three broad classes of core capabilities: data, insight, and action:



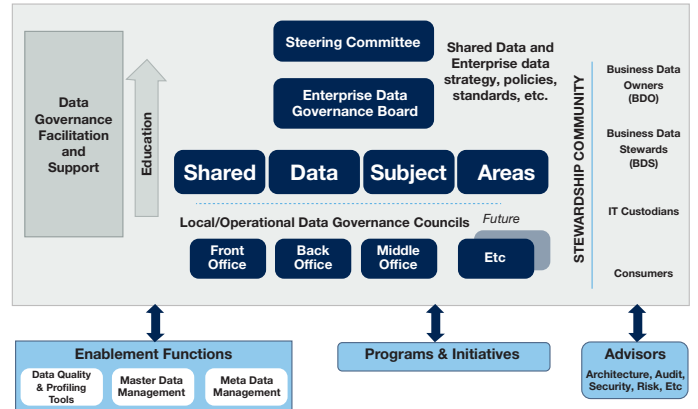
Data capabilities are responsible for creating and managing usable, high quality enterprise information assets. These include all standard data management capabilities such as data sourcing and integration, quality and metadata management, data modeling and data governance. Insight capabilities include tools, data, and processes for management reporting and advanced analytics. Action capabilities provision data and business intelligence to applications, business processes and business partners, and capture responses to interactions.

This capabilities model can categorize thousands of applications and data repositories into 12 logical buckets which will guide their simplification and evolution toward a common strategic blueprint.

How Do We Govern Data?

Ultimately, the implementation of a data strategy is not a project—it is an ongoing function of the company that must be governed. Because data is so ubiquitous, the governance

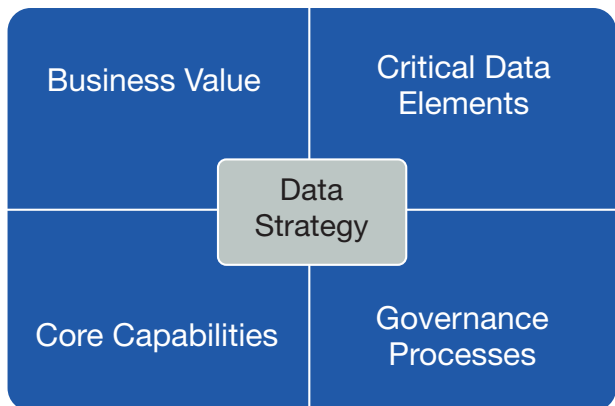
structure must be federated, with a central governing body addressing the most important, common data, and most of the data managed locally in the lines of business. The diagram below depicts such a model:



We have found several elements of this model critical to successful governance. First, the stewardship community is business heavy, with executive business data owners supported by business data stewards who report to them. IT custodians ensure that the systems incorporate and monitor the requirements of the business. Second, companies should incorporate data governance as a part of other standard governance procedures as much as possible, including architectural review boards, audit and risk review processes, system development methodology, and security processes. Over time, a distinct governance body for data may disappear as it is fully embedded in other business governance activities. Third, it is important to launch data governance with a small facilitation team and some data governance related infrastructure, such as data quality, metadata, and lineage tools to provide visibility and measures to the data governance board.

Conclusion

The alignment of the four principles for successful data strategy is the foundation for establishing a manageable, meaningful change in the way that companies deal with data.



Note that technology is not the key to success — it is merely a supporting element in the development of core capabilities. For many firms, the first attempt at a coherent data strategy is a daunting effort, with stakeholders learning each other’s language for the first time. But over time, the common understanding of how data is vital to the business establishes an effective dialogue so that truly strategic initiatives can be launched that make every business process more informed and intelligent.

About the Author

Paul Barth, PhD, Managing Partner and Co-Founder

Paul Barth co-founded NewVantage Partners in 2001. Paul brings decades of experience as a consultant to the nation’s largest companies. He is a recognized thought-leader and practitioner in leveraging information as a strategic asset and in emerging approaches and best practices in data management. Dr. Barth was founder and CTO of Tessera Enterprise Systems, a nationally-known systems integration firm formed in 1995. He became CTO of iXL Enterprises, a leading international



Internet integration firm, following the merger of Tessera/ iXL in December 1999. He holds a PhD in computer science from MIT, and a MS from Yale University. Paul was formerly vice president of technology at Epsilon Data Management (an American Express company), and held senior technology positions at Thinking Machines and Schlumberger.

About NewVantage Partners

NewVantage Partners is a boutique management consulting practice established in 2001 and comprised of former C-Level business and technology executives, and senior subject experts.

Our work comprises up-front planning – current state assessment, future state design, business case, execution roadmap, as well as the development of business and technical requirements, business capabilities, and business architecture. We are frequently engaged to provide a critical link between the business and technology organizations of our clients.

NewVantage fosters a commitment to executive thought-leadership through a series of small group executive dinners, and through our executive advisory board comprised of current and former Fortune 1000 business and technology executives and well-known industry thought leaders.

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