WHITE PAPER

How to conduct a strategy-driven data maturity assessment

By Shri Salem and Willem Koenders

Data maturity assessments are a standard instrument in the data strategy consultant toolbox. Typically, these assessments measure data maturity across several dimensions and capability areas. For each component, maturity can be described in ascending levels. The lowest level is nonexistent or ad hoc; the respective capability is not structurally in place. At the other end of the spectrum, the capability is fully developed, "optimized" or "leading practice" and used day-to-day across the enterprise. These assessments remain useful and insightful, particularly as a relatively objective starting point on an organization's journey to become more insights driven. But there are two major drawbacks we'll discuss before we offer our alternative approach.

Limitation 1: Inability to measure maturity in an organization-specific context

The frameworks typically purport to objectively measure maturity. With the DAMA DMBOK 2 and EDM Council's DCAM frameworks, you can take data capability areas such as data governance, data quality and data architecture and find clues about "what good looks like." To a large extent, this holds true. There are best practices about what constitutes effective data governance, for example, and how to design a data quality program.

What traditional frameworks miss is that maturity should be evaluated relative to the organization's sector, its unique strategy and the objectives and constraints that follow from them. The data quality and lineage requirements for a retail chain that sells packaged goods in a few cities are incomparable to those of a healthcare provider subject to the most stringent privacy regulations.

Even within a given industry, the desired level of data maturity can vary significantly because data and data governance themselves aren't the goal of the organization's overarching strategy. In hospitality, for example, compare the luxury-minded Four Seasons Hotels and Resorts with the budget-conscious Motel 6. At Four Seasons, leadership might prioritize driving superior customer experiences by using intelligent data technologies to understand and predict individual customer needs. Customer master data management (MDM) and a 360-degree view of the customer is not just helpful, it's table stakes. At Motel 6, leadership recognizes that investing in a 360-degree view of the customer can't be justified based on the company's predicted average per-customer revenue.

Limitation 2: Lack of interdependence and interaction

Maturity frameworks typically endeavor to be mutually exclusive and collectively exhaustive. Data capabilities are mapped to various dimensions that can be used separately to measure maturity. Scores across dimensions can be aggregated into a total score at the enterprise level. Each dimension typically has a set of four to six maturity levels, where the progression across these levels is presented as linear. An organization can grow from level A (or 1) to level B (or 2) and then to level C (or 3). At least conceptually, there is no interaction between the dimensions. A company can operate with low data governance maturity yet score high for data quality. In practice, there are myriad interactions and interdependencies between them.

For example, while data availability (or democratization) and data fluency (or literacy) are typically considered separately, dynamic interactions exist. Data might be technically available for any user who knows how to obtain access, but it's a lack of general fluency that inhibits users from successfully doing so. Resolving data fluency in this example will drive data democratization. It works in reverse as well. Where data availability is low or nonexistent, data literacy will surely be depressed.

Hence, treating data maturity dimensions as independent, linear dimensions fails to address how they play out in a real business environment. It treats the maturity framework as one-size-fits-all, as though organizations are not enabled to choose their own journey. A more effective framework would allow an organization to chart a course where initiatives are planned and prioritized so that they drive maturity across various possible dimensions, recognizing and benefiting from the interplay between them.

Our starting point: Strategic archetypes

In our view, data management should serve to implement the enterprise strategy and be measured and enhanced relative to defined strategic objectives. Based on cross-sector market research, we have defined six strategic archetypes. A strategic archetype should be interpreted as a strategic profile an organization attempts to cultivate.

FIGURE 1:

Strategic archetypes help organizations gauge their data maturity

These archetypes are not exclusive to or independent of each other. For example, an organization that prioritizes use case enablement also will surely develop data capabilities that drive innovation and leadership. However, there are nuances, especially on the exact success criteria. We pose that organizations must choose between these archetypes. Any organization that tries to fulfill too many will end up failing all of them. Strategy is about making (informed) choices.

FIGURE 2:

Strategic archetypes help organizations prioritize their data capabilities

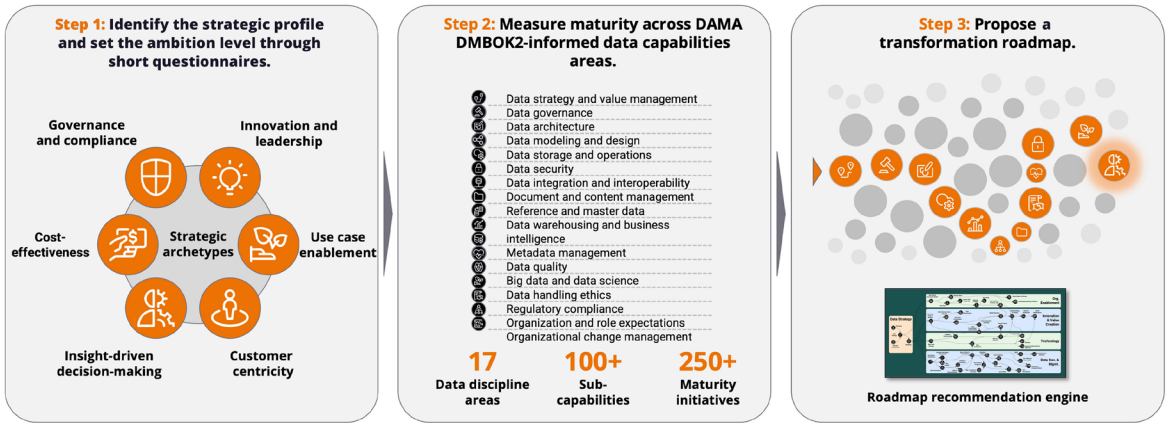
Archetypes	Stereotypical organizational strategy	Prioritized data capabilities
Innovation and leadership	Data and capabilities are used to drive innovation, to be a first mover and to be a product leader in the industry. Experimentation, agility and flexibility are key. The organization is positioned to develop and market a unique product or service that's differentiated from the competition, with customer adoption typically following product innovation instead of vice versa.	• AI • Sandbox and experimentation • Knowledge platform • Digital transformation
Use case enablement	The goal is to identify data-driven use cases formally within the organization and ensure their prioritization and enablement. There is no overarching focus on any given type of use case. Instead, departments or teams are encouraged and enabled to define and realize their respective use cases.	• Data products and assets • Domain-based governance • Value quantification methodology • Data platform
Customer centricity	Customers are the heart of the organizational strategy. Understanding them better than any other organization is prioritized, and products and services are customized to cater to their unique needs. Superior customer experience is the goal.	• 360-degree customer view • MDM and customer relationship management • External customer data • Predictive customer experience • Omnichannel and digital experience enablement
Insights-driven decision-making	The ultimate principle is that every decision, both at executive and tactical levels, is made based on actionable intelligence through management information (MI), dashboards, scenario analyses and other insights.	• Data culture • Data marts • Analytics and MI
Cost-effectiveness	Data capabilities are used primarily to identify and realize opportunities for cost reductions, for example, through supply chain optimization or process mining. The cost of the data estate itself also is to be minimized absent a valid business case. The unique selling point is typically price competitiveness.	• Vendor and technology rationalization • Automation • Process reengineering • Cloud migration
Governance and compliance	Data and applications are governed to guard against operational risks such as security, reliability and continuity and to ensure regulatory compliance (e.g., privacy, security, finance, liquidity, environmental, social and governance). A desire exists to document and understand the landscape of systems, applications and data flows to identify risks and vulnerabilities and deploy appropriate controls.	• Data governance • Trusted sources • Data quality • Issue management and remediation • Regulatory compliance • Data lineage and provenance

A new framework and approach to measure data maturity

Based on research and data strategy implementation experience across sectors, we propose a new, tailored approach, that contains three key steps.

FIGURE 3:

ZS's 3-step approach helps determine an organization's strategy-driven data maturity



In the first step, a brief online survey identifies the alignment with the six key strategic profiles. A quantified alignment with each strategic profile will be calculated. With each outcome, we can identify alignment with up to three profiles, of which one should be "primary." Ambition levels are set relative to the aligned strategic profiles.

In the second step, a data capability framework is used to measure maturity across 17 discipline areas and more than 100 sub-capabilities. For example, the data strategy and value management dimension covers these sub-capabilities: vision and strategy; data monetization; innovation and use cases; and demands and prioritization.

For each of these sub-capabilities, levels of maturity are defined. Moreover, enhancement initiatives are identified that, if executed and implemented, would lead to the targeted maturity increase. As an upgrade relative to traditional existing frameworks, enhancement initiatives can be connected to maturity growth in multiple dimensions, thereby reflecting the interaction and interdependence of data capabilities.

Maturity is assessed through rapid online surveys. A database of more than 100 evidence-driven questions is available. The questions are dynamically tied to a set of standard role definitions. If a respondent identifies as a "chief data officer," for example, this response will activate all the survey questions. However, if the data scientist or IT manager role is selected, only the questions that person could reasonably be expected to answer are activated. If required, interviews can be conducted afterward to clarify inconsistencies in the survey results.

Finally, in the third step, the recommendation engine proposes a roadmap. The critical difference here is the recognition that there is no one-size-fits-all solution. Rather, based on the set ambition level, the identified strategic profile and the detailed current-state maturity levels, a personalized and tailored roadmap is drawn up. In our experience, using this framework and approach isn't just more effective—it's also quicker. We routinely get to the roadmap in less than half of the time when compared with equivalent consulting engagements.

About the authors

Shri Salem is an expert in data strategy, data innovation and data enablement, with extensive experience in building data assets and accelerators to solve seemingly insurmountable business problems. Shri has held senior leadership roles in data strategy within large organizations. He also brings expertise in business strategy, enabling him to successfully align data and analytics solutions to strategic priorities.

Willem Koenders is a global leader in data strategy at ZS, with 10 years experience advising leading organizations on leveraging data to build and sustain a competitive advantage. He has served clients across Europe, Asia, the United States and Latin America. He is passionate about data-driven transformations and a firm believer in data governance by design.

About ZS

ZS is a management consulting and technology firm focused on transforming global healthcare and beyond. We leverage our leading-edge analytics, plus the power of data, science and products, to help our clients make more intelligent decisions, deliver innovative solutions and improve outcomes for all. Founded in 1983, ZS has more than 12,000 employees in 35 offices worldwide.

Learn more: zs.com