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Mastering Your Data

The Ultimate Guide to Data Strategy

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Thought Leadership



Introduction

Data-driven decision-making and innovation – powered by mountains of data and artificial intelligence (AI), generative AI (GAI), and machine learning (ML) technologies – have become paramount for companies working toward growth, profitability, and increasing their competitive edge.

However, despite the demand for analytics from leadership, shareholders, and customers, many organizations find their data capabilities can't support these goals. Issues such as data silos, ineffective workflows, inaccessible or inaccurate data, and outdated technologies hinder progress.

This guide provides insights into the fundamentals of data strategy, the impact of a robust approach, and how to start crafting an effective data strategy that serves as a foundation for achieving organizational goals.

Contents

Section 1

Understanding data strategy basics 4

What is a data strategy? 5

Why does your data strategy matter? 6

Setting up for success 9

Section 2

Starting your data strategy 10

What works 11

What to avoid 11

Taking a strategic approach 12

Why Wavicle 14



Section 1

Understanding data strategy basics



What is a data strategy?

A data strategy is a holistic blueprint for how an organization collects, manages, analyzes, and uses data assets to realize business strategies or to maximize cost reduction of the data ecosystem itself. It describes the roles, processes, workflows, and technologies that form the organization's data ecosystem.

At its core, a data strategy is shaped by the interplay between data inputs and desired outputs, allowing organizations to leverage data in any way they envision. Whether the aim is to fuel advanced analytics and AI, facilitate real-time reporting, or ensure highly compliant data systems, a well-defined data strategy establishes the framework for effective data utilization, aligning organizational objectives with data practices.

The overarching goal of a data strategy is to design and orchestrate your company's data and analytics capabilities, cultivating a seamless and integrated framework that directly contributes to realizing your desired outcomes. This requires careful planning to ensure union across various sources, storage and reporting systems, manual and automated processes, and roles and responsibilities to harmonize data management and analytics practices with strategic objectives.

Typically, a data strategy project will include:

- **Assessment:** A strategic assessment of the current state of your complete data ecosystem
- **Use cases:** An understanding of your organization's high-priority data, analytics, and AI use cases
- **Architecture:** A future state architecture that details the desired state of your ecosystem and will enable those use cases
- **Roadmap:** A guide for how to upgrade your data environment from the current state to the future state

In addition, some data strategy projects may include:

- **Governance deep dive:** A framework for data governance and operating models to enhance data quality and processes
- **Proof of concept:** A sample project using components of the future state and/or enabling a high-priority use case



Why does your data strategy matter?

Data and analytics have evolved beyond being mere components of IT; they now stand as strategic initiatives with a direct impact on business outcomes. In the past, utilizing analytics and AI was a competitive edge exclusive to large enterprises with substantial capital. However, advancements in cloud computing and AI have made these capabilities easier and less expensive to implement, enabling companies of all sizes to thrive in an increasingly data-driven world.

Initial maturity

Bringing AI to data and processes already in place

Intelligent document search/chatbots/call centers

AI-powered OCR for expense tracking

NLP/call centers/text analytics

Developer code generation/QA test cases

Add IoT-based equipment alerts

Increased maturity

Starting to fuel AI with data

Demand forecasting

Cost variance analysis

Smart equipment pooling

AI-based risk modeling

Adaptive maintenance optimization

Mature

Fueling AI with quality data and processes

Scenario planning

Dynamic risk adjustment budgeting

AI negotiation assistance

Fully autonomous equipment diagnostics

Dynamic contingency planning

Today, top-performing companies recognize the value of investing in analytics and AI, positioning themselves as data leaders – and this often leads to a significant impact on valuation, as is seen with industry and technology leaders like Apple, Amazon, McDonald’s, and Tesla. Embracing the possibilities data offers is now a crucial starting point for organizations looking to drive greater or faster success.

Your data strategy forms the foundation upon which these cutting-edge capabilities can be built. It is nearly impossible to reach a desired outcome with your data without defining that goal and determining how best to achieve it.

A data strategy empowers organizations to articulate a thorough plan and set goals for efficiently managing data. It requires transforming your organization’s data philosophy to uplift data as a high-quality product and modernize platforms, tools, and practices to remain competitive. Furthermore, a well-crafted data strategy can help to ensure compliance with the growing regulations surrounding data security and privacy, safeguarding your organization against potential risks and ensuring responsible data handling practices.



A comprehensive data strategy provides many benefits:

1

Accelerated time-to-market:

A robust data strategy enhances understanding of customer needs and behaviors, allowing you to optimize critical features and expedite your speed-to-market.

2

Enhanced efficiency and profitability:

A well-executed data strategy improves transparency and enables better and faster decision-making to fuel optimization, efficiency, and profitability.

3

Innovative products and services:

It paves the way for innovation, AI, and advanced analytics, fostering the development of new revenue streams and the emergence of data as a service.

4

Increased regulatory compliance:

Addressing external regulations, especially in areas such as data privacy and security, ensures compliance and reduces operational and regulatory risks.

5

Optimized customer experience:

Understanding customer behaviors is a key outcome of a strong data strategy, helping companies enhance experiences and maximize customer lifetime value.



UNDERSTANDING DATA STRATEGY BASICS

Setting up for success

There are many ways you can approach a data strategy project, and each has different results. Key considerations before embarking on a data strategy project include:



Timeline:

Balancing realistic projections for the time needed to assess and design your data ecosystem and the urgent need to enable advanced use cases for measurable impact is essential.



Goals:

Whether the emphasis is on optimizing operations, driving innovation, or another critical objective, aligning your data strategy project with organizational goals is required for meaningful results.



Budget:

An appropriate budget will define the feasibility of implementing specific technologies, conducting thorough analyses, and sustaining the project through the implementation of your new future state.



Stakeholders:

Engaging company-wide stakeholders from the outset fosters collaboration, promoting a collective approach to the data strategy project and increasing the likelihood of success.



Known constraints:

It's important to identify any existing constraints or blockers that could impact the execution of your strategic roadmap, such as budget, other large projects, and resourcing.



Section 2

Starting your data strategy



What works

In order to ensure your data strategy fully meets your organization's needs, there are a few things to keep in mind. First, a strong data strategy hinges on aligning your data ecosystem with the core objectives of your business strategy, using the organization's goals as a guide to prioritize and allocate resources effectively. This necessitates solid business alignment and unwavering executive support.

In addition, a data strategy should rest on a unified understanding of the organization's short-, medium-, and long-term needs as the bedrock for steering the strategic roadmap. Equally important is establishing a comprehensive change management approach, ensuring understanding and adoption of the new technologies, policies, and procedures associated with your future state. While technological changes are often in the spotlight, new and altered processes are also essential for program success.

Every change in strategy comes with risks, and acknowledging, quantifying, and planning for them is imperative. However, managed properly – whether within your data team or with the help of external experts – a data strategy can deliver exponential value. Adopting an iterative execution approach can also provide swift wins when needed.

What to avoid

On the flip side, there are pitfalls to poorly executed data strategy projects. For example, an organization may be tempted to build a solution and expect the business to align later, which is often counterproductive. Similarly, embracing the latest tools or technologies without a proven track record can lead to regrets.

One common error is overlooking the expected cost increases when transitioning from a license-based pricing model to a consumption-based pricing model. Businesses need to understand their data volumes and usage expectations to properly evaluate costs.

Finally, recognizing the pivotal role of talent and avoiding assumptions about the ease of accessing key resources is paramount. A data strategy may outline the plan, but it's the people with the right skills and experience, either in-house or through external partnerships, who breathe life into the strategy.

Taking a strategic approach

Collaborating with external data strategy experts, like those on the Wavicle team, is often one of the best ways to execute a data strategy project that will reach your company's goals on your desired timeline.



External partners can provide extensive experience and expertise specific to the data strategy domain, enabling you to tap into a pool of knowledge that will better help to navigate complex data challenges. Additionally, access to a diverse technical knowledge base ensures the selection of the most suitable technologies and tools, expanding beyond familiar options for enhanced efficacy.

Engaging with an external expert opens new doors, allowing for the exploration of accelerated and AI-led data strategy approaches tailored to your specific needs. Moreover, it empowers your internal team to focus on concurrent data, analytics, and AI needs while external experts focus on the data strategy.

Overall, this collaborative approach facilitates swift progress, enabling organizations to adapt rapidly to the evolving world of data and AI.



When partnering with data experts like Wavicle's team, building a data strategy starts with one or multiple of three approaches based on your goals and needs. These approaches include:

Traditional approach:

The traditional approach is an industry standard and can be very effective as a holistic approach to data across people, process, and technology. This includes a current state assessment, use case prioritization, future state architecture, and a roadmap to get there. The traditional approach works best for organizations that need a broad, enterprise-wide strategy with a focus on data foundations.

1

Accelerated approach:

The accelerated approach is a data strategy that provides a quick win by delivering a proof of concept (PoC) for a high-priority use case as part of the strategy. This includes the high-priority use case and POC, future state architecture, and a roadmap for additional implementations. The accelerated approach works best for organizations that urgently need to deliver an analytics- or AI-based solution for a critical need or pain point.

2

AI-led approach:

The AI-led approach is designed to establish and mature data capabilities using AI to define the strategy. This includes use case prioritization based on AI-enabled analysis of internal and external data, future state architecture, and an implementation roadmap, and can also include a PoC. The AI-led approach is the best fit for organizations with access to significant internal data that see AI as a top organizational priority.

3



Why Wavicle

At Wavicle Data Solutions, we understand that your organization is at a crucial crossroads, grappling with technological innovations, evolving service models, and core business objectives. The solution to accelerating your analytics maturity and harnessing these new innovations lies in embracing a holistic data strategy that seamlessly integrates the best technologies, service models, and governance frameworks into a value-led change agenda.

Wavicle provides customized support for leading organizations to empower them with the data, analytics, and AI capabilities they need most. Our data strategy consultants can help you align data initiatives with overarching business goals, design a data strategy that fits your company's current and future needs, and implement that strategy to unleash the power of your organization's data.

Wavicle stands as your dedicated partner in this transformative journey, offering data strategy approaches with optimal configurations designed to meet your specific needs.

Learn more about how Wavicle can help you upgrade your data capabilities and drive organizational success by visiting wavicledata.com

Notes

A series of horizontal dotted lines for writing notes.

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