



Scaling data science to create new business value

Four questions to uncover the value of AI at scale



The promise of artificial intelligence (AI) requires a robust data ecosystem. Operationalizing data science at scale converts data into amazing experiences, driving operational efficiencies and enabling you to build new business models.

Many organizations clearly recognize the importance of technologies such as the cloud and AI. Yet few have used AI at an enterprise level to achieve significant growth.



3 out of 4 companies at risk

Most C-suite executives believe if they don't [scale artificial intelligence \(AI\)](#) in the next five years, they risk going out of business.

According to a [global Avanade AI Maturity survey](#), most organizations are in the infancy of their AI adoption with 7% at level 1- Avid Learner stage and 64% at level 2 – Go Getter. Most respondents (95%) who are currently implementing AI agree that AI is the most critical area to scale.

Now with businesses facing economic uncertainty, shifting buying behaviors and continued talent shortages, the potential of AI at scale is no longer a goal. It is an essential business priority.



More than a promise: AI at scale delivers higher return

Typically, companies that are successful at scaling AI outpace the competition, improve operational efficiencies and design an exceptional customer-centric approach. Companies can use AI at scale to drive business outcomes and gain incremental revenues. Over time, these gains can be sizeable

Leverage the cloud and the power of AI

Avanade helps organizations rethink how to leverage **Microsoft Azure** cloud computing services to accelerate the power of AI at scale. Avanade works with enterprises globally to develop high value AI-driven solutions and enable data science lifecycles to drive greater operational and financial return.



AI delivers ROI

Organizations that are the most mature in their AI adoption are seeing 3 to 5x or more return on their investment on average.

Avanade AI Maturity survey 2018-2020



Rethink how work gets done

Business as usual looks starkly different today than it did a short time ago. So [how do you scale AI](#) into the way your business works today to manage through economic slowdowns as a lighter agile business?

Four questions to uncover the value of AI at scale

This guide explores four key questions business and technical leaders need to answer to rapidly create a scalable operating business model. These steps are essential to help organizations like yours optimize the data science lifecycle through data ingestion, AI development, and business transformation.

- 1 Do you have a data strategy aligned to a business priority and use case?
- 2 Is your data in the cloud?
- 3 How accessible is the data to your value builders?
- 4 How quickly can you go from innovation to value at scale?



#1 Do you have a data strategy aligned to a business priority and use case?

Business leaders need an end-to-end data strategy tied to their topline business value drivers to achieve the maximum growth potential and return on investment for their organization.

However, only about 15% to 20% of organizations have a clearly defined strategy and operating model linking their AI ambitions explicitly to their overall business strategy. As a result, these 'Strategic Scalers' achieve nearly three times the return on AI investments compared to most companies, which are still operating a proof of concept factory.

Avanade works with organizations to move away from analytics locked in business siloes. We combine [design thinking](#), applied experience and real-world Microsoft expertise to find and prioritize opportunities and then co-create a value focused plan that can be quickly and efficiently implemented.

With a value-design-led approach, we have seen higher success rates. One-off innovations are replaced with robust organization-wide AI capabilities that act as a source of competitive agility and growth.



[Strategic Scalers](#) achieved nearly **triple the return from AI investments** than companies in the proof of concept stage of their AI journey.

#2 Is your data in the cloud?

Digital-native companies and traditional competitors are increasing business agility by unlocking the value of the cloud. This helps them respond to change quickly, get to market faster, and create new digital business models that solve customer problems.

At Avanade, we help clients unlock the value of data at scale within their business by moving

them off restrictive legacy systems, that open up new business opportunities and help them differentiate in the market.

With Avanade, clients can take advantage of everything Microsoft Azure has to offer, accelerating their transition to the cloud without disruption.



75% of all [databases will be on a cloud platform by 2023](#), reducing the database management vendor landscape and increasing the complexity of data governance and integration.



#3 How accessible is your data to your value builders?

When a new idea or innovation is first introduced, how many roadblocks do your data scientists, data engineers, business users, and developers face? How difficult is it for them to access data and quickly test an idea or explore a new opportunity?

Simplifying how data and AI works is essential if businesses are going to embed data and AI into business processes and customer

experiences. However, many organizations struggle to streamline the use of data science across engineering and development teams to effectively build in AI as part of the workplace ecosystem.

Now, with cloud and modern analytic tools, organizations have the power to scale the use of data science and AI enterprise-wide. By scaling the use of data science and AI, clients

can achieve new efficiencies, enhance customer and employee experiences, and create new revenue models, all while creating a robust data ecosystem.

Azure Databricks and the broader Azure ecosystem offer enterprises the ability to scale data science and empower data engineers to work more efficiently while business users are able to drive value throughout the organization.

#4 How quickly can you go from innovation to value at scale?

Effectively scaling impactful innovations is more than having data available. An organization needs an end to end process that supports constant innovation, rapid development and a willingness to enhance legacy processes. Avanade's approach encourages fast failures and quick successes that can be scaled across the enterprise.

The technology to support this effort is proven. The last roadblock many organizations face is their own processes and organizational siloes. Once successful, Strategic Scalers will be able to rapidly scale innovations across their organizations to their customers and employees, which deliver substantial ROI.

As more organizations move towards data and AI as a strategic business asset, Avanade's end-to-end approach towards leveraging AI enables business executives to move swiftly to capture new opportunities and operate more efficiently.

Data scientists and data engineers can benefit from [Azure Synapse Analytics](#) with the ability to connect data and insights from large amounts of data and to quickly find value and then effectively scale across a business process within one tool.



Organizations that empower employees to use AI across the enterprise yield a significant return: Nearly two-thirds (63%) of executives from organizations with AI maturity say decision makers can quickly access the data they need, when they need it, versus 39% of less mature firms.



Industry profile

Rethinking the possible

Challenge

As costs to maintain stock levels and transport products rose, [thyssenkrupp Materials Services](#), wanted to think outside the box. The company, which is a materials distributor located in Essen, Germany with 30 warehouses nationwide, turned its attention to the possibilities offered by AI in the cloud.

Solution

thyssenkrupp turned to **Avanade** to help build a cloud-based platform using **Microsoft Azure** cloud native services and **Microsoft Power BI** for visualization that could automatically analyze data and run simulations based on operational hypotheses. The power of the platform lies in its ability to run simulations – based on inputted network configurations – that process large amounts of data and intelligently analyzes results.

These complex simulations are efficiently done using **Azure Databricks'** scale and flexibility to help calculate the impact on transportation costs and inventory levels.

Results

By understanding the impact of changes on the supply chain network upfront, thyssenkrupp has improved performance, scalability, and reliability to increase efficiency, decrease cost, and reduce CO₂ emissions.



Industry profile

Data platform improves customer insight and application process retention

Challenge

The client had a problem with customers abandoning the credit card application process before completion because they treated every customer the same. The client needed to generate more insights into their customers and offer a more personal experience to achieve their goal of increasing conversions of credit card applications.

Solution

The client partnered with **Avanade** to create a data platform using **Microsoft Azure** cloud native services that brought together historical and customer data into a centrally governed location using **Azure Databricks** and **Delta**. To improve insight into their customers, the client's data scientists leveraged Azure Databricks and **Azure Machine Learning** service to create recommendation models that offered their customers different credit cards based on the insights gathered on the customers.

Results

The solution helped the client more effectively segment their customers and improve the customer experience of applying for a credit card. As a result, the client was able to make better recommendations to their clients and improve the number of clients that completed the credit card application process.

Industry profile

Global Pharma Company Operationalizes Analytics and Data Science Challenge

Challenge

Moving from an on-premise analytics system to Azure, the client wanted to expand and operationalize their data science capabilities to accelerate and improve insights into their clinical trials.

Solution

Avanade built a data platform leveraging **Microsoft Azure** cloud native platform that modernized how the analytics team fulfilled clinical trial inquiries from the business focusing on speed and consistency. Additionally the client's data science team used the Azure solution to build the following capabilities into their data preparation:

- Automation of majority of their data preparation
- Experimentation, validation, and operationalization as standard phases of their models
- Promotion of reuse of data transformation scripts, training algorithms, and model validation approaches

Azure Databricks was uniquely positioned to act as both the big data transformation engine to prepare the data for both use cases and the data scientists' experimentation and training environment.

Results

The solution allows the clients' analytics group to answer the business' critical questions about its clinical trials faster and more repeatably. The reduction in repeat work and improvement of data science capabilities allows the team to reduce costs and uncover new revenue opportunities through their new models.



Why Avanade

Avanade helps clients harness Azure Cloud and Azure Databricks to drive business results from initial set-up, through design, deployment, and ongoing management.

- Avanade helps data engineering and data science teams accelerate the data science lifecycle to realize organizational benefit from data.

- Avanade helps you achieve your desired business outcomes across your enterprise with the power of Azure Databricks, which is integrated into the broader Azure ecosystem.
- Avanade helps you leverage the best of [Azure cloud](#) to accelerate the data science lifecycle, development high value AI-driven solutions and enable organizations to drive business results at scale.

Designed to power innovation

- 4,500+ global data engineering, integration specialists, and data science and AI engineers
- 18,500+ Microsoft Certified Professionals
- 90+ Microsoft partner awards
- 19 Microsoft Gold competencies
- 38,000 skilled and diverse professionals globally

Get started today

Schedule your Data Value Workshop

The Avanade Data Value Workshop ignites engagement at your organization, ensuring your investment in Azure yields your desired business results. The engagement is facilitated through virtual or in-person workshops and targeted interview follow-ups. The workshop is the first step to unlocking the value of data on the cloud, realizing the promise of AI, and making your enterprise end-to-end processes and experiences “intelligent.”

Book a Virtual Azure Data Studio Session

The 2-4-hour virtual Azure Data & AI Studio event accelerates the enablement of end-to-end data transformation journeys on Azure, ensuring you maximize the business value of your data and investment in Azure.

Avanade Global experts bring market-tested perspectives to walk through topics of your choice. From data strategy to industry trends to scaling AI, the session is customized to your journey and business & technology ambitions. The event culminates with an actionable next step to start realizing value.

[Contact us to learn more about these workshops](#)

About Avanade

Avanade is the leading provider of innovative digital and cloud services, business solutions and design-led experiences on the Microsoft ecosystem. With over 38,000 professionals in 25 countries, we are the power behind the Accenture Microsoft Business Group, helping companies to engage customers, empower employees, optimize operations, and transform products, leveraging the Microsoft platform. Majority-owned by Accenture, Avanade was founded in 2000 by Accenture LLP and Microsoft Corporation.

www.avanade.com

About Microsoft

Microsoft (Nasdaq "MSFT" @microsoft) enables digital transformation for the era of an intelligent cloud and an intelligent edge. Its mission is to empower every person and every organization on the planet to achieve more.

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