



Do what matters

Analyze patient data.

Create better treatment guidelines

A semi-transparent digital interface overlay on a hospital hallway. It features the Avanade logo, a close button (X), a paperclip icon, and a right-pointing arrow. The background shows a blurred hospital scene with a nurse in blue scrubs and a gurney.

Saving more lives

Imagine what you will do with AI in your industry

A guide to the art of the possible and pathway to generate value for all industries

A journey from experiment through readiness to scale

In this exciting era of AI, we find ourselves at the forefront of a journey that will shape the future of our organizations and industries. Embracing AI is not just about adopting new technologies; it's a **transformational journey** that demands an "AI-first" mindset.

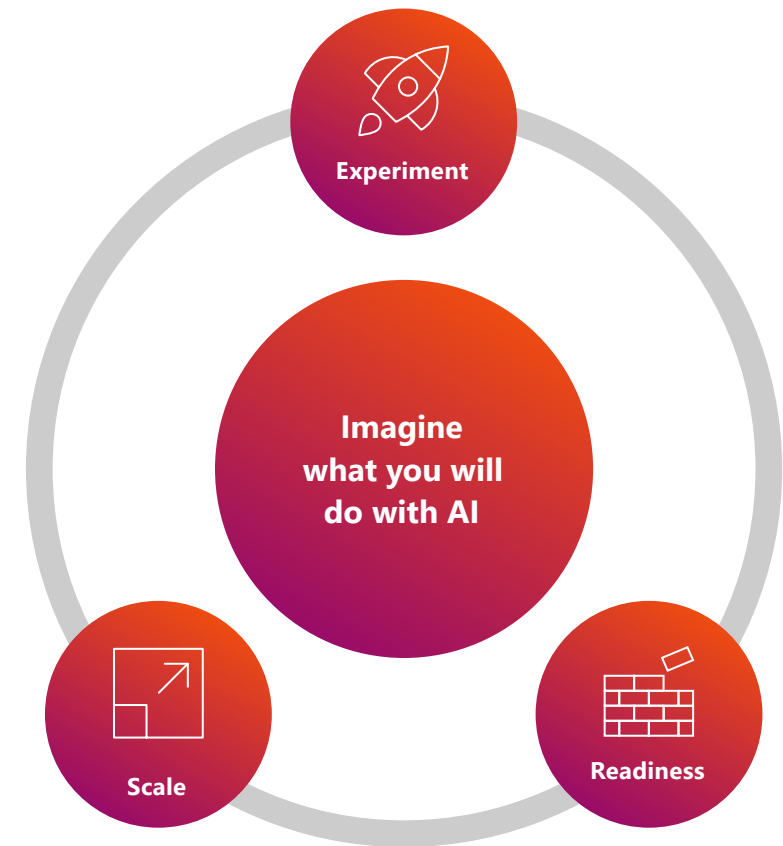
Imagine the possibilities. Doctors would diagnose and treat more patients than ever before. Bettering and saving lives. Manufacturers would design smarter cars, buildings – everything – in just hours. Reducing cost and delighting customers. Organizations would shrink their carbon emissions while expanding their business. Spotting new opportunities for growth and finally accelerating sustainability.

This requires a clear focus on delivering **value**, leveraging AI to **enhance experiences, improve efficiency, reduce cost** and address needs with cutting-edge solutions. Ensuring the ethical use of AI for better operations and new business models is critical for **competitive advantage**.

AI is not a one-time implementation. It's an ongoing **iterative** journey of **experimentation, readiness and scale**. It requires us to embark on a **transformational journey, reimagining processes, platforms, products, and services** through the lens of AI. Putting **people** at the heart of it all.

To succeed, we must embrace a culture of **innovation** and **curiosity** – by imagining not only what we can **achieve in our own industries**, but by **looking to others** for ideas and inspiration.

Take flight with a copilot
We want to **understand** the **possibilities** and **test ideas** of AI for our business...

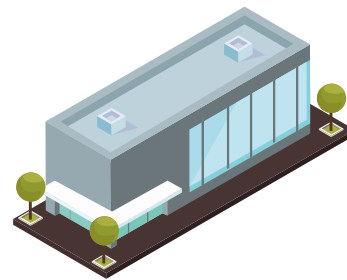
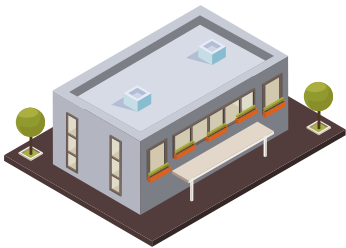


See the value
We want to **scale AI** across our business...

Prepare the foundation
We want to **anchor an AI-first mindset** across our business...

Imagine what you can do with AI in your industry, and beyond

Click on the orange banners to explore the industries



Automotive

Drive new automotive performance frontiers with generative AI

Generative AI will revolutionize the automotive industry, accelerating our transition to a world of electric and autonomous vehicles. Design optimization and coding algorithms will enable the development of software-defined cars and more efficient batteries, extending their range, appeal and reducing costs.

AI will play a pivotal role in quality control and predictive maintenance. It will help to reduce the risk of wastage and product recalls and minimize downtime throughout the design, production and usage lifecycle of each vehicle.

Smart mobility service providers will leverage AI to optimize route planning, reduce congestion, and enhance user experiences. At the same time, real-time data analysis and decision-making will make self-driving vehicles safer and more reliable. These advancements will not only drive sustainability but also make transportation more convenient and accessible for all, inspiring a greener, more connected automotive future.

Smart connected vehicles

Develop and test software-defined vehicles, new battery technologies and automated driving capabilities.

Brand and buying experience

Drive hyper-personalized Direct2Consumer (D2C) sales and create more connected and immersive dealerships.

Cars-as-an-experience platform

Anticipate customer needs (maintenance, parts, warranties). Deliver advanced health and safety features and subscription services over-the-air (OTA).

Supply chain resilience

Be more responsive and robust with real-time monitoring and management.

Ecosystems and partnerships

Drive efficiencies across consortia and enhance the capabilities of industrial data exchanges.

Secure digital operation

Use digital twins for continuous data flows from the top floor to the shop floor, enabling real-time decision-making. Enhance your ability to respond to cybersecurity threats.

Workforce upskilling and transformation

Enable continuous training and development with copilots to overcome global talent shortages and churn.

Optimize efficiencies and costs

Help your people to reduce risk, boost safety and accelerate materials and inventory sourcing, production, and distribution processes.

Boost job satisfaction

With AI handling repetitive tasks, employees can engage in more fulfilling and stimulating work, boosting overall job satisfaction and employee retention.

Net zero transition

Measure and manage progress towards sustainability and implement circularity.

eMobility

Optimize the charging experience with ecosystem partners. Boost better battery analytics and lifecycle management.

Mobility-as-a-Service

Develop more intelligent platforms and monetize data monetization to drive new revenue streams.



Automotive firms anticipate that generative AI will increase revenue by 5 to 10%, reduce costs by 6 to 20% and speed time-to-market by 30 to 50%.

Source: Accenture Tech Vision 2023

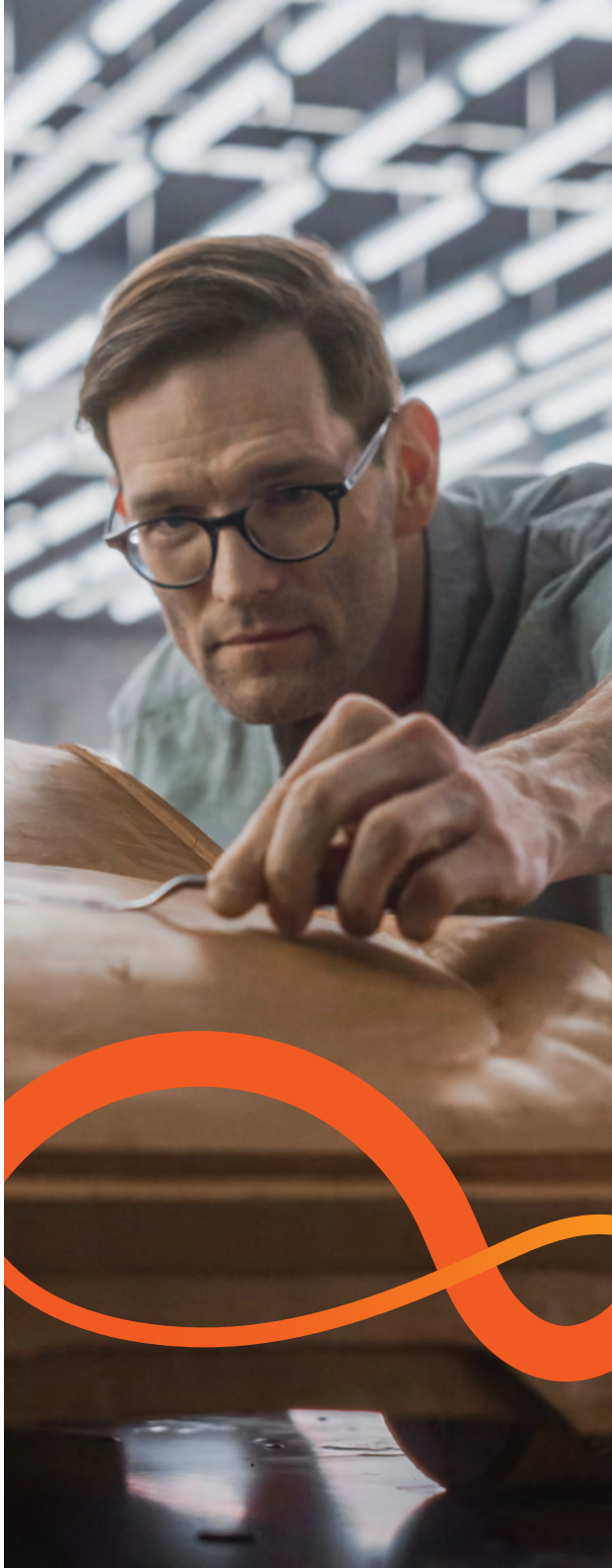
Create new value in automotive

Generative AI holds so much potential in the automotive industry across the design-make-and-use value chain:

- **Design: Develop advanced new products and services**
By analyzing vast amounts of materials science, mechanical engineering, aerodynamic, electrical and software-defined vehicle data, Generative AI can quickly propose new design concepts to reduce development costs and time-to-market.
- **Make: Enhance product quality, sustainability and availability**
With its data synthesis and summarization capabilities, Generative AI excels at helping people to track the movement of parts, authenticate their origin, and ensure compliance with safety and ESG (Environmental, Social and Governance) regulations.
- **Use: Elevate the customer experience with smart connected dealerships and after-sales services**
Generative AI is a valuable tool for hyperpersonalized customer communications with its ability to engage in “natural language” conversations. This will enhance the delivery of value-added services, such as predictive maintenance, and boost cross-selling and up-selling.

67% of automotive firms see generative AI as an opportunity to drive innovation.

Source: Accenture Tech Vision, 2023



DENSO employees save time using AI

Employees at Japan’s largest global manufacturer of automotive components in the Toyota Group, DENSO Corporation, are accelerating their use of data with generative AI, saving them hours of work in identifying onsite problems and transforming their workplace.

With Azure OpenAI’s GPT, the company’s wealth of knowledge bases can be searched quickly and easily, including handwritten information and unstructured data. Avanade Insight Discovery, a data analysis platform that runs on Azure and uses natural language processing technology, is being used to catalogue the data.

AI structures the disparate data sets and automates previously manual data collection, structuring, and analysis processes. The solution also supports the company’s plans for an in-house chatbot.

Banking

Senior bankers see automation and efficiency as the key game changers from generative AI

Generative AI will impact banking in many areas: regulation and compliance (KYC, AML), risk management, fraud detection, customer service, sales and marketing support. It will automate process, improve efficiency and reduce error from manual, repetitive activities. It will generate personalization at scale, producing real-time insight for cross- and up-sell. It will produce key financial documents and marketing collateral in record time. Sales and service staff will be better equipped to respond faster and more intelligently to customer demands.

Developers will code faster. Data will be available for staff and senior executives to make smarter, more strategic, decisions. Automation and efficiency will deliver major cost reduction and revenue enhancement, while improving employee and customer satisfaction.

Customer Service

Self-service chatbots in all channels with smart routing and automatic email responses for product questions, complaints, etc. Summarise customer support conversation logs. Feed intelligence into the contact centre database to enable faster response to future questions, track KPIs/NPS and improve CX.

Hyper-personalization

Topic analysis will help clarify customer conversations to suggest next best action based on their situation. Measure customer sentiment throughout the conversation.

Support financial advisors and service staff

Monitor agent conversations, provide real-time coaching, automated actions and call summaries, reduced handling time, increased agent efficiency and job satisfaction.

Marketing automation

Support marketing with new copy, images, graphs etc. Content for client or internal communication (email, text, etc.). Support of open question customer surveys with next-gen sentiment analysis and intent recognition.

Task optimization and knowledge finding

Create pitch books for investors quickly from multiple sources. Save significant time sifting through data and manually creating financial models. Natural language queries on financial reports e.g., market insights for wealth advisors, M&A market research.

Compliance and fraud

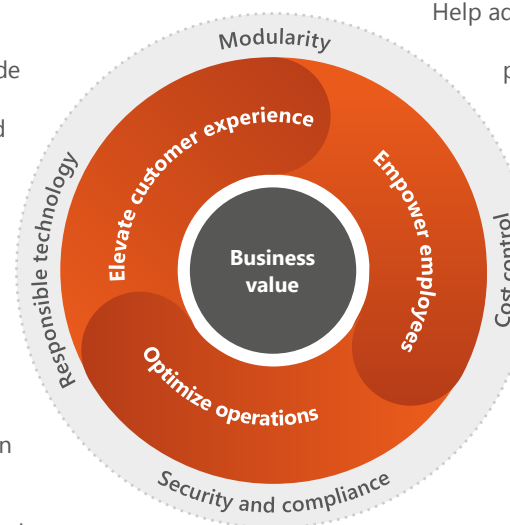
Generative AI can help financial institutions to comply with regulatory requirements by automating compliance tasks such as reporting and monitoring and identifying high-risk documents based on language used.

Create conversations with context

Help advisors retrieve answers from extensive financial product documentation via powerful contextualization capabilities. Provide key product attributes in comparison tables.

Sales support

Personalized email responses that are context-specific, meeting preparation information, meeting summaries and action items. Analysis of account engagement. Auto-generated next best action. Up-sell and cross-sell opportunity development.



Almost two-thirds (59%) of bankers claimed they were using AI daily.

Source: Avanade AI research, 2023

High value use cases show how generative AI can help banks make a genuine human impact

- Apply generative AI to improve risk management by analyzing customer data and financial history to predict likelihood of default. **Improve accuracy of lending decisions and reduce the risk of loan defaults.**
- Automatically review and analyze legal contracts. **Improve speed and accuracy of contract reviews and reduce the risk of manual errors.**
- Use Open AI-driven tools to **support financial advisors and call centre agents** to easily utilize a bank's massive collection of research, data and internal procedures.
- Improve the accuracy and speed of financial modelling. Generative AI can automate the process for creation and updating of financial models, which leads to **better forecasting capability and decision-making.**

42% of banking CxOs see customer onboarding automation as the most exciting AI use case, followed by fraud detection (41%) and automation of risk, regulation and compliance requests (41%).

Source: Avanade AI research, 2023



Leading financial institution improves customer service using conversational AI

The client wanted to boost its digital customer service, route customers to the right employee (agent or bot) and support current and future conversational needs of its customers.

We built a platform where professional developers and subject matter experts could easily collaborate and creating hundreds of conversational flows for text and voice scenarios.

The client has now been enabled with a natural language and voice-driven capability to process customer inquiries in real-time, conversational flows using a low-code conversation AI platform and an increase in its self-service rate, freeing up its call centre agents for more complex calls.

CPG

AI-generated consumer goods growth: Catalyst for competitive advantage

As the industry that's exposed to emerging technology, societal, cultural and economic trends perhaps faster (and more ferociously) than any other, the consumer goods sector depends on the ability to react quickly. In fact, quickly is an understatement – because consumer goods organizations need superhuman speed. But they must also stay guided by insight-anchored intelligence.

That's why the advent of generative AI matters so much to consumer goods brands. It's the superpower that transforms your agility and intellect – providing the ability to analyze vast amounts of data, generate valuable insights instantly and accelerate (as well as automate) action. From product design and innovation to market insights, and from manufacturing and supply chain optimization to personalized experiences – the potential for generative AI in the consumer goods sector is big, bold and brave. We're entering the pervasive AI era – with competitive advantage increasingly defined by those who are able to supercharge their platforms and processes with this fast-evolving technology.

Unified commerce platform

Unified, intelligent commerce experiences, shaped and optimized through cross-channel customer insights.

Personalized marketing

Personalized marketing messages and recommendations based on individual customer preferences.

Marketing strategy

Intelligence-driven marketing strategies, using insight to inform which channels and messages to use.

Sentiment analysis

Automated customer sentiment analysis through natural language processing of sources such as social media.

Research and development

Generation of new product concepts and ideas through analysis of consumer data and emerging trends.

Pricing and promotions

Dynamically optimized pricing strategies and trade promotion scenarios using predictive capabilities.

Demand forecasting

Accurate future demand predictions, which inform channel mix production and pricing strategies.

Knowledge sharing
Frictionless, user-friendly knowledge sharing through intelligent information cognition and presentation.

Safety and well-being
Intelligent, contextually relevant health and safety nudges: Leveraging IoT, digital twins and smart devices.

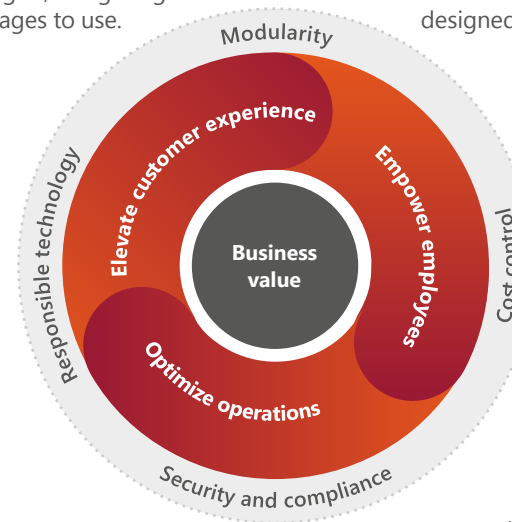
Workforce management
Data-informed talent allocation and development, designed to maximize an employee's strengths.

Field service
Elevated field service and frontline worker technical support, through conversational, user-friendly assistants.

Digital manufacturing
Real-time production insights through digitized manufacturing processes, improving throughput and efficiency.

Quality control
Improved quality control and predictive maintenance through automated analysis of sensor data.

Supply chain
Supply chain transparency through analysis of supplier sustainability performance, lead times and other factors.



98% of CPG firms believe AI will be responsible for driving as much as 20% of their organization's global annual revenue growth over the next 18 to 24 months.

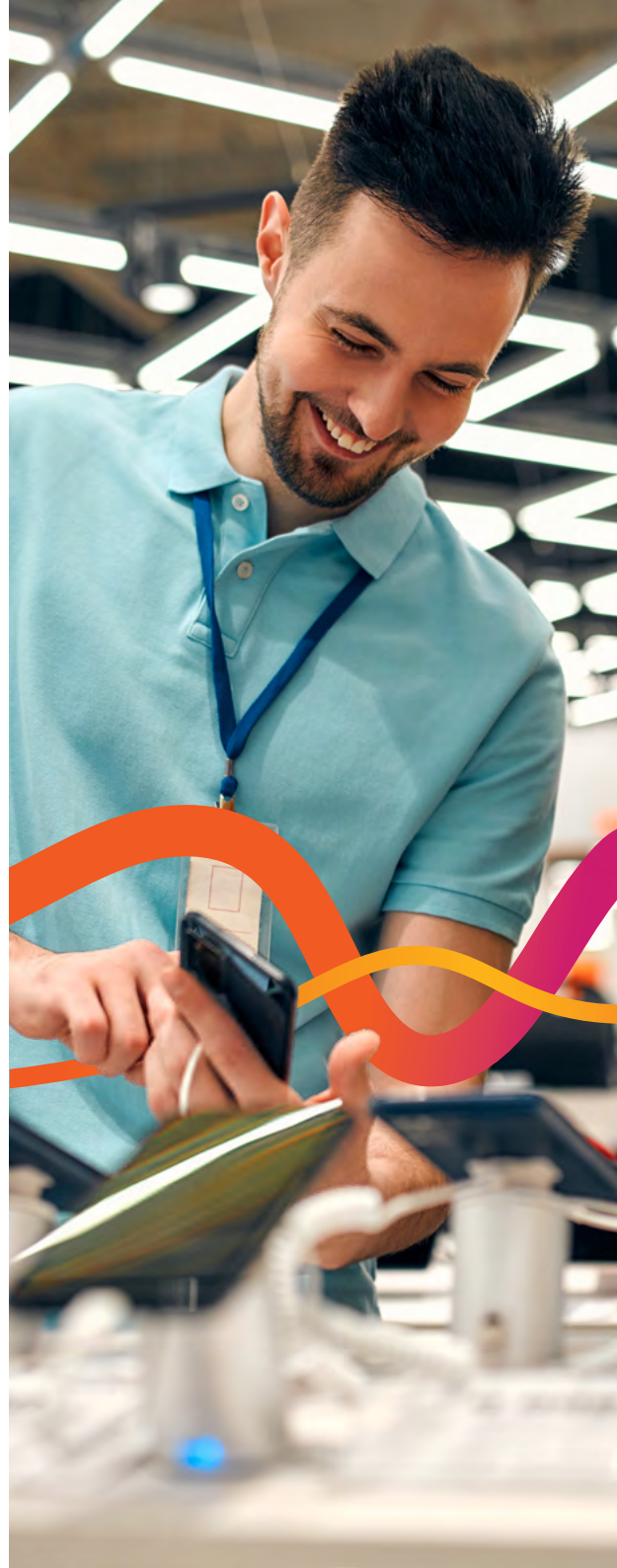
Source: Avanade Trendlines Research, 2023

How to accelerate growth in consumer goods by capitalizing on the generational AI opportunity

- **Supply chain optimization:** Intelligent demand forecasts can inform decisions on production quantities, inventory levels, and replenishment schedules – optimizing supply chain operations. This leads to improved efficiency, cost reduction and better alignment with customer demand.
- **Product innovation and development:** New product concepts and ideas can be generated by analyzing consumer data and identifying emerging trends. This can help with developing products that are more likely to appeal to consumers, as well as rapid physical or virtual functional prototyping.
- **Marketing optimization:** Natural language processing can be employed to personalize marketing messages and recommendations based on individual customer preferences and buying behavior. Customer engagement and loyalty is improved which ultimately drives sales and revenue.

91% of CPG firms feel confident they are doing enough to adequately prepare employees to understand and leverage AI safely.

Source: Avanade Trendlines Research, 2023



Natura empowers beauty consultants with an AI assistant platform

Based in Brazil, Natura is a global cosmetics leader, present in seven countries in Latin America, as well as France and the United States. It relies on a network of 1.7 million beauty consultants, as well as a wide range of suppliers and partners to reach approximately 100 million consumers.

It has a long-established culture of care in its relationship with both customers and its consultants. To reinforce this culture, Natura partnered with Accenture, Avanade and Microsoft, to develop an AI-powered virtual assistant for beauty consultants. The assistant provides predictive, AI-driven real-time customer insights through integration with Dynamics 365 – as the broader platform for Natura's business intelligence as well as sales, marketing, service, operations, and commerce processes.

Natura is now enjoying significant business benefits including increased flexibility and productivity. For example, the chatbot enables beauty consultants to automatically generate coupons and vouchers for customers, a process that was previously manual and required contact with a call center.

Government

Laggards to leaders: how generative AI can put governments in front of the change curve

Generative AI democratizes AI. It makes innovation available to all, unlocking the potential of digital and human ingenuity together. If you want to change people's perceptions around how government agencies work, by delivering efficiency, speed and accuracy, the answer may lie in generative AI. Generative AI brings an unprecedented opportunity for public agencies to quickly amp up their processing power to produce insights, ideas and information that can help both government workers and citizens. And all without an upfront investment in infrastructure.

With our deep AI heritage and privileged access to Microsoft, we can help you reimagine the future and take practical actions to responsibly grow your organization and people with AI.

Program Design and Delivery

Aggregate services data (i.e., 211 public assistance) and automate access to service through voice automation. Provide citizen assistance through conversational AI. Leverage speech recognition and voice assistance to speed up and standardize program participant intake.

Grant Making and Grant Seeking

Streamline the grant making process by automating tasks (such as eligibility criteria, etc.) Streamline the grant seeking process by analyzing data from previous applications.

Citizen Services & Education

Self-service with "ChatGPT"-like chatbots in all channels, smart routing, automatic email answering, e.g., service questions, complaints, etc. Provide recommendations around services, policies, answering questions regarding options, etc.

Predictive Design & Delivery

Assess individual and community patterns to offer intervention recommendations and future service needs. Futurecasting (scenario planning for community programs) involves envisioning and preparing for potential future scenarios, allowing organizations to anticipate challenges, identify opportunities, and proactively design programs to address emerging needs.

Adaptive Decision-Making/Eligibility

Real-time recommendations and insights that can help government make better decision e.g., enabling governments to make real-time eligibility decisions based on vulnerability data.

Copilot for Task optimization

Copilot embedded into Microsoft 365 and Dynamics 365 apps you use every day increasing productivity, creativity, and efficiency. Optimize resource allocation by automating tasks such as data entry, report generation, or administrative work, agencies can free up staff time and focus on more strategic and impactful activities.

Finance & Operations

Fast track internal reporting and analysis while predicting external factors like inflation and geopolitical issues on program budgets. Utilize predictive templates in knowledge work for operations and finance, which are pre-designed structures or frameworks that aid in making predictions or forecasts related to operational and financial aspects of a business.

Compliance & Fraud

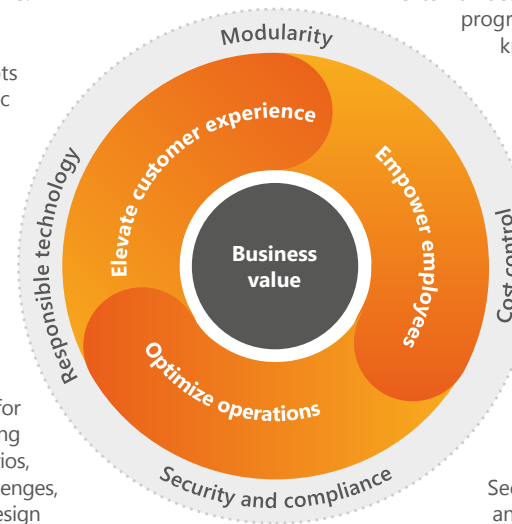
Generative AI can help government agencies to comply with regulatory requirements by identifying high risk documents based on the language used.

Security

Secure Program and Participant Data: Prevent and reduce misinformation and cyberattacks.

Relationship Management

Focus on building relationships by automating and simplifying tasks with AI-generated emails, meeting summaries, data collection, and entry.



44% of Government executives told us their primary objective for AI in their organization would be to improve efficiencies. And almost half of Government leaders surveyed (51%) claimed they were using AI daily.

Source: Avanade AI research, 2023

High value use cases show how generative AI can help government organizations make a genuine human impact.

- **Field asset diagnostics, permitting and inspections:** Permits, compliance inspections and critical infrastructure maintenance processes can be automated intelligently to reduce costs and improve service level agreements.
- **Citizen services:** Imagine if chatbot and voice-activated customer service actually felt and worked more like a human interaction! Agencies could implement a **chatbot to provide 24/7 self-service** for common inquiries from citizens, helping them access information about government services, applications and procedures. This reduces the workload on human customer agents and improves response times.
- **Virtual training and onboarding:** Government agencies can use generative AI to develop **virtual training programs** and assist with the onboarding of new employees, contractors and volunteers, reducing the time and resources required for in-person training.
- **Criminal justice and legal support:** Generative AI can assist law enforcement agencies and legal professionals by providing information on criminal records, legal procedures, and relevant case law.



Optimizing admission process with the use of OpenAI

A big education company receives a large volume of images with different types of documents, which requires a significant human effort and extends the students admission process.

Attempts to automate with traditional OCR did not yield good results, with only a 48% success rate and a high cost per scanned document.

The proposed solution has OpenAI and ChatGPT at its core, connecting to the client's service business and interpreting various types of documents such as school certificates, ID cards, driver's licenses, CPF (tax ID), among others, extracting all the necessary information for the admission process.

The proposed OCR has greater image processing capabilities and is about 60% less expensive, using a combination of OpenAI and image processing. Preliminary tests indicated a 92% accuracy rate.

The project roadmap includes pilot case, phase 2 for assessment and potential phase 3 for build & scale.

29% of Government executives agreed that deploying public safety resources according to crime data analysis would be their top use case.

Source: Avanade AI research, 2023

Healthcare

Discover how the untapped value of generative AI is reshaping the healthcare experience

AI advancements hold the promise to improve medical diagnosis, treatment and healthcare delivery. AI algorithms can catapult the rapid analysis of health data, leading to precise diagnoses and timely interventions.

Predictive models powered by AI can detect patterns and trends, aiding disease prevention and personalized treatment plans. With so many use cases to explore,

from the back to the front office, identifying the greatest impact and prioritizing resources is essential to avoid 'AI burnout'.

"Emerging tech, like AI, is poised to make healthcare more accurate, accessible and sustainable,"

— [World Economic Forum](#)

Patient care experience

Engaging, intuitive, patient experiences – personalized through AI powered call centers and Chat bots for enhanced patient services.

Create and manage targeted campaigns to engage specific segments of health consumers.

Enable Dynamics 365 Marketing Copilot to streamline marketing campaign design and segmentation, allowing marketers to describe their target audience using natural language prompts.

Better insights with data and AI

Data-driven approach to help doctors make informed decisions at the right time and place where needed most.

Reduce and eliminate repetitive tasks.

Like an extra pair of hands, automation saves time by performing tasks such as transcribing visits, filling prescriptions and specialist referrals, scheduling follow-ups, and intelligently prefilling common information (e.g., chief complaint or diagnosis).

Enhanced productivity and collaboration

Reduce costs and ensure timely transition of care by creating a unified view of discharge records and other relevant medical records.

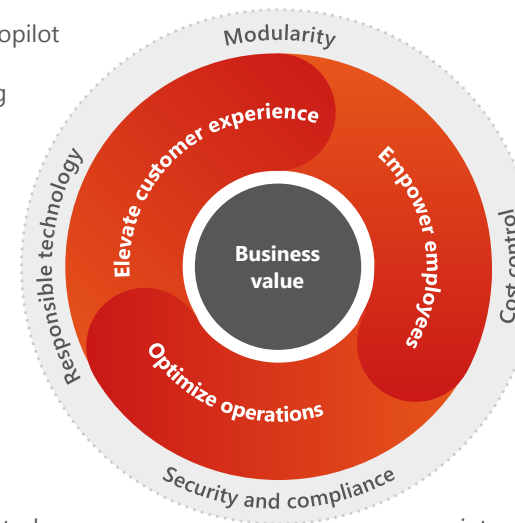
Seamless knowledge sharing with virtual huddles and information access through a user- friendly messaging interface.

Virtual monitoring of patients and remote nursing for acute patients to enhance productivity of the care team and still take care of patients.

Enhanced interoperability

Building on a core infrastructure of Microsoft Teams, Azure, Dynamics and Power Platform, Avanade delivers Care 24/7 solutions on an end-to-end platform that integrates with your core systems, lowering your cost of ownership, embedding security and scalability.

Health data interoperability and clinical AI assistants (e.g., Nuance) to reduce work cycles.



75% of health system executives believe generative AI has reached a turning point in the healthcare industry. Improving clinical documentation, structuring and analyzing patient data, and optimizing workflows as their top three priorities.

Source: Avanade AI research, 2023

Highest value use cases

Why AI shows so much potential in healthcare

- **Structured clinical data generation**
Extract information from unstructured data sources, such as clinical notes, scans, lab work etc. and convert it into structured data (e.g., FHIR, C-CDA) to trigger workflows and downstream automation / analysis.
- **AI-assisted clinical documentation**
Capture clinical encounters, including medical device readings and patient observations and automatically generate clinical notes. This can be applied to support both nurse and doctor documentation needs.
- **Patient/member service**
Use generative AI powered virtual assistants that can rapidly answer questions with member specific claims and benefits; use chatbots to address member questions about claims, reimbursement, billing and related information.
- **Patient medical history summarization**
Review and generate a summary of a patient's medical record prior to a provider visit. The summary can compile multiple structured and unstructured sources and cover medical history, active medications, allergies, etc.
- **Patient response drafting**
Generate a draft customized response to patient inbox inquiries made to physicians and present to physicians to review, customize and approve prior to sending. This can reduce the burden of physician-patient messaging.
- **Health literacy patient translator**
Translate medical information into a patient's preferred language and degree of medical knowledge. This can also involve customizing tonality to ensure that the intended message is delivered accurately and with empathy.

40% of all working hours in healthcare could be supported or augmented by language-based AI.

Source: Accenture research 2023



Client story

As a leader and an innovator in medical and hospital care in Brazil, **Hospital Israelita Albert Einstein** is constantly improving its processes, relying on technology to serve its patients and business. Avanade helped build sustainable digital capabilities in record time.

Working with Avanade to find a solution, patients and hospital staff now have quick, convenient and secure tools, including AI-enabled surgery center system – where doctors can manage surgery scheduling logistics, assemble virtual teams, view electronic medical records and more.

Industrial Manufacturing

Enable new service-driven revenues in industrial equipment manufacturing

Outmaneuver the competition by turning ideas for new products and services into action fast. Generative AI unleashes creativity and efficiency across your design, production and field engineering processes. Through AI-driven simulations, manufacturers can rapidly prototype and iterate design options for new industrial equipment, saving time and resources.

On the manufacturing shop floor, AI can help you to enhance quality control, energy usage and predictive maintenance, foreseeing potential issues, reducing wastage and preventing costly downtime. With AI-driven robotics and automation, you can ensure precision and consistency across every component.

At the same time, the ability to assess diverse data in seconds can help you to refine supply chain management and servitization operations by optimizing production and field engineering schedules and resource allocation.

Intelligent trend sensing

Enhance and accelerate product and service innovation to optimize R&D budget spend.

Hyper-personalized customer interactions

Leverage intelligence on preferences and buying behavior to automate content creation.

R&D and engineering

Use generative design for rapid ideation. Automate code generation for smart products and factory machinery.

Supply chain and demand forecasting

Balance demand and stock levels. Enable price hedging on commodities. Reduce supply chain risks and improve cash flows and margins.

Transport route planner and optimization

Anticipate and adapt to ad-hoc changes (delays, weather, geopolitics and other market factors).



Corporate knowledge management

Accelerate access to relevant information. Generate summaries, identify experts, and facilitate collaboration.

Drive productivity to alleviate talent shortages

Streamline and automate repetitive, administrative tasks and improve job satisfaction.

Manufacturing process design and performance analysis

Optimize machine utilization, output, quality and lower COGS (cost of goods sold).

Predictive field engineering services

Reduce unscheduled downtime and enhance decision support for speedy maintenance.

Finance and security risk reduction

Streamline invoice processing, ensure regulatory compliance and mitigate cybersecurity risks.

87% of manufacturers said Generative AI will make them more efficient.
61% are already using AI on a daily basis.

Source: Avanade AI research, 2023

Create new value in industrial equipment manufacturing

Enhance your design-make-and-use value chain with generative AI:

- **Design: Develop advanced new products and services**
Working to the specific parameters and constraints that you specify, generative AI can suggest a range of design alternatives that meet performance criteria while minimizing material usage and production costs.
- **Make: Enhance product quality, sustainability and availability**
AI can analyze production processes and recommend optimizations to reduce waste, energy consumption, and boost machinery uptime. It aids detection of defects in real-time using computer vision, reducing the likelihood of faulty products reaching consumers and can optimize inventory to avoid overstocking or stockouts.
- **Use: Elevate the customer experience with smart connected products and better after-sales services**
Generative AI-driven chatbots and virtual assistants can provide customers with real-time support and troubleshooting, improving the user experience.



Enhancing customer service delivery with Generative AI

A leading provider of sustainable electrification and automation solutions faced challenges in delivering effective customer support at speed and scale.

Most of the questions its contact centre receives from clients are very technical and require a good level of knowledge of the company's products and advanced technical skills.

We created a virtual agent, using Generative AI, trained on external and internal document libraries as well as Salesforce data, to:

- Shorten contact center case handling times
- Minimize human error and effort
- Reduce the cost-to-serve its clients
- Improve customer satisfaction and loyalty

31% of manufacturers believe better process automation will be the top benefit of Generative AI, followed by improved demand forecasting and supply chain risk mitigation (30%).

Source: Accenture Tech Vision, 2023

Life Sciences

Unlocking the potential of AI: life science organizations are using AI and generative AI models to turn unutilized data into untapped discoveries.

As the application of artificial intelligence within the Life Sciences expands, so does our understanding of how and where it is best applied. Specific areas of application range from disease diagnosis all the way through to post-marketing surveillance, touching on every aspect of the drug discovery process along the way.

50% of drug development initiatives will use generative AI by 2025 according to [Gartner](#).

Patient and provider engagement

Enhance recruitment of eligible patients with data driven insights to better qualify enrollees and expedite results.

Create and manage targeted campaigns to engage specific segments of healthcare providers with the right information about drugs and treatments.

Effectively reach providers through new digital innovations that can be customized based on patient types, specialty and treatment patterns.

Supply chain management

Enhanced supply chain management with AI driven tools to improve visibility and reduce the risk of supply chain disruption.

Rapid data analysis with AI powered assistance to ensure regulatory and compliance standards are met.

Smart Connected Devices and Services– rapidly monitor supply chain workflow in the field for improved performance and reduced down time.

Research and development

Reduce costs and improve collaboration with faster access to public and private research with other qualified researchers to deliver evidence based on therapeutic interventions for better outcomes.

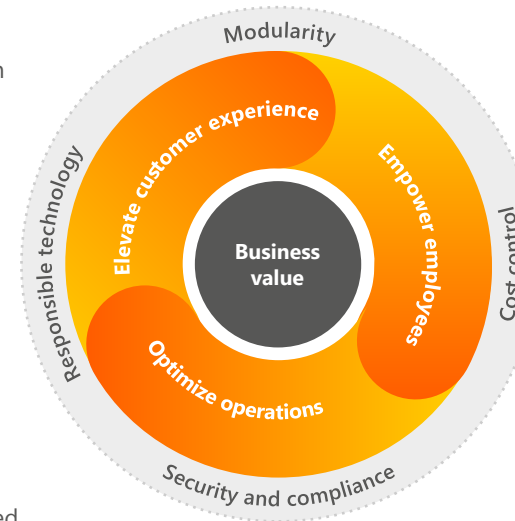
Seamless knowledge sharing with information access through a user- friendly messaging interface.

Virtual monitoring of patients enrolled in clinical trials to save time and improve outcomes.

Security and compliance

Continuous Supply Chain Monitoring – Enhance security to prevent and address potential disruptions and protect information

Digital twins and control towers to digitally track and trace the end-to-end supply chain for enhanced safety and security.



86% of medical affairs leaders when asked whether generative AI can be applied at life science companies answered, "Yes" or "eventually Yes."

Source: Fierce Healthcare

Highest value use cases

How generative AI adds business value for life sciences industry

Research and development

Drug development

Faster discovery and validation of promising targets; define testing protocol in clinical phase.

Clinical trial optimization

Generate synthetic patients for early-stage trials; predict likelihood of clinical trial success; automate finding eligible patients; find potential for irregular behaviors; detect propensity for developing diseases.

Commercial

Next Best Action

Provide a front-end for sales representatives to receive natural-language advice on how to engage with healthcare providers based on their specialty and patient base.

Launch documents/ assistance

Generation of help documents within language and regional regulatory requirements; context of treatment notes.

Supply chain manufacturing

GxP compliant documentation*

Completion of quality documentation with the correct attributes, sections and high levels of cross-functional integration.

Manufacturing batch predictions

Mine historical quality reporting to better understand, predict and eliminate issues in the manufacturing process.

Regulatory

Regulatory and legal drafting

Create first drafts of regulatory reports or legal documents, pulling data from multiple sources.

Legal pricing and Governance

Understand localized legal pricing and governance mechanisms per market and generate documents accordingly. Enable broader medicine roll-outs.

58% of life science leaders reported being most excited about AI for the development of decentralized clinical trials and supply chain efficiency and accuracy according to an Avanade Global AI survey.

* GxP is a set of rules that are required for the safety and quality of pharmaceutical products.



AI in action

Informatici Senza Frontiere (ISF), a nonprofit organization, wanted to strengthen the Hospital Pharmacy module to ensure better access to and management of medications. The solution developed enables intelligent management of the pharmaceutical supply chain – from planning new purchases to distributing them – both within the hospital and at home.

The interoperability of the solution with Open Hospital's Clinical module and the Laboratory Examination Management module will provide a detailed, complete and easily accessible view of patients' data, status and clinical history.

Nonprofit

Rise above the AI hype and build business value in the Nonprofit industry

Nonprofit organizations are often resource-strapped and require innovative solutions to reach their goals and make a genuine human impact. With its ability to generate human-like responses, Generative AI is poised to have a significant impact on the nonprofit sector. Whether you're looking to improve donor engagement; provide your beneficiaries with 24/7 support; streamline your operations or increase you reach, Generative AI could be the technology nonprofits have been waiting for.

Donor engagement

Analyze donor behavior, preferences, and giving patterns to identify potential major donors or predict which fundraising campaigns are most likely to be successful. Use generative AI to create program/campaign descriptions.

Grant making

AI can help streamline the grant application process by automating routine tasks such as verifying eligibility criteria and checking application completeness. This could help reduce the administrative burden and increase efficiency for both Grantmakers and applicants. AI can help Grantmakers make more informed decisions by analyzing large amounts of data and identifying patterns or trends effectively.

Copilot for marketing

Enable Dynamics 365 Marketing Copilot to streamline marketing campaign design and segmentation, allowing marketers to describe their target audience using natural language prompts. Use copilot to generate newsletter and email content, to personalize and refine for deeper donor engagement.

Volunteer management

AI can streamline volunteer management processes by matching volunteers' skills and availability with the organization's needs. By leveraging AI algorithms, nonprofits can create intelligent volunteer matching platforms that optimize the allocation of resources and ensure the right volunteers are assigned to the appropriate tasks.

Constituent chatbot (and power virtual agents)

AI Implement a chatbot to provide 24/7 self-service for common inquiries from donors, volunteers, and clients. Reduces staff time on routine questions. AI understands natural language and provides instant responses on programs, donations, events, etc. Conversations are logged to improve Chatbot accuracy and inform FAQs.

Copilot for task optimization

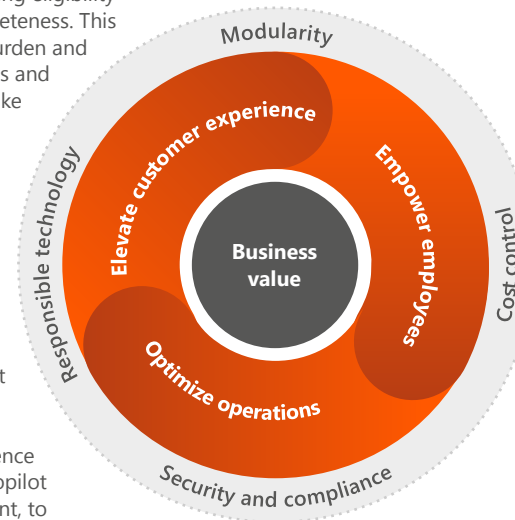
Copilot embedded into Microsoft 365 and Dynamics 365 apps you use every day increasing productivity, creativity, and efficiency, giving you much needed time back to drive your missions.

Compliance and fraud compliance

Generative AI can help nonprofits to comply with regulatory requirements by identifying high risk documents based on the language used.

Explainable and ethical AI

Establishing protocols for sourcing, handling, and using data is crucial for developing ethical AI solutions and preventing algorithmic bias in outcomes. Strong governance is the foundation of AI explainability. Enterprises may not know what an algorithm is "seeing" in the input data or why it arrives at a certain conclusion.



55% of nonprofits have developed guidelines or policies to ensure responsible and ethical AI usage that is explainable to funders and donors. 41% of Nonprofits already have these in place.

Source: Avanade AI research, 2023

High value use cases show how generative AI can help nonprofit organizations make a genuine human impact.

- Identify and prioritize relevant **grant opportunities** by using databases of foundations, corporations, and government agencies to scan for funding aligned to the charity's programs, mission, location, and populations served. Quantify outcomes and impact with data to demonstrate need and **maximize likelihood of award**.
- Use natural language processing and machine learning to analyze donor databases, newsletter signup data, event attendance, and social media to identify **new potential donors** with shared interests, backgrounds, and connections to existing supporters and the nonprofit's mission.
- Implement an AI **chatbot to provide 24/7 self-service** for common inquiries from donors, volunteers, and constituents. Reduces staff time on routine questions. AI understands natural language and provides instant responses on programs, donations, events, etc. Conversations are logged to improve chatbot accuracy and inform FAQs.
- Create **customized volunteer engagement** by using data analysis to match skills, interests, availability, location, and personality profiles to specific organizational needs for personalized outreach to retain volunteers long-term and provide them with the most fulfilling experiences.



AI in Action

SOS Children's Villages was on a mission to ensure that each child grows up with the bonds they need.

The organization is aware of the challenges posed by the "digital divide," which is especially apparent for many of the organization's villages in remote regions of Africa. In many cases, caregivers – which the organization calls "mamas" – in isolated communities need to travel long distances to make a phone call or connect to the internet at an internet café. To reach these mamas with important information and resources, SOS Children's Villages partnered with Avanade to build a personalized chatbot.

SOS Children's Villages and Avanade began work on a Digital Care Assistant chatbot that would become affectionately known as "Rafiki," (friend in Swahili).

Rafiki is designed to be easy to use and available 24/7 with important information and resources about topics such as child protection, mental health, self-care, education and business skills.

66% of nonprofit leaders expect AI to increase the number of human roles required for their organization to operate by the end of 2024.

Source: Avanade AI research, 2023

Retail

Regenerative retail AI: Powering potential, purpose and profitability

If you're in the retail, you're in the people business. This is an industry built by the people, for the people. And there's a shopping basket-full of reasons why people – both consumers and employees – are right to be excited about the arrival of generative AI.

This fast-emerging and fast-evolving technology has the potential to change the way we live, work and shop. From continually elevating customer and employee experiences through to always-optimized operations supported by data-driven decisions, retailers stand to benefit and gain competitive in this ever-evolving industry. We've already seen brands like [Coca-Cola](#) and [Instacart](#) experiment and introduce generative capabilities to augment their brand or customer interactions. These first steps might appear novel to begin with. But it won't be long before any task or process in the retail industry can be either significantly augmented or automated through the smart use of generative AI.

Customer experiences

Engaging, intuitive, frictionless in-store experiences – tailored for customers through their devices.

Customer support

Conversational, contextually relevant customer support across every channel via AI assistants.

Clienteling

Personalized product recommendations and advice for superior sales experience.

Marketing efficacy

Hyper-personalized marketing that truly resonates treating each customer as an individual.

Merchandizing

Data-driven approach to merchandizing strategy, centered on deep customer insights.

Forecasting

Accessible and automated demand forecasting based on evolving shopping behaviour and product preferences.

Pricing and promotion

Optimal, dynamic pricing strategies leveraging real-time customer, competitor and inventory data.

Support portals
Personalized, conversational support for store associates and back-office workforce.

Scheduling
Enhanced workforce management and optimized staff scheduling based on automated data analysis.

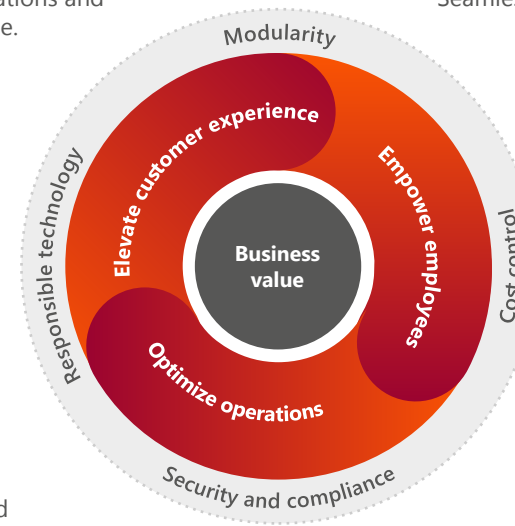
Knowledge access
Seamless knowledge sharing and information access through a user-friendly messaging interface.

Training
Interactive training portals that increase engagement with employee upskilling.

Supply chain
Intelligence-powered supply chain resilience, with real-time data informing supplier and logistics decisions.

Store design
Optimized store layouts, embracing customer traffic data to steer product and signage placement.

Product insight
Automated commercial analysis to direct product prioritization and optimization roadmaps.



87% of retailers are proactively enabling their employees to responsibly use generative AI technologies like OpenAI and ChatGPT.

Source: Avanade Trendlines Research, 2023

The opportunities that you can seize to drive AI-powered resilient, responsible retail growth

- **Compelling in-store experiences:** Gen AI can provide a powerful and personalized in-store experience for customers, unifying online and offline channels to tailor product recommendations. Generative capabilities can deliver automated, intelligent conversational replies relating to customers' in-store queries, while integration with smart space sensors offers the ability to introduce product wayfinding.
- **Intelligent merchandizing:** Utilizing natural language processing and machine learning, customer data can be analyzed to create detailed 360-degree profiles based on purchase history, demographics, and product preferences. These insights can then inform targeted marketing campaigns, optimized pricing strategies, and unearth new revenue opportunities.
- **Personalized support for frontline workers:** Learning from previous interactions with workers, gen AI can provide tailored responses to their specific needs, creating a more empathetic and supportive experience. Additionally, training data can be analyzed to identify areas where additional support or training may be needed, providing on-demand support through chatbots or messaging platforms.



ICA-Roslagstull's AI-powered intelligent retail transformation

ICA-Roslagstull partnered with Avanade to implement our Intelligent Store framework. Built using Microsoft Azure, Azure IoT Edge, Azure Digital Twins and AI technology, the Intelligent Store framework is designed to help retailers like ICA accelerate time to value and unlock value at scale.

For customers this means: Increased product and service accessibility and access to knowledge helps customers more confidently complete their grocery shopping. They can avoid a long line at checkout, get shopping done faster or savor the browsing experience.

For employees: Actionable, role-specific notifications make it easier and faster to complete prioritized tasks, allowing employees to spend more time focusing on increasing customer value and satisfaction.

For management: Real-time notifications enable more immediate remediation, remove safety concerns, increase product accessibility and reduce lost sales. More insights about products and service availability can lead to new, high-value experiences that can keep customers coming back for more.

77% of retailers expect AI to impact their organization's revenue growth significantly in the next 18–24 months.

Source: Avanade Trendlines Research, 2023

Why Avanade?

Unparalleled Microsoft, data and AI expertise

Avanade has partnered with Microsoft on AI for almost a decade and hundreds of clients rely on us to help them responsibly innovate and work with AI to achieve things never possible before.

Our privileged access to the development of Microsoft's new copilot solutions, combined with our long-standing experience of how to make the most of your existing Microsoft investments, enables us to bring unique capabilities to help you more quickly ready your people, processes and platforms for AI and to responsibly scale AI to unlock more value and growth and transform your business.

End-to-end services



Industry Expertise



Emerging Technology



Experience Services



Advisory Services



Solution Delivery



Managed Services



Industry

Microsoft Retail and Consumer Goods

Partner of the Year Finalist (2023 & 2022)

Trusted by 450+ government and public services clients worldwide

13 of the top 20 global banks are clients

21 out of 25 largest US Health Plans

Founding member, NetHope Center for the Digital Nonprofit

Winner, Microsoft Automotive Partner of the Year (2023)

Data and AI

40K+

Data & AI professionals

20K+

Years of data management experience*

4K

Data scientists

18x

Consecutively names Microsoft Partner of the Year 2022

2.2K

Certified data architects

6

4 Data Innovation Centers + 2 Data Studios*

Get immersed in AI

Learn | Explore | Build

Work together with Avanade SMEs to understand and realize the business value of generative AI from Microsoft for your industry.

Avanade will join your team on-site (or remotely) to go in-depth on the business value of generative AI and Azure OpenAI, the technical architecture and use cases that can be realized today.

We partner with you to assess the readiness of your employees, customers, and ecosystem partners, so you can prioritize actions that enable them to adapt and evolve with AI. We also help you to establish governance and operating models to sustainably scale and realize value from AI.

No other Microsoft partner can match our depth of Microsoft expertise, combined with our industry experience.



Choose the path that is right for you

- 1 Two hours learn and discuss**
Generative AI introduction and Microsoft products and use case overview based on OpenAI. Identify questions and brainstorm use cases for your industry.
- 1 Two days hands-on workshop / design thinking**
Workshop focusing on deeper dive to prioritize use cases, journeys to explore, and building trust considerations.
- 3**
Depending on workshop outcomes

Two weeks proof of concept (PoC) / two months minimum viable product (MVP)
Directly build a PoC or MVP to prove the technology and value for one use case based on readiness and use case.

OR
Six weeks strategy assessment
Strategy assessment to help define data readiness, and multiple complex use cases while also reviewing use cases through responsible AI frameworks, defining a roadmap, and return on investment.



Do what matters

**Imagine what
you will do
with AI**

www.avanade.com/ai

Avanade is the leading provider of innovative digital, cloud and advisory services, industry solutions and design-led experiences across the Microsoft ecosystem. Every day, our 60,000 professionals in 26 countries make a genuine human impact for our clients, their employees and their customers. Avanade was founded in 2000 by Accenture LLP and Microsoft Corporation. Learn more at www.avanade.com

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