



Do what matters

Safely innovate at speed with low-code technologies

How to bring Business and IT together with Power Platform





Executive Summary

As developer talent becomes scarce, business leaders must find new ways to provide employees with access to real-time intelligence and modern apps that help them do a better job more efficiently.

Business users, meanwhile, have practical knowledge to solve business problems and deliver more impact, but often rely on IT for access to the data needed to solve these problems.

Today



80% of global decision makers struggle with making the most of data and insights to benefit the business,

and



35% struggle to modernize legacy systems and processes.¹

¹ Source: [Avanade's Future Ready Now Executive Research report](#).

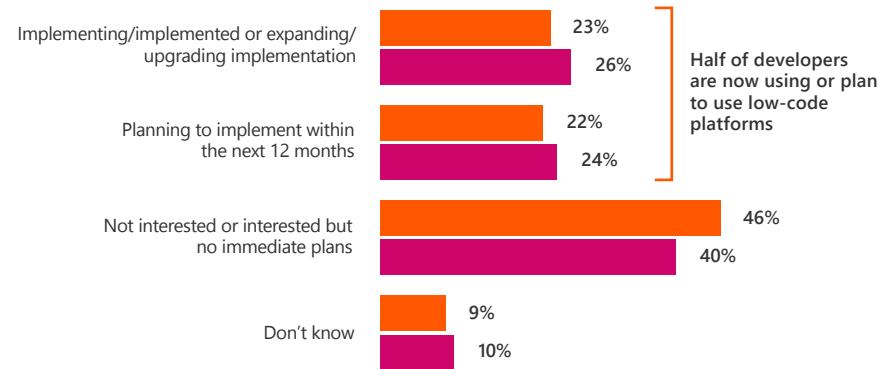
How can organizations bridge the gap between what the business needs and what IT can deliver quickly? Enter: rapid application programming, which can be used to build smart apps and virtual agents rapidly with little to no technical expertise.

While low-code platforms show promise for empowering the business with self-service innovation, enterprises should approach them thoughtfully to drive operational efficiencies, reduce costs and mitigate risk.

About Half Of AD&D Pros Have Adopted Low-Code Platforms - Or Soon Will

Microsoft Is About To Shake Up Low-Code Platforms

“What are your team’s plans to adopt low-code development platforms?”



Base: 3,228 (2018) and 3,295 (2019) global developers
Source: Forrester Analytics Global Business Technographics Developers Surveys, 2018 and 2019

■ 2018 ■ 2019

Read on to learn more about how low-code platforms:

- Provide business and IT benefits including faster time to value, increased efficiencies, and lower development costs
- Impact enterprise ability to innovate
- Require sensible governance to avoid typical pitfalls
- Should align to digital ethics frameworks
- Perform better with a center of excellence model

Microsoft Power Platform

Powerful alone. Better together. We help organizations link them to Office 365, Dynamics 365, Azure, and hundreds of other apps to build end-to-end business solutions using a low-code approach.



Power BI
Business analytics



Power Apps
Application development



Power Automate
Process automation



Power Virtual Agents
Intelligent virtual agents



Data Connectors



AI Builder



Common Data Service

Augmenting IT with citizen development

In an interview from November 2019, Microsoft CEO Satya Nadella cited LinkedIn research stating

“Sixty percent of the jobs in technology now are outside of what is considered the tech industry, and that’s only going to grow.”

As more companies start to move more and more of their processes online, Nadella said he expects to see a shortage of around 1 million developers by 2030, “creating the imperative to find ways for anyone who can use a computer to build apps.”

Business process owners often know how to solve the functional problem but require technology to enable the solution. Traditional methodologies silo technology and business skills sets into separate roles and introduce a third role, business analyst, to sit between developer and business person, interpreting business acumen and process into code-able bites. Even Agile methodologies haven’t fully solved the communication barriers and operations inefficiencies; this is a common enterprise issue which carries significant costs including months of bug-fixing and thousands in budget dollars.

Limitations on technical resources combined with increasing competitive pressure and speed to market present a key opportunity. If software could simplify the development time into usable code, with easier bug fixing capabilities and more up-front testing, development time would be reduced with higher quality output.

While low-code technology sounds promising as a solution for non-technical business users, or “citizen developers”, in the next decade, the reality today is that low-code still requires knowledge of development, standardization and maintenance to be successfully implemented at scale in an enterprise. The business and IT must work closely together to get the most value from low-code technologies like Microsoft Power Platform.

“By 2024, low-code application development will be responsible for more than 65% of application development activity.”

Gartner



The benefits: business agility, self-service innovation and cost savings

Low-code approaches offer the potential to decrease time-to-market and provide a positive total cost of ownership in the long-run, while enabling business process experts ownership of their business in an agile, efficient way. An organization requires support to get the most out of the Power Platform and support IT by introducing, governing and operating the platform and bundling all operational, development and support activities in a Center of Excellence (COE).

In this COE approach, Avanade helps clients build an end to end model from ideation, strategy, and using defined governance and implementation services. By getting more value from Microsoft Power Platform, including Power Apps, Power BI, Power Automate, and Power Virtual Agents, enterprises can realize key benefits to the emergence of low code technologies.

Anticipated benefits and impacts

For the Business:



Automate processes

Automate processes to free up time for more innovative work, and explore data to uncover actionable insights



Empower the business

Solve problems to create smart, secure digital solutions tailored to how people really work

For IT:



Speed to market

Develop apps quickly while retaining the ability to use traditional code-based development as needed



Lower dev cost

Reduce the threshold for application ROI and the need to hire and retain scarce development talent



Proper resource allocation

Distinguish which apps are the most used and in greatest need of oversight, reducing focus on IT app processes that are rarely used.

For the (Employee) User:



Centralized and Personalized

Visualized and embedded into a hub for teamwork for the individual to use daily as part of a modern, secure workplace

Case Study

Global oil and gas leader enables citizen developers

A global oil and gas company's employees needed access to insights across its data estate so they could do their jobs better. When IT could not effectively address needs fast enough, business users charged forward by using low-code technologies to create apps themselves. But the company needed help managing these apps, ensuring that there was a structured approach to their governance that would still support business innovation.

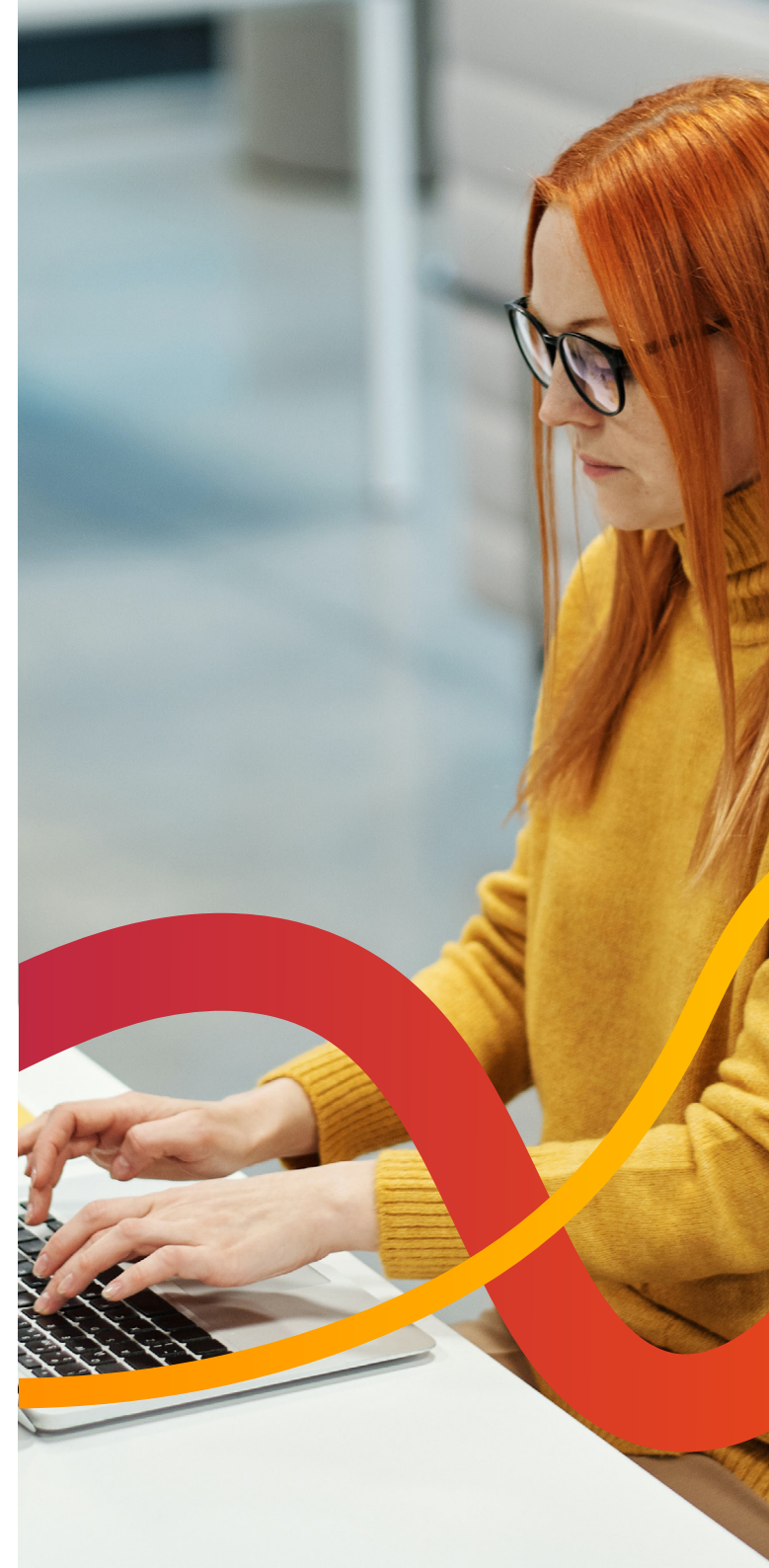
Avanade helped the company shift to the cloud and created a holistic enterprise Power Platform Center of Excellence and solution delivery offering that specifically meets its needs. Now, these cloud-based apps are built at speed and scale. As a result, the company has unlocked more business value (increasing revenues and profit, plus faster time to market) while accelerating development at a lower cost.

How does the low-code movement drive companies forward in an AI-Led world?

- **Client competitiveness:** Low code enables companies to rapidly deploy solutions aligned with strategic roadmap of the business, usually to fulfill a short-term need instead of a whole integrated, architecture solution from IT.
- **Client market relevance:** You can stay on top of the latest technologies, while empowering the entire workforce to add value quickly and effectively.
- **Innovation through research & development:** Organizations can go from problem statement to mock-up to implementation with workshops like Power App in a Day (see page 12).
- **Delivery methodologies:** An agile approach allows a team of 1-3 people to prove and experiment a proof of concept use case in 4-6 weeks to enable expansion and integration to existing business models.

When solutions are based on software-as-a-service (SaaS) that embrace low-code principles, the underlying platform is maintained by the SaaS and new features are automatically added. This is an opportunity for companies to embrace new technologies and features without re-architecting the solution.

Further opportunities to extend the SaaS solutions to suit company's unique business models are more achievable and less costly through low code, no code development. New approaches front-ended by a hub for teamwork impacts packaged software development, as well as data engineering and data visualization supported by tools like Power Apps, Dynamics 365, Power BI, Azure Machine Learning, and Azure Synapse Analytics.



Provide sensible guardrails to avoid these common low-code pitfalls

While enterprises seek to take advantage of low-code platforms, we find that without deliberate management and sensible safeguards for these tools, several challenges emerge.

Risks and impacts



Reinventing the wheel

Business users recreate the same solution multiple times, resulting in wasted resources



Poor design

Design mistakes can lead to performance problems, high costs or bad user experiences for intended employee users



Lack of governance

Users don't follow development best practices, creating broken apps, significant rework, or security issues that can impact the entire organization



Uncontrolled app growth

Because users can easily create apps on their own, large numbers of apps are created but not properly maintained, or are simply abandoned



Report sprawl

Ungoverned self-service analytics capability can lead to report redundancy, inconsistencies in KPIs and security risks



Redundant data sets

Managing data in multiple systems leads to redundancy, making it difficult to identify a single source of truth



Not evergreen

Apps are to be designed with an evergreen mindset, considering constant change to the underlying platform as well as application programming interfaces running a risk

However, with adaptive governance in place, these common challenges can be reduced or eliminated entirely – enabling the business to innovate and accelerate with the help of embedded safety guardrails.

Aligning low-code capabilities to existing digital ethics frameworks

As with all new, widely-distributed technologies, employees may ask how low-code solutions will affect them and the organization at large – and these questions will likely involve ethical considerations.

Answers will require careful deliberation. Low-code implementations typically involve vast amounts of data and automation of critical processes, both of which can open the organization to ethical and very costly dilemmas if disconnected from your organization's [ethical foundation](#).

The business and IT should work together to address some of these likely questions:

Is the business going to use this platform to automate jobs away?

By empowering employees to improve the quality of operations (e.g. shifting from manual, paper-based approval processes to efficient online auto-notification ones), they may start to wonder whether these efficiency gains will lead to lay-offs. Truthfully, they may. Ethically, you'll have to review your program objectives as well as how you communicate them with your workforce. Companies that include employees on their list of corporate values will avoid projects that result in redundancies, focusing instead on increasing scale of existing teams and improving quality of operations.

How do we ensure employee data is not over-exposed?

An important benefit from low-code platforms is the incredible amount of data you can extract to analyze the processes it supports. Whether looking for wider patterns or minute anomalies, executives will have an incredible tool for understanding what's going on across the organization. Without restrictions in place, it could be possible for them to drill down into data representing employee behavior – log-ins, performance data, and other information previously only available to in-line managers and the IT department. In some regions, you'll legally have to restrict access to this level of employee data. In regions where this access is permissible, limit the amount of data you're collecting, and be as transparent as possible with employees about what you're doing with it. Setting up

proper access and authorization to various levels of data – based on role and confidentiality classification – can prevent these kinds of scenarios.

What are some best practices to maintain customer privacy?

As citizen developers build and connect applications, improving customer experience will be a common goal, which means they will be looking for innovative ways to aggregate and analyze customer data. The combination of broader access to data and a wider variety of use cases could create headaches for even the most talented privacy teams. As they struggle to keep up with new assessments and policy requirements, the organization will have to revisit and embed its data ethics framework across its employee base. That way citizen developers make good ethical decisions as they build new capabilities, and they'll know when to ask for help if they're facing an ethical question they can't answer themselves. Low-code platforms require the same, if not more, rigor for application governance as standard software development. Addressing access, authority, and security up-front should help you drive actions that align to your company's ethics and values. Digital ethics should be standard practice for any organization designing, developing or operating digital technologies because it shows employees, customers, executives, and investors that your organization has their best interests in mind. We recommend conducting a digital ethics assessment before implementation.

Where we help organizations embrace the low-code philosophy

Bringing the Business and IT together with a Center of Excellence

Avanade helps organizations use low-code platforms like Power Platform to deliver business agility and self-service innovation with sensible guardrails that protect their best interests. To ensure the highest quality output, Avanade partners with enterprises along their low-code journey, from ideation to establishment of a Center of Excellence (COE). Establishing a COE and applying innovation governance is a critical step that results in effective design, efficiency, business value, and user adoption.

Key aspects of this approach include:

Governed innovation which balances IT focus with business acceleration. As recent [Accenture research](#) shows, **companies that govern innovation extensively delivered 2x revenue growth** compared to those following a haphazard approach.

Using DevOps to document, control, and refine reference solutions and reusable components (e.g. Approval Process functionality).

Leveraging a consistent design and development approach that includes involving COE Solution Architects (that know the best practices and reusable assets) in the Envisioning Phase and perform periodic oversight during the app development.

Leveraging reference solutions and reusable components as a starting point and refine as needed to suit specific business needs.

Challenging bespoke processes when standard processes will drive the same benefits and efficiency.

Identifying and harvesting new, reusable assets at every opportunity.

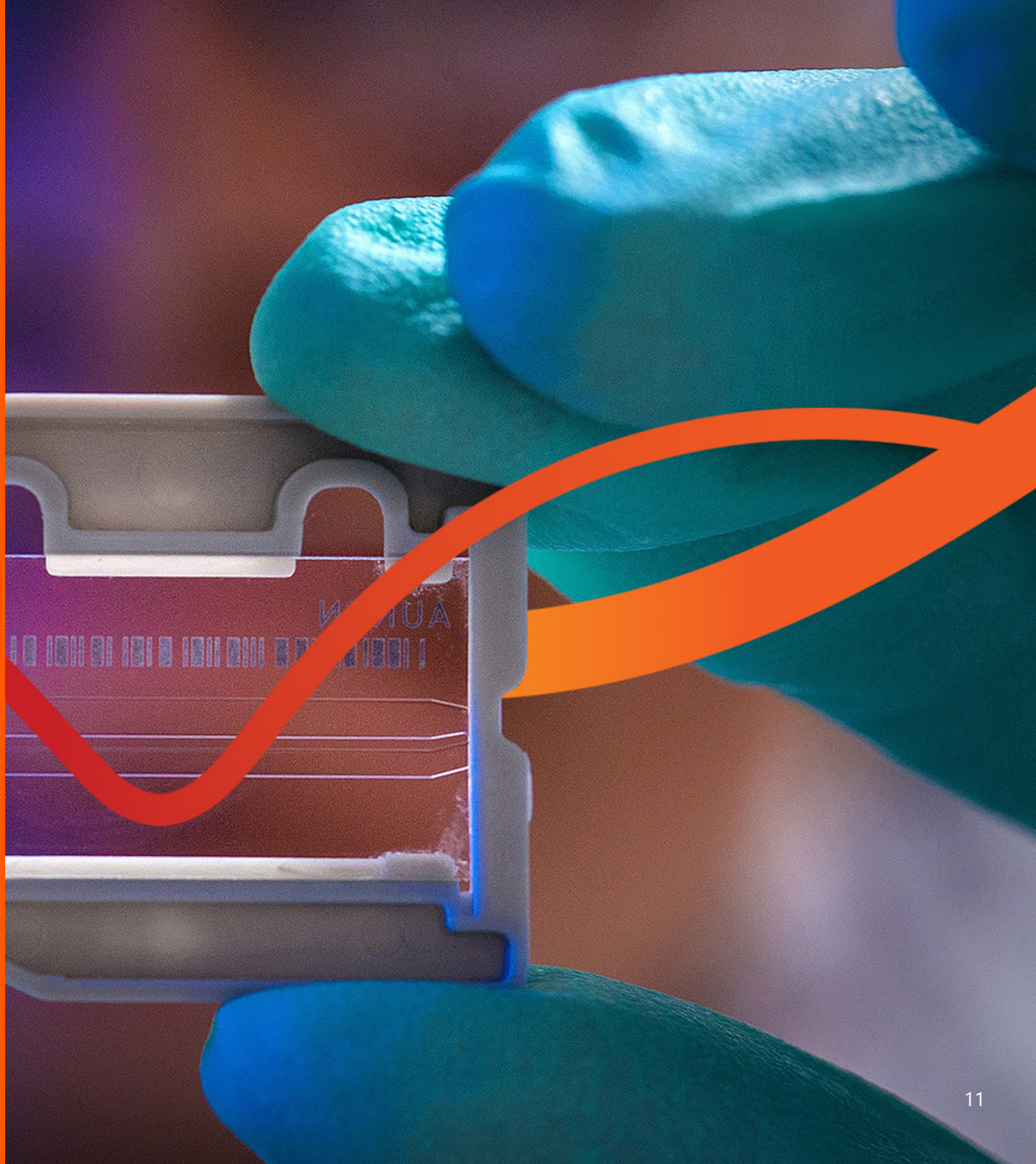
Adoption of Digital Ethics frameworks and governance to enable end users.



How this low-code approach prepares organizations for the future

By embracing low-code approaches with SaaS technologies, supported by a Center of Excellence for business developers, meeting future trends will be within grasp, like:

1. **Technical specializations** for data engineering, machine learning, visualization, and business process automation will merge, breaking down development silos in favor of business-first, whole-dev-lifecycle skills.
2. **Deep technical skills**, like data scientists and software developers, will begin building industryaligned solutions that design themselves based on data patterns and business strategies with Artificial Intelligence.
3. **New business roles** will be created that embrace low code, no code applications into their daily responsibilities. Avanade's Power Platform solutions bring together the tools, people, and processes to make it possible for companies to be future ready.



Source a trusted advisor for your low-code journey

As part of Microsoft and Accenture, Avanade brings together the best of technology, strategy, governance, and design to help global enterprises accelerate to future ready. With premiere knowledge of the entire Microsoft ecosystem, a proven Center of Excellence approach, and recognized leadership in implementing Dynamics 365 and Power BI, we can help you empower business users to act now with intelligent apps, modernize and shift to the cloud to support business demands for these experiences, and establish governance to mitigate risk and inefficiencies.



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Contact us at
www.avanade.com/powerplatform

Take flight with low-code now

Ready to embrace low-code platforms? We can help you start small and go big.

Stage 1. Walk

We can help you start with a small and available data set that can answer key business questions.

Stage 2. Run

Go a step further with short, sharp initial engagements like design-led workshops for Ideation, Governance, and Architecture, and a comprehensive Digital Ethics Assessment.

Stage 3. Soar

Fully embrace low-code and SaaS by participating in a Hackathon, "In-A-Day" workshops supporting the Act, Analyze, Automate capabilities of Power Platform, plus Rapid Prototyping Sessions with PowerApps and Power BI to create high-performing apps at speed.



About Avanade

Avanade is the leading provider of innovative digital and cloud services, business solutions and design-led experiences on the Microsoft ecosystem. Every day, our professionals bring bold, fresh thinking combined with technology, business and industry expertise to help make a genuine human impact on our clients, their customers and their employees. 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. Avanade has 60,000 professionals in 26 countries, bringing clients our best thinking through a collaborative culture that honors diversity and reflects the communities in which we operate. Majority owned by Accenture, Avanade was founded in 2000 by Accenture LLP and Microsoft Corporation. Learn more at www.avanade.com.

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Do what matters