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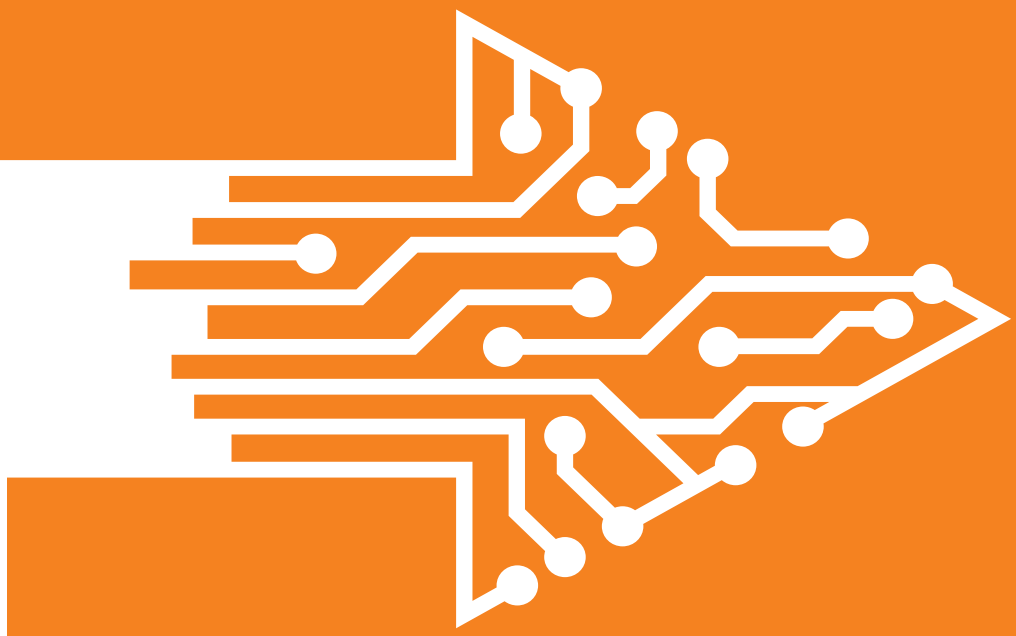

Digital Transformation:

A Business Leaders Guide to the New Digital Age

It's official - the digital transformation game has changed. In this comprehensive guide, we'll explain how to cope with constant chaos and disruption and build the "agile" and "resilient" strategies that'll help you get ahead.

Introduction

Digital transformation is defined in context with current conditions.

Historically, DX was defined as the process of transitioning data, workflows, and processes from analog sources to digital ones. Now, digitalizing processes is far from transformative. It's a basic competency for anyone running a business.

At its core, digital transformation has always been about using technology to generate real value for a business and its consumers.

Still, the game is changing in some pretty big ways.

A 2021 IDC analyst brief (Kissel, n.d.) pointed out that we've already reached a critical turning re: digital transformation. It wasn't that long ago (we're talking: 2019) that digital transformation was largely about self-preservation, disruption, and making plans for the future.

DX wasn't exactly *optional,* but orgs did have more time to prepare for the next digital era – and in many cases, plan DX initiatives several years in advance.

COVID accelerated digital adoption on a scale we hadn't yet seen. Digital leaders upped the "transformation ante." Now, it's harder for everyone else to compete. Data strategies have matured, and the cloud is way more complicated.

Accenture experts (*2*, n.d.) say we've entered "an era of post-traumatic growth." Though, it feels like we're already on the cusp of the next digital age – defined by big data, next-gen AI, and lots and lots of uncertainty.

In this guide, we'll explain what this all means – both on a macro level and for the individual businesses trying to navigate this challenging environment.

We'll cover opportunities, challenges, and emerging tech, then venture into more strategic territory. Later, we'll look at use cases and solutions.

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Foreword

Dear reader,

In a lot of ways, writing an ebook about digital transformation in late 2022 might seem like we're almost a decade late to the game.

No longer an exciting new concept, digital transformation is a reality – no, urgent priority – for competing in a post-COVID, digital-first landscape.

Even if you only passively follow tech trends, you know the "hype" around digital transformation died out sometime around 2016. "Transformation" was absorbed into the modern business landscape and, well, the hype went away.

Now, even though we take digital for granted, DX has gotten both harder to identify and execute. That shift shows just how far technology – and its users – have come in a few short years. And, of course, how much it's changed our world.

Ultimately, we felt it was time for a new digital transformation playbook. One that moves beyond COVID-era digital optimism and paints a realistic picture of DX in 2023.

With tech unicorns going bust, crypto crashing, the emergence of scary-good AI, and the very real possibility of a recession, business leaders have a lot to worry about.

Our goal for this guide is to help business leaders get ready for this impossible – yet critically imperative – challenge.

In it, we'll answer questions like, what does business value look like right now, and how might that change going forward?

How can business leaders prepare for more disruption and uncertainty? And – how to leverage technologies that, let's face it, are scaring a lot of people right now? (We're looking at you, ChatGPT)

It won't be easy, but there are some things that organizations can do to prepare for the future.

Digital transformation is a continuous cycle of incremental improvements and quick, data-driven decisions.

Ryhaan Gil
Director of Digital Transformation

CHAPTER 1

What, Exactly, is Digital Transformation?

Digital transformation (DX) is an expansive and ever-changing concept.

It's also subjective and abstract, often dismissed as meaningless jargon – the kind of stuff pitch decks and hype cycles are made of.

These qualities make it hard to nail down an official definition – and even harder to convince orgs to take DX seriously.

As such, we've dedicated our first chapter to defining digital transformation – as it stands today.

We'll also use real-world examples to help you better understand where digital transformation fits into this crazy post-COVID landscape.

Digital Transformation, Defined

One CIO article describes digital transformation as a "necessary disruption." Which is... both vague and right on the money.

If you're looking for a more traditional definition, digital transformation is the process of embedding technology across the entire business to fundamentally change how it operates and creates value for its customers and other stakeholders.

According to HBR (*1*, 2019), digital transformation is not about specific tools or technologies. It's about outcomes.

Whether that means taking down emerging competitors, anticipating new needs, responding to evolving expectations, or making high-impact decisions in real-time, DX initiatives should always be driven by *your* strategic goals. It doesn't matter what's trending or what your competitors are up to.

Why You Should Care About Digital Transformation

Digital transformation matters because, well, it changes everything.

We're talking: how you collaborate with colleagues, communicate with stakeholders, and engage customers. The way you define strategic objectives, improve processes, and decide what raw materials to buy or services to offer. Even your company's culture and collective mindset.

DX helps businesses become more agile, resilient, and competitive – essentially, it protects against future threats and enables orgs to move quickly to take advantage of emerging opportunities.

In a 2022 report, IBM (*5*, n.d.) calls digital transformation "a way of life" for modern businesses. Experts point out that tech-driven transformations have huge potential to reshape business operations – but only if

orgs stay committed to continuous improvements, rather than one "perfect end state."

Every digital transformation project is different. Each has its own set of goals, metrics, and means of achieving success.

But ultimately, all DX initiatives center on building integrated systems that redefine business models, products and services, and how employees collaborate with each other and engage customers.

Here's a look at 3 key things that all successful transformations have in common:

They're Laser Focused on Value & Outcomes

Transformation projects might focus on removing friction from daily work – whether that's saving people time, providing more opportunities for skills development, or allowing them to focus on high-value work.

Or, they might center on business model innovation, maybe enabling a more effective version of remote work. In any case, DX initiatives should help you achieve a specific set of benefits.

There's more to it than this, but successful transformations start with an integrated strategy and clearly-defined objectives. Make sure you're able to answer the following questions before moving forward:

- *What are you trying to change?*
- *Why are you making this change in the first place?*
- *Do you have adequate data to justify this decision?*
- *What do you hope to achieve?*
- *How will you achieve the desired results?*

Each of those answers should also be linked to quantifiable outcomes – and the KPIs that measure progress toward those goals.

Now, it's also important that you look at DX initiatives through a holistic lens. In one report, BCG experts (Anderson, 2021) call out organizations for taking too narrow an approach.

Often, orgs focus on digitizing individual processes in isolation, rather than redesigning end-to-end processes holistically across all business units. This produces fragmented, inconsistent results, and makes it hard to drive the continuous transformations that will help you succeed long-term.

Delivering on outcomes also means making sure your systems and infrastructure can support your transformation goals. For example, you'll have a hard time accessing – let alone operationalizing – your data without a unified, cloud-based system.

You'll also want to look toward modular solutions – like Dynamics 365 – which will give you the flexibility to rapidly scale up or down with demand and update your stack as your strategy evolves.

Per Forrester (Hopkins, 2022), taking the right action depends on "knowing thyself." There's no definitive list of "best" solutions. Tech decisions should be driven by several factors including: your general approach to technology, appetite for risk, existing processes, and so on.

They're Customer-Centric

Successful transformations start by gaining a deep understanding of the customer's needs and expectations. Then from there, they can start redesigning business processes, products, and services around specific customer outcomes.

Unfortunately, a lot of companies lose sight of the fact that at their core, transformations are driven by the customer.

Aligning DX initiatives around customer needs also means companies need to ensure that their employees are prepared to deliver the desired outcome.

The more you focus on empowering your people, the better outcomes they'll deliver for your customers and the bottom line. Investing in re-skilling employees, for example, ensures that your workforce is always prepared to meet customers where they are right now.

And – automating low-value tasks frees up allows employees to spend more time nurturing customer relationships and solving complex problems.

They're Culture-Driven

Again, digital transformation isn't only about upgrading your tech stack. It's about changing how you work, communicate, even think – on an org-wide level.

It's important to understand that transformations on this scale and scope demand serious systemic change. In other words, businesses need to transform their culture – *way* before technology comes into play.

A recent MIT Sloan (Pedersen, 2022) piece argues that DX must balance cultural change and continuity to be sustainable and secure longevity. The idea is, most failed transformation initiatives prioritize cultural change at the expense of continuity – a misstep that results in chaos.

That said, continuity without change creates a culture of conservatism, which doesn't exactly support innovation or transformation.

The article highlights the New York Times as one of those companies that really nailed that balance. NYT was able to maintain cultural continuity while adapting to a changing media landscape. They embraced a new format, but kept the same commitment to quality reporting (and hard copy holdouts still have the option to get an actual paper delivered to their door).

The point is, transformation isn't about throwing out the stuff that's working, it's about adapting your business to new conditions.

Final Thoughts

We hope this gives you a better understanding of what digital transformation actually means in context with today's business landscape.

Again, DX is about implementing the tools, tech, talent you need to get you where you need to go – and bolster your business against future unknowns. The means of getting there aren't quite as important.

Additionally, digital transformation isn't a fixed thing. Finishing one transformation initiative doesn't mean you've reached the end of the journey – there's always something you can automate, optimize, or improve.

Today's business leaders need to think of DX as another element of their day-to-day, not this big push for change that comes around every decade or two.

In the next chapter, we'll focus on some of the high-level trends and technologies that define the digital landscape right now – and how they're evolving in response to the next wave of disruptions.

CHAPTER 2

The Current State of Digital Transformation

There's no shortage of people who argue that "digital transformation is dead."

Arguably, there's some level of buzzword fatigue at play – you can see here in this Next Web piece (Mansour, 2021). But, while the author rails against the term "digital transformation," they do talk about the importance of "reimagining industries" to create a competitive advantage.

Which... sounds pretty "transformative" to us.

Other critics might just misunderstand the meaning of DX. Perhaps interpreting "transformation" as a passing trend, rather than an ongoing cycle of improvements and upgrades.

No longer a buzzword, digital transformation isn't just here to stay – it's a high-stakes game of survival.

In these next few sections, we'll shed some light on what digital transformation looks heading into 2023 – and what that means for forward-looking business leaders.

Digital Leaders are Miles Ahead of Laggard Peers

It took a pandemic to finally convince the digital holdouts that transformation is an urgent priority for all businesses – regardless of size, sector, or strategic goals.

A 2022 IBM report (*5*, n.d.) found that 60% of companies accelerated DX investments due to the coronavirus pandemic and 55% permanently updated their strategies to more aggressively pursue transformation initiatives that support long-term flexibility and agility.

According to BCG (*10*, n.d.), the top 35% of leading companies are at a serious advantage. Analysts say we're in the midst of a major "digital retooling," and companies with a strong digital foundation are investing in transformation and innovation at scale.

What's more, those investments span all core business processes – sales, service, marketing, IT, the C-suite, and so on. Savvy business leaders understand that you won't get far focusing on one business unit or process at a time.

Meanwhile, the gulf between digital leaders and laggards is getting wider.

Accenture (*11*, n.d.) data found that tech leaders have moved further ahead of the pack, and are now growing, on average, 5x faster than their laggard counterparts.

During the pandemic, leaders scaled up investments in AI, cloud, and automation, allowing them to adapt to new conditions and reallocate IT budgets toward innovation and growth.

The laggards, on the other hand, were investing in initial cloud migrations. Or, they were scrambling to support remote work. It's easy to see how these digital disparities led to this massive divide – the problem is, the laggards will have a harder time catching up.

Data Takes Center Stage

Microsoft (*11*, 2022) calls data the "new currency of digital transformation," which sounds about right.

COVID shone a light on the need for real-time insights and greater visibility, exposing glaring weaknesses in business models and strategies. Now, with inflationary pressures and economic uncertainty on the rise, becoming data-driven has taken on an even greater sense of urgency.

Businesses are increasingly relying on data to ensure they get things right the first time, drive greater efficiencies, and respond to new demands. They're also digging into the data to embrace service-centric business models that deliver recurring revenue streams or allow them to enter new markets.

Gartner (*12*, n.d.) advises business leaders to use data to optimize IT spending and reinvest those resources into key growth areas.

Experts recommend continuously monitoring core focus areas for optimization opportunities, using analytics to manage cloud costs, and using IT as an enabler for identifying opportunities to innovate, improve, and restructure key processes.

A recent McKinsey survey (*13*, 2022) found that 80% of CEOs believe new business building is the key to "driving growth" under turbulent conditions. What's more, business leaders report that new business investments generate, on average, twice the amount of revenue as core business models.

And, another study from Forrester and Microsoft (Ballinger & Kumar, 2022) found that 40% of respondents are actively reworking financial models. They're refining product offerings, but also rethinking how they package services and charge customers. According to researchers, revenue recognition is the primary driver of business model transformation. But – improving planning, strategy, and collaboration are essential here, too.

Today's data strategy is about leveraging insights to carve out a competitive advantage.

That process, as we know, starts with establishing a unified digital ecosystem and democratizing data – ensuring that everyone has access to the insights they need to do their work – and that everyone is working from the same version of the truth.

But, that's only the beginning. As AI and machine learning go mainstream and automation continues to accelerate, orgs will need to step things up if they want to stay in the game.

Cloud Strategies are Evolving

Cloud computing isn't new, but it's definitely evolving.

A 2021 TechRepublic piece (Combs, 2021) reported that changing regulations, antitrust reforms, and new geopolitical frictions are forcing strategies to evolve.

So, you've got AI and robotic process automation (RPA) enabling organizations to create more efficient and secure cloud environments. Which is great, except, those companies also need to ensure they're able to meet data privacy and regulatory requirements across multiple countries.

Heading into 2022, Forrester predicted (*11*, n.d.) enterprises would start moving away from hyperscalers (AWS, Google) in favor of smaller, industry-specific cloud service providers (CSPs) that address specific competitive challenges.

Last year, Splunk (*13*, n.d.) called edge computing the next "multi-cloud." While we're not quite at the point where industrial use cases have hit the mainstream, they are getting close. Forrester analysts also predicted that edge and IoT would drive new solutions aimed at lowering emissions and driving greater energy efficiency and improve resource management.

This year, we're seeing a lot of these same themes.

What's different, however, is that orgs are optimizing cloud strategies to cut costs and maximize the value of their investments.

As cloud strategies become more complex, IT leaders are increasingly leveraging tools that can help them manage sprawling environments and keep their data safe and compliant.

AI and ML are helping orgs build out their cloud infrastructure (*14*, n.d.) and handling tasks like security monitoring and energy regulation. Additionally, low-code/no-code platforms are making cloud-native development more accessible, fueling cost-effective innovation – at speed and scale.

IT Faces Tough Decisions About Digital Investments

Global IT leaders (Sustar & Lu, 2021) rank "lowering costs" as their number one priority for 2023, followed by reducing security risks and digital transformation.

Obviously, this trend tracks with the current economic climate.

As Splunk's 2023 (*15*, n.d.) predictions paper points out, economic uncertainty kills organizations' appetites for risk and experimentation. Even the slightest hint we're heading toward a downturn scares people away.

The problem is, orgs can't afford to deprioritize DX. Cost-cutting and cybersecurity can't happen without investing in digital transformation.

Recession or not, we've reached the end of what Accenture (*16*, n.d.) calls "abundance thinking." Between supply chain problems, labor shortages, climate change, and even austerity laws, experts advise orgs to prepare for the worst and design business models with scarcity in mind.

It's not as bleak as it sounds.

It's more about being more intentional about, say, the materials you use and where they come from. Or, making sure that you don't waste resources on developing a new product until there's enough data to prove there's a legitimate need.

IT decision-makers are in a tough spot – forced to balance cost savings with growth and innovation (*16*,

n.d.). They're seeking more justification for DX initiatives and digging into the data to ensure that they're hedging their bets on a sure thing.

Unfortunately, innovation doesn't always play by the rules. Decision-makers must leave some room for flexibility – and potentially, failure. Otherwise, they'll lose out on opportunities by playing it too safe.

Final Thoughts

Digital transformation is a reality of doing business in the digital age – and that's not changing.

Today's companies must redefine existing assets, mindsets, and strategies to enable resilience, agility, and long-term growth.

Beyond that, it's important to understand that transformation is no longer this once-in-a-decade sprint. It's an ongoing cycle of incremental improvements.In other words, once you commit to DX – you're locked in for life.

In chapter 3, we dive deeper into the "why" behind digital transformation to learn more about the converging forces shaping our digital strategies, decisions, and tech investments.

CHAPTER 3

What's Driving Digital Transformation Today?

Several factors are driving today's digital transformation efforts.

Many are familiar. For example, keeping up with customer expectations has been a strategic mainstay since Amazon's customer obsession became known to the public.

Then, of course, remote collaboration tools and big data have been on the rise since the earliest days of smartphones and socials.

And, now? Well.. we're kind of in a weird place.

Between COVID and climate change, the crisis in Ukraine and ongoing supply chain woes, inflation, layoffs, and a looming potential recession, orgs are realizing that they can't go it alone.

In this chapter, we look at what's driving digital transformation right now and how those forces shape day-to-day decision-making, collaboration, and the overall business strategy for organizations of all sizes and sectors.

Coping with Uncertainty

Businesses are looking at technology as more than a competitive advantage.

According to Splunk 2023 DX predictions (Maraqa, 2022) a core focus for all types of businesses is building resilience in the face of uncertainty. Agility, flexibility, and scenario modeling are key themes in this space right now, and there's a real emphasis on survival.

Businesses might not be able to predict the future, but technology can help them make sure they're ready to pivot to the most effective strategy and provide relief when disaster does strike.

Gartner's Top Strategic Technology Trends for 2022 (*17*, n.d.) included several emerging technologies that support agility and resilience, including,decision intelligence, composable apps, generative AI, and hyperautomation.

They also enable companies to actively drive change, rather than passively reacting to it.

For example, many organizations have embraced solutions like virtual twins (Bentley & Murdzhev, 2021) and predictive modeling to come up with a realistic game plan for resilience – no matter which version of the future we end up with.

And, on a more ominous note, AI insights help businesses prepare for future wildfires, hurricanes, extreme heat waves, and other climate horrors.

Analysts also reported an uptick in companies investing in solutions like data fabric, cybersecurity mesh, and privacy-enhancing computation – technologies that enhance trust, mitigate risk, and protect the business from emerging threats.

In this year's tech trends report (*17*, n.d.), Gartner built on those themes, homing in on a more strategic set of objectives. For example, experts advise IT leaders to strengthen their digital immune system.

They also recommend applied observability to systematically optimize operations – using real–time metadata to make fast, accurate decisions. Other trends center on more complex strategies like platform engineering and building an ecosystem of industry-specific clouds.

Keeping Up with (Impossible) Customer Expectations

Customer standards continue to rise. Now, that's old news, to be sure.

But, it's important to remember that customer expectations remain the driving force behind most DX initiatives. They push organizations to develop innovative solutions and embrace new technologies to solve problems, eliminate friction, and fill gaps in the market.

It's worth thinking about customer expectations the same way you think about digital transformation itself – constantly evolving. Today's customers want very different things from brands than they did back in 2019.

Per the Siemens 2021 ROI of DX survey (Feuer, 2021), customers want smarter, more complex products that offer better experiences or help them solve their own DX challenges. Companies must respond by fully-embracing hyper-connected systems, automation or AI analytics (*18*, n.d.) to rise to those new expectations.

Business leaders should also focus on redesigning business models, products, and services around customer outcomes.

For instance, how might embracing automation or integrating Power BI into your ERP solution support customer centricity – either directly (think–better products or more self-service options)? Or indirectly (helping employees work faster, generate more value for end-consumers)? And, what will those solutions help customers achieve?

Ultimately, DX strategies and decisions about what belongs in the tech stack need to be informed by real customer feedback – how does technology enable your ability to deliver what individual customers need and/or want right now?

Investing in Digital-First

There's still a big push to make remote and hybrid work better (Torres, 2022).

We've seen this quite a bit with Microsoft, which has invested heavily in upgrading its collaboration tools (Herskowitz, 2021) – rolling out new capabilities and establishing tighter integration with ISV solutions and the rest of the MS ecosystem.

Initially, it was about making those "temporary" COVID investments more effective, resilient, and secure. Some business leaders eventually cooled on the idea of remote work, though, given its popularity among workers, getting rid of it altogether was never going to fly.

What's changed within the past few months is, some companies are walking back their return to office plans and looking at remote work through a new lens – an opportunity to cut costs, without laying off staff or giving up on investments in more critical areas.

Regardless of their stance on remote work, orgs are looking for ways to improve the digital experience.

How can they provide faster service, be more productive, better educate audiences, win more business, make smarter decisions? How can they ensure tighter security protections or enforce data governance?

All of this links back to meeting customer expectations and empowering teams to generate meaningful value.

Think back to that moment when everything "went virtual" in 2020. Zoom meetings, webinars, and virtual events exploded.

Some of those changes were actually pretty great for businesses and their customers. But a lot of those early pandemic experiences really sucked.

Instead, businesses need to be more thoughtful about the kinds of experiences technology can create.

How can tech investments help you create new experiences that you can't get in person?

What kind of insights will these investments bring into the fold – and can they be monetized or used to drive process improvements?

For example, if you're a CPG or distributor, investing in e-commerce first enhances the customer experience – potentially increasing revenue and retention rates.

But, beyond that, it also provides more insight into your customers' habits and preferences, which can be used to support decisions about inventory planning or new service delivery models.

Weaving Sustainability into the Broader Strategy

Amid historic wildfires, flooding, drought, and record-setting heat waves, sustainability has solidified its place in the enterprise transformation strategy, becoming an urgent priority, for literally all of us, even orgs with no obvious "green angle."

Business leaders across all industries are recognizing that sustainable DX is more than branding, it's self-preservation.

Concerns about climate change and new environmental policies and regulations are now part of the digital transformation conversation. And, these days, sustainability goals are informing decisions about cloud investments (*20*, n.d.) and AI.

Orgs are leaning on technology to curb emissions, source more sustainable materials, ID opportunities to say, use alternative energy sources or partner with local vendors in the regions they operate in.

Advanced analytics and AI are also helping them track and measure emissions targets and optimize

supply chains for sustainability. For example, orgs might use IoT data to turn off the AC when no one is in the office or to optimize server performance to conserve energy.

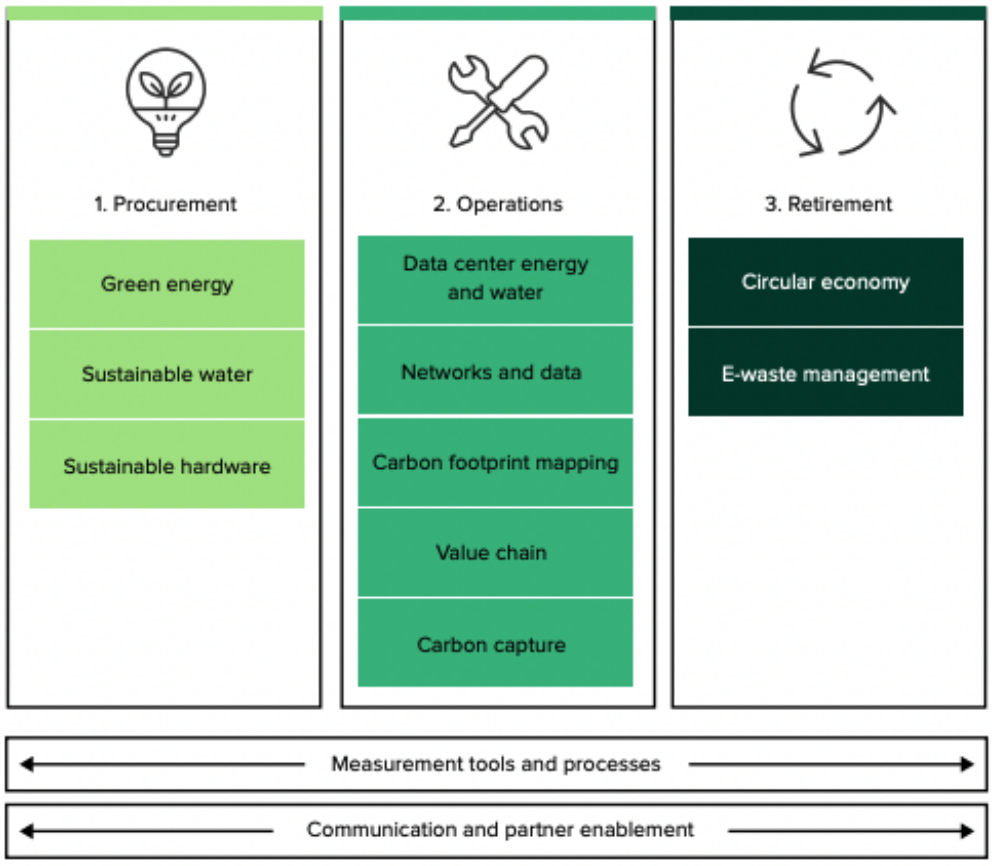
Like all DX projects, sustainability transformations begin with identifying a data-backed use case. Forrester's ROI of Sustainability report (*21*, n.d.) emphasizes that this is a crucial step toward gaining decision-maker buy-in.

It allows you to evaluate the potential impact of a proposed initiative on a holistic level – the impact on customers, sourcing decisions, or breaking off partnerships with "climate villains."

It also makes it easier to set clear goals, define KPIs, and align sustainability objectives with harder metrics like ROI, growth, and net profits.

For reference, here's the framework from that report:

Figure 1



Final Thoughts

Many of today's digital transformation drivers are the same as those driving prior transformation initiatives. But current conditions, combined with rapidly advancing (and more accessible) technologies has upped the ante – pushing us into a brand new digital age.

Companies will need to build on what they've learned in the past few years – refining and scaling digital strategies – and making sure they're prepared to pivot as conditions change.

In chapter 4, we look at what businesses stand to gain when they go "all-in" on digital transformation.

CHAPTER 4

The Business Benefits of Digital Transformation

Digital transformation doesn't offer much of a competitive advantage these days.

It's become this basic competency for running a business – any business – in this wild and complex digital landscape.

Put another way, it's digitize or die.

Despite the grim realities forcing businesses to accelerate their modernization initiatives, transformation comes with some pretty compelling benefits – regardless of industry, size, or digital maturity.

In this chapter, we'll give you a quick rundown of five game-changing benefits digital transformation brings to the table. And, hopefully, you'll come away with a sense of optimism – rather than obligation, fear, or dread.

1. Lay the Foundation for Success

In its 2021 Digital Transformation Executive Survey (Gurumurthy, 2021), Deloitte points out that digital has gone from being this "enabler" of strategy to the foundation that *all* competitive strategies are built on.

The survey findings confirm the obvious. "Digitally mature" companies are more resilient and better equipped to navigate rapid change than lagging peers, and have a greater capacity for innovation. Leading orgs also see better financial outcomes than those with underdeveloped digital capabilities.

While there are countless ways that DX could help your businesses slash costs, reduce waste, and save time, the real-game changer is upgrading your legacy tech and processes.

For example, migrating to the cloud means you're no longer overspending on software upgrades, maintenance, or keeping your servers running 24/7. Automating manual tasks allows human workers to focus on activities that generate real business value, serve more customers, and deliver high-quality solutions.

2. Unlock the Power of Big Data

We talked about how shifting away from on-prem systems and digitalizing processes paves the way for big wins. One of the most important ways that these digital upgrades fuel growth and profitability is by enabling organizations to extract more value from their data.

See, digital transformation is always about data. So, having a unified, cloud-based system that releases data from its silos and makes it easy for anyone to work with those insights is an essential step toward the large-scale transformations that set you apart from your competitors.

According to Forrester (*24*, n.d.) research, a new type of company is emerging – one that embeds data, advanced analytics, and continuous learning into its entire operating model.

These "insights-driven" businesses capture and analyze the right types of data – then continuously derive actionable insights from those data sets and apply closed-loop processes.

In other words, a strong data foundation unlocks the agility, flexibility, and intelligent decision-making you need to compete.

3. Drive Operational Efficiencies

One of the greatest advantages of digital transformation is that it allows businesses to leverage AI, ML, and automation to drive efficiencies at every level.

That might mean building intelligent workflows that enable you to respond in near real-time to rapidly changing customer needs and market conditions, ramp up production, or personalize at scale.

But – you can't do everything at once. Automation demands a phased approach. Early DX projects will focus on eliminating manual processes to save time, money, and prevent errors – but it doesn't end there. Eventually, AI and automation become "strategic partners" that help companies unlock new opportunities to create value.

That said, even the more "basic" automations can have a dramatic impact on your business.

Automating accounts payable (AP) workflows alone lowers invoice processing costs, speeds up processing times, and reduces exception rates.

According to a Metafile white paper (*25*, n.d.), the average invoice processing cost hovers somewhere around $9.25. Yes, that's per invoice and before additional costs like paper and printer ink come into play.

Think about how many invoices you process each day, and, already, you're looking at some serious cost-savings.

Professional services firm CumulusPro (*26*, n.d.) leveraged Azure's data management and storage solutions to streamline billing solutions, generate app usage reports, and tackle data challenges.

The company used Azure Data Factory to automatically pull data from various sources at set intervals – and in response to event-based triggers. The data is stored in Azure Data Lake and integrated with Power BI for easy reporting. Data Factory pipelines gather additional insights for analysis and automatically transform that data before storing it.

These improvements enabled the company to run reports on client usage patterns, process-related issues, and complex billing models and proactively address concerns. CumulusPro can now deliver solutions to clients faster – and they've been able to add more customers to their roster.

McKinsey estimates (*26*, 2020) that organizational agility could boost financial performance by up to 30%. But – analysts note that "agility gains" may not translate to obvious profit or loss, as many strategic decisions will be about reducing waste or reinvesting resources into growth opportunities or future transformations.

That means, you'll need to define clear DX goals and figure out which metrics to use to chart your progress. Ultimately, you'll need to develop continuous improvement strategies that set the stage for sustained growth and innovation.

4. Enable New Ways of Working

Whether you're all-in on a full return to office or fully-committed to the flexibility offered by remote work, investing in remote-hybrid work is a non-negotiable for the modern business.

But, it's important to understand that the remote game has changed. If phase one was focused on getting to the cloud and ensuring that everyone could complete essential tasks from home, phase two is about using technology in a more thoughtful way.

That means, digital transformation projects need to go beyond Zoom calls and uninspired virtual events and focus instead on high-impact areas that unburden employees from day-to-day friction.

Note that "high-impact" doesn't have to mean "overly complex" or "expensive." Instead, consider how you might make it easier for employees to locate critical information or what you can do to eliminate friction from daily workflows.

Chedid Capital (*28*, n.d.), an investment group that specializes in the insurance industry, used the Power Platform to create a more accessible and efficient system for managing performance reviews for its 600+ employees across 15 locations.

Pre-COVID, objectives and performance metrics were tracked via Microsoft Word and Excel and the reviews themselves were done in face-to-face meetings. This made it difficult to retrieve docs, processes were error prone, and there was a lack of transparency.

Users can track progress toward daily targets and yearly goals and discuss them with their colleagues and supervisors in Teams. The app feeds data into Power BI, so HR can see company performance at a glance and drill down to specific departments or employees to learn more.

Managers can provide clear feedback during performance reviews – and intervene when employees are struggling. And employees have a better understanding of what's expected of them – and what they need to do to improve their performance.

Empowering employees could come in the form of an infrastructure upgrade, like Siemens Healthineers (Sokolowsky, 2021).

Historically, the company, which provides diagnostic medical equipment and software to hospitals, ran hundreds of thousands of apps and workloads from its on-prem data centers. It did use some hybrid solutions, but only in a limited capacity.

This made it difficult to update machines and support clients. What's more, the company frequently ran into problems – transferring large files on hospital networks with low bandwidth or navigating restrictions re: patient data storage.

Last November, Siemens adopted Azure Arc (*29*, n.d.), which enabled them to seamlessly connect to client

equipment remotely – allowing them to deliver updates and new service offerings faster and more often – while also maintaining consumer privacy and security requirements..

The Siemens team can now develop, improve, and deliver new solutions like embedded AI to equipment that's currently in-use – helping its healthcare clients make smarter decisions that support better patient outcomes.

Even if you're not particularly inclined to make things easier for employees, there's a hidden cost that comes with sticking with outdated or inefficient processes and solutions.

For instance, if employees are relying on outdated solutions or poorly-designed processes they waste a lot of time and make a lot of mistakes, which can undermine the customer experience, data integrity, and your profit margins. It also increases the risk of data breaches, regulatory non-compliance, and inconsistent customer experiences.

5. Transform the Customer Experience (and the Bottom Line)

Most companies are sitting on a gold mine of customer insights.The problem is, they can't effectively use them – or in many cases access them – to reliably move the needle on CX goals.

Digital transformation helps companies leverage valuable customer insights to create personalized journeys, content, and experiences. Those insights allow employees at all levels to understand customers on a deeper level – and in turn, use them to drive every aspect of the business strategy.

When strategies are set by the customer's needs, preferences, and behaviors, companies are in a better position to make profitable decisions.

Choices about what products and services to offer, messaging and engagement strategies, and service delivery options can all work together to reduce waste and boost revenue.

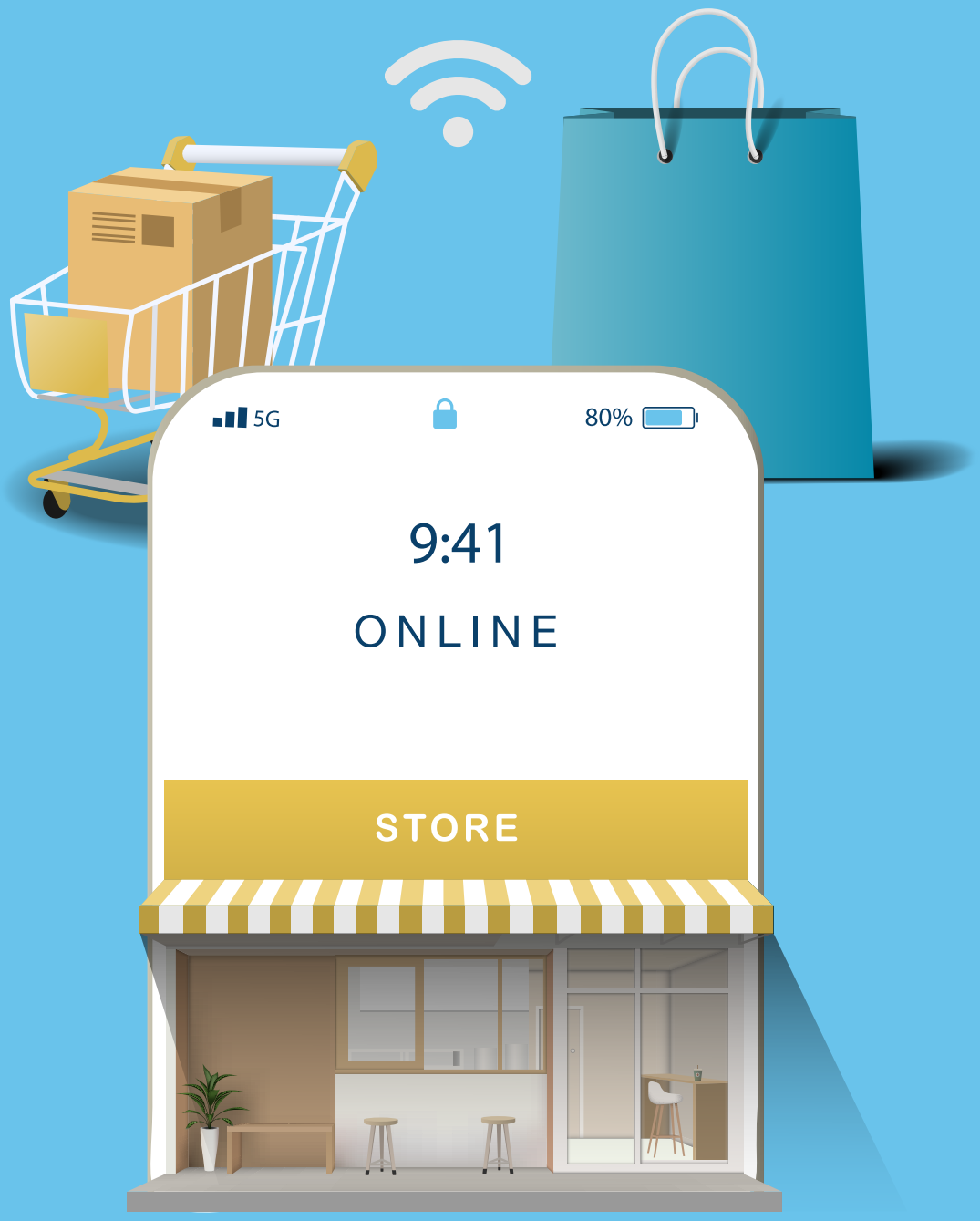
Final Thoughts

Done right, DX stands to improve the customer experience, streamline operations, and drive sustainable growth. It boosts the bottom line on two fronts: by first, by generating more revenue and second, unlocking opportunities for cost-savings across the entire value chain.

The business benefits we've outlined here are industry-agnostic and apply to orgs of all shapes and sizes – regardless of what they sell or who they serve. That means, DX benefits are as vague as they are exciting and essential.

Goals like "transforming the customer experience" or "increasing process efficiencies" serve as DX skeletons that need to be fleshed out – with real data that reflects the unique pain points, requirements, and goals of your business and its customers.

Our next chapter focuses on the benefits, challenges, and opportunities of digital – specifically for SMBs.



CHAPTER 5

Digital Transformation for SMBs

Digital transformation is no longer a luxury reserved for enterprises with deep pockets.

For better or worse, it's a universal requirement – a matter of survival for any business, regardless of size, trying to make it in this wild, uncertain digital environment.

Luckily, digital transformation for SMBs is more accessible and affordable than ever. But the flip side of that is, the stakes of DX have become much higher – when you're running a business with access to fewer resources – be it talent, tech, or capital. – there's very little room for error. If digital transformation initiatives fail, the business may soon meet that same tragic end.

Read on, and we'll explain why DX is an urgent priority for all SMBs, and what steps they can take to transform with minimal risk.

How SMBs Can "Win" at Digital Transformation

Digital-first SMBs are better equipped to meet customer needs, slash operating costs, measure and improve business performance.

But, getting there isn't easy. SMBs face barriers enterprise leaders barely need to consider. Inflation, for example, may be seen as a temporary expense for larger orgs that can afford to eat it.

Enterprises also have more options when it comes to sourcing materials. For example, they can afford a temporary hit to margins if it means customers get their orders on-time. Whereas, SMBs typically don't have the wiggle room to pay more for materials or fuel costs – even if it make good business sense.

Alternatively, SMBs tend to have more flexibility – with fewer decision-makers and administrative barriers to consider, small teams can quickly establish consensus and take immediate action. And, cultural resistance tends to be less of a problem – likely because there's more trust among smaller groups.

While digital transformation presents some unique challenges for SMBs, there are a few things you can do to make things easier. Here, we've outlined some high-level best practices for DX success:

1. Let CX Drive the Strategy

Customers have the same expectations for SMBs as they do for massive global enterprises. In other words, SMBs are competing with the Amazons of the world with a tiny fraction of the resources.

According to Salesforce, 83% of customers expect to interact with someone right away when they contact a company, and 78% say they've used multiple channels to start and complete a transaction.

Another Salesforce report found that 70% of SMBs say their customers expect online transactions, and

two-thirds reported that improving community support on digital channels has played a key role in their company's survival during COVID.

For nearly half of those companies, DX investments allowed them to become deliberate and transparent in their communications and turn their focus toward fostering long-term connections, while 42% said they expanded the number of channels customers can use to get in touch.

2. Invest in Fundamentals First

With fewer resources at their fingertips, SMBs are less likely to survive a downturn –while the typical enterprise has the means to pivot when conditions change and can make strategic investments while the rest of the market suffers.

For example, many enterprise organizations ramp up M&A activity during downturns. It's an effective way to expand offerings and tap into existing teams of experts with in-demand skills.

Lack of resources is a problem that goes way beyond access to capital. It impacts everything from hiring, training, and retention to cybersecurity and data maturity.

Say, your team doesn't have much experience working with data and you can't hire a data scientist. You'll likely run into issues using insights to drive action or fail to detect a security threat before it's too late.

According to a Sage survey, SMBs are increasingly prioritizing investments in reputation management, cybersecurity, and remote collaboration – across a wide spectrum of industries.

However, "digital fundamentals" such as accounting, CRM, and HR software represented the lion's share of DX spending.

While Sage bafflingly frames these investments as "trends," the findings point toward an important shift – evidence of a widespread understanding that transforming core business areas with cloud-based tech is the first of many steps in the DX journey.

That core financial data serves as a foundation that informs everything from sales and marketing to project management, HR, and customer service because literally everything links back to the bottom line.

3. Prioritize High-Impact Areas

DX investments help SMBs make major quality improvements to products, services, and the overall customer experience.

According to a report commissioned by Visa, even just investing in basic digital tools like online payments, loyalty programs, and rewards goes a long way. Two-thirds of SMBs say customers spend more when using digital payment methods.

Digitalization has enabled smaller companies to scale 1:1 connections without losing the authenticity customers crave.

While self-serve support options, virtual agents, and automated email sequences and dynamic personalization capabilities help time-strapped teams do more with fewer resources. And – it paves the way for the kinds of data-driven decisions that mitigate risk, eliminate waste, and increase profitability – even in the face of uncertainty.

Across the board, SMBs must focus on making really these strategic investments – investments that align with their customers' most pressing pain points and requirements – and their own.

Big companies have more resources that first hand to help them weather the storm – making it harder for SMBs to compete.

SMBs need to get over that first hurdle (money) to invest in the tech and talent they need to make DX happen, looking for opportunities to cut-costs in non-core areas, and reinvest IT resources where it counts.

4. Pick the Right Tech For the Job

Certain aspects of digital transformation (think – culture, hiring, and training) require significant investments, but the tech itself isn't typically the biggest expense.

These days, even cash-strapped SMBs can drive powerful transformations, as solutions like advanced data analytics, machine learning, automation, etc. have become more affordable – and just, well, better.

For example, Dynamics 365 BC allows SMBs to save money with multi-tenant hosting. That means, smaller businesses aren't stuck with limited SaaS plans while the "good" features are reserved for enterprise users.

5. Focus On Security From the Get-Go

Building on our last point, you'll want to make sure that security is part of the selection process. Getting to the cloud significantly reduces cybersecurity risks – but only if security is embedded right from the very beginning. This is important regardless of size or available resources but SMBs are less able to recover from a ransomware attack or high-profile data breach than their enterprise counterparts.

6. Team Up with the Right Partner(s)

SMBs are more likely to succeed when they have a trusted network they can rely on. A big part of this is working with the right technology partners – including consultants, IT providers, and experts that can guide the planning and implementation process.

In a separate post, we share tips for finding the perfect-fit Microsoft Dynamics partner – check it out before you start your search (by the way, the advice holds up whether or not you're looking at Microsoft solutions). It's also a smart idea to team up with other business owners and entrepreneurs, industry associations, etc. – people you learn from and share lessons learned on the job.

Final thoughts

Any modern business needs to meet a certain standard to compete in this digital era and SMBs aren't exempted from this requirement – even if it seems a bit unfair.

In the next chapter we'll go big – this time, exploring digital transformation from an enterprise perspective.

While there's certainly some overlap between the two groups, enterprise leaders face a whole other set of challenges and opportunities due to their size and the resources they have at their disposal.

CHAPTER 6

Digital Transformation for Enterprise

Digital transformation for enterprise organizations requires a completely different approach than what you might use to transform the average SMB.

It's not just a matter of resources, talent, or whether you've got enough cash flow that you can tap into whenever you need to upgrade, upskill, or do a 180-degree pivot at the last minute.

While enterprise orgs have many advantages over their small biz counterparts, their size and overall complexity creates a whole new set of challenges most SMBs don't have to think about.

In this chapter, you'll learn about the unique barriers and opportunities enterprise leaders face throughout their digital transformation journeys, as well as what it takes to succeed in this challenging landscape.

Get Better at Taking Action

If companies want to stay relevant, competitive, and profitable, they need to level up their agility in a big way.

Most enterprise leaders understand that becoming more agile is a matter of survival. However, putting concepts into action remains a major challenge for large organizations. Compared to SMBs, enterprises struggle to make quick, intelligent decisions and immediately put them to work.

Size, of course, is an issue. As is complexity.

For example, enterprise orgs typically rely on standard policies and processes to protect themselves against risks and provide a consistent customer experience. But – those critical protections also represent some of the biggest roadblocks on the road to transformation.

Enterprise contracts are another barrier. It's hard to justify new DX investments when you're still on the hook for paying legacy vendors for the next several months – even years.

Then, there's the challenge of overcoming large-scale inertia.

Look, we get it, change is hard. But enterprises need to start acting more like "disruptors." Otherwise, more nimble competitors can swoop in and capture the market share they've long taken for granted.

You're also dealing with multiple stakeholders (often with competing priorities) and moving parts that must come together in order to produce the desired outcome.

Embrace Your Humanity

While enterprises are better equipped to leverage data and technology to achieve specific transformation goals, SMBs tend to have an edge when it comes to "authentic" customer relationships.

A lot of this has to do with the fact that smaller companies work with fewer customers – and can nurture 1:1 relationships more easily. But – they also tend to have more flexibility in how they interact with customers and respond to individual problems or requests.

A few areas enterprises can work on to tap into their humanity:

1. Transparency. One EY study (*30*, n.d.) found that transparent communication from management is directly proportional to employee satisfaction – and happy employees tend to be more productive and provide better service to customers.
2. Autonomy. We get that enterprises rely on policies and standardized processes for quality and consistency. But at a certain point, these controls stifle employees' ability to respond to customer needs – with a solution that makes sense in the context of their situation.

   We've all experienced customer service interactions where reps "need to talk to their manager" to fix an issue that doesn't fit into the black and white rules defined in the employee handbook.

   But – because their company doesn't provide the framework for making context-based decisions – let alone the permission to make those calls, the customer walks away frustrated, with the impression that the company doesn't care.
3. Technology. Finally, there's technology. You can foster customer loyalty through effective personalization.

   In a recent blog (Hoffman, 2022), Microsoft explains how combining behavioral, transactional, and demographic data allows you to build 360-degree views of your customers, which can then be used to create targeted, personalized journeys.

   Or – you might embrace Microsoft's AI-powered contact center (Lorentzen, 2022) to provide always-on support and access to self-service resources.

Technology also improves the human experience by making it easier for employees to find critical documents and data, as well as automate and streamline processes.

When employees spend less time on manual tasks, make fewer errors, they can dedicate more working hours to activities that generate real value. In turn, customers enjoy higher quality products, better services, and hyper-relevant solutions. Everyone wins.

For example, Danish consumer goods company (*31*, 2022), GN chose D365 Project Operations (*32*, n.d.) for its ability to unify all projects, processes, people, and information in a single digital workspace.

The platform gave GN's internal teams more control over R&D projects, enhanced transparency across their entire portfolio, and the ability to instantly get a pulse on project performance.

What's more, process automations helped the team complete tasks faster. Project Analyst Ridhin Sharma estimates that Project Ops saves him up to 10 hours per week. GN has seen fewer project

delays due to poor visibility and the R&D team and improvements in data quality, productivity, and efficiency means the business can complete more projects in less time.

Money Doesn't Guarantee Success

According to Accenture (*34*, n.d.), leading enterprises tend to invest in innovative tech earlier than their peers and they reinvest in IT improvements more often.

When the pandemic hit, leaders that scaled up tech investments were better prepared to absorb the impact and refocus their efforts on driving growth under new conditions.

Meanwhile, laggards reported that COVID-era DX investments were more about keeping lights on and doors open. In other words, DX was a reactionary act of survival.

Digital transformation is more about strategy than money spent or specific tech. Laggards can easily outspend leader peers playing catch-up – but often have little to show for it.

While DX does require a significant amount of actual money, the big wins come from using those resources strategically – digging into the data to make the right moves as early in the game as possible.

This isn't new information. However, many organizations fail to understand that relying on out-of-the-box features, templates, and generic segmentation won't cut it.

Pre-made templates are meant to serve as a starting point for new users.

For example, Power Virtual Agents (*36*, n.d.) comes with baked-in analytics (*37*, 2023) you can use to analyze and improve bot performance across several different dimensions – usage rates, satisfaction scores, session information, and so on.

You might use the Customer Satisfaction page to track changes in CSAT scores over time. You can also dig into the Customer Satisfaction Drivers Chart to learn why you're getting those scores, and more importantly, how to get your numbers up.

Those default settings are there so that you can collect the data you need to start tweaking and tailoring your strategy around real consumer needs.

Sticking with the Virtual Agents example, it's only when you're able to build and refine models based on the inputs you receive that you'll start to see meaningful results.

Ultimately, digital transformation is about using data to transform experiences – at the individual level and really deepen relationships with customers.

Final Thoughts

Enterprise digital transformation has changed.

Where DX was once about making sweeping changes every five, maybe, ten years, it's now become this long-term commitment. Today, transformation is just part of the regular routine – operating on a continuous cycle of incremental improvements.

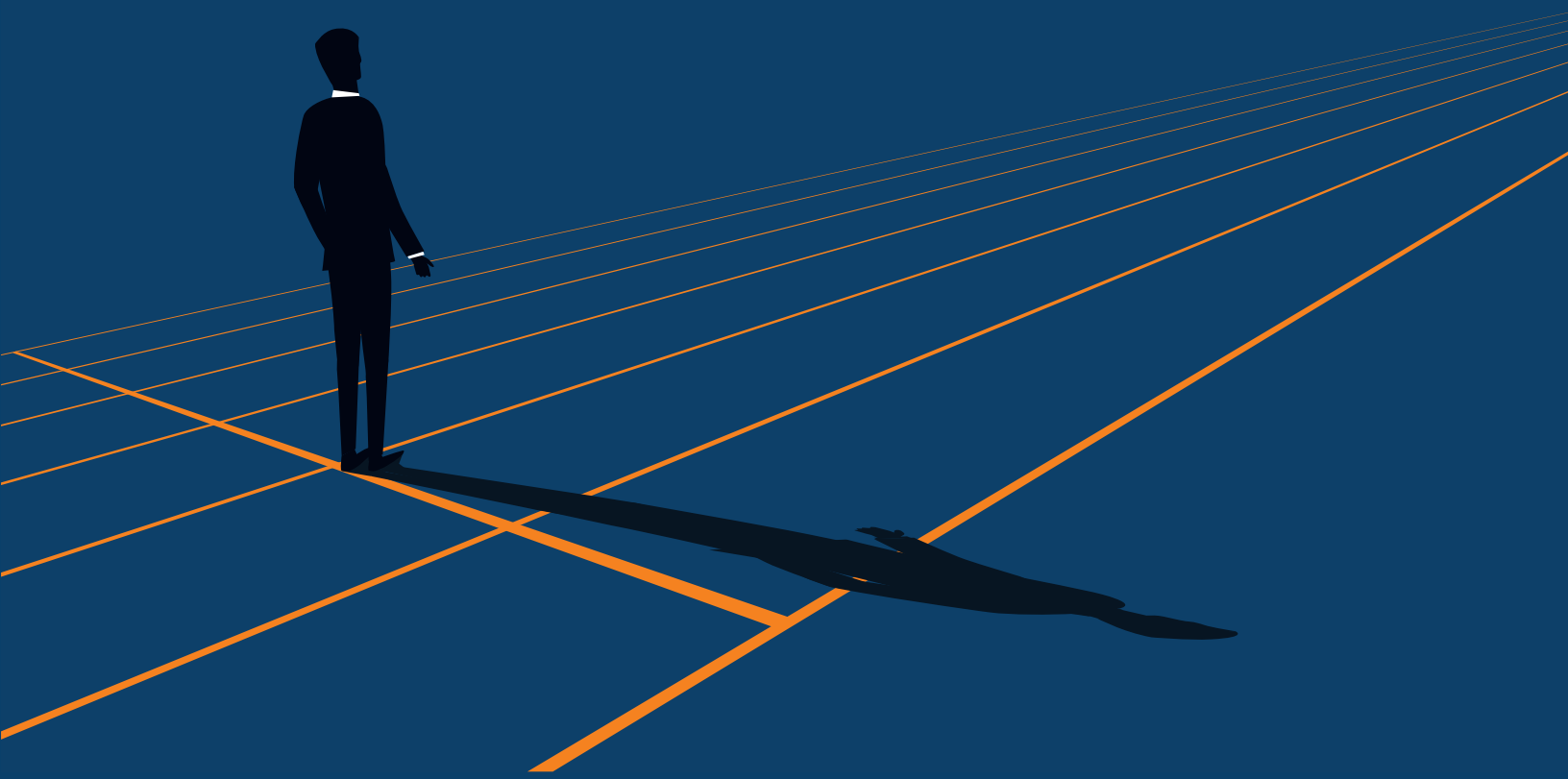
For many enterprises, embracing this idea of the "forever transformation" demands serious changes to company culture, processes, even the mindset of everyone on the org chart.

Then from there, setting goals, investing in new tech, and redefining core processes and business models.

In chapter 7, we'll start moving in a more strategic direction – this time digging into the basics of the "digital transformation readiness assessment."

CHAPTER 7

Digital Transformation Readiness Assessment



Digital transformation is an org-wide effort involving many people, processes, and moving parts – all of which must come together in exactly the right way to deliver on critical objectives.

Naturally, you're going to need to have a plan in place to effectively allocate resources, set timelines, and take action toward DX goals.

But, before you can get started with the planning process, you'll need to make sure you've got some key things figured out. For example, you should have some sense of purpose and direction to guide your journey.

You'll also need to ensure that your organization has the resources and know-how to see things all the way through.

A digital transformation readiness assessment does exactly that. It gives you a starting point for building a DX roadmap by identifying gaps in your strategy and the specific actions you need to take before moving forward.

In this section, we'll focus on the readiness criteria you can expect to find in a typical assessment.

What is a Digital Transformation Readiness Assessment?

A digital transformation readiness assessment is a comprehensive analysis of your org's current state to determine whether you're ready to embark on a digital transformation journey.

Done right, a readiness assessment identifies what specific actions you need to take to build a strong foundation for reaching critical transformation goals.

Here, the aim is twofold. First, it's identifying barriers and gaps that must be addressed before plans can move forward. And, second, it's establishing a baseline you can use to start building your DX roadmap.

What's included in a DX readiness assessment?

The process typically centers on three core dimensions: people, processes, and technologies – looking at factors like available resources, operating models, data maturity, and culture, among other criteria.

In these next few sections, we'll go over some of the questions you might find on a typical readiness assessment.

People

One of the primary goals of a DX readiness assessment is understanding what it's going to take to ensure that the transformation produces meaningful value for the business.

So much of digital transformation is about people – culture, organizational structure, individual and team capabilities, cross-functional collaboration, and so on.

It demands a collective mindset shift that's often harder to pull off than some of the more technical aspects of transformation.

- *Do you have a shared vision, clear goals for the proposed transformation?*
- *What are your primary business objectives – both short and long-term? A year from now? Five, ten years down the line?*
- *How will these goals materially affect your overall business?*
- *What has been the biggest company-wide change that has occurred within the past 1-3 years? What went well and what didn't?*
- *What is the status of your current initiatives? Are they on-track?*
- *Is there clarity/alignment around priorities, objectives?*
- *Is there buy-in from the top?*
- *Are champions and leaders embedded across the entire organization?*
- *Do you have a robust change management strategy in place?*
- *How does your internal culture impact your ability to compete/innovate/adapt to change?*
- *Does customer experience inform/influence everything you do?*
- *How effectively does your org leverage data?*
- *Does data maturity vary between teams? Individuals?*
- *Do individual employees have the skills necessary for transformation?*
- *Where are people running into trouble?*
- *What are they hearing from customers?*

Processes

Understanding how core business processes are working is another key part of the readiness assessment.

Relying on analog, manual processes versus digitized, automated ones often determine whether your org is ready to transform or needs to deal with a few things first. Processes are also central when it comes to eliminating inefficiencies, mitigating risk, enforcing governance policies, and more.

Not every transformation initiative requires you to reengineer every single business process. But, more often than not, you'll need to adjust or replace existing processes and workflows – especially if you've been using them for years and/or your DX project involves replacing legacy solutions.

That said, the main goal here is ensuring that you're starting from a solid foundation – with well-designed processes, end-to-end visibility, and standardized system for measuring success.

Here, you're trying to answer the following questions:

- *Have you mapped out all business processes, workflows, relationships, and dependencies?*
- *Which processes deliver the desired results?*
- *Are there any existing processes that hinder productivity?*
- *Or prevent people from completing their work?*
- *Where do redundancies/inefficiencies exist?*
- *Do any current processes prevent individual contributors, business units, or the organization as a whole from reaching critical goals?*
- *Where, specifically, are people running into barriers?*
- *How do those barriers impact the organization, individual employees, and customers?*
- *Do you have a clear picture of what needs to change – and why?*
- *And – how, exactly, will you make that happen?*
- *Do new solutions align with the current processes & workflows that are still working?*
- *If not, what is your plan for adapting them to fit with the new system?*
- *Do you currently offer a best-in-class digital experience?*
- *Are products and services designed as digital-first experiences?*
- *Are touchpoints connected across the entire digital ecosystem?*
- *Can you effectively leverage data to optimize experiences in real-time?*
- *Do your customers trust your systems/processes to deliver actions and recommendations with their best interests in mind?*
- *How are you currently measuring customer experience?*

Technology

The last piece of this puzzle is technology.

Once you've determined that your people and processes are ready to transform, it's time to take a closer look at your tech.

Technology is the enabler that makes it possible to automate processes, enforce governance, scale production, and so on. But readiness can only be defined in context with DX goals and tech maturity level.

Past initiatives like ERP implementations or cloud migrations make it possible to reap the benefits of more advanced initiatives. For example, you can't take advantage of digital twins or the IoT unless you're already working with a unified system with tight integration across the entire enterprise.

Broadly speaking, you're trying to determine whether your existing technology can support your digital

transformation plans. And, if the answer is “no,” then what needs to be retired, repaired, or replaced in order to move things forward?

Organizations must also ensure that they have a system and standards for evaluating digital technologies and testing potential investments under a variety of conditions to determine whether they are capable of meeting new needs.

All that in mind, here are some questions you might ask yourself at this phase in the assessment:

- *What is the state of your existing infrastructure?*
- *What resources are available?*
- *Which resources need to be retired/replaced?*
- *Does any of your current hardware/software/infrastructure put your business at risk?*
- *Are you still using on-premises solutions?*
- *If so, what are your plans for moving to the cloud?*
- *Are you using physical infrastructure – will that be included in this initial transformation or will you be replacing it?*
- *What is the budget estimate for this project?*
- *What tools/tech will you need to invest in to achieve DX goals?*
- *What existing solutions are capable of supporting this initiative?*

Red flags that indicate you’re not ready to transform

We should also mention that there are some signs that may indicate you need to go back to the drawing board before your DX plans can move forward.

In those instances, it’s not worth running through the assessment just yet. (In that case, you’ll want to evaluate your strategy and figure out how to address these issues before it even makes sense to start making serious DX plans.

A few things to watch out for:

- *There’s no definitive vision.*
- *Employees lack the mindset and/or tech skills needed to pull off the transformation.*
- *You don’t have support or buy-in from internal experts.*
- *The strategy is too narrowly focused on IT or doesn’t include the entire organization.*
- *You don’t have a comprehensive change management strategy in place.*
- *There’s no clear sponsor at every level of the organization.*

Final thoughts

Before embarking on any transformation journey, you need to be certain that you're fully prepared to take on this challenge.

A digital readiness assessment can't guarantee DX success on its own. But – it is a powerful tool that can help you lay the groundwork for success and avoid common pitfalls that can tank a transformation before the journey begins.

In the next section we'll look at seven essential ingredients that belong in any digital transformation strategy.

CHAPTER 8

Seven Key Components of a Digital Transformation

There's no official consensus on how many "essential" elements must come together to activate true digital transformation.

That all depends on several factors: industry, the maturity of your data strategy, existing solutions, and what, exactly, you hope to achieve – among other things.

In this chapter, we look at seven essential components that belong in any DX strategy – though it's worth noting that you may want to incorporate additional elements specific to your niche or the unique business needs.

1. Data

Data is central to any digital transformation initiative.

HBR puts it like this: if you want to scale your knowledge about customers, employees, competitors, the market, whatever, and use it to deliver predictable (and profitable) outcomes in an uncertain environment – you need data.

Experts point out that tech investments that improve your data strategy have the greatest impact on business performance – but the benefits go far beyond 'high-impact" outcomes. Until you get your data in order, no other transformations can happen.

Early DX projects might focus on unifying data, establishing a culture that supports data literacy and providing ongoing training and development opportunities. Data needs to be clean, organized, and unified into a single system. It needs to produce insights that provide meaning and more than that, drive effective decision-making and actions that deliver the right outcomes.

You're trying to establish end-to-end visibility by eliminating data silos and making insights accessible to everyone so they can capture and analyze insights – and eventually, leverage them to make smarter decisions and take the actions that produce the right outcomes.

But, as your data strategy matures, you'll start building on the progress made at each stage prior.

For example, if your last DX project involved optimizing processes with simple automated workflows, the next one should take things a step further. How might advanced capabilities like data mining and robotic process optimization (RPA) impact how your business operates?

First, though, you'll need to dig into your process data to determine whether you need to make any improvements – your current process may not produce the exact results you were hoping for. It's better to make a few changes before getting the algorithms involved – otherwise minor details will quickly turn into massive problems.

2. Strategy

MIT Sloan researchers say that digital transformation strategy is all about tackling prerequisites building a "personalized map" for implementing large-scale change within your organization.

Putting together an effective DX strategy demands significant time, resources, and expertise. It also requires input from all stakeholders and very specific, data-backed goals.

By putting together a clear and comprehensive game plan, your business will be better positioned to tackle critical goals and ensure each transformation initiative is a success.

According to HBR, it's problematic when orgs take on DX initiatives without a clear picture of what that looks like for their business, employees, and customers. Transformation isn't really about ditching your old tech for something better.

Author Tomas Chamorro-Premuzic explains that the real purpose of digital transformation is to become a data-driven organization – meaning all decisions, processes, and actions are informed by data, not gut feelings. And – in order to make that happen, you have to change how people think, behave, and perform day-to-day work.

You need to set strategic goals that align with your overall business strategy, employees, and customers. At first, you'll probably focus on eliminating silos, establishing a culture around data literacy, and making insights accessible to everyone.

But as your strategy matures, the focus shifts – based on data gathered from those initial projects. That information should then be used to adjust goals, set new ones, and come up with a plan for reaching that next big milestone.

Eventually, you might start layering in more advanced capabilities like data mining, hyper-personalization, journey orchestration, route optimization to take prior improvements even further.

In the IBM report, The Quantum Decade (*40*, n.d.), researchers discuss how quantum computing stands to shape the future. Experts lay out what a new, more agile model might look like – presenting a three-phase path toward quantum transformation moving from awareness to readiness, then advantage.

While quantum computing hasn't quite entered the mainstream, the three-tiered transformation process is a good example of how companies might follow an agile-like approach in their own DX journeys.

For example, with automation, the first step is automating basic tasks and eliminating redundancies.

Then, you might focus on improving slightly more complicated processes, and later, start using more sophisticated AI capabilities to, say, maximize resource utilization or optimize service scheduling.

3. Leadership

Leadership is directly linked to strategy – though here, we're talking more about ensuring that the leadership team is prepared to put strategy into action.

BCG research found that more than 70% of digital transformation initiatives are sponsored by leadership teams rather than the CIO or CTO. In other words, DX is no longer an "IT thing," it's everyone's responsibility.

DX is driven from the top-down and requires buy-in from the entire organization. Department managers and internal champions play an important role when it comes to winning over their teams and mobilizing the troops on the ground. It's this group that moves efforts along by helping everyone else understand these big changes in context with individual roles.

Everyone talks about eliminating silos, but cross-functional collaboration is the only way to make end-to-end customer experiences a reality.

Access to data and collaboration tools make it easier for employees to make decisions, solve problems, and weigh in with unique perspectives.

But – breaking down organizational hierarchies, redesigning processes, and getting people to engage in new ways requires careful orchestration.

Ultimately, it's about creating an environment where everyone aligns around the same values, goals, and customer-centric narrative.

Harvard Business School Professor Linda A. Hill says leaders must treat employees like collaborators, not followers. Employees need to know why changes are happening, how those changes will benefit the customer, and how those changes will impact them.

And – leaders need to be transparent about upcoming plans, new expectations, and how the company will support employees with the transition.

4. Culture

Culture forms the foundation you need to transform processes, service models, IT – literally everything. You'll need to ensure that your workforce has the right mindset, behaviors, and skills to drive transformation.

That means, digging into existing data and processes to understand where things stand/ID opportunities to make improvements – so you'll need to address those elements first.

As you start piecing together your DX strategy, ask yourself the following questions:

- What skills do we need to work on to achieve X goal?
- What investments do we need to make to empower teams to do X or Y?
- How might we adapt organizational structures/processes to improve agility/flexibility/data literacy/etc.?
- Do we have org-wide buy-in – and if not, what needs to happen in order to get there?

People are the most important part of any DX strategy – but they're also the most challenging. Often, it means changing the entire organization's mindset – how they define success, work together, prioritize

goals, and manage change moving forward.

In a recent white paper, Becoming an Innovative Organization, Microsoft emphasizes that business continuity and resilience hinge on a company's ability to innovate. Organizations that can effectively leverage innovative tech to solve problems and weather future storms will be in the best position to stay competitive – even in a crisis.

That all seems pretty straightforward, but innovation doesn't just happen organically.

There needs to be tight alignment between teams – with everyone working toward a common set of goals.

You may need to restructure your org chart to facilitate participation and collaboration between teams not used to working together.

Employees need to develop the right skills – not just for working with your current tech and planned investments, but also new innovations that haven't yet made their way to the mainstream.

Finally, becoming an innovative company requires everyone to embrace a growth mindset where people are eager to experiment with out-of-the-box solutions and learn from those experiences.

This is easily the most challenging element of any digital transformation – largely because it requires all employees to get comfortable with failure and be vulnerable in front of colleagues. For some folks, that's a big ask.

5. Customer Experience

CX should drive all DX investments. Improving processes, modernizing tech, enabling employees – all of these projects should be in service of the customer.

BCG's 2020 report, The Evolving State of Digital Transformation, says that while companies have historically pursued transformation goals in isolation, as opposed to a holistic, end-to-end approach, DX is changing. 90% of participants said customer-facing goals have become a top priority.

Where traditionally, DX efforts have focused on cost-cutting, orgs are learning that focusing on the customer is the best way to boost the bottom line. Orgs that fail to center DX strategies on the customer will lose business – and struggle to replace customers who churn.

Here, the goal is learning as much as you can about your customers, then working your way through the following steps:

Define what customers need/want from your business.

Capture feedback – behavioral data, support tickets, insights sourced from actual conversations.

Analyze competitors & market trends to identify opportunities to meet customer expectations and carve out a competitive advantage.

Customers expect on-demand services, digital payments, simple interfaces, self-serve options, etc.

Investing in these areas should be a no-brainer – as offering products, services, and experiences that people really like tends to be good for the bottom line.

This “new mindset” isn’t really new. Yes, COVID did bring a greater urgency to CX.

But, the ability to quantify the impact of “soft” interactions and correlate them to financial performance with widely-available tech really changed the game.

6. Business Processes

Transforming business processes is a long-term strategy all about changing the way things are done and continuously refining operations to adapt to new conditions and goals.

Efforts might focus on driving greater efficiencies, improving quality of products and services, or embracing new ways of doing business.

CIO describes business process transformation as these sort of “mini-transformations” that focus on improving operational units with technologies.

Units represent a set of related tasks that, together, generate value for the business and its customers – think Service Delivery, Product Development, or Expense Management.

As an example, when Forrester released its 2022 US Customer Experience Index rankings (Hopkins, 2022), analysts learned that CX quality scores dropped for the first time since 2017. Yet, emotional quality scores remained consistent. This suggests that there may be an alignment problem.

Forrester experts advise business leaders to think critically about their enterprise goals and focus on the actions and enablers that will get them back on track. In this case, that means focusing on process improvements that stabilize CX scores.

Here's a screenshot of the table used in the report to give you a better idea of what that might look like.

Actions	Enablers	Goals
Leaders must identify and ensure alignment around a unique expression of customer obsession and implement operations to achieve it	• Leverage persistent customer insights for innovation and flexibility • Test new models and experiment with products and services • Build liquidity so resulting cash savings can sustain operations during crises	Customer Obsession
In parallel to portfolio rationalization, prioritize efforts that increase consumer experiences brand perception and brand loyalty	• Future fit principles that enable smart tech investments • Use network of employees as a community focused on customer journeys • Leverage platforms' marketplaces for innovation	Experience Architecture
Plan for constant disruption in your workforce strategy for a more resilient and adaptive culture	• Continuous performance and learning development • Organizational change management • Adaptive talent acquisition • Anywhere work strategy	Future of Work
Build and continuously reinforce trust with your customers, employees, and partners as a business imperative	• Accountability • Consistency • Competence • Dependability • Empathy • Integrity • Transparency	Trust Imperative

How it works is, you'll select one of the high-level goals from your strategy. So, let's say you'd like to improve processes related to "Future of Work."

Here, actions represent what you're trying to achieve. Sticking with the same example, you're trying to improve your ability to plan for future disruption and create a more adaptive culture that makes it easier to evolve alongside your customers.

Then, you have your enablers, which represent the individual processes, programs, and strategies that support lasting success.

That might mean revamping your approach to recruiting or change management. Or – developing a continuous learning program to ensure employees always have the right skills to meet the moment. Enablers may also include improving your approach to remote/hybrid work so that employees can provide better service to more customers.

Instead of CX, you might aim to modernize expense management processes by updating the architecture and automating data entry, approvals, and audits. Or maybe, you'll revamp field services so you can finally move away from reactive break-fixes and get a handle on your resources.

Ultimately, the goal is identifying specific opportunities to improve with technologies like AI, ML, analytics, hybrid clouds, etc. and setting really clear KPIs for monitoring your performance and adapting the strategy as things change.

7. Technology

It's counterintuitive, but technology is the last piece of the puzzle.

Tech is the enabler for executing on your vision from all sides – whether that's empowering employees to create better experiences for customers, using automation to deliver faster service, or tapping into the power of predictive analytics to prepare for many different versions of the future.

The Microsoft white paper we mentioned called technology a competitive driver that allows organizations to get things done. But in order to use it effectively, they need to understand how it supports customer needs, daily work, and how it enables them to disrupt and differentiate.

According to a Deloitte report, Putting Digital at the Heart of Strategy, strategic intent needs to guide technology investment. What that means is, the management systems, culture, skills, and capabilities you need to compete drive all decisions about technology. This includes everything from IT infrastructure and software to which vendors you partner with and what your budget looks like.

Final Thoughts

The most successful organizations – regardless of size or sector – are always looking for opportunities to innovate, optimize, and differentiate in the digital age.

But you'll need to make sure all the right pieces are in place – and working together – before that can happen.

In chapter 9, we'll take things a step further and present a framework you can use to build out your digital innovation strategy.

CHAPTER 9

Developing a Digital Transformation Strategy

A digital transformation strategy is a systematic approach for leveraging digital technologies to achieve critical business outcomes.

To be clear, we fully understand how infuriatingly vague that sounds. It's just that using more specific language to describe DX strategies doesn't really work.

Ultimately, your strategy will be as unique as your business and the people and processes within it. Done right, it should always be evolving.

Below, we've outlined 10 steps for building a DX strategy that aligns with those one-of-a-kind needs – and sets the stage for future growth, unexpected pivots, and quick, profitable decisions.

1. Figure out why you need to transform

Before you can start planning your digital transformation initiative, you need to take a step back and make sure you have a clear picture of what you hope to gain from this whole endeavor.

For now, this is more general. Essentially, you're trying to set some broad goals that can be used as a starting point for evaluating systems, processes, and capabilities.

A few examples:

- Optimizing costs
- Improving efficiency
- Getting more value from data
- Enhancing the customer experience
- Expanding into new markets
- Developing new products or services
- Democratizing data
- Streamlining operations
- Enabling collaboration
- Etc.

Later, these goals will enable you to build detailed business cases, identify solutions, and map out the actual strategy.

If you need some inspiration, Microsoft's Cloud Adoption Framework digs deep into the different types of outcomes companies typically pursue during DX journeys (*41*, 2022). Outcomes are organized by category – i.e.: "customer engagement," "agility," or "performance."

These categories help you stay focused on defining clear outcomes that produce measurable results. They also help build consensus among stakeholders. And, they make it easier to align people, processes, and technology around core objectives.

2. Conduct a business assessment

Having a clear picture of where you are right now is essential for quantifying future gains and estimating the effort and expense of your transformation.

At this stage, you're gathering data that can tell you how things are working today. Your actual assessment will be much more comprehensive than this, but generally, you'll want to focus on the following areas:

- *Identify all digital, physical, and human resources. This includes everything from user accounts to servers, devices, and endpoints, as well as physical equipment and actual humans.*
- *Evaluate your current tech stack and the state of your data*
- *Map existing processes and relationships – between users, apps, systems, etc.*
- *Take stock of individual roles and skill sets*
- *Look for inefficiencies, skills gaps, redundancies*
- *Collect feedback from employees, customers, and partners*

Ultimately, you're trying to establish a clear picture of your current digital capabilities so you can start laying the groundwork for transformation.

3. Dig deeper & evaluate existing capabilities

This step is all about identifying specific pain points and opportunities for improvement. So, you'll want to use the information gathered during your initial assessment to dig deeper.

You might make a list of strengths and weaknesses by business domain, as pictured in the chart below:

Domain	Strengths	Weaknesses
Client Case management	Intake process	Integration with other system Access remotely to the system
Cyber security	Implemented basic password policy	Disaster recovery and business continuity
Digital marketing	Having adequate social media scheduling process	Social media strategy

You'll also want to investigate how people are using existing technology. For example, if employees say that a certain software program or business process is a problem, you'll want to find out why.

Are they making full use of all capabilities and tools available to them? Are they bumping up against the limitations of legacy infrastructure? Have they been adequately trained?

Additionally, you'll want to look for gaps and inefficiencies in core processes. Process mapping (West, 2022) is an effective way to bring even the smallest gaps to light – offering a visual frame of reference you can use to highlight concerns, challenges, and optimization opportunities.

4. Secure buy-in from decision-makers

Here, your goal is getting everyone on board with the initiative from day one.

Buy-in from key stakeholders is essential – even at the very beginning when you're gathering information about the current state of your business processes, capabilities, and stakeholder readiness.

This is an important step that will help you uncover additional insights into gaps, pain points, and opportunities to address.

While it's still early in the game, you'll be better off if you can provide data-backed examples that make business risks feel urgent – and prove that the effort and expense is worth it.

Try to answer the following questions, then use your findings to make your case:

- *What is the value offered by emerging technologies* (Hopkins, 2022)*?*
- *Why do you need to change how things are done?*
- *What is the cost of inaction?*
- *What will you gain by investing in X or Y?*
- *How will DX impact different teams/individuals?*
- *How will it impact customers/the bottom line?*
- *Etc.*

Remember, digital transformation affects every level of the organization–from the C-suite all the way down to individual employees.

As such, you'll want to give decision-makers a clear picture of how the upgrade will impact different parts of the business – as well as the organization as a whole.

You'll need to create a narrative that presents data and DX plans in context with each group's priorities and perspectives. The sales team will have different requirements and priorities than the development team, HR, or C-suite execs.

5. Bring in the right partner(s)

We recommend bringing in outside reinforcements at this stage because you've outlined some basic goals, sized up your current situation, and secured buy-in from the right stakeholders.

At the same time, you (ideally) haven't had a chance to make any major mistakes that might cause this initiative to fail – or at least inflict some real damage on the bottom line.

The right partner can help you identify and prioritize improvements, help you put together a winning strategy, and support efforts like training and continuous optimization that ensure long-term success.

Digital transformation is incredibly hard to pull off – especially if you've never done this type of project or it's been a decade since your last major initiative.

Working with a partner will not only help ensure that your transformation delivers the expected outcome – it can help you accomplish more in less time without overspending or making costly mistakes.

Now, choosing a partner – or partners – is all about finding the right experts for achieving your DX goals.

6. Build your business case

At this point, you'll shift gears and start looking at those high-level goals you defined at the beginning of this process in context with the findings from your initial audit and conversations with employees and customers.

Check out Microsoft's Cloud Adoption learning module (*42*, 2022) if you'd like to get a better sense of what building a business case actually entails. But, basically, you're putting together a comprehensive plan containing the following information:

- Baseline financial info. What are you spending on your current solution? If you're planning a cloud migration, you'd probably want to include how much you're spending on servers, data center operations, hardware, etc.
- Cost of inaction vs. action. Ideally, you'll also want to include a forecast for how much you'll spend/lose if you don't take action, and how much your costs will be after the transformation is complete. What benefits/savings can you expect? Microsoft recommends using tools like the Azure TCO calculator (*43*, n.d.) to estimate your costs and potential cost-savings.
- Timeline. How long do you expect this to take? You'll want to put together a timeline for rolling out the proposed initiative. That means, breaking the journey into a series of phases and milestones, as well as explaining what you hope to achieve at each stage, what/who is involved, and what your costs are at each stage.

Keep in mind, your partner can help you build compelling use cases that align with short-term needs and long-term objectives – complete with all the right financial and logistical info.

7. Prioritize initiatives

There's probably a lot you want to get done here. But, it's important to remember that digital transformation is all about the long game.

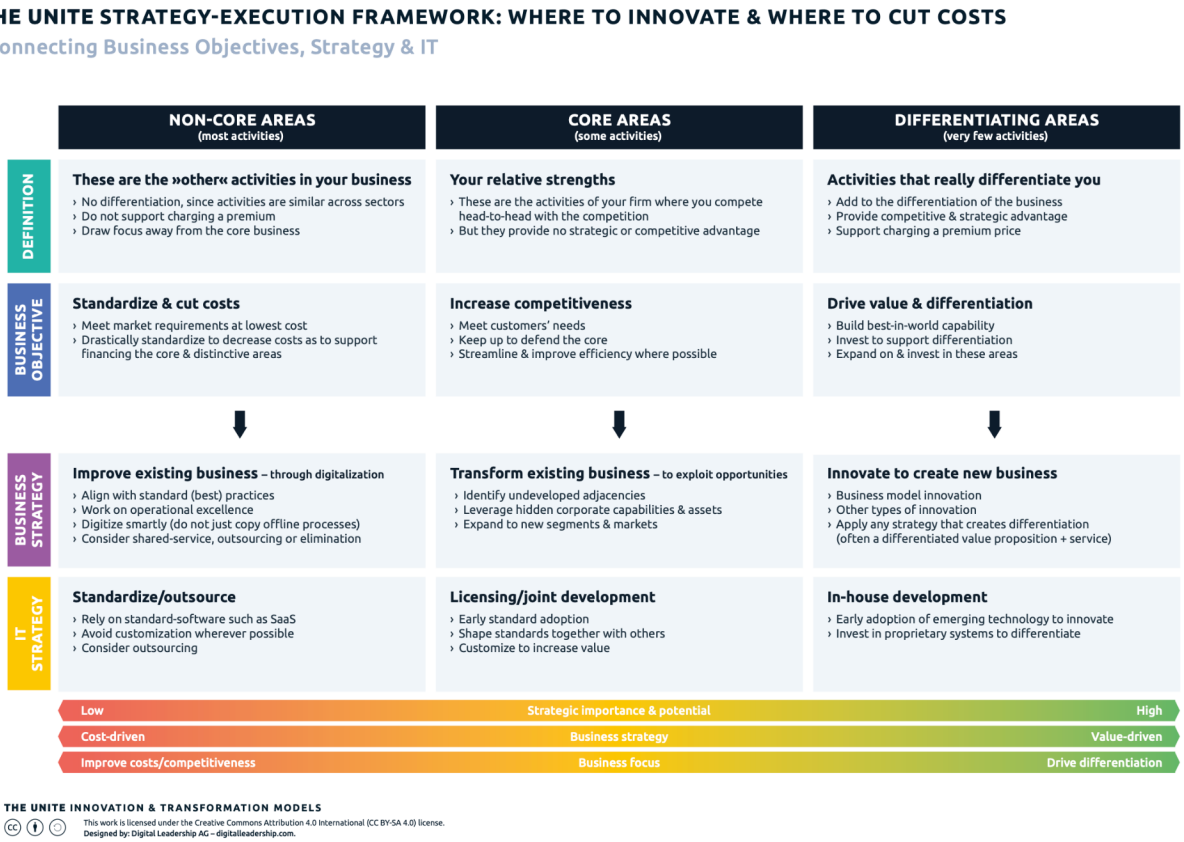
Boston Consulting Group (*44*, 2020) recommends focusing on how technology can improve business resilience on two main dimensions:

1. Operational agility. Operational transformation might not be the most exciting action item on your list, but it's an important first step in your journey. These DX initiatives center on "action items" that lay the foundation for bigger transformations later on. Think – automating manual processes, designing systems that enable org-wide collaboration, and upgrading legacy tech.

Gartner builds on this idea in its 2023 Strategic Technology Trends report (*45*, n.d.), advising orgs to focus on building a strong "digital immune system" by improving security, observability, and AI applications. Think – preparing for disruption, establishing business continuity, and enabling quick, proactive decisions to mitigate risk and act on opportunities.

2. Protecting & growing the top line. This piece is critical for keeping pace with an evolving market. Digital investments should enable you to identify and address new needs/requirements and use data to make decisions about pricing, business models, products, sales, and marketing.

The UNITE Strategy-Execution Framework (*46*, n.d.) might be a useful tool here. It allows you to map out priorities at a higher level by organizing activities into three buckets: core areas, non-core areas, and differentiating areas – each linked to a specific type of goal.



Once you've narrowed down your top priorities, you'll want to break them down by workload or application and business units impacted. Then from there, rank them and explain how you came to that conclusion.

Here's a super simple chart from Microsoft's Cloud Adoption Framework (*47*, n.d.) that you might use to start mapping and prioritizing proposed initiatives:

Application/Workload	Business Unit	Business Priority (high, mid, low)	Proposed Rationalization

8. Identify Potential Courses of Action

After you've completed your business assessment and brought the right people on board, you'll want to start compiling a list of actions to tackle pain points and bridge capability gaps.

For example, if your organization is pursuing performance outcomes, you'll need to determine what steps you'll need to take to modernize core apps.

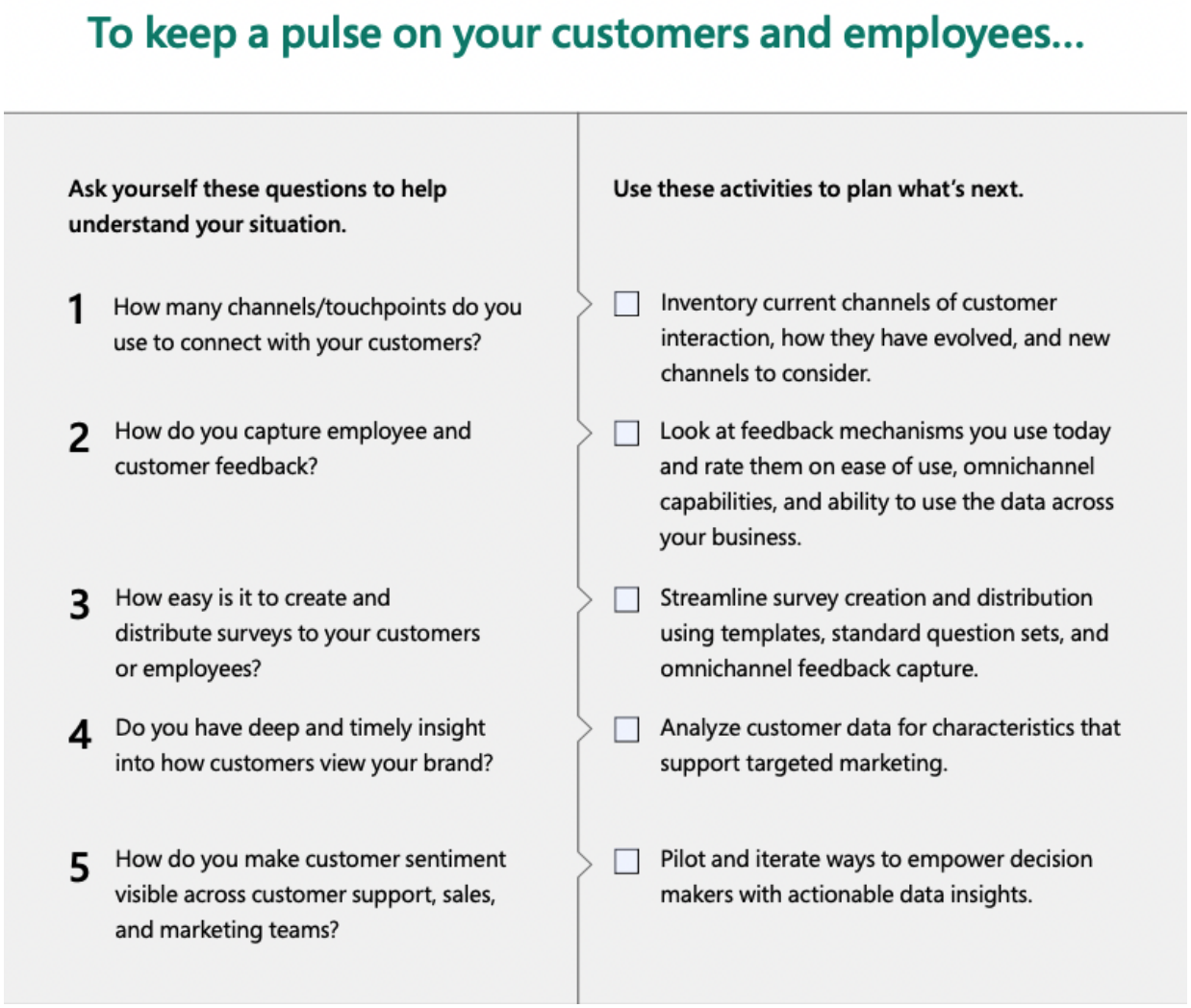
If you're moving to the cloud from an on-premises monolith, will you "strangle" subsystems one-by-one? Or, will you replace legacy subsystems with their closest cloud-based counterpart? Think – replacing SQL Server with Azure SQL database with a straightforward lift-and-shift and modernizing later.

Maybe it makes more sense to modernize core apps first, containerizing them, and then transitioning to the cloud. This option packs the biggest punch – offering major efficiency gains and more flexibility to change course, scale, and drive rapid, incremental improvements.

If you've been at this for a while, modernization might be more about layering in some advanced automation capabilities or creating new business models.

This Microsoft ebook, *A Quick Start Guide to Building Resiliency with Customers* offers several examples of how to use data to learn more about your situation and plan your next steps.

In the screenshot below, you'll find a list of questions and activities that can help you identify what needs to happen in order to unlock a 360-degree view of customers and employees:



9. Develop a plan of attack

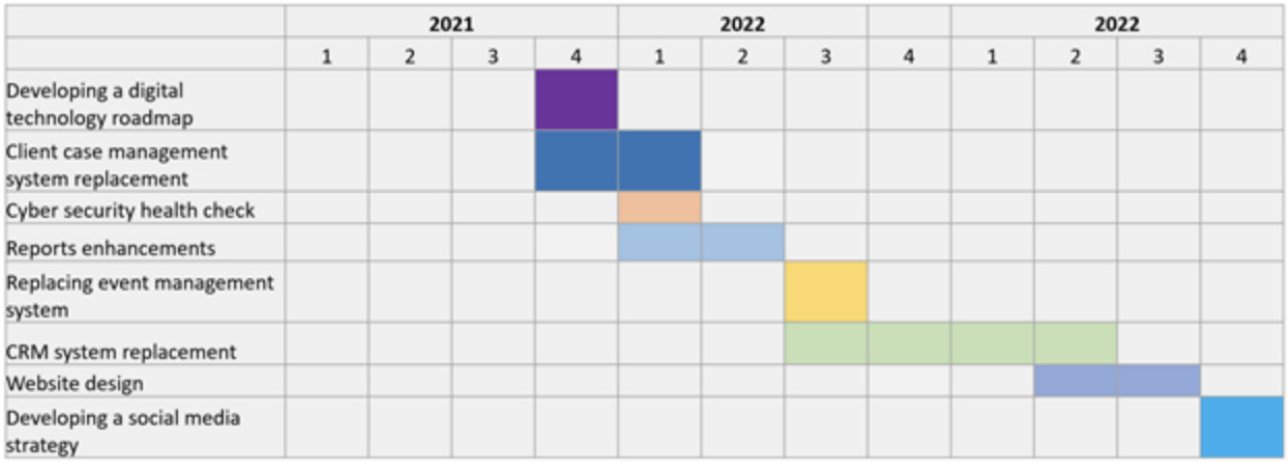
Now that you know where you want to go and how you're supposed to get there, it's time to establish a game plan.

This roadmap should outline the specific initiatives you'll undertake as part of your digital transformation journey, who will be responsible for each one, and when they should be completed.

Whether your goal is cloud migration, process automation, or developing an agile development practice, you'll want to map out how, exactly, you plan to get from your current state to your ideal future one.

For each initiative, you'll want to put together a detailed plan that includes the following information:

- Tech. According to Gartner (*48*, n.d.), you'll want to evaluate technology through the lens of your strategic goals. Look for the technologies that are most relevant to your immediate objectives, as well as those initiatives at the bottom of your list.
  Basically, you want to ensure that you invest in tools that are capable of growing with you. Otherwise, you might outgrow the new software much sooner than expected – and, as a result, have to start this process all over again.
- Key players. Who needs to be involved? What is each person's role, and what responsibilities will they have?
- Timeline. You'll need to establish a timeline for rolling out each initiative. Be sure to include deadlines, milestones, and who is responsible for each deliverable. It's also a good idea to outline each person's responsibilities and what's expected of them in terms of communication, quality, delivery, and so on.



- Training & knowledge sharing. You'll also need to define your plans for training employees and keeping them in the loop re: changes and development opportunities.
- Governance. Establish a governance framework to ensure DX initiatives deliver the desired outcome. This includes defining rules re: communications, handling data, storing & provisioning docs, transmitting information, and more.
  Additionally, you'll want to have a DX committee or team responsible for guiding the direction of DX projects and making sure that everyone is effectively working together toward the same set of goals.

Keep in mind, your roadmap should be flexible enough to evolve as consumer preferences, business conditions, and strategic priorities change.

You'll likely follow a phased rollout plan, which breaks your strategy into different stages, based on long-term goals. Typically, you'll start with core business models and processes – which may or may not yield "transformative" results, then slowly layer in additional capabilities.

Each phase will be informed by data gathered from prior cycles, current conditions, and results from past initiatives.

10. Optimize for "future-fit"

As you may have figured out by now, digital transformation has no end game. It's a continuous process focused on making incremental improvements.

So, the last piece of this puzzle is about making sure your strategy provides a framework that can support DX initiatives on loop for years to come.

According to 2020 research from Forrester (Cameron, 2022), organizations that embrace a "future-fit" strategy increased revenue gains at a rate 1.8x faster than their peers the previous year.

This approach to technology allows orgs to quickly reconfigure existing capabilities, processes, and business structures around end-users' future expectations and requirements.

Analysts found that these organizations became more adaptive by focusing on three key areas: Flexible tech, predictive insights, change-oriented culture. The idea is, you can't predict what will happen next, so the best way to prepare for the future is to put change at the center of your entire strategy.

While the short-term DX project will likely be the core focus, you should always keep one eye on the bigger picture. Transformation journeys typically follow a phased rollout, so you'll want to break your strategy into different phases, based on long-term goals.

Start with core business models and processes – which may or may not yield "transformative" results, then slowly layer in additional capabilities.

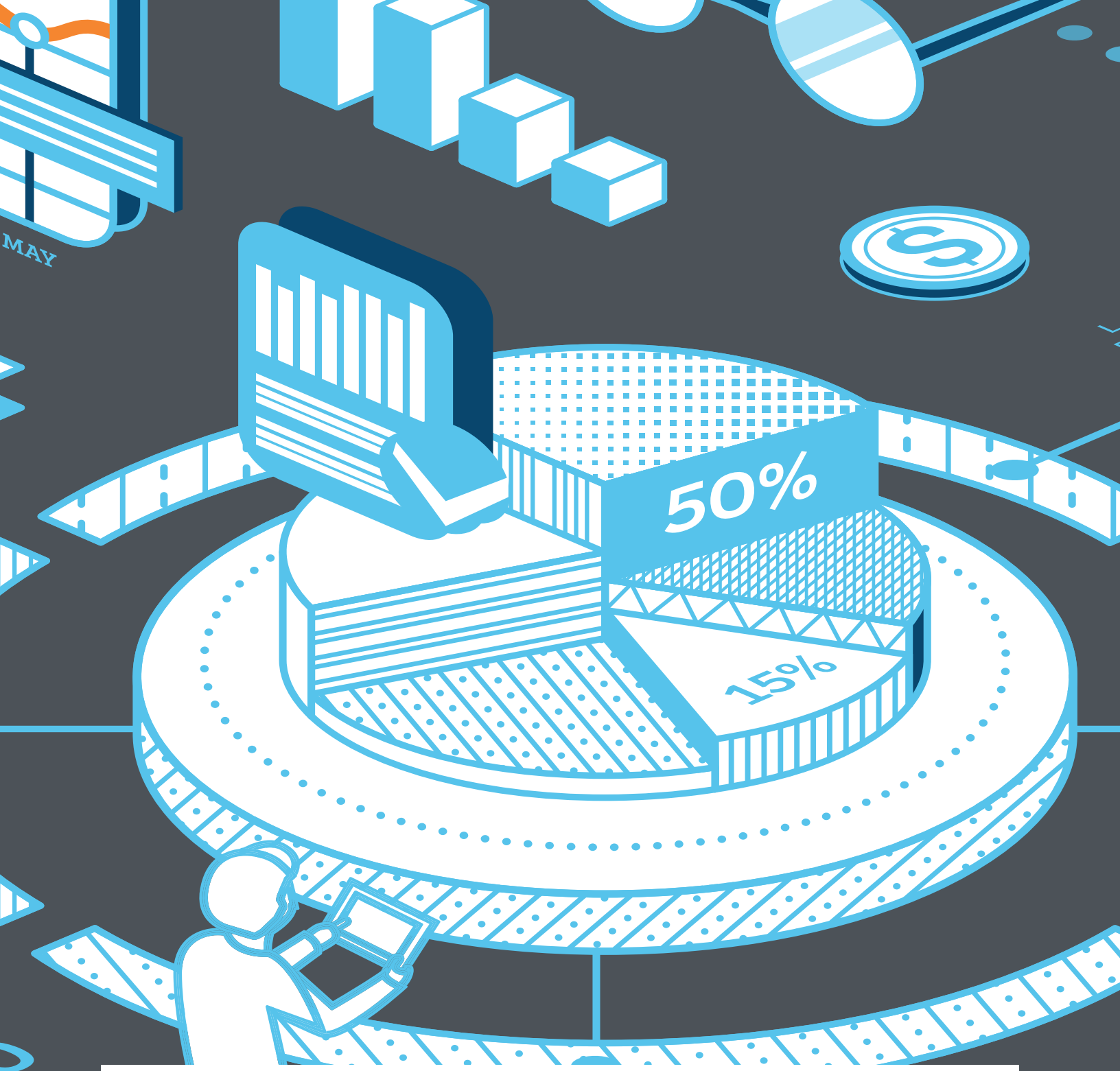
Ultimately, you'll need to continuously gather feedback, refine your strategy, then start the cycle all over again.

Final thoughts

While this is just a general roadmap, it should give you an idea of what goes into putting together a digital transformation strategy.

Your own roadmap might include additional steps – or different ones – depending on the goals, pain points, and processes that are unique to your organization. In any case, this framework offers a starting point you can use to start charting your path to a successful transformation.

Our next chapter looks at another important part of any digital transformation strategy: metrics. In it, we discuss what makes a "good" KPI, then share some examples you might use to measure the impact of your own DX initiatives.



CHAPTER 10

Key KPIs for Measuring Digital Transformation Progress

Digital transformation can't happen with unclear goals or an unclear definition of success.

Nor can it happen if you're using unclear or outdated metrics to measure progress and calculate returns on DX investments. In other words, clarity is everything.

Companies need clearly-defined metrics to measure progress toward those goals and understand whether actions and investments are moving them in the right direction – or sending them down a destructive path.

In this chapter, you'll learn how to identify the "right" KPIs for measuring DX success, as well as when, how, and why you might use them to answer specific questions about your project.

We'll also share some common metrics for tracking the progress of digital initiatives to give you a better sense of what that all looks like in practice.

What makes a digital transformation KPI "good"?

Digital transformation KPIs, like digital transformation itself, are hard to define because they're so specific to the individual organization and its initiatives.

But, there are some universal qualities "good" KPIs have in common:

- They link directly to a core business objective. Digital transformation always links back to a specific goal – whether that's improving inefficient processes, capturing market share with innovative new business models, or empowering employees to do more with fewer resources.
- They answer a very specific question about your business. To accurately measure the impact of each action, your best bet is choosing KPIs that answer specific questions in a way that tells you what needs to happen next.
- They're easily measured and understood by non-technical users. Business leaders and end-users alike should be able to instantly understand where things stand, what it means, and what needs to happen next in order to course correct the game plan or build on past wins.

According to research from MIT Sloan (Schrage et al., 2022), companies tend to report poor results from DX efforts. Yet, those same companies consistently pick bad or misleading metrics such as how many processes users ran per session.

Much of the problem points back to the fact that companies often have a hard time breaking up with " legacy KPI perspectives" that undervalue the role of KPIs by using them to track performance after the fact.

Seven KPIs for measuring digital progress

Again, every organization will track different metrics to determine whether their digital investments are delivering the returns they were hoping for. It's also worth noting that because transformation is always evolving, your KPIs aren't set in stone.

The metrics that make sense right now might not align with future goals – so, don't get too attached.

That said, we've included seven more "evergreen" KPIs you should be tracking regardless of DX goals.

1. Return on digital investments

Return on digital investments is one of the most common KPIs for tracking DX initiatives.

These projects are massively expensive and demand a huge amount of effort from everyone in your org. It only follows that business leaders want to make sure that it was all worth it.

The idea here is simple. You'll want to look at the amount spent on tech, training, hiring, etc. related to your DX initiative, then compare that total to the amount of revenue that was generated in the time since making that transition.

Keep in mind, ROI can seem pretty minimal for the first few stages of your transformation. Initially, you're trying to figure out whether you're heading in the right direction. Long-term, you'll be able to get a better sense of how successful this project was.

2. Revenue generated from digital technology

For many organizations, measuring how technology innovation impacts the bottom line is crucial.

As Capgemini VP of AI Engineering, Goutham Belliappa explains in this 2021 article (Overby, 2021), revenue from commodity services is no longer as important as revenue generated from innovative new capabilities.

Companies are moving away from cost-containment measures and toward DX investments that allow them to provide more value to customers and increase market share.

While this digital transformation KPI might sound almost identical to ROI, there's a subtle yet important difference between the two.

ROI focuses on measuring whether DX investments enabled you to achieve a specific objective. That objective might be increasing revenue, but it could be something like streamlining employee onboarding or automating manual processes.

Here, your goal is connecting digital transformation efforts directly to the bottom line.

For example, how do new business models translate to actual profit margins? Or, how have DX investments helped you improve customer acquisition, retention, or overall customer experience?

3. End-user adoption

Digital adoption is another big one – you'll want to be able to learn how – or whether – employees are engaging with new tech, platforms, or processes.

You can measure adoption rates in a few different ways:

- **Overall adoption rate.** Percentage of active users compared to the total number of users who have access to a particular tool/platform.
- **Retention.** Percentage of users who continue using a feature/app/process.
- **Daily/monthly active users.** Number of users who use app/feature/service in a given day or month.
- **Average time per session.** Average amount of time users spend engaging with a specific product or feature.

These metrics can give you a sense of whether users are committed to new processes and tools.

They won't tell you whether or not users are effectively leveraging these new tools. But, they can help you understand things such as whether your change management strategy is working or whether teams are adjusting to new habits or workflows.

If adoption seems low, it could mean that the new solutions are too complicated, a poor fit, or you haven't provided adequate training. In that case, you'll want to capture feedback from users and try to identify what went wrong.

If teams are adopting new solutions and actively using them, you'll want to make sure they're getting the right results. If they're not, you'll need to tweak the process and see if things improve.

4. Employee productivity

Done right, digital transformation benefits employees in two key ways. First, automating mundane, low-value tasks allows them to spend more time on rewarding work, which in turn, benefits your customers and your company.

Second, eliminating silos makes it easier for employees to collaborate and access the information they need to do their work.

Tracking employee productivity allows you to determine whether investments in automations or collaboration platforms resulted in efficiency gains. You can measure employee productivity in a few different ways:

Team/individual performance. You'll want to find out what kind of impact DX investments have had on employee performance. Typically, you'd do this by comparing your baseline to employee performance after implementing the new solution.

For example, since implementing better collaboration tools, has your sales team been able to close more deals, larger deals, move deals through the pipeline faster? Or – has automating manufacturing operations improved product quality or efficiency gains?

Employee experience. How have DX investments improved employee experience? In this case, you might look at how new tools/optimized processes have (or have not) impacted employee satisfaction or burnout.

For example, you might measure the percentage of roles that allow employees to work remotely to measure the quality of their experience. If you then discover there's a link between remote work and employee satisfaction, you might then improve retention by offering more flexibility to workers.

Impact of process automation. You might also measure the impact of automating manual tasks like submitting time-sheets, generating quotes, scheduling, etc. Are you seeing fewer errors? Are customer satisfaction scores going up? Are employees making decisions that produce better outcomes?

5. Data governance

According to Salesforce, data governance is the "number one" KPI for measuring digital transformation success. As companies ramp up their DX investments, digital footprints get bigger and harder to manage.

Without strong, streamlined data governance processes in place, it becomes much harder to reach critical DX goals. Worse, it can create complex problems (our recent post on bad governance in the cloud shines a light on one such scenario).

You can measure data governance success by looking at changes in:

- Adherence to data governance policies. Implementing data governance policies requires orgs to develop and document standards and processes that outline how data should be used, who has access, and so on. To measure compliance with new policies, you might look at how each department follows guidelines, whether access controls are working, etc.
- Data quality scores. You'll want to measure data generated by key processes and functions against three key dimensions: completeness, accuracy, and timeliness. Continuously tracking these scores enables you to ensure DX investments continue to have a positive impact.
- Number of risk events. Risk events include things like fines, penalties, or poor decisions caused by bad data ,misreporting, or client churn. After implementing data governance policies, orgs should see fewer risk events. If there's no difference or the problem gets worse, you'll need to dig into the data to determine where the governance function went wrong.

6. Share of business processes enabled by AI/ML

Measuring the percentage of your business using AI and machine learning can help you understand how mature your DX strategy is. That said, this metric is only a starting point for learning more about business processes for further optimization.

Automating business processes doesn't mean those processes are delivering the right results. Nor does it make sense to use AI in certain instances.

Your best bet here is to look at how many processes are currently enabled by AI and ML, then either focus on identifying manual processes that can or should be automated or measuring the efficacy of AI-enabled processes.

7. Sustainability

A recent PwC survey (*51*, n.d.) found that 59% of CFOs say sustainability and ESG will be integral parts of long-term strategic planning before the end of 2022 (that's like right now). It only makes sense that sustainability goals are converging with digital transformation.

Organizations are increasingly leveraging AI, ML, and big data to reach emissions targets and supply chain goals.

For example, the IoT allows businesses to capture and analyze resource data and energy consumption across systems, job sites, and facilities. AI, on the other hand, can make real-time decisions to drive the best possible environmental outcome – using measurements, historical data, and external data sources.

Or, you might collaborate with a network of technology partners to achieve ambitious sustainability targets faster. In any case, business leaders might measure the impact of their DX investments against the following goals:

- Compliance with environmental regulations
- CO2 emissions
- Energy consumption
- Waste reduction
- Share of suppliers that meet environmental standards
- Percentage of product/packing materials made from post-consumer waste

Final thoughts

KPIs provide a shortcut to information that helps understand where you are, whether things are heading in the right direction, and what needs to happen next.

Obviously, this is a big deal for digital transformation initiatives, where so much is on the line, yet so many data points and vanity metrics that can lead you down a dark, expensive path.

Selecting the right KPIs is an important step for driving game-changing results with big digital initiatives and incremental improvements.

While this all might sound simple, it's harder than you might think.

Ensuring that your KPIs are helping, not hurting, your efforts may involve significant changes to workflows, org charts, and even your culture.

It's about aligning around a shared definition of success, agreed upon goals, and what steps you'll need to take in order to get to that ideal future state.

In chapter 11, we examine some of the top challenges businesses face on the road to transformation – and what you can do to avoid them.

CHAPTER 11

Top Digital Transformation Challenges and How to Overcome Them

Digital transformation isn't something you get to opt out of because it's difficult, expensive, or you just don't feel like dealing with it right now.

Skip the harrowing journey and your business dies. Commit to transformation, and well, the odds aren't much better – the path to DX success is riddled with potentially fatal pitfalls.

If you feel trapped between two terrible outcomes, we totally understand.

Fortunately, there's a lot you can do not only to survive this journey, but to thrive long-term.

Below, we offer a realistic view of the digital transformation challenges today's orgs are up against – and what real companies are doing to mitigate them.

Relying on legacy tech for critical processes

Legacy systems cause all sorts of problems. Siloed decision-making. Fragmented experiences. Data issues. The list goes on.

Fixing these problems, however, is a significant challenge, as they also complicate the process of replacing existing solutions – and, from there, getting started with DX.

Overcoming the barriers of legacy tech can be a long, complicated journey in and of itself.

But it's important to remember that, at first, your primary goal is laying the foundation for transformation. You're several phases away from the more exciting stuff.

You're also going to need to redesign business processes that you've likely been using for years. Transitioning old ways to new platforms means you're limiting your potential.

According to CFO.com (*52*, n.d.), if employees are complaining about the limitations of their current software or providers have announced plans to discontinue support, you're overdue for a transformation.

Similarly, if employees are still relying on manual processes or don't have access to actionable, real-time reporting tools, DX is an urgent priority.

Change management is going to be a big deal here. A comprehensive change management strategy ensures a smooth transition from one system to a new, cloud-based one with transformative capabilities.

Now, working with a partner is recommended – regardless of where you're at in your DX journey. But, if you're working with legacy tech and processes, an outside expert is the best way to fast-track your cloud migration and start optimizing processes ASAP.

Nailing this initial stepping stone is crucially important. If you fail at this stage in the game, transformation doesn't happen at all.

Achieving business agility

Agility isn't really about "failing fast" (*54*, n.d.) or reckless risk taking. Rather, it's about flexibility, exploring solutions, and being able to advance the strategy by using data to iterate and improve – even if the data takes you to unexpected places.

Achieving agility is harder than it sounds. Inability to experiment is a big problem. A lot of this comes down to an unwillingness to change.

Or, for leadership, a failure to cultivate the kind of environment that nurtures curiosity, innovation, and a widespread willingness to explore potential solutions to complex problems – even if it means many of those ideas ultimately fail.

But, another common barrier isn't that employees are unwilling to adopt new agile practices – it's that they don't know how. There are all these self-serve analytics and low-code development platforms that promise to democratize development and data science.

Which is great, but what's often missing from this conversation is the fact that people still need hands-on training to use them in exploratory, outcome-driven ways.

Employees can probably figure out how to pull some reports or build a really basic chatbot, but that doesn't mean they're prepared to build value-driven solutions.

They'll also need to learn how to measure the impact of problems and potential solutions, as well as diagnose issues and ID opportunities.

People who don't have experience with Agile or DevOps practices might also have a hard time adapting to this cyclical approach. Particularly if they're used to projects with a clear beginning and end.

So, in those cases, transformation will require building new habits – and reinforcing them – through repetition and by using data to demonstrate the impact of iterative changes.

Coping with new (and far more threatening) security threats

Data sprawl, distributed networks of devices, apps, and infrastructure, IoT & OT, etc. – have introduced an explosion of vulnerabilities and threats, in large part, because the threat surface has outgrown traditional security protections.

As with agility, cybersecurity is one of those areas that non-technical employees may need to get used to. Historically, cybersecurity was the exclusive domain of IT. It was considered too technical for anyone outside of the department, including executives to fully grasp.

Splunk experts say (*55*, n.d.) security should be deeply embedded into all parts of the business strategy from the very first stages of planning. Every decision must be considered with security in mind.

Additionally, orgs will likely need to update their entire security strategy to support DX – implementing best practices and protections designed for today's digital ecosystem. For example, the Zero Trust framework offers multi-layered protections that prevent security gaps/vulnerabilities from slipping through the cracks.

Implementing solutions that offer automated threat detection and response, ID verification, and centralized security management go a long way in keeping your org safe from all these new threats.

As you look for new solutions and/or develop your own, you'll need to make sure that security protections are implemented into the code – and that the right policies and protections are in place before you deploy them.

Budgeting for continuous transformation

Budgeting for digital transformation has always been challenging. A key reason many projects fail is because the money runs out before the project is finished – even in instances where business leaders put together thoughtful, detailed project plans.

What makes DX budgeting so tricky is that a lot of it is about planning for future unknowns.

Plans change, projects evolve, mistakes happen – and as a result, orgs end up taking on unexpected expenses.

Making things even more challenging is the fact that transformation is a continuous process. Meaning, you'll need to budget for ongoing optimizations, upgrades, and tech investments,

otherwise, you'll fall behind and lose more time and money playing catchup – again.

Inflation, of course, is also shaking things up. According to recent GetApp data (Torres, 2020), executives are either halting or scaling back on necessary investments. And, PwC found (Eide, 2020) that 53% of CFOs plan to cut IT investments post-pandemic, with 25% targeting digital transformation projects – despite the fact that those investments would put them in a better place financially in the long term.

Gartner VP Analyst Mike Cisek told CIODive (Wilkinson, 2022) that most challenges related to IT initiatives and tech-driven growth point back to resource limitations. He says making the right tactical and strategic decisions is critical to avoiding waste and executing on DX goals at scale.

Small to mid-sized companies, especially during times of economic uncertainty,

IT spending is evolving and a lot of orgs are rethinking their priorities. For example, they're allocating funds to more "protective" investments and focusing on strategic areas like cybersecurity (Wilkinson, 2022) that help them minimize risks, rather than splashier solutions that, while impressive, aren't essential to core operations.

Investing in emerging tech before you've mastered the basics is one of the worst things you can do here. Or, as this recent InfoWorld article (Linthicum & Linthicum, 2022) puts it, don't, for example, put all your eggs into the Web3 basket unless you're prepared to leverage it effectively – and you have a proven business case that justifies this investment.

Experts advise organizations to instead prioritize investments in composable, adaptable technologies that solve for current needs and challenges – but can be easily adapted around future requirements – even if they take you in an unexpected direction.

Additionally, you'll want to make sure that you don't spend money on projects you're not prepared to fund 100%. For example, don't install a bunch of IoT sensors in your warehouse until your infrastructure can support real-time data streaming and you've got adequate security protections in place.

Instead, prioritize investments in technologies that can help you do more with fewer resources (Saleforce, n.d.). Think – automation or low-code platforms. Working with managed services or outsourcing providers might also help you get more bang for your IT budget and fill critical gaps without the burden of hiring and developing talent, managing equipment, and paying for extra space.

What we're trying to say is, you'll need to come up with a budget that covers everything – including a cushion for unexpected expenses.

Figuring out how to approach business model innovation

Business model innovation (Harbert, 2021) involves using new technologies to not only drive greater efficiencies but to improve operations, service offerings, and customer experiences.

Key elements include data-driven decisions, connected, optimized operational systems, and strategic process automation.

Evolving business models is crucial to digital transformation. It's where you cross the invisible threshold between basic process improvements and the proactive strategies that create value – in ways that no one else can.

Now, some industries have it harder than others.

Professional services firms, for example, have always worked with complex business models involving many moving parts.

The core value they provide comes from human expertise, so DX, for them, means finding ways to package and scale that expertise in new ways.

Organizations with complex supply chain, logistics, or manufacturing operations face significant challenges, too.

This group also deals with many "moving parts," but in a much more literal way. We're talking: physical inventory, vehicles, and heavy machinery – plus the IoT devices that connect them to the rest of the business (and often introduce a whole new set of risks).

Across the board, organizations need experts capable of leading digitization and innovation initiatives.

These might include internal leaders, as well as external partners, consultants, as well as outsourcing companies and freelancers who can help you evaluate and improve existing strategies and fill gaps right now.

Long-term, you'll need to prioritize investments in training and development that focuses on building critical skills that drive innovation – and rethinking how you recruit and hire talent.

Catching up to more "mature" competitors

Another major challenge companies are currently grappling with is bridging the digital maturity gap between themselves and savvier competitors that have been transforming for years.

If you're just figuring out the cloud or digitizing basic processes, the idea of competing with brands that have already mastered advanced automations/ML/AI.

Long-term, it's going to be about education. Creating a talent pipeline. Upskilling and reskilling.

Planning future initiatives – i.e. – mapping out the next phases of your transformation, but adjusting those plans based on the data when it's time to start putting those plans into action.

Basically, you're going to want to put safeguards in place that will ensure that your business will never again fall behind – because things are only going to get more complicated in the future.

Mapping a journey that has no official roadmap

The last major challenge on our list is that every digital transformation journey is different.

Even similar companies that operate within the same industry will likely have completely different reasons for pursuing DX in the first place, and thus have different objectives, metrics, and barriers to success.

Because transformations are one-of-a-kind, there's no official playbook for business leaders to follow. Instead, the digital transformation strategies and roadmaps that are out there tend to go super broad, focusing on general areas where there's a lot of overlap.

Things like data sprawl, security, and budgeting challenges are pretty universal but it's important to understand that organizations face difficulties unique to their industry and their own business.

You might also find some useful insights about DX initiatives within a specific industry – i.e.: professional services, retail, manufacturing – based on common business requirements and challenges.

But again, every decision and investment you make must be driven by the needs of your customers, employees, and other stakeholders and backed by cold, hard data.

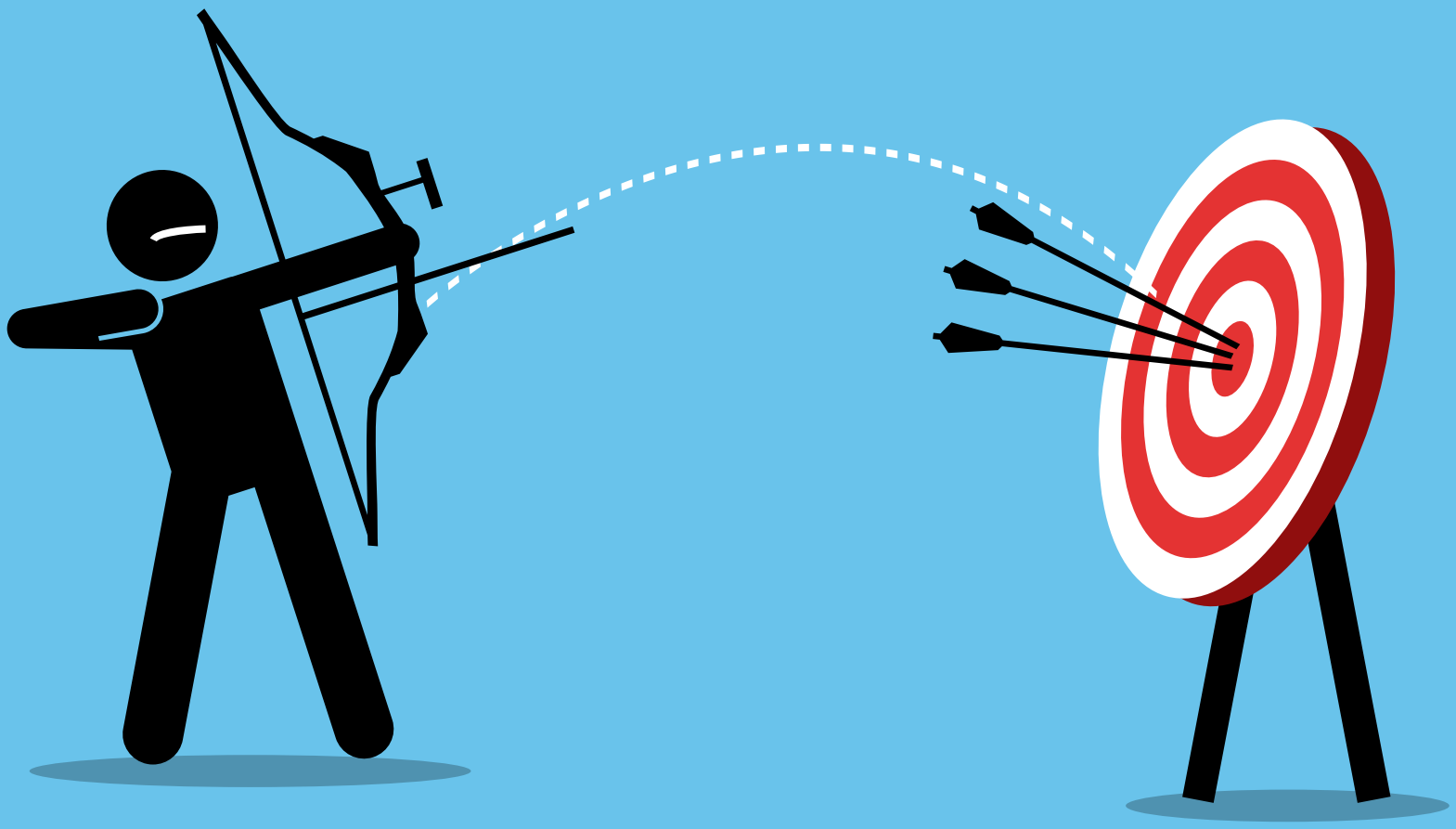
Final thoughts

The big lesson in all this is that if you're going to take on digital transformation, you need to have a plan. The biggest mistake you can make is underestimating the time, effort, and investment that comes with taking on any major transformation.

Getting familiar with the challenges you're up against allows you to come up with a game plan for tackling them head-on – or better yet, avoiding them altogether.

It's also important to work with experts who have traveled this terrain before. The right partner (or partners) can help you avoid common pitfalls – and take on new challenges as they emerge.

Ultimately, you'll have the best chance of success – and survival – by staying informed, surrounding yourself with the right people, and leaning into the reality that, moving forward, transformation will be a constant.



CHAPTER 12

Digital Transformation Best Practices

As we mentioned in the last section, one of the most challenging aspects of digital transformation is that there's no official framework for achieving X or Y critical outcome.

But – it's not all bad news. While every DX journey is unique, there are a few things successful "transformers" tend to have in common.

For example, they look at the big picture, while maintaining focus on a specific goal. They provide employees with the resources and support they need to navigate change – and empower people to solve problems and take action.

What's more, they also see digital transformation as a "forever commitment" to constant improvement.

We put together a list of seven"best practices" to help your company successfully navigate transformation – cycle after cycle.

1. Stay laser-focused on outcomes

Your strategy needs to align with outcomes, not technology, processes, or implementation projects. These things are merely tools for achieving the outcomes laid out in your big-picture game plan.

We asked Velosio DX experts to define what a successful digital transformation initiative looks like to them. Their responses, while varied, largely focused on achieving specific, high-level goals like:

- Empowering end-users and engaging them throughout the process.
- Capturing and acting on feedback in near real-time.
- Providing continuous learning & development opportunities.
- Ensuring that key sponsors remain involved and invested in driving and sustaining change.
- Delivering new capabilities and solutions that improve end-user productivity.
- Achieving a high (and quantifiable) user acceptance rate.
- Maintaining consistent digital communication & collaboration across the entire org (and the customers and partners it works with).

Notice how all of these examples don't have anything to do with, say, AI, automation, or specific platforms like Dynamics 365.

You might use D365 to improve digital collaboration or boost productivity – but only after determining that it's the best tool for that job. Additionally, there might be something better for achieving those goals in the future. Taking an outcome-driven approach helps orgs focus on achieving goals by any means necessary.

Solutions might be high-tech, low-tech, or completely unexpected. But – the point is, your choices must

always be driven by data-backed needs and use cases, not assumptions.

By the way: Microsoft has a handy "business outcome template" (*56*, 2022) designed to help users engage stakeholders, align business drivers and KPIs, and start productive conversations about what's next for DX.

While the focus is on cloud adoption, the documentation is worth a read (*57*, 2022) – particularly if you need help documenting outcomes and aligning them with potential solutions and the overall strategy,

2. Think holistically

This piece of advice builds on the last one, but focuses on driving outcomes from a slightly different angle.

Anything overly focused on a single product, practice, or business unit (think – tech-led IT upgrades) isn't a transformation. Nor is any initiative that only solves one-off problems or addresses the immediate needs of the end-user or client.

That's not to say these things aren't important. It's just that digital transformation can't happen in a vacuum. When you make changes to one area without considering the impact on the rest of the business creates inconsistencies, complexities, etc. you'll pay for down the line.

The lesson here is, even if your immediate goal is, say, streamlining collaboration between sales and marketing, you'll need to consider who else is affected by sales-marketing alignment – be it others in the org or the partners, customers, and vendors on the outside that read your content or engage with employees.

Instead, MIT-Sloan (Bonnet & Westerman, 2020) experts advise business leaders to aim for connected, dynamic operations.

Meaning, you'll want to focus on, say, connecting products and services with content and contextual support so customers receive a consistent experience across all touchpoints.

Or – adding AI analytics to workflows and processes to better manage, optimize, and enhance operations – across entire buildings, job sites, distributed business units.

3. Embrace design thinking to prioritize the customer experience

If you're not familiar with the term, design thinking (Friis & Yu, 2022) is an iterative approach to problem solving that aims to improve products and services. It's all about trying to understand end-users, challenging assumptions, and developing innovative solutions through testing and experimentation.

But, more crucially, it's about putting customers first – using data and direct feedback to develop empathy with users and build solutions that truly provide value.

Design thinking isn't new – tech giants like Apple and Google have embraced it for years. But, it's starting

to gain traction among companies in other sectors – including Americana Group (Agarwal, 2022), a CPG and restaurant operator based in the Middle East.

Navdeep Agarwal, Head of Business Intelligence at the Americana Group, explained that the company's limited analytics capabilities prevented leaders from making the strategic decisions that grow revenue, reduce waste, and shape consistently great customer experiences.

Sales and marketing teams lacked access to visual dashboards with usable insights, and fragmented data management provided limited visibility into the 2000+ restaurants managed by the group.

To address these issues, the group built a self-service analytics ecosystem using Azure Synapse, Azure Data Factory, and Power BI, which unlocked critical insights for all departments – finance, operations, HR, sales, etc.

Now, Agrawal says, the company has full visibility and total control over all parameters that impact the customer experience at each location. For example, a user can log into Power BI to track restaurant performance against KPIs that shape the in-store experience.

They might look at what the most profitable restaurants are doing or what items are on the menu. Then, they can use those insights to make decisions that help underperforms get back on track. Think – updating menu items or automating tasks so that customers spend less time in line.

What's more, employees can monitor critical metrics in real-time and make changes in that moment based on the data – rather than waiting for feedback to make its way back to corporate.

4. Use disruption as a learning tool

In a recent survey, McKinsey analysts (Karig, 2022) found that disruption can be a powerful tool for "honing strategic agility."

Participating business leaders said that while coping with recent disruptions like COVID, the shift hybrid working models, and rising inflation had been challenging, they developed new skills that

Respondents also stated that these shakeups offered a rare opportunity to reflect on the big-picture, and realign priorities around a different set of goals.

For Every Morning Consulting (Lopez, 2022), a sales advisory firm, embracing disruption as a learning experience was a win for the business, as well as clients struggling with similar challenges during COVID.

Owner Javier Lopez de la Fuente says, in spite of the disruption, the firm was able to maintain profitability in the early days of the pandemic because employees committed to learning new techniques for adapting to change.

Those lessons allowed Every Morning to quickly pivot from in-person meetings to online channels via Microsoft Teams, and adapt its service model around changing conditions.

The same McKinsey report also recommends creating an "agile center of excellence" or CoE to help people shift toward new ways of working. The idea is, transitioning to agile is a transformation in and of itself.

And, as such, employees need a consistent framework for navigating disruption and uncertainty.

Business leaders can ease the transition by providing consistent communication re: new expectations and processes – both verbally and in documents employees can access through the CoE.

They might also provide things like a framework for using data to assess challenges and take action amid uncertain conditions.

5. Build strategic partner ecosystems

Different types of partners can help you achieve different goals.

You might work with a Microsoft Partner like Velosio, a cybersecurity firm, and a stable of niche consultants that help you gain access to experts with specialized knowledge based on key goals.

You might also form strategic partnerships with outsourcing companies, freelancers, DX partners (among others) are critical to long-term success.

These types of external sources provide on-demand access to talent, expertise, and supplemental services that might not require a full-time internal hire.

According to the MIT paper (Bonnet & Westerman, 2020) mentioned above, some companies, like Target and UPS, are building their own gig worker networks to tackle labor shortages on-demand. Rather than outsourcing to a middleman platform that takes a cut and eliminates human-to-human contact, in-house platforms help companies connect with former employees and retirees who can fill gaps on an as-needed basis.

Here, you see companies embracing a model used by Uber, Doordash, and other gig platforms – but they're using it in a different way to nurture critical partnerships with real, vetted humans who understand the expectations of the role.

6. Introduce org-wide governance

Data governance facilitates digital transformation by supporting data integrity, availability, usability, and security.

Done right, data governance establishes a system of accountability that preserves data quality, protects critical insights, and promotes access and proper usage throughout the entire organization.

Forrester predicts (Herrington, 2022) governance teams will continue to grow in 2023 –and it's easy to see why.

Governance is super crucial – particularly as you scale, pivot, or shift to a distributed workforce model – for a few key reasons:

- It protects your business. Governance enforces culture, compliance, and security – allowing business leaders and IT to focus on other, more valuable work. Leaders can move away from surveillance activities – allowing them to provide more support to their teams and ensure

that everyone stays aligned around shared objectives.

- Employees get the autonomy they need to make decisions and test their ideas. Built-in guardrails support quick decisions and experimentation, while also ensuring that employee mistakes won't cause any future meltdowns.
- Templates and automations that enforce quality and compliance standards help everyone produce better work faster. For example, you can set rules that automatically preserve data integrity – that way, users can spend less time on data entry and manual audits and make quick decisions with full confidence they're working from accurate insights.

There's more where that came from, but the point is, governance is more about way more than security and compliance. It's a strategic enabler that helps companies become more innovative, agile, and, ultimately, future-ready.

7. Audit & refine the transformation process

According to HBR (*58*, n.d.), the real value of DX can't be achieved after a single round of improvements.

You're trying to transform the way you capture, create, and deliver value to your customers. But, because "value" is defined in context with real-time needs and conditions.

It also doesn't happen all at once. If you're starting from scratch, it'll be a long time before you can unlock any real competitive advantage. But, you'll still see meaningful improvements.

So, transformation needs to be this constant cycle. Where you're building capabilities phase-by-phase. And at the same time, making incremental improvements to your strategy based on what you learned during prior phases.

The HBR piece explains this "layering" approach using the example of a retail client that began its DX journey in an effort to slash operating costs by reducing excess inventory.

While cost-cutting was the main objective, the retailer needed to upgrade its data management systems in order to enable the advanced AI and analytics capabilities they needed to achieve that goal.

That initial upgrade paved the way for a much bigger transformation. Eventually, the retail company was able to leverage insights from prior phases (focused on things like cost-savings and customer satisfaction) to reinvent its entire approach to product design. As a result, they embraced a more proactive design strategy based on patterns and insights from the new platform – leading to double-digit revenue growth.

Again, digital transformation is all about objectives. Each phase must focus on a specific goal that moves you closer to your bigger picture objectives.

And, every time you reach the end of a phase, you'll want to conduct a post-mortem to determine whether your efforts produced the right results. A few questions you might ask yourself:

- *Did you achieve your target objective?*
- *What worked? What didn't work?*
- *What did you learn from this experience?*

- *How might those lessons be used to improve future initiatives?*
- *What processes might be standardized or revised?*
- *Etc.*

Then from there, you'll want to use your answers to refine your strategy before starting the process all over again.

Final thoughts

The big takeaway here is that digital transformation is an ongoing process. It takes time to achieve digital mastery, and the goal post is always moving.

These tips should give you a better sense of how to drive consistent wins by adapting to changing technologies and conditions. But, you'll still need to figure out the specific details for yourself – starting with your people.

CHAPTER 13

Why Digital Transformations Fail

For years, we've been hit with the same old stats, suggesting that most digital transformations inevitably fail.

There's this classic from McKinsey (Bucy et al., 2016) that dates back to at least 2016: "70% of DX initiatives fail" dates back to at least 2016.

And this one from a 2017 Bain survey (*59*, 2017): just 5% of DX projects met or exceeded expectations, 20% failed, and 75% of orgs settled for dilution of value – minor improvements but nothing transformative.

In 2020, BCG reported (Forth et al., 2020) that around 30% of transformations achieve their target objectives. 44% produced limited value (but not sustained/meaningful change) and 26% delivered less than 50% of the target. Which indicates that things are getting a bit better – though the average org still has a long way to go.

For whatever reason, the go-to statistics are several years old. A bit odd, considering the rapid pace of change and how it impacts DX projects and priorities.

While it's common knowledge that digital transformation is hard to pull off, it's hard to get a realistic picture of where the numbers stand today. Though, maybe stats aren't so important.

No matter the actual fail rate, understanding why digital transformations fail – and what you can do about it is the best way to beat those odds.

In this chapter, we look at some of the most common missteps that doom transformations from the start.

1. DX Happens on an Ad-Hoc Basis

Another reason that digital transformations fail is that businesses approach DX projects on an ad-hoc basis.

This issue likely links back to a common piece of advice: that transformation needs to happen incrementally.

It's true that digital transformation can't happen all at once. But ad-hoc improvements to specific workflows or functions need to go. Businesses must embrace change on a holistic level to reap any meaningful returns.

Each solution is part of a broader digital ecosystem – where individual solutions function as one seamless experience.

As such, every change must contribute to the overall experience, align with customer priorities, and bring you closer to reaching strategic long-term goals. Siloed implementations cause all sorts of problems. It slows innovation and creates inconsistent customer experiences.

Projects might be treated as theoretical experiments, and as a result, no effort is made to improve processes or experiences related to that transformation. Or – orgs end up trying to reproduce successful pilot projects in different business areas, without adapting them to the new use cases.

Whether you're trying to improve the end-user experience, streamline processes, or enable more effective collaboration, projects need to deliver some sort of measurable impact that aligns with big-picture goals.

2. You've Forgotten About the End User

Orgs often start building solutions without considering what end-users actually want or how to monetize and package new products/services to maximize profits.

Leading companies dig into the data and immediately focus on solving end-user needs. They don't waste time building products no one wants, nor do they waste valuable resources on unproven solutions.

By investing in high-impact areas where there's a proven need, organizations can be more strategic about IT spending. For example, they can allocate for unexpected disruptions (like a DX emergency fund) and invest in future transformations that build on past improvements.

Most transformation initiatives have two groups of end-users: employees and customers. Solutions must be driven by data-backed needs/customer feedback and produce a specific outcome for the user.

As Microsoft's Digital Transformation Playbook (*60*, n.d.) points out, business models have evolved. Rather than prioritizing one-off transactions, the focus is on driving continuous engagement. That shift means companies need to actively engage their customers beyond the traditional sales cycle.

You might start by trying to answer the following questions:

- How can you help them get the most value from your products/services?
- What do employees need to help customers achieve the results they're looking for?
- Which processes/business areas have the greatest impact on customer outcomes?

Then, from there, look at the data to pinpoint priority areas you can use as a jumping off point for collecting feedback from customers and employees. By the way, the playbook includes a simple journey mapping exercise (and worksheet) to help you connect end-user insights to actionable improvements and measurable outcomes.

Bringing IT, client-facing SMEs, and other internal end-users together early in the game ensures that project plans cover everything from timelines and budgets to quality standards, cybersecurity, and tech investments.

3. There's No Clear Leader Running the Show

According to a TEKsystems poll (*61*, n.d.), 93% of business leaders believe technology can fundamentally transform their business. Yet close to 40% of participants admitted their current organizational structure can't support critical transformation projects.

Jason Hayman, a market research manager weighed in on the findings. He says that while technology is more accessible than ever, narrow mindsets prevent businesses from reaping the full potential of their DX investments.

The entire organization needs to rally around a common vision and shared goals. And, crucially, they need to understand how transformation projects benefit end users and fit into the context of a broader strategy and digital ecosystem.

It's on the C-suite to lead the charge – communicating a clear vision with measurable goals, a compelling reason why this needs to happen, and what stakeholders stand to gain from this effort.

But – it's also about enlisting the support of champions across the entire organization. These team leaders and power users are instrumental in securing buy-in – in large part, because they can communicate big-picture DX goals in context with individual roles.

An unclear vision inevitably means employees are forced to make do with vague requirements/ expectations for what the end result should look like, who it's for, and how it does X or Y.

4. Employees Won't Change

Large-scale digital transformations have more to do with people than process changes or technology. People implement systems, design solutions, and solve problems. Technology allows them to achieve those goals – but getting employees to that point is incredibly difficult.

Resistance from employees uncomfortable with change and all the uncertainty that comes with the territory can easily shut down a DX project before there's even a definitive plan in place.

There are two things at play here.

1. The first is a lack of trust based on past experiences (big changes often mean there's a mass lay-off just around the corner). You can overcome trust issues by involving employees in the entire process, addressing concerns, and providing resources and support that help them prepare for upcoming transformations and continuously develop new skills.
2. The second challenge – changing the collective mindset – is much harder to overcome. With leadership, the mindset shift is about envisioning the possibilities that tech can unlock and its impact on customers, employees, and business performance – then it's about presenting that vision in a way that convinces people to buy in.It's a bit different with rank-and-file employees or veteran SMEs – particularly in cultures where cross-functional collaboration, problem-solving, and group training opportunities aren't the norm.

Firms also need to zoom out and consider how to maximize long-term returns.

For example, employees often have a hard time letting go of old habits – so DX leaders need to ensure that they provide adequate training and incentives to not only learn the processes and standards but stick with them.

That means, investing in upskilling, reskilling, and training that reinforces agile-like practices.

5. Cybersecurity is an Afterthought

While digital transformation unlocks all kinds of game-changing possibilities for organizations to optimize, innovate, and crush the competition, it also puts them at risk.

DX projects generate an explosion of data, dependencies, and connections, all of which provide new opportunities for threat actors to infiltrate your system and steal valuable data, credentials, and IP, deploy malware, or hold digital assets for ransom.

Organizations simply cannot afford to treat cybersecurity as an afterthought.

Security must be embedded into every part of the digital transformation process – starting from the very first stages of planning.

Final Thoughts

There are so many reasons why digital transformation projects can fail. Maybe you run out of money before finishing your project. Maybe stakeholders can't get aligned around goals.

Or, maybe you're struggling to motivate a workforce that refuses to embrace change. Whatever the cause, failures can generally be traced back to a common mistake – poor planning.

The good news is, failure isn't inevitable. Being aware of common pitfalls is the first step toward avoiding them in the first place and proper planning is crucial when it comes to achieving big-picture goals.

In chapter 14, we zoom in on the most important (and, often, the most challenging) element in any transformation – culture.

CHAPTER 14

Fostering a Culture that Embraces Digital Transformation

Culture represents the mindset and behavior of its stakeholders, informs strategic decisions, and determines how work is done at all levels. It's driven by the company's vision and values.

Culture is also the hardest part of digital transformation. Sure, leadership can technically make rules and enforce compliance, but they can't mandate creativity, trust, or enthusiasm.

But, what does it take to create the kind of culture that embraces and accelerates transformation? The short answer is, it takes a lot.

In this chapter, we'll share some actionable tips for the cultural transformations that support entire DX journeys.

Why is Culture Such a Big Deal for DX?

It's culture, not processes or technology, that determines whether transformations are a success – or a spectacular failure.

A BCG study (*62*, n.d.) of 40 digital transformation initiatives found that companies that prioritized culture were five times more likely to see breakthrough performance. Of those participants, 80% reported that it was their ability to effectively combine human and technical capabilities that got them through the COVID-induced economic slowdown of 2020.

In other words, culture saved the day.

When you fail to align digital objectives with employee behavior and values not only derails the project, it threatens to undermine the company's culture.

For example, if employees don't understand a change – or they outright disagree with it – it can damage morale, prevent initiatives from moving forward, and eventually, make it harder to attract and retain talent.

In the next few sections, we'll look at some of the ways you can build a culture primed for transformation.

Dig into the Data

Fostering a DX-friendly culture demands a clear vision and strategic direction – backed by real data, a proven need, and the board. But it's not just about using data to define the strategy or secure buy-in from the C-suite.

In order to achieve long-term digital transformation success, organizations need to embrace a data-driven approach to change.

This means, you'll need to start with a clear strategy that aligns with current conditions, industry trends,

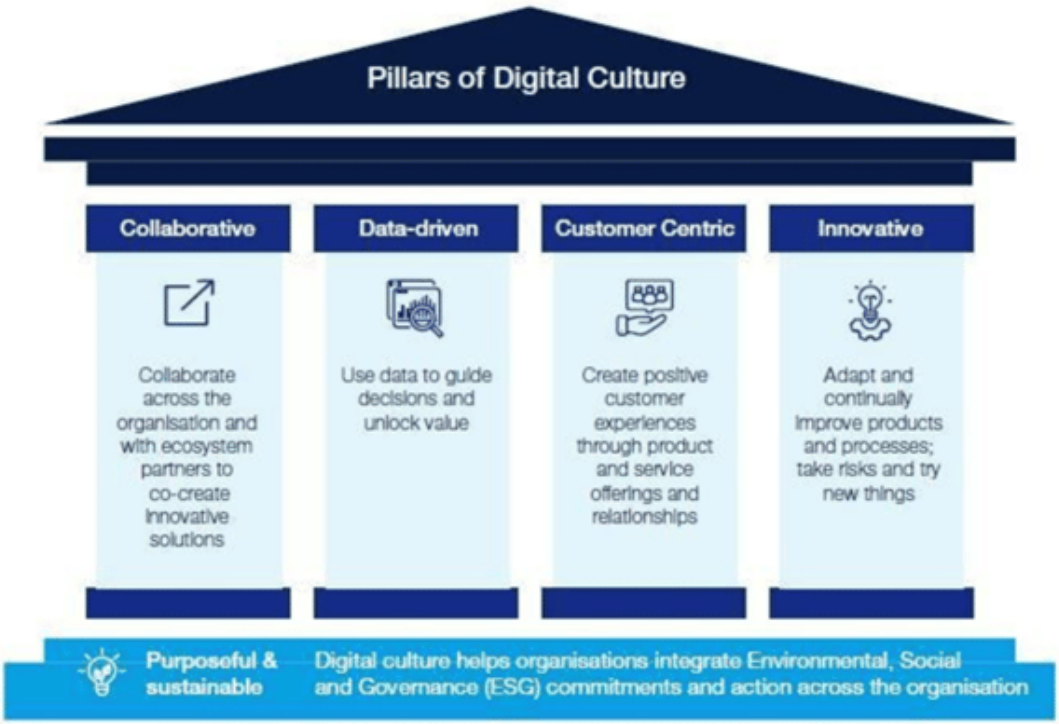
and customer needs – as they are at this very moment.

Using data to inform all aspects of your transformation enables you to implement the right tools, data strategy, and intelligent processes you need to achieve your DX goals, change course as the strategy evolves, and make intelligent decisions across the entire business.

But – it's important to understand that a data-informed digital transformation starts with a data-informed culture.

Everyone in your organization must be able to work with data effectively. They need to be able to interpret insights and put them into action. To measure progress toward critical goals. To adapt the game plan when something's not working. And, crucially, to use data in innovative new ways that actively generate value.

According to the World Economic Forum, there are four pillars that define digital culture: collaborative & open, data-driven, customer-centric, and innovative.



These pillars work together to create the conditions necessary for companies to have a positive impact on all stakeholders.

That means, you'll need to make sure that everyone understands how to interpret and manipulate data to drive outcomes – in context with their role and the bigger picture. And beyond that, continually adapt and improve your data strategy over time.

Prioritize Learning & Development

Learning can't stay on the back burner forever. Corporate culture has changed. We're finally seeing business leaders come to the realization that investing in talent doesn't just generate a short-term boost to the bottom line, it's one of the most effective ways to build long-term resilience.

According to an internal survey of Velosio clients, 70% of business leaders believe that keeping up with software and app trends plays an important role in helping their organizations attract and retain quality talent.

And, per Microsoft's Nine Emerging Trends for the Futurist CFO report (*64*, n.d.), more than half of respondents say reskilling employees is the best way to close capability gaps. In a tight labor market, companies that don't prioritize learning are in a tough spot.

The report calls out research from the 2008 recession, which demonstrated that cutting employee development programs didn't result in cost-savings – it only delayed essential investments that could have generated more value to struggling orgs.

Now, putting together an effective learning program isn't exactly a straightforward task.

Ultimately, the goal of your program should be to prepare employees for disruption – so you might focus on things like data literacy, leveraging low-code/no-code tools, and embracing new, agile ways of working that make it easier for people to respond to change with little resistance.

You'll also want to focus on providing employees with a learning management system that integrates with everyday tools and serves up relevant materials in the flow of work.

Encourage them to utilize training platforms and run simulations using predictive modeling and real data, which will help employees adopt technology more effectively and prepare for different future scenarios.

Cultivate an "Innovation Mindset"

Innovation should be an expectation that is consistently enforced throughout the entire organization – across all departments and at every level.

Unfortunately, though, business leaders can't simply mandate to "be more innovative."

People need to speak a common language and work from a unified vision, shared values, and the same methodologies.

A recent Enterprisers Project (Gunderson, 2022) piece shared this little nugget of wisdom: the innovation mentality never dismisses ideas or says "this won't work." Instead, it asks "how can we do this?"

Microsoft's ebook, *Becoming an Innovative Organization* (*65*, n.d.), shares a similar sentiment. But – they add that other attributes need to be in place in order to achieve this collective culture of innovation. Microsoft experts also add that cultural disconnect prevents orgs from innovating to their full potential.

Cultivating an innovative culture requires internal alignment, a shared mindset, and the right set of skills.

For a culture of innovation to take root within an organization, leaders need to model a growth mindset – embracing curiosity and rewarding attempts, wins, and even failures – so that people feel comfortable (and excited) to try new things. Employees should feel empowered to problem-solve with others, take chances, and, in many cases, fail.

Change management is also about removing the stigma of getting things wrong. Look, "psychological safety" has almost achieved buzzword status – but don't write off the concept based on think-piece over-saturation.

That said, it's critical that everyone feels comfortable sharing ideas, brainstorming solutions, and testing new theories free from the threat of being shamed or punished.

That sense of safety is central to building the kind of environment that produces innovative solutions – fostering curiosity and collaboration.

Use Technology to Catalyze Collaboration

Another key aspect of DX is integrating technologies into daily work to encourage collaboration and teamwork. But, that can only happen if you tear down silos first.

Silos pit people against each other (*65*, n.d.) – creating a competitive environment that erodes trust. And, in turn, people become less open to change because they perceive it as a threat.

Resistance to change comes from a culture where keeping information close to the chest is the norm. Silos are fundamentally at odds with data maturity, preventing businesses from unlocking the value in their data. And, of course, they're completely toxic.

What this all means is that improving culture with tech isn't really about the tech. It's about creating pathways that allow people to share information and work together.

What you'll want to do here is focus on finding the best way to enable cross-functional communication and collaboration.

Consider adopting org-wide transparency via digital tools. For example, you might build an intranet for internal users, create virtual communities for collaborating on shared documents, or set up a knowledge base for helping employees find answers to their own questions.

Keep in mind that changing the tech stack has serious cultural implications, too.

For instance, if one of your DX goals is leveraging AI and automation to improve process efficiency, you need to be really thoughtful about how that technology is introduced – and what that actually means for

By now, most business leaders understand that robots (yes, even ChatGPT) aren't *supposed* to replace humans. But there's still a lot of fear there. Sometimes bots do replace humans, and, usually, they change how people do their jobs.

The best way to address those fears is helping your employees develop a nuanced understanding of how algorithms, automations, and ML models can enhance their performance and productivity in meaningful ways.

The point is, you'll want to prioritize tech and training investments that help employees take advantage of new tools, and, eventually, use them to solve problems for themselves and their customers.

But, it's equally important to put these people at ease – providing them with transparent communications and hands-on skills training that prepares them for whatever lies ahead.

Final Thoughts

Digital transformation is a cultural change involving the entire organization – from the front lines to the C-suite and everyone in-between.

Without culture, the rest of the plan falls apart.

Luckily, there's a lot that business leaders can do to foster a strong digital culture that supports – even embraces – transformation. It's just that all of these things – investing in learning, changing the collective mindset, etc. – require commitment from everyone in the organization.

In chapter 15, we'll build on this theme and discuss change management tactics that can help your team navigate the DX journey with ease.

CHAPTER 15

Six Change Management Strategies for Digital Transformation

Digital transformation fundamentally changes how businesses create value at every level. That, in turn, changes how work is done, what skills matter most, and how performance is measured.

All of this, of course, can be pretty jarring, even for high-performers and "go-with-the-flow" types, who under different circumstances, take change in stride.

Convincing an entire organization to part with old habits, overcome fears, and ditch deeply embedded feelings about organizational hierarchies, collaboration, and, gulp, failure, is incredibly hard.

It's also incredibly necessary.

According to Deloitte (*66*, n.d.), even well-designed, carefully planned digital transformation initiatives can't succeed without stakeholder buy-in and consent. And, per HBR (*68*, 2021), most companies never achieve that initial milestone. Researchers estimate that close to 80% failed at past efforts to change the way they run their business.

Now, that doesn't mean you're doomed.

Here, we discuss six change management strategies you might use to support your digital transformation projects and, long-term, nurture a culture that actively embraces change.

1. Align Change Management to Digital Transformation Goals

If you want employees to drive outcomes, you have to show them exactly how to make that happen. The best way to do this is to look at the goals you've established for your transformation initiative.

What you'll want to do here is examine your DX objectives. Common ones include cost-savings, enabling remote work, improving compliance and governance, and increasing business agility.

Let's say, for example, your goal is improving collaboration. That's pretty broad.

So, you'll want to also consider what the ideal future state should look like – what metrics will be used to measure success?

While goals – and the KPIs used to measure them – vary widely between organizations, here are some examples you might use to get started.

- *Identifying gaps and barriers in the existing strategy*
- *Gathering feedback from end-users and using it to define requirements*
- *Overcoming barriers to adopting solutions & processes*
- *Redefining organizational structures and individual roles to enable cross-functional collaboration*

Essentially, you're trying to come up with a list of more general objectives, which you'll then need to break down into a checklist of sorts that makes it easy for employees to work through one-by-one until they've arrived at their destination.

2. Prioritize the Planning Process

Here's the thing: change management demands at least as much planning – if not more – than the "change" itself. You can't treat change management as an afterthought, otherwise you fail.

We just mentioned the importance of aligning change management with digital transformation goals. But – that's just a starting point for figuring out how, exactly, you'll achieve those goals.

It's one thing to identify that change needs to happen – even to agree on next steps and general best practices for getting from point A to point B. Getting employees to change their habits for good is something else entirely.

Take, for example, telecommunications company SES (*69*, n.d.). Here, you've got this company with the broader DX goal to transform its working culture – by improving both employee wellbeing and work quality.

One of the ways SES sought to do this was by slashing 100k annual meeting hours across its entire workforce – which would, on average, return two hours each week to its employees they could reinvest however they like.

Instead of issuing a mandate telling people to spend less time in meetings, SES implemented Microsoft Viva – which allowed them to gather employee and workplace insights that could then be used to provide personal recommendations to employees for maximizing time and improving the quality of their work.

As you might imagine, developing a solution that uses behavioral insights to drive change demands a huge amount of planning – on-par with any transformation project.

3. Communicate proposed changes

To effectively prepare your people for a proposed change, secure buy-in, and get people to rally around your vision, you'll need to put together a plan for how you'll communicate the proposed change.

You'll need to present a clear business case for the upgrade. Like, what, exactly, are the benefits of, say, embarking on a process modernization journey or adopting new technologies like low-code tools or machine learning models that will help you stretch limited resources further.

Be transparent about what prompted this decision. Why are you pushing this revamp in the first place? Are there specific problems that demand urgent attention or are you concerned that legacy solutions are limiting your potential?

Finally, you'll want to use data to demonstrate how, specifically, the changes will solve a problem or produce a certain outcome. By helping stakeholders understand what's in it for them, you'll be better positioned to win the buy-in you need to see this thing through.

For example, Brazilian consumer goods company, BRF (*70*, 2022) invested in Azure Machine Learning – enabling intelligent recommendations, more accurate forecasting, and a huge bump in productivity.

While this investment led to significant revenue growth, it also solved a major pain point for its team of analysts. The analysts generate reports and look for purchasing patterns among customer segments to inform personalized recommendations for each account.

BRF's catalog contains 650+ SKUs, so manually gathering these insights took analysts, on average, 10 days. Now, analysts can gain accurate, real-time insights into purchasing habits and actively drive sales.

Explaining how changes might result in gains for employees goes a long way in getting them on board. But, you'll also need to be upfront about what the process will actually entail.

Employees may have to relearn basic tasks (Velush, 2019) and will likely need help establishing new habits for working in this environment.

So, you'll want to be prepared to explain things like how training might work and what kind of support resources you'll provide to help them succeed.

4. Assemble a Change Management Committee

It's also important that change leaders consistently communicate with all stakeholders throughout the transformation process – from inception to requirements gathering, all the way through deployment and long-term process optimization.

Azure Western Europe Solution Strategy Manager, Laura Garrett explains (*71*, n.d.) that strong sponsorship that not only is led from the top, but is also championed and supported by all leaders.

According to Garrett, it's this collective effort that, often, is a powerful catalyst for change. The idea is, when change is driven at all levels, it creates a foundation that supports a human-first transformation model – and a change management strategy that similarly puts people first.

These internal champions are the ones that really put your strategy into action. They support teams on the ground with hands-on training and data-driven processes for setting goals, measuring progress, and driving continuous improvement – in context with .

What business leaders should do here is put together a change management committee that spans the entire organization. And on top of that, make sure the committee is involved at each phase of deployment.

They'll need to put together communication schedules, process maps, standard operating procedures (SOPs), and training materials. They'll also need to draft communications – with messaging tailored to each stakeholder group.

5. Get employees involved in the process

It's critical that everyone – from the front lines to the C-suite takes ownership of the change and plays an active role in identifying potential improvements and possible solutions.

When employees don't understand how their own role aligns with the bigger picture,

organizational goals aren't a shared priority, they're someone else's problem.

One way you can do this is through small pilot projects – assembling teams around relevant use cases and known pain points.

Naturally, you'll measure progress toward a specific goal – using analytics platforms to track performance across pre-defined KPIs. But, more importantly, you'll want to focus on listening to the end-users themselves and work collaboratively to refine processes based on the needs of the people who will actually be using them.

Another option is using direct feedback to guide the change – and as the vision begins to take shape, support tailored training and change management tactics.

6. Invest in reskilling

According to a recent Microsoft report (*72*, n.d.), 78% of business leaders say capability building is either "very important" or "extremely important" to their overall strategy, with 53% saying that reskilling is one of the most effective ways to do this.

The research also revealed something surprising – reskilling initiatives benefit businesses – regardless of outcome. Orgs that prioritized capability building became more resilient and were better equipped to deal with disruption.

Change leaders must approach reskilling from a holistic perspective, driving adoption and success through a deep understanding of how the change will impact individual roles, workflows, and org-wide performance.

Many companies do this by building Centers of Excellence or invest in tailored training resources that blend hands-on coaching, group workshops, and self-guided asynchronous sessions that allow them to learn at their own pace.

German technology firm smapOne (*74*, n.d.) invested in a comprehensive CoE and packed it with training materials, documentation, and additional resources to encourage successful adoption of its app development platform.

The company's aim was democratizing data, and eventually, tapping into the "entrepreneurial qualities" hidden among its workforce.

Using a combination of the Power Platform, Microsoft 365 apps, and Azure AD, smapOne built a digital workspace offering easy access to critical data, docs, pre-built templates, and reusable modules employees could use to build custom solutions as they uncovered new needs and pain points from the platform's drag-and-drop interface.

The CoE empowered employees with on-demand resources that helped them navigate challenges as they emerged.

Not all investments require a ton of spending on new tech. Sometimes, it's about giving people the time and the space they need to hone new skills.

Microsoft recently launched a Growth and Resilience in Tech Toolkit (*75*, 2021) – consisting of nine free modules that teach learners how to build a more inclusive, collaborative environment. The modules tackle things like strategizing potential solutions, unexpected pivots, and quickly moving on after experiencing a setback.

Additionally, It's critical that everyone feels comfortable sharing ideas, brainstorming solutions, and testing new theories. That sense of safety is central to eliminating fear and resistance to change – and instead, nurturing the curiosity and collaborative spirit that produces innovative solutions.

Final thoughts

Technology is temporary – today's cutting-edge solutions are already aging – and it's unlikely the rate of change will be slowing down anytime soon.

Change management, like digital transformation itself, is a continuous, data-driven process that moves at a breakneck pace. You'll need to ensure your change management strategy is agile, dynamic, and easily adjusted to drive the right outcomes under any circumstances.

Whatever you hope to gain from your digital transformation efforts, remember that the primary objective of DX is driving meaningful, iterative change that moves your strategy forward. Or – in many cases, in a whole new direction.

Throughout this series, we've talked a lot about how data supports all these different parts of the DX journey – from change management and culture to forecasting and process optimization.

In chapter 16, we'll finally dig into what it means to build an effective data management strategy that supports all aspects of digital transformation.

CHAPTER 16

Data Management: Setting the Foundation for Digital Transformation

Today, data is more than just an operational necessity - it's a strategic asset that can be leveraged to carve out a competitive advantage.

That's why savvy organizations are prioritizing DX initiatives that make their data work harder for them.

But – there's a catch. In order to successfully unlock the value hidden among their massive data sets, organizations must already have a strong data management foundation in place before moving forward (spoiler: most don't).

Chapter 16 is all about data management – the foundation for every digital transformation strategy out there.

It doesn't matter if it's an expensive, culture-altering initiative that shakes up the entire org or something more mundane like improving budgeting, forecasting, or production processes – it can't happen without a strong data strategy in place to support it.

What is data management?

Data management is the process of collecting, storing, maintaining, and using data so it can be used to generate business value.

Effective data management is essential for core business functions. For example, professional services organizations need accurate time-tracking data to manage projects, generate accurate forecasts, and make profitable decisions..

How data management fuels digital transformation

In this digital age, you can't do anything without data. Well, technically, you can, but it's not a great idea. Because data is the lifeblood of any business, data management is critical to your success – and survival.

By analyzing your data on a regular basis, you can make small tweaks that will have a big impact on business outcomes.

You can avoid the pain of poor decision-making – using data to prevent waste, improve experiences, and pursue the right opportunities.

You can see what's working and what's not. And, why you're getting the results that you're getting by digging into the data. You can ID root causes and weak points in core processes, then use insights to explore and test possible solutions.

Research from MIT/Databricks (Hampton, 2022) revealed that data management is key to scaling AI. The

challenge, according to researchers, is that becoming AI-driven starts with a data architecture capable of handling big data workflows.

So, think – data streaming, machine learning, data engineering, and so on – as well as a unified platform that can provide flexibility, insights, data governance, etc.

In any case, if you don't have a solid data foundation, you can't transform.

What happens when data management goes wrong?

Sadly, many orgs struggle to turn data into high-impact wins.

Per Forrester (*77*, n.d.), most organizations are currently dealing with process-related issues. 37% say they have trouble adapting to customer needs. 30% struggle to gain insights from their data, and another 30% struggles to accurately measure their success.

These challenges point back to a data management issue. They're working with inaccurate, incomplete, or totally disorganized data – and because of this, they're not getting the results they're looking for.

Implementing a data management process

Like other "DX essentials" like the cloud, AI, and your ERP, mastering data management is not a transformation. It's something you have to take care of first – otherwise, everything you implement/build/etc. will be informed by bad data – and generate a lot more of it.

To unlock the value in your data – and avoid running into serious problems, you'll want to make sure you really nail the building blocks of data management.

Here's a quick look at what that entails:

Unify your data ecosystem

Your data management strategy should first focus on providing a unified view of all critical resources and entities that might have previously been stored in various silos.

According to McKinsey (Abdulla et al., 2021), a data ecosystem should center on two key priorities:

- Creating a collaborative environment. You're connecting different user groups so they can work together toward shared goals. It's about ensuring everyone is working from a single source of truth. But, more than that, it's making it easy for everyone – IT, marketing, finance, etc. – to work with data.
- Generating measurable value for customers and the organization. You'll also want to focus on building value with processed data. So, leveraging insights to improve process efficiency, pursue new business models, and monetize data through new channels.

Done right, a unified data ecosystem should enable businesses to make informed decisions using accurate, trusted information. It should provide managed and secure access to all business data on a self-serve basis. It should also support process optimization and product and service improvements.

Choose your data steward

You'll need to install a "data steward" to spearhead the effort. While many organizations push this responsibility off on IT, the best stewards have a deep understanding of the business practices and strategies connected to the data they manage.

Identify data types and sources

Here, you're trying to figure out what data you want to collect, as well as where that data is coming from. For example:

- Behavioral data might come from your website, social media platforms, and other channels. So, you'll need to consider how you might unify data from third-party sources with your website analytics and CRM data.
- Financial data might live in your ERP system, but that data also informs everything from sales and operations to project management. If you're using a collection of fragmented apps to support core business functions, you'll need to figure out how to bring that data together in one place. And later, how to protect sensitive data per regulatory requirements.

On top of that, it's a good idea to take inventory of all data sources, as some of the data you capture will be coming from unexpected – or underused sources.

Select storage solutions

Data storage solutions depend on the type of data you're collecting and how you plan on using it.

For example, if your goal is to use data governance as a force for transformation (*78*, 2022), you might centralize all data in a single Enterprise Data Lake (EDL).

By bringing all data together in one lake, you can eliminate duplicate data, connect silos, and set rules that enforce compliance and security standards across the entire organization.

You might even embed governance rules into the app development process to ensure that all new solutions align with your data policy.

Or, you might opt for a "project management approach" (*79*, n.d.) that organizes data into different domains. Here, data is part of a curated collection of insights, pulled from a number of data sources. In this case, you can manage data by business area, project, or use case.

Map data flows

Mapping your data flows can help you surface opportunities to improve existing processes or data management practices.

To do this, you'll need to ID the following elements:

- Data sources
- Internal databases
- Customers
- Employees
- Relevant data sets
- Processes

Then, look at how data flows between users, departments, and data sources.

Here, your goals are identifying storage, access, migration, and security issues, as well as how each department/team currently uses data.

Define data management objectives & KPIs

Next, you'll want to define some goals for your data strategy. You might use insights gleaned from the data mapping process to inform your high-level objectives – or not.

Either way, here are a few things to consider as you start building out your plan:

- *What do you hope to achieve?*
- *What problems need to be solved?*
- *Do you need access to real-time data?*
- *What is the value of your data?*
- *Which data sets require extra protection? Think – customer information, financial records, trade secrets, etc.*
- *How will you integrate data from various sources?*
- *How "data literate" are your employees?*
- *What skills need to be improved?*

Naturally, goals vary widely between organizations. For some companies, it's about connecting silos and bridging information gaps. For others, it might be improving research efficiency, enabling faster, smarter decisions or building standardized, replicable processes.

Whatever your goal, you'll want to select the right KPIs for measuring and tracking your results.

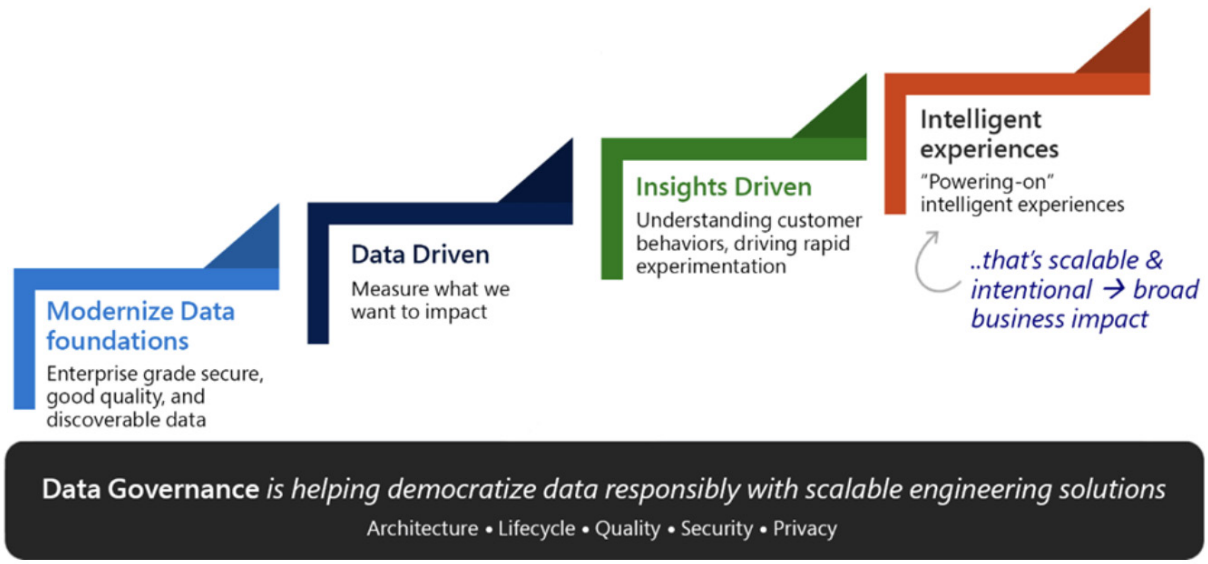
For example, if you're trying to improve data quality, you might focus on measuring data consistency, accuracy, and reliability.

When Microsoft transformed its internal data catalog (Ansari, 2020), it measured the impact of connecting people to high-quality, discoverable data, it tracked things like engineering efficiency and the ability to answer specific questions.

Implement data governance practices & quality controls

According to Microsoft, a modern governance strategy (*80*, 2022) shouldn't get in the way of progress – it should enable innovation and agility. Internally, Microsoft developed a data strategy that leverages AI to automatically respond to data issues as they emerge.

The strategy initially focused on connecting silos and centralizing data, then gradually, used insights from process and usage data to roll out automated, scalable controls to enforce proper use.



Data governance is the foundational pillar of the Microsoft Enterprise Data Strategy.

The EDL data lake includes built-in governance capabilities that can be applied to all enterprise analytics. Azure DevOps can be set up so that data governance rules are baked into the code of any new builds.

You might also use Microsoft Purview (*83*, n.d.) to manage and govern data across multiple environments. It comes with a visual data map that makes it easy to integrate all data catalogs, apply labels to sensitive data, and enable access permissions.

Additionally, you'll want to look for solutions that continuously validate both the actual data and the data models you use in various apps and productivity tools.

Many modern data integration platforms incorporate automated data validation into workflows, so you're not creating extra work for anyone. You can create rules that enforce formatting standards, retention practices, consistency, more.

Data validation is a key part of any data management strategy. Without it, you run the risk of making decisions based on a false reality. And, that, of course, means negative outcomes for your customers, your reputation, and your ability to compete.

Lock down the entire digital estate

You'll also need to ensure that security protections are embedded throughout your entire data ecosystem.

Security needs are determined by several factors, including regulatory and privacy requirements, storage solutions and workflows, and what types of data you're trying to protect.

Here are a few key security protections you might use to keep your data safe:

- Encryption. Encryption prevents unauthorized use of critical data. So, even in the event that it's intercepted by bad actors, that information can't be leaked or tampered with.
- Identity & access controls. These solutions prevent credential abuse, phishing attacks, and straight-up data theft by allowing you to define access permissions and continuously verify user identities.
- Monitoring & alerts. Monitoring systems and processes provide deep visibility into all data repositories. An SIEM like Azure Sentinel (*84*, n.d.) can be used to monitor systems for malicious traffic and automatically surface alerts when it perceives a threat.
- Physical security. Finally, you should also leverage hardening tactics to protect data stored on physical assets such as on-prem servers, devices, and industrial equipment.

Use automation to preserve data integrity

According to Deloitte (*85*, n.d.), manual processes and data management practices without high-quality data and governance is a blocker to transformation.

Analysts advise business leaders to put together a data governance strategy that spans the entire organization – calling it a mandatory first step in any DX program. They also should prioritize investments in data transformation tools that leverage automation.

Beyond saving users a ton of time, automation serves a more protective function. BMC (*86*, n.d.) experts say that while automation isn't a regulatory requirement, it does make it easier to accommodate new regulations, maintain compliance, and avoid excessive maintenance costs.

For example, rules-based automations can prevent bad data hygiene by reinforcing governance, regulatory compliance, and brand guidelines. That, in turn, means users have fewer opportunities to make small errors that create big problems down the line.

Other data transformation tools aggregate, clean, classify, and enrich raw data – and extract insights that can then be used to support critical business cases.

Final thoughts

With businesses relying more heavily on digital technologies to drive growth and transformation, data management has become an urgent priority.

Before you can embark on any transformation journey, you need to make sure you're starting from a solid data management foundation.

Regardless of what transformation goals you're pursuing or why, reaching those critical milestones hinges on having access to accurate, real-time insights.

Next up, we'll look at another foundational part of the DX stack – the ERP.

CHAPTER 17

The Role of ERP in Digital Transformation

Digital transformation starts with the ERP.

It's the first step toward realizing the bigger, better transformations that analysts and sales reps describe to sell people on "the promise" of big data, AI, and other DX hallmarks.

Below, we take a closer look at the role of the ERP in digital transformation – and explain why DX can't happen without it.

How the ERP supports digital transformation

Essentially, the ERP is the foundation you need to operationalize data, make informed business decisions, and act on opportunities as they emerge.

Now, there are a couple of key elements that need to be in place before anything transformative can happen.

1. A complete, accurate, and connected data ecosystem. A successful digital transformation hinges on having a consolidated view of all people, processes, and operations across the entire business. That, in turn, enables you to make decisions that drive success at every stage in the value stream, manage resources on a holistic level, and continually optimize the customer experience.

2. A centralized ERP system for managing all of that data – and the business activities, processes, and decisions that depend on it.

These two components work together to form this sort of "skeleton" that supports the entire digital business. And, only when those "bones" are fully-intact, healthy, and strong can you start adding more layers. Think – AI analytics, robotic process automation (RPA), or predictive machine learning models.

While implementation projects are technically business transformations, it's best to look at the ERP as an essential first step in the transformation journey. In other words, the ERP drives the bigger transformations that generate value and create a competitive advantage.

Why your ERP needs to connect the entire business

In order to "transform," all data, people, and processes must be united inside your ERP solution.

Modern ERP systems are built on unified, extensible platforms. All apps within the broader ERP suite are tightly integrated with one another so that critical data syncs across the platform in real-time across all processes and reporting tools.

This eliminates the need for employees to waste time on manual tasks like double data entry and enables orgs to automate core processes across the entire business – accounting, finance, sales, supply chain, HR, and so on.

A unified ERP allows you to do much more with the data you already have because, well, everything is connected.

Finance and operational data drive decisions about inventory, sales strategies, DX investments – all of these different parts of your business are connected, both to each other and the bottom line.

According to InformationWeek (*86*, 2020), a strong master data strategy, combined with a fully-integrated system is key to driving transformations like using RPA to boost productivity or orchestrating personalized customer journeys at scale.

Conversely, building on a fractured or incomplete system, the whole thing falls apart – or worse, creates a mess that's harder and more expensive to clean up.

You don't have the data you need to make informed decisions or understand your customers. If you automate processes containing bad or incomplete data sets, errors quickly blow up into big problems.

Consolidating all data, processes, and business functions into one unified system enables you to find and fix the "low-hanging fruit" among your biggest waste centers – and immediately start reaping the benefits of your efforts.

When supply chain and inventory processes are siloed-off from the rest of the business – particularly core financials – you can't leverage data from one business unit to another. That, in turn, creates regulatory problems, project delays, and inaccurate forecasting, among many other issues.

Why "cloud-native" is also a big deal

Organizations are increasingly ditching on-premises systems for the cloud out of necessity.

Look at the last generation of Microsoft Dynamics. NAV and GP feature many of the same features as their cloud-based counterparts, but can't deliver the same speed, insights, or business outcomes.

Upgrading to D365 allows businesses to tap into a long list of benefits: increased agility, lower operating costs, support for remote work, and the ability to take advantage of AI, ML, and intelligent automation.

According to IDC's Operational Excellence and Resilience report (*88*, n.d.), cloud-based systems can also serve as data management tools that help organizations realize the full value of their operational data.

Analysts say there's a clear connection between decision-making and moving operational data to the cloud. Centralizing that data in a single cloud-based platform supports better data management, analysis, and decisions. What's more, it enables orgs to unlock the full benefits of advanced analytics and AI/ML-based tools.

Consider the example of Peet's Coffee (*88*, 2022). In early 2020, Peet's was in the middle of a major digital transformation project – they had just implemented Dynamics 365 Finance and Supply Chain Management and were working through the process of replacing work that had historically been done in Excel.

In March, COVID hit and business needs changed dramatically overnight. Lockdowns forced Peet's to modify its warehouse operations to accommodate new safety protocols and social distancing. Direct-to-

consumer (DTC) and e-commerce sales doubled as customers cut back on trips to the coffee shop and supermarket.

All of these changes meant that Peet's had to scrap the original game plan and pivot to a new strategy based on immediate business needs.

D365's cloud-based infrastructure allowed Peet's Coffee to centralize data management to facilitate real-time decision-making and better collaboration, and adapt complex supply chain operations to current conditions. The company was also able to streamline and automate critical supply chain processes, optimize production, and scale its distribution network to keep pace with new demands.

Ultimately, it's infrastructure, not individual features or capabilities that makes the biggest difference here.

Final thoughts

These days, the ERP must do more than simply capture and analyze data, automate workflows, and organize information. It should function as this connected framework capable of using AI and ML to augment decision-making, provide guidance, and generate accurate forecasts and predictions that help business leaders get ready for future unknowns.

And, while the ERP itself isn't exactly "disruptive," it does lay the groundwork for future transformations and innovations with the potential to disrupt entire industries and business models.

Basically, you're trying to build a solid foundation that can support rapid scaling, quick pivots, and *many* layers of algorithmic optimization – without buckling under pressure or creating roadblocks.

In chapter 18, we focus on another key player that doesn't always get the respect it deserves: the CRM.

CHAPTER 18

Driving Digital Transformation with CRM

When it comes to digital transformation platforms, the ERP tends to get the lion's share of attention. Meanwhile, the CRM is cast as a supporting player – its value dependent on its connection to the core ERP.

And, if we're being honest, it makes sense. After all, the ERP does support the entire digital ecosystem – offering the unification and orchestration capabilities transformations are built on.

But, it's the CRM that manages and operationalizes all that critical data you need to run a successful, customer-centric operation.

And, ultimately, you need both platforms to drive the quick, data-driven decisions that generate predictable wins and serious profits.

In this chapter, we zoom in on the CRM, how it drives human-centric experiences, and how it works with the ERP and the rest of the stack to fuel the DX journey.

How does the CRM support digital transformation?

To better understand how customer relationship management (CRM) software drives digital transformation, it's worth zooming out for a moment to consider its relationship to the rest of the stack.

The ERP's main concern is the bottom line. So – things like finance, accounting, and inventory.

The CRM, on the other hand, organizes and manages all customer data, relationships, and external interactions from one centralized interface.

It connects those cold, hard ERP numbers to real people – and the needs, behaviors, and external forces driving decisions that make or break a business – fueling the customer-centric strategies that generate real value for your customers.

These platforms are often discussed in a sales context – and best known for performing tasks like lead scoring, automated scheduling, deal management, and more recently, serving up context-specific training and guidance.

While that's definitely still the case, today's CRMs do way more than help sales reps stay organized.

Most come fully-loaded with advanced AI, analytics, and automation capabilities that help business users get more from their data and integrate with everything – collaboration tools, external data sources, even BI or market research services.

That said, tapping into the CRM's "transformational" business benefits hinges on the unity and "hyper-integration" offered by the ERP.

The tight integration bit is *super* important, as modern CX relies on data in motion (Reeve, 2021). So – dynamic, real-time insights that drive instant action, versus the static reports and fragmented solutions that defined the Web 2.0 era.

For that to happen, the CRM needs to connect seamlessly to all data sources, apps, people, and processes across the entire organization, and serve up a constant stream of real-time insights.

With all that in mind, here's a look at some of the high-level benefits the CRM has to offer.

Tear down data silos

If data fuels digital transformation, data silos shut down DX initiatives before they even get started. Data, in isolation, is bad news for customers on multiple fronts.

When employees can't connect customer stories to the same common thread, it creates an inconsistent experience.

Sales understands customers in one context, customer service in another. Meanwhile, marketers and field service techs often operate on second- or third-hand information and, as a result, are forced to lean on assumptions to do their jobs.

Customers might end up repeating the same information to different people over and over. They might receive conflicting messaging about pricing or policy agreements. Or – they might have trouble resolving issues resulting in downtime that threatens their business.

Data silos are also a problem for backend operations and strategic decisions about inventory, budgeting, product development, DX investments, and more. Here, high-impact decisions are based on a collection of isolated snapshots of the customer, and, in many cases, inaccurate or outdated data.

The CRM keeps departments connected – it plays a central role in creating a silo-free environment by ensuring that everyone is working from a single source of truth. Different business units can easily share information – and use it in the flow of daily work.

Understand customers in context

Gartner predicts (Gartner, 2020) that overall tech spending will rise by 7.6% before the end of 2022, as companies rush to improve the customer experience before competitors beat them to the punch.

And, according to IBM (*90*, n.d.), the ability to create personalized experiences that deliver value and deepen relationships is a critical competency for driving DX.

This is old news for long-time "customer obsessives" like Amazon, but many orgs have only recently come around to the idea that prioritizing the customer is one of the best things you can do for the bottom line.

(We assume this shift has a lot to do with the fact that quantifying the value of "sentiment," "engagement," or "satisfaction" was really hard to do until relatively recently.)

Predictive analytics tools can help you understand what makes clients tick so you can present information in a way that resonates and create custom solutions to critical business challenges.

But – you need to understand exactly how your findings impact your clients, their projects, and their long-term business outcomes.

But – personalizing client engagement depends on understanding industry trends and high-level insights, as well as how different solutions, content, and messaging resonate with different people at different stages and on different platforms.

Consider the complex and conflicting feelings people have about chatbots. Customers say they want more human-to-human contact but they also want brands to provide better and more comprehensive self-service options – they expect different kinds of support for different situations.

The point is, if you can master hyper-personalization without being intrusive – you can position yourself as a trusted partner that understands end-user problems and genuinely wants to solve them.

Orchestrate seamless journeys

By now, most business leaders understand that they need to optimize the end-to-end customer experience rather than improving individual touchpoints on an ad-hoc basis.

This CIO piece (Shein, 2021) brings up something interesting: the idea that companies should own the interactions customers have with their brand is on the wane – using the example of the car buying journey to explain this shift.

Historically, buying a car meant interacting with the dealer to learn more about features, price, and upgrades, taking a test drive, then banking in the middle of the transaction – with your bank, not the dealership before completing the purchase.

But – because the bank "owned" the financing process, you were forced to start a new interaction with a completely different company. On the dealer side, that disruption left a gaping hole in the customer journey – as financial data was owned by the bank and housed in an external system.

These days, dealers might aim to bring more of that journey in-house. Think – using APIs to build branded apps that enable customers to secure auto financing or make a downpayment from home.

You might use AI-driven recommendations to help your sales team engage more customers on more channels – and reliably deliver the desired results (aka faster wins and more revenue).

Make informed, profitable decisions

Establishing a 360-degree view of the customer is incredibly valuable. It allows you to measure the impact individual touchpoints have on satisfaction, loyalty, and profitability.

But – it's that ability to correlate "intangibles" like sentiment, engagement, and online behaviors with the needs and pain points of real people AND the bottom line is what really changes the game.

When employees can make data-driven decisions on-the-fly – and with confidence, they're actively driving profitability and sustainable growth.

For example, Activision uses its CRM apps (Rondeau, n.d.) to listen in on social media conversations related to its products and use feedback to improve customer outcomes. The marketing app handles social listening, while the customer service platform is used to follow up on those conversations. By implementing this approach, the gaming company has been able to cut customer service operating expenses by 25% while at the same time, boosting satisfaction scores.

Final thoughts

Again, it's that deep connection to the ERP that allows you to use your CRM data to engage, nurture, and sustain external (human) relationships at speed and scale, build custom journeys and tailored interactions, and seamlessly share information and collaborate on key documents.

Now, while the CRM and ERP are important foundational building blocks, the two platforms are not the comprehensive solution you need to transform in any real way. In chapter 19, we introduce the idea of the digital transformation platform – which does include the ERP and the CRM, but also so much more.

CHAPTER 19

Why Digital Transformation Needs a Platform

Companies in all industries are ramping up tech investments to modernize operations, enable new ways of working, get ahead of competitors, and, of course, boost that bottom line.

But, focusing on capabilities alone isn't enough. If you want to be successful, you'll need to build a platform that combines disparate data sources, unifies systems and processes, and allows you to pivot on-the-fly when the game suddenly changes.

In this chapter, you'll learn why DX platforms make or break a business – and get a closer look at some of the specific ways this core foundation fuels all digital strategies.

What is a digital transformation platform?

A digital transformation platform is an all-in-one solution that helps organizations achieve DX goals by providing the tools and capabilities needed to support initiatives across three key domains: people, processes, and technology.

MIT Sloan's New Elements of Digital Transformation (Bonnet & Westerman, 2020) provides an updated framework that breaks down how "digital masters" use digital technologies to create a competitive advantage. In it, researchers explain that the DX platform consists of the following components:

- Core. So, the core platform handles back-end operations and transactional systems that support critical business processes. In most cases, your ERP is your core platform – a unified system that serves as your company's digital backbone and enables you to manage everything in one place.
- Front end. The front-end platform is responsible for powering all externally-facing apps, services, websites, and portals your customers and partners might interact with. It works with the core platform and is responsible for things like processing payments, collecting feedback, and ensuring that all end-users have a consistent experience with your company.
- Data platform. The data platform connects to the front end and the core and enables orgs to work with advanced analytics, design and test AI models, build apps, and process huge volumes of unstructured data like text, voice, images, etc.

Here's a screenshot from the report that illustrates how the digital platform props up the rest of the business:

BUSINESS MODEL		
Digital enhancements		
Information-based service extensions		
Multisided platform businesses		
CUSTOMER EXPERIENCE	**OPERATIONS**	**EMPLOYEE EXPERIENCE**
Experience design	Core process automation	Augmentation
Customer intelligence	Connected and dynamic operations	Future-readying
Emotional engagement	Data-driven decision-making	Flexforcing
DIGITAL PLATFORM		
Core		
Externally facing		
Data		

Why does digital transformation need a platform?

The short answer is, it's a unity thing.

See, DX is *never* about any one process or product. Even projects focused on a specific business area require a holistic approach.

Any changes you make to production processes, sales tactics, project management workflows, whatever will create ripples across the entire organization.

For example, changing the way you manage projects might change how finance handles cash flow forecasting, the information sales reps share with prospects, or how customer support interfaces with clients.

Next, we'll look at some of the more specific benefits the DX platform brings to the table to help you understand its vital role in context.

Greater visibility & granular insights

A digital transformation platform can provide insights into your business that can help you make better decisions and drive growth.

BCG analysts (*93*, n.d.) say that one of the key differences between digital laggards and what the firm calls "bionic companies" is the use of a platform operating model. The term describes a unified platform with minimal dependencies on third-party apps, services, or integrations.

So, bionic companies are masters at blending human capabilities with technology to unlock new business models, optimize operating processes, and deepen customer relationships. Having that unified platform allows these orgs to build cross-functional teams, enabled by the tools, tactics, and support they need to produce critical outcomes.

C-suite leader-s have the visibility they need to work closely with IT and all department heads, while also granting them enough freedom to make decisions on their own.

What's more, executive leaders can draw on real-time insights to make decisions about funding digital initiatives, providing resources and training, and overseeing project implementation.

Laggards, on the other hand, tend to use a siloed operating model in which individual business units make decisions in a vacuum.

Because they lack real-time insights and end-to-end visibility, lagging orgs tend to rely on top-down mandates and one-size-fits-all decisions. This means, business units must interpret directives on their own, leading fragmented customer journeys. And, it also means teams (and their leaders) lack the autonomy they need to make decisions that help them achieve their goals.

Improved efficiency and quality

As mentioned, the right DX platform also allows orgs to move away from top-down oversight.

Each business unit has more power to make decisions on their own, while also ensuring that everyone stays aligned around the same strategic vision.

That hyper-connectivity also unlocks some serious efficiency gains.

For example, you can design end-to-end processes and workflows on a holistic level. This, in turn, unlocks seamless access to critical data – while also enforcing identity and access management best practices.

Cross-functional teams can work together – leveraging institutional knowledge, self-serve analytics, and low-code solutions to develop solutions that solve very-specific problems. And, of course, a unified platform also allows you to improve efficiency and quality while at the same time, reducing costs.

Increased agility

A digital transformation platform allows you to quickly respond to changing market conditions and customer needs.

The BCG report we mentioned highlights the example of a large retailer struggling with a legacy system that prevented its employees from sharing customer data across channels.

The company ended up investing in a DX initiative focused on reorganizing its tech platforms, apps, and teams around specific customer domains (think – customer service or sales).

Those domains served as a blueprint for redesigning the entire org structure and governance policies. And, in just one year, that company was able to double revenue growth from its digital platforms.

DX platforms are never just one platform

Here's the thing about digital transformation platforms: they're rarely, if ever, composed of just one piece of software. Instead, platforms typically include several apps, services, integrations, and customizations that build on the core platform's of-the-shelf capabilities.

The reason for this is, companies need industry-specific platforms that leverage big data, AI, and automation to drive specialized outcomes. What's more, those solutions must be unique to generate any real competitive advantage.

But, it's also important to understand that opting for a best-in-breed approach isn't a good idea, either. It's better to stick within the same ecosystem – choosing a primary solution provider and staying within its network of authorized partners and ISVs.

Now, we're partial to the Microsoft universe, but Salesforce, SAP, and countless other big-name providers operate the same way. There's usually a core ERP/CRM, and users have the option to add-on solutions that cater to specific business functions – be it field services, sales, finance, or HR.

If you look at the Microsoft cloud ecosystem, all apps and services run on one common data model. Dynamics 365, Microsoft 365, Azure, the Power Platform – are all interconnected. So, you can extend D365's capabilities with embedded BI and custom apps, automate and streamline MS 365 workflows, and accelerate development in Azure.

Now, let's say you're using a D365 Finance with a Salesforce CRM. You can still connect Salesforce with D365, Azure, and the Power Platform, but you'll probably experience some fragmentation.

For example, you might run into data entry or formatting errors that could prevent you from unlocking the full potential of your data.

In a recent interview with ZDNet (Samuels, 2022), Saïd Business School CIO Mark Bramwell explained that while cloud-computing has made it easier than ever to buy technology, the choices you make at the earliest stages will set you up for success – or failure.

He says every decision is strategic. And, from the very beginning, you'll want to think about things like growth, scalability, security by design, and user experience. Ultimately, it's about building a strong foundation that can take your company into the future.

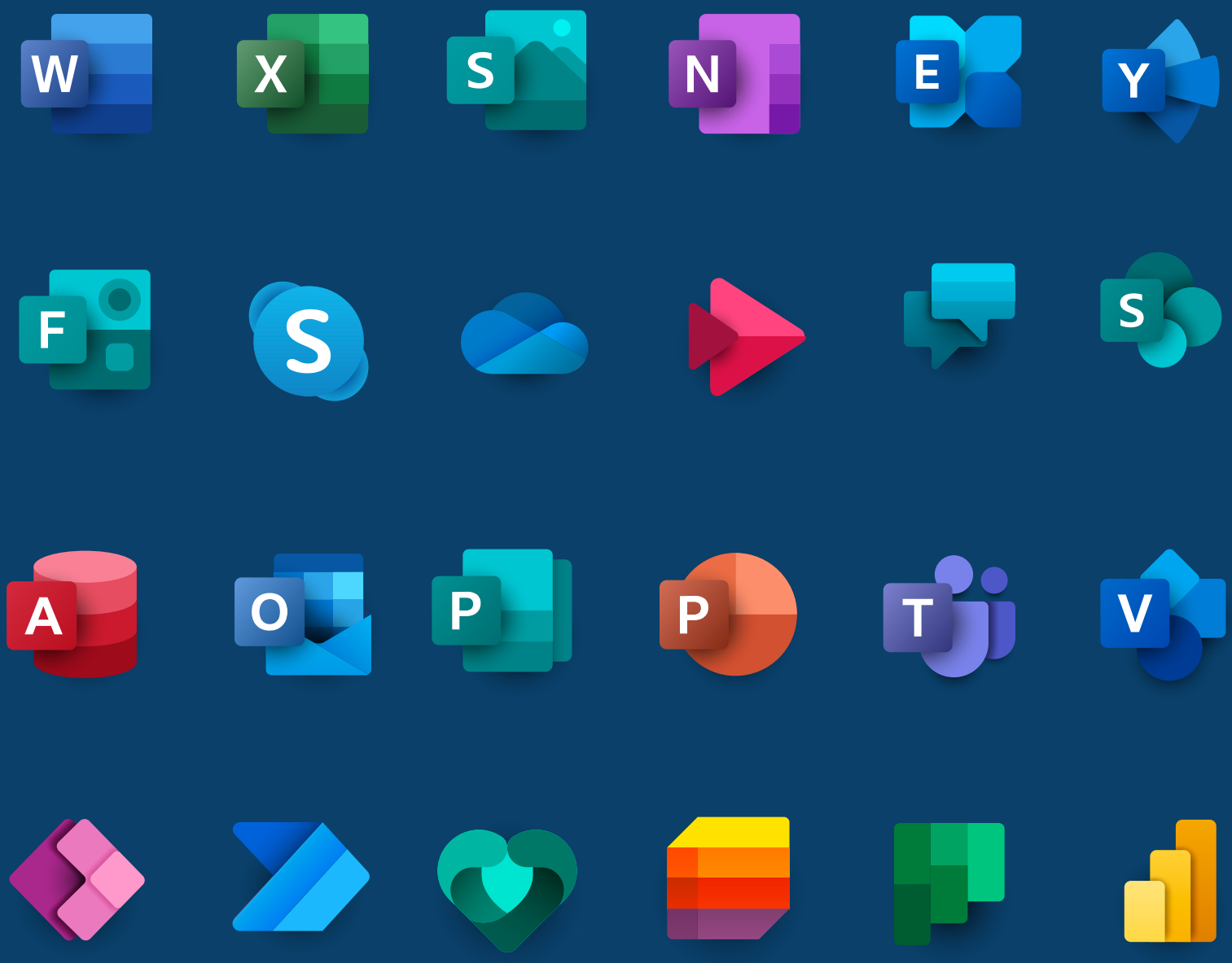
Final thoughts

The only way to win in today's complex business environment is by taking a platform-based approach to digital transformation.

If you're getting ready to embark on your transformation journey, you need a unified platform to support your business at every stage – and ensure that you hit every short and long-term objective in your big-picture plan.

But, we've also seen enough transformation journeys to know that you need a partner to help you navigate the complexity of building, implementing, and optimizing that platform in a way that aligns perfectly with your unique needs.

We'll stick with the platform theme in the next section – this time, diving into the Microsoft ecosystem. In it, we explain how each solution – be it D365, Azure, or the Power Platform – contributes to the broader DX strategy.



CHAPTER 20

How the Microsoft Ecosystem Enables Digital Transformation

The Microsoft ecosystem was designed for transformation.

It's flexible, adaptable, and easy to customize. It can be scaled up or down in response to demand fluctuations. You can add, remove, or replace modules and integrations based on real-time needs and changing requirements.

But, let's be clear: most of the benefits Microsoft has to offer don't come from individual apps and services like Dynamics 365, Teams, Azure, or the Power Platform. They come from combining those powerful, cloud-based solutions and leveraging them in specific, data-driven use cases.

In other words, Microsoft solutions work as a family – stronger than any patchwork system of 3rd-party apps and integrations. In these next few sections, we'll explain why that is – and what it means for driving digital transformation.

Unity in the cloud & deep integration

Microsoft is equipped to drive efficiency and productivity gains because of its unified cloud-based ecosystem.

Microsoft Dynamics 365, Microsoft 365, the Power Platform, and Azure all run on the same common data model – allowing users to work with data across the entire digital estate.

The benefit here is, users don't need to spend time converting data into the right format, pulling data from disparate sources, or manually unifying disconnected insights for reporting and analysis.

Instead, all connected solutions function as a single system. Data syncs across all business units and processes, enabling cross-functional collaboration, providing end-to-end visibility, and unlocking a long list of game-changing benefits for different users and use cases.

For starters, organizations can minimize the risk of human error – which is vitally important for finance, quality control, production, logistics, and project management – as well as related functions and processes that rely on accurate, real-time data. Think – sales, service, and marketing.

In another post, we explain how platform unity can specifically benefit HVAC orgs. Field service techs can access critical information from any job site – offering big-time gains in customer satisfaction, efficiency, and scheduling.

Internally, accounting teams have accurate data re: who needs to be billed and what for, while sales reps can quickly coordinate with service techs when clients need help – and win bids by making promises they can keep.

One of our clients, Moore's Electrical & Mechanical, decided to go all-in on the cloud when the

coronavirus forced them to rethink existing on-prem solutions.

IT Project Manager Stephen Overstreet said the company recognized that current systems were aging, but wanted to stay within the Microsoft ecosystem, as the problems they were experiencing stemmed from outdated on-prem infrastructure and a legacy ERP solution (Dynamics SL).

Overstreet says migrating everything to Microsoft's cloud-based apps and services allowed Moore's Electric to unlock seamless integration, efficiency gains, and more.

For example, the Teams interface delivers critical insights to the company's call center teams. The front-desk receptionist can use Teams to forward calls to anyone in the company – using contextual information to route questions and service requests to the person in the best position to help. She can also see out-of-office statuses while on the phone with clients, enabling more efficient call routing and communications.

As a result, customers receive higher quality service, faster than ever. And at the same time, Moore's Electrical & Mechanical can serve more people and focus on reaching more strategic goals.

Columbia Sportswear (*95*, 2019) replaced its existing ERP solutions with D365 Finance, Supply Chain, and Commerce and synced them with Azure.

By moving to D365 in the cloud, the outdoor apparel company was able to gain greater insight into its customer preferences and activities, business processes, data centers, and warehouses – all of which laid the foundation for realizing long-term strategies.

With Azure, Columbia was then able to streamline operations from inventory management to PoS checkout and IT data centers by incorporating AI and machine learning into core processes.

The company also implemented Microsoft Connected Spaces (*96*, n.d.), which tracks trends and patterns in physical locations. It then uses those findings to drive decisions and develop AI-powered skills that can ID opportunities and problems, optimize staffing, and engage with in-person customers in the moment.

Senior Director of Retail Operations Russell Anderson says D365 enabled the Columbia team to respond to consumer demand in near-real-time, adding that decisions that once took two days now happen instantly.

Composability

Microsoft's focus on modularity enables agility, and by extension, resilience.

For example, cross-functional collaboration, real-time decision-making, and baked-in AI helps orgs manage and mitigate cybersecurity risks – with the entire ecosystem working as a single unit to defend against ransomware.

In the Gartner 2022 Cybersecurity and IT Risk Primer, analysts agree that in order to design a security program that aligns with business needs, tech investments, and org structures, and adapts in response to new risks, they need composable solutions and services with security baked into the code.

But – cybersecurity is just one example of why composability is so essential to digital transformation.

The real story here is that composability makes it possible to take quick action – whether you're trying to capture an emergent opportunity before your competitors or pivot in the face of disaster.

Real estate firm BGSF sought our help during a period of rapid growth to implement an ERP system capable of meeting new demands – including challenges related to its complex business structure and regulatory requirements.

Velosio experts conducted a full audit of all internal systems and processes. Then, they used that information to design a multi-phased roadmap starting the ERP and core financials, then moving into product integrations across all critical systems.

Here, the challenge was untangling and uniting disparate systems BGSF inherited from 14 prior acquisitions, then implementing integrations for critical processes like payroll, expense management, billing, and time-tracking.

While the initial effort was a years-long affair, BCSF is now in the perfect position to adapt to rapid change – as the business grows, needs change, or the strategy evolves in response to new conditions.

Easy, high-speed innovation

Another key way that the Microsoft ecosystem unlocks DX benefits is by offering solutions that

make development, data science, security, and automation accessible to a wider range of users, regardless of technical experience.

Now, the Power Platform is the star of the show here. Its suite of low-code/no-code solutions enable just about anyone to analyze and manipulate data in creative new ways – allowing them to uncover valuable insights, make smarter decisions, and build custom apps, sites, and bots.

Together, these tools support innovation and out-of-the-box solutions – both on the developer/data scientist side and among non-technical subject matter experts and employees working the front lines.

One of the primary benefits of the Power Platform is that it enables fusion development.

Non-technical users can use on-the-job experience, direct feedback, and business data to design solutions that put customers first. Microsoft just rolled new features that allow users to upload drawings or screenshots and convert those images into a working Power App with a unified data scheme – making it easier than ever to get started (Strauss, 2022).

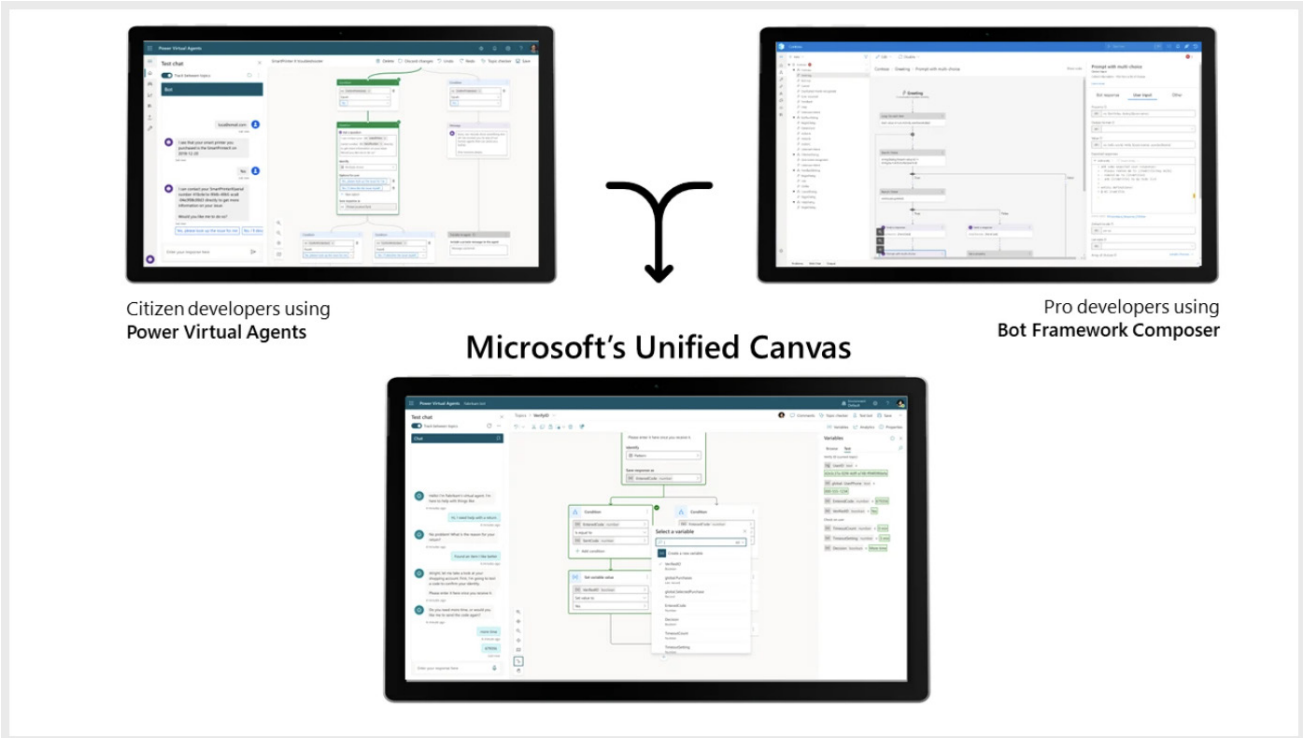
Meanwhile, professional developers can access advanced tools that build on the prototypes designed by non-technical colleagues.

That said, the Power Platform really shines when it joins forces with Azure (*98*, n.d.).

Tools like Visual Studio allow users to build Power Apps solutions fast. Azure SQL and Azure Kubernetes Service help users quickly deploy web apps designed in the Power Platform. Azure Connectors (*96*, n.d.) enable users to build, manage, and automate workflows and processes across all platforms and products, while Azure Cognitive Services (*99*, n.d.) makes it easy to add AI capabilities to any custom creation.

In the example below, you can see how Power Virtual Agents and Azure Bot Framework help citizen and professional developers tackle complex chat scenarios from one unified canvas.

Non-technical users can design conversations and code using the drag-and-drop editor, while developers can focus on optimizing bots and building solutions that make future bot projects easier. Think – creating templates that allow citizen developers to re-use topic logic or share topics with others.



Microsoft customer The Co-op (*101*, 2022) combined Azure Synapse Analytics with Power BI to standardize and scale reporting capabilities. This, in turn, enabled its member-owners to make data-driven decisions about how to improve the overall shopping experience and support community relationships.

According to Rob McKendrick, Head of Data & Insights at The Co-op, Power BI and Azure Synapse allowed the organization to quickly enable self-service analytics, as well as launch a proof of concept for broader use. He also noted that his team liked that the platforms supported a strong security model, while also providing the flexibility needed to update dashboards on a daily basis.

It is important to note that The Co-op first had to build out a strong data foundation before they were able to take advantage of Power BI's extensive reporting capabilities – let alone build the kind of environment that supports co-development.

They essentially did this by updating their data warehousing and orchestration solutions and integrating them with the rest of the Microsoft stack. The case study offers more detail, but Azure Databricks processes the raw data and preps it for Synapse, Azure Data Factory handles ETL and orchestration, and Azure Data Lake is responsible for storage.

Final thoughts

We'll be honest, we've been a Microsoft partner for 30+ years, so there's definitely some bias shaping our view of the MS ecosystem. However, these solutions – when combined and customized in the right ways – deliver powerful results that speak for themselves.

In chapter 21, we'll travel to the center of the Microsoft universe for an up-close look at Dynamics 365. You'll learn how these core ERP and CRM solutions form the foundation for a flexible DX platform capable of expanding and evolving with your business for years to come.

CHAPTER 21

Digital Transformation with Microsoft Dynamics 365

When you think of "digital transformation" you probably think of technologies like AI, machine learning, the IoT, and so on.

Upgrading the tech stack is, of course, a key part of transformation. But so is modernizing your organization's processes, culture, business models, and workflows. All things that happen in the ERP.

The Microsoft Dynamics 365 provides the flexibility and baked-in intelligence needed to bring transformations to life. And, by extension, it enables orgs to improve customer experiences, streamline operations, and fuel innovation and sustainable growth.

But, it's important to understand that D365 – or any ERP for that matter – is not a standalone DX platform. Your success hinges on building a digital ecosystem that aligns with your unique requirements and strategic goals.

That said, D365 makes an ideal core platform – promising to support your DX plans through many transformation cycles over many years.

Here, we'll discuss the relationship between digital transformation and the D365 ERP platform.

How Does ERP Modernization Drive Digital Transition?

Legacy systems represent a major barrier to digital transformation. They lack the integration capabilities you'll find in the cloud. This creates silos between teams–making it hard to align around a unified strategy and deliver a consistent experience.

On-premises ERPs inhibit data literacy–and by extension, growth and agility. They make it hard to automate manual tasks and crumble under the weight of massive, ever-expanding data sets.

By contrast, Dynamics 365 represents the first step in the digital transformation journey. Out of the box, you'll gain access to AI reporting tools, automations, and a data ecosystem that spans the entire business.

As an example, look at Tillamook County Creamery (*103*, n.d.). The farmer-owned cooperative is a Pacific Northwest institution long known for its cheeses, ice creams, and yogurts. Tillamook moved to the flexible Microsoft Dynamics 365 system citing a need to improve agility, add new SKUs, and expand into other US markets.

Tillamook began its transformation journey by migrating from its legacy system to a new ERP based on D365 Finance and Supply Chain Management. Then, COVID blew up supply and demand overnight.

While Tillamook was still transitioning to the new system, the cloud ERP enabled the creamery to pivot in response to disruption.

Applications Manager Evelyn Austin says this wouldn't have been possible with the old system – composed of NAV, Demantra, custom apps, and manual processes.

Moving to the cloud meant employees could work from home, while D365's flexibility allowed the Tillamook team to modify processes based on the needs of their complex supply chain.

End-to-end supply chain visibility meant Tillamook could replicate product flows, track inventory movement, and automate key warehouse operations. Which, in turn, allowed them to move to a more proactive approach to replenishment and increase their fulfillment rate from 88% to 98%.

Additionally, unified data warehousing and AI analytics helped Tillamook capture meaningful insights – making it easier to serve the diverse needs of its farmers and customers and make decisions that helped them break through to new markets.

Unlock Unified, Secure Access in the Cloud

Consolidated, connected ERPs like Dynamics 365 make it easy to access essential data and business tools from anywhere. Organizations get a unified experience across all departments–finance, sales, marketing, HR, etc.

Velosio Pre-Sales Engineer, Jeff Smith says, "cloud ERPs improve the organization's ability to collaborate by securely sharing company data and knocking down silos."

Sr. Client Sales Manager, Lawrence Edwards says, "accessibility is a key element of digital transformation. Making processes and data accessible to everyone unlocks the flexibility you need to change with your customers and enter new markets."

Anthony Dossier, BC Support Engineer agrees. He says, "D365's transformative power comes from its all-around accessibility. That–and the fact that cloud solutions lend themselves to more robust integrations with other cloud systems."

Additionally, platform unity supports strong security protections. When you're working with a fragmented tech stack, there's a risk that different teams are working with different data.

This creates confusion for customers, undermines brand compliance, and hinders decision-making abilities.

Gaps in your stack can also create friction in day-to-day workflows. Employees might have trouble finding critical information about a customer or account.

It's also a security risk. It's harder for IT to account for all connected data sources. This means they can't lock down every endpoint or vulnerability–no matter how thorough they are.

Build an ERP that Grows with Your Business

Cloud ERPs enable organizations to pursue projects that can help them grow.

Because "digital transformation" is an ongoing journey, investing in a composable solution like D365

is absolutely key. You want it to be as easy as possible to add new capabilities and adapt business processes around future plans.

Melissa Herbst, Industry Account Executive says, “most of the clients I work with are ready to change. And often, they seek changes because they’re running into growth barriers. As they grow, they recognize the limitations of their current systems and the constraints caused by operational silos.”

She says, “in a lot of cases, growth comes from expanding product and service offerings to better meet customer needs. Modernization and access to information are what helps them better achieve their goals.”

For example, this case study explains how Albemarle, a chemical company, implemented a new ERP for core modernization. They first focused on building a strong foundation–starting with an out-of-the-box installation. Later, they used APIs and extensions to customize the platform to fit their internal processes.

The ERP was an initial steppingstone that then enabled them to focus on more complex initiatives. In this case, using robotic process automation (RPA) and IT/OT convergence to improve manufacturing.

Maximize the Value of Your Data Faster

According to Sreepathy Nagarajan, Velosio Practice Director, F&O, “Data is the new gold. Today, data literacy is a prerequisite for achieving growth. Data mining and real-time analytics are crucial for competing in today’s economy.”

Advanced analytics, business intelligence (BI), and visual reporting tools are all essential to any transformation effort – enabling users to leverage their data toward a specific goal. However, pretty much everyone has access to these same capabilities.

Dynamics 365 users get the same set of tools out-of-the-box, but they can quickly customize existing elements, build new ones, or plug-in compatible ISV solutions that align with their goals.

D365 apps use Dataverse to store and secure your data, allowing you to quickly build solutions using core business data, without the need for integration.

Jansen AG (*105*, 2022) implemented D365 Finance and Supply Chain Management to simplify its complex supply chain operations and better manage relationships with its global network of customers and suppliers.

Not only did Dynamics 365 help them quickly implement all country-specific requirements, business entities, and websites into a single ERP, the Power Platform allowed them to digitize production.

Additionally, D365’s Automation and AI analytics make it easy to analyze more data points, model different scenarios, and take the right action at the right time.

For example, when Ste. Michelle Wine Estates deployed D365 Commerce across all brands and channels to boost sales, loyalty, and create a cohesive experience that spans physical and digital touchpoints.

One of our clients, NWS, leveraged the benefits of Azure and D365 CRM to enhance billing, inventory

management, and order processing strategies. That said, our experts worked with the NWS team to migrate on-prem GP data, establish a standard sales process, and organize data.

Final Thoughts

The bottom line is, the relationship between ERP and digital transformation is an important one.

ERP modernization will always come first–across the board–regardless of size, sector, or strategy.

Without unified data, optimized processes, and remote collaboration tools, transformation can't happen. Instead, your initial focus should center on building a strong foundation. Then, you can start looking at the data to find opportunities to apply more sophisticated solutions.

Dynamics 365 fuses these elements together in a way that makes it easy to customize and adapt the platform around your ever-evolving needs. But, none of this is possible without the cloud.

In chapter 22, we explain how the cloud both enables and accelerates digital transformation.

CHAPTER 22

Accelerating Digital Transformation with the Cloud

Cloud computing has revolutionized the way businesses operate to such an extent that cloud transformation is *the* catalyst for digital transformation.

It's what enables orgs to leverage big data, embrace new ways of working, pounce on emerging opportunities, and pivot in response to new requirements.

On-premises systems and legacy tech don't just slow digital transformations – they keep from happening in the first place.

Digital transformation literally can't happen without the cloud. But, there's a catch. Migrating to the cloud alone won't deliver anything even remotely transformative.

This chapter focuses on the cloud's pivotal role in the digital transformation process – and how cloud strategies are evolving to accelerate outcomes amid changing conditions.

How does the cloud support digital transformation?

Digital transformation and the cloud are inextricably linked. But, it's important to understand that cloud transformation, on its own, is hardly transformative.

So again, digital transformation is the process of using digital technologies to create value for a business, its employees, and its customers. That might mean optimizing processes, enabling remote work, developing new business models – whatever it is that enables your business to stay competitive.

Cloud transformation is both a subset of digital transformation and an enabler. The process involves migrating data, workflows, apps, infrastructure, and so on to the cloud – allowing you to improve efficiency, agility, scalability, etc.

It's better to look at the cloud as a foundational building block that paves the way for high-impact use cases. Think – leveraging predictive models, advanced analytics, and AI automation to make strategic improvements to your core business.

How new cloud strategies are fueling digital transformation

The cloud has played a central role in our digital lives – both at work and at home – for more than a decade. Though many people largely viewed it as a means of gaining access to various apps and services from anywhere with a WiFi connection.

But, as Gartner Senior Director Analyst, Paul Delory (*106*, 2022) points out in a recent report, cloud adoption accelerated rapidly during COVID – is likely to continue to accelerate in the coming years.

Delory says cloud services have been a critical lifeline for companies, allowing them to quickly respond to

new conditions and threats. And, that lifeline not only allowed them to stay competitive, it also helped them survive that difficult transition.

Now pretty much everyone is in the cloud and it's getting harder to compete with out-of-the box solutions. That means, companies must take their cloud strategy to the next level to stay in the game.

Here's a look at some of the cloud strategies gaining traction in this post-COVID era:

Industry ecosystems in the cloud

Cloud providers are ramping up investments in verticalized industry clouds (Edwards, 2022)– which combine traditional cloud services with industry-specific capabilities.

Gartner VP Analyst Gregor Petri explains (*107*, 2022) that industry cloud platforms are designed to turn out-of-the-box cloud platforms into business platforms. They build on existing tools, making them more relevant to businesses operating in specific verticals – say, field services or agriculture.

Typically, industry clouds are built by solution providers (i.e. Microsoft) or technology partners like Velosio – leveraging cross-industry innovations to tackle niche-specific challenges and accelerate time-to-value.

What they don't do, according to Petri, is function as one-off SaaS solutions that integrate with core systems.

Rather, these platforms are modular, composable, and supported by an existing catalog of packaged capabilities.

So, if you look at something like Advanced Projects for Business Central, you'll get a package of capabilities that build on D365's default functionality. That way, users end up with a unified platform capable of managing advanced projects. It's not an integration because it's built on the same underlying platform as D365 using the same common data model. In other words, it's sort of like an expansion pack.

IT leaders should anticipate that customizations will be necessary. Even specialized industry solutions still need to be tailored to your needs.

Yes, you get to bypass much of the implementation and configuration process – but the point is, you can immediately start focusing on the parts of your business that set you apart from the competition.

Long-term, Gartner advises business leaders to target verticalized solutions (*108*, n.d.) that complement core service offerings. Essentially, your main platform should serve as an "exoskeleton" that supports a network of industry cloud platforms.

As your strategy evolves, you can add new industry clouds or replace existing ones to drive specific improvements. This approach provides greater flexibility and agility – making it easier and more affordable to pursue game-changing DX initiatives.

Hybrid-multi-cloud gets more strategic

McKinsey (*108*, 2022) researchers say digital leaders are increasingly focused on maximizing the value of cloud services and containers. They're no longer focused exclusively on refining technical architectures. They're instead using data to realign priorities and ensure investments deliver the biggest returns in the least amount of time.

One of the ways orgs are doing this is by embracing hybrid-multi-cloud strategies. IBM's 2021 report (Boville, n.d.), Cloud's Next Leap, revealed that hybrid-multi-cloud is now the dominant architecture for cloud service delivery.

According to the research, the percentage of respondents relying on a single public cloud dropped from 16% in 2019 to 2% in 2021.

This approach is gaining more traction among orgs as they take steps toward transforming front-end operations – which, crucially, is where DX winners separate from the rest of the pack.

For example, some orgs are segmenting workloads between clouds so they can create cloud environments that support different business units, geographic locations, or tech stacks.

Hybrid strategies that combine cloud and edge computing (Ward, 2022) are also becoming more popular – particularly among orgs that lean heavily on the IoT. Processing data at the edge unlocks performance advantages – like low latency and the ability to leverage AI and ML capabilities instantaneously.

According to Deloitte's 2023 Tech Trends (*110*, n.d.), multi-cloud adoption is still rising – and as a result, cloud management is getting a lot more complex (Edwards, 2022).

Analysts describe multi-cloud as a "tangled web" orgs must untangle before they can tap into benefits like enhanced security or more control over IT spending. Otherwise, redundancies, inefficiencies, and security gaps will get in the way of progress.

Gartner recommends mapping workloads to right-fit cloud services providers (*111*, 2020) to simplify the process. The idea is, decision-makers can visualize business requirements, then determine which services cover all the right bases – without adding unnecessary expenses or bloat.

Savvy orgs are using platforms like Azure to combine disparate cloud services, sometimes from different providers, into a single pane view.

Some are also adding a compatibility layer, or "metacloud," on top of the entire environment for improved interoperability and more cohesive experience. Metaclouds provide access to data, AI, compute, storage, operations, development tools and more.

Standards and security protections are applied across all platforms, and developers can build cloud-native solutions without specialized skills.

Cloud-native development

The cloud makes it easier and faster to validate ideas, develop apps, and launch new solutions without wasting valuable resources. As a result, you can bring new products and services to market faster than ever.

But, cloud-native development is more than just moving operations to the cloud.This process aims to take advantage of all that cloud computing has to offer. You know, scalability, resilience, agility, flexibility, and so on.

Typically, cloud-native apps are broken into smaller microservices and packaged in containers that can then be deployed across a variety of servers and environments.

For legacy companies, this may be challenging. They'll need to replace outdated infrastructure, apps, and processes with cloud-native solutions. And, they'll need to identify opportunities to improve business performance with new technologies.

But, that doesn't necessarily mean you need to build a whole new infrastructure from scratch.

When ShipServ (*112*, 2022) migrated from their on-prem system to the Azure cloud, they used a canary deployment strategy to enhance their core platform, one phase at a time.

The company used Azure DevOps pipeline automation, an event hub to help streamline transaction data in the cloud, and Azure Kubernetes Services (AKS) for app containerization. Additionally, they used Azure API Management to manage their API suite.

The ShipServ team deployed several different solutions to the new platform, including containers, clusters, and cloud-native microservices – all of which can be changed or replaced without disrupting the rest of the platform.

Keep in mind, you may need to rethink your entire approach to development. That might mean training your teams on DevOps best practices or upgrading your environment to enable rapid experimentation and innovation.

Platform engineering

Platform engineering is a strategy that supports digital transformation by enhancing developer productivity and accelerating app delivery.

Gartner predicts (*114*, n.d.) that by 2026, 80% of software engineering orgs will have dedicated platform teams focused on providing employees with reusable components, services, and a curated toolkit.

As low-code/no-code platforms, self-service analytics, and AI/ML adoption continues to rise, IT leaders are seeking out solutions to help them better manage and provision these services.

Now, we already know the cloud enables users to leverage these technologies in the first place. Savvy orgs take things a step further. They're using cloud-based engineering platforms to deliver critical insights and tools to the right people – within the flow of daily work.

Ultimately, the goal is building a system that allows organizations to get the most from their data and solve problems faster.

Subject matter experts must consider what tools, processes, and capabilities make sense for each group of end-users. Then, from there, determine how to build a friction-free self-service experience that supports DX goals, while also reducing the cognitive burden on employees.

Azure provides a centralized foundation for platform engineering. Users can monitor and manage all services in one place – and embed them into workflows based on the needs of each end-user group.

For example, you might use Azure DevOps and GitHub (*115*, 2022) to manage customer feedback, set up tools and processes to make it easy for dev teams to follow the build-measure-learn feedback loop.

For non-technical users, it's more about empowering users by making data more accessible and providing tools that help them solve problems on their own. Professional services firm PwC used Azure Bot Service (Chandramouli, 2022) to enable data retrieval and analysis – embedding AI search into everyday apps like Teams and SharePoint.

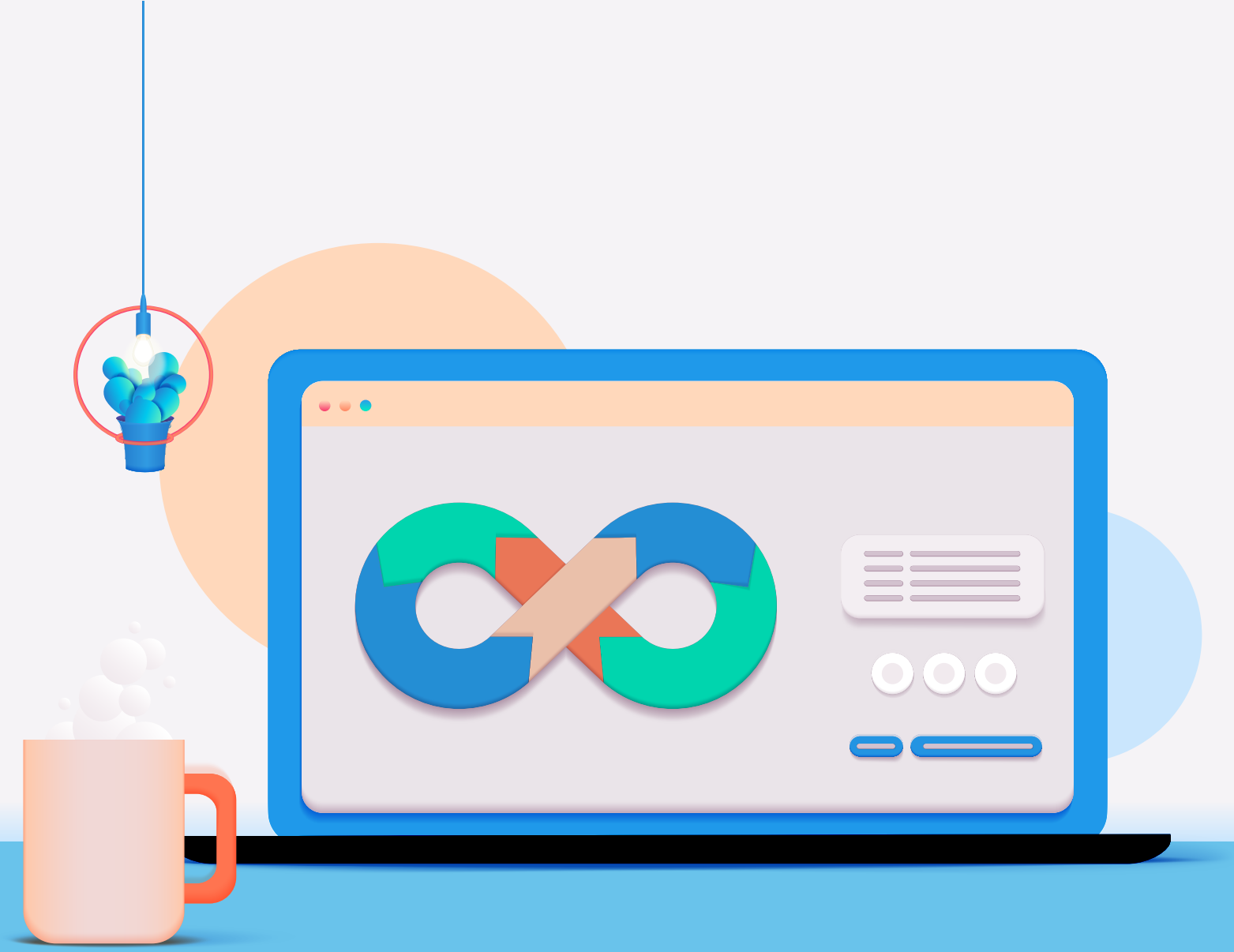
By automating the search process, experts were able to run queries during client interactions and instantly serve up relevant, personalized insights.

Final thoughts

The cloud unlocks transformative capabilities in systems and apps both familiar and futuristic.

But, in order to succeed, orgs must keep evolving cloud strategies to align with changing conditions, mitigate threats, and stay competitive for the long haul.

In the next section, we'll look at how Azure and Azure DevOps activate and amplify the benefits of the cloud – allowing organizations to transform at speed and scale without breaking the bank.



CHAPTER 23

Powering Digital Transformation with Azure and Azure DevOps

Azure and Azure DevOps provides the infrastructure, environment, and tools that help users – technical or not – innovate, collaborate, and share institutional knowledge.

Together, these 200+ tools empower users to solve problems on their own, and help their colleagues and clients do the same.

Users can share insights, lessons, and reusable components that accelerate innovation, minimize risk, and make the most of limited resources.

Here, we explore some of the many ways Azure can take digital transformation to new heights.

Azure maximizes return on IT investments

Cost-savings and maximizing the value of IT investments are top priorities for most business leaders – particularly as they brace for a downturn.

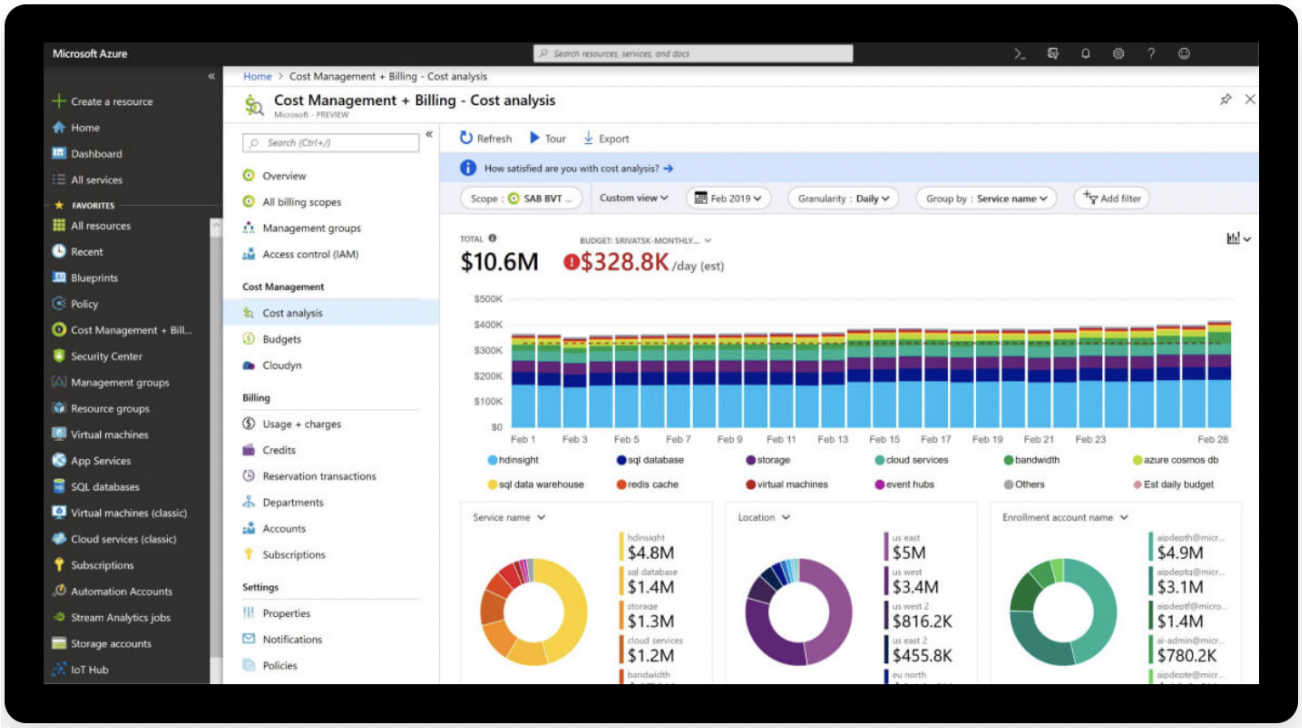
Per a recent Wanclouds survey (*116*, 2022), more than 80% of IT pros say they've been directed by executives to lower cloud spending as economic conditions worsen and multi-cloud environments become increasingly expensive and difficult to manage.

A key theme throughout Microsoft's content and marketing materials is that Azure helps companies do more with fewer resources (*118*, n.d.).

Azure can help orgs break away from old cost-cutting methods like mass layoffs or postponing critical investments in skills training or digital innovation.

Azure Migrate (*119*, n.d.), Microsoft's cloud migration service offers a suite of tools that simplify the migration process – making it easier for orgs to get to the cloud, fast-track innovation, and optimize costs (*120*, n.d.) to ensure investments generate serious returns.

Azure's centralized dashboard allows you to be proactive about eliminating waste and reallocating funds into areas that will drive future wins and boost organizational resilience.



Users can implement data governance and access permissions across all apps and services from a centralized dashboard in a matter of clicks.

That means you can embed AI search into all productivity tools or deploy integrated bots (*124*, n.d.) across all communication channels. You can also protect critical workloads (*125*, n.d.) from evolving threats on a holistic level.

Bottom line, Azure provides a unified platform for managing your entire digital estate – allowing you to save time, cut spending, and protect your business from risks that threaten the bottom line.

Accelerate innovation

Embracing agile and DevOps on an org-wide level connects IT with everyone else –from the leaders that set the strategy and the subject matter experts with deep institutional knowledge to the sales and service reps working the front lines.

Much of Azure's value comes from its ability to unify both sides of the innovation coin – fueling collaboration among fusion teams.

Technical and non-technical users, across all departments, can collaborate on shared projects using insights and tools that align with their role and experience.

Microsoft offers different paths for developing cloud-based apps (*126*, 2022). Low-code platforms like

Power Apps and Power Automate allow citizen developers to create apps and automation with visual, drag-and-drop tools.

For pro devs, Azure DevOps (*127*, n.d.) offers a set of tools and services that accelerate development lifecycles, allowing teams to build new apps from scratch or extend the capabilities of prototypes designed by non-technical colleagues.

The DevOps suite includes agile planning tools, CI/CD pipelines, and test plans that allow dev teams to improve code via exploratory testing. Devs can build in any language, for any platform, and deploy to any cloud.

Azure also provides a range of tools that make AI and machine learning (*128*, n.d.) accessible to employees of all skill levels – allowing teams to quickly deploy intelligent applications. For example, H&R Block was able to accelerate AI use cases (*129*, 2022) like document processing to provide fast, personalized tax services to its customers.

Progressive Insurance (*129*, 2021) used Azure Cognitive Services and AI Bot Service to bring natural language processing into sales and service scenarios, eliminating friction from critical journeys.

The insurance provider is now using data gathered from bot interactions to build new models for answering questions and providing support. As a result, Progressive has been able to reduce costs and deflect over 50% of chats from live agents to intelligent bots.

Democratize and activate data

Speaking of cost savings, democratizing data (*130*, 2022) is one of the most effective ways to innovate on a budget. Per Microsoft, many innovations require little more than raw data, and sharing insights with the right experts opens the door to high-impact decisions and innovative solutions.

But, using data effectively requires orgs to think beyond availability. Instead, business leaders should focus on enabling applied observability.

"Applied observability" is one of Gartner's top strategic trends (Torres, 2022) for 2023 – and is key to turning insights into outcomes.

The process takes observable data and applies it using an integrated, orchestrated approach, spanning all apps operations, infrastructure, and functions.

According to Gartner VP analyst Frances Karamouzis (Torres, 2022), leveraging observable artifacts like API calls, traces, or logs accelerates decision-making. It reduces the amount of time it takes to take action so users can optimize operations in real-time.

In a recent interview, Helen Beal (Groll, 2022), Chief Ambassador at the DevOps Institute, advised business leaders to think more like DevOps pros and use observability as a tool for improving performance.

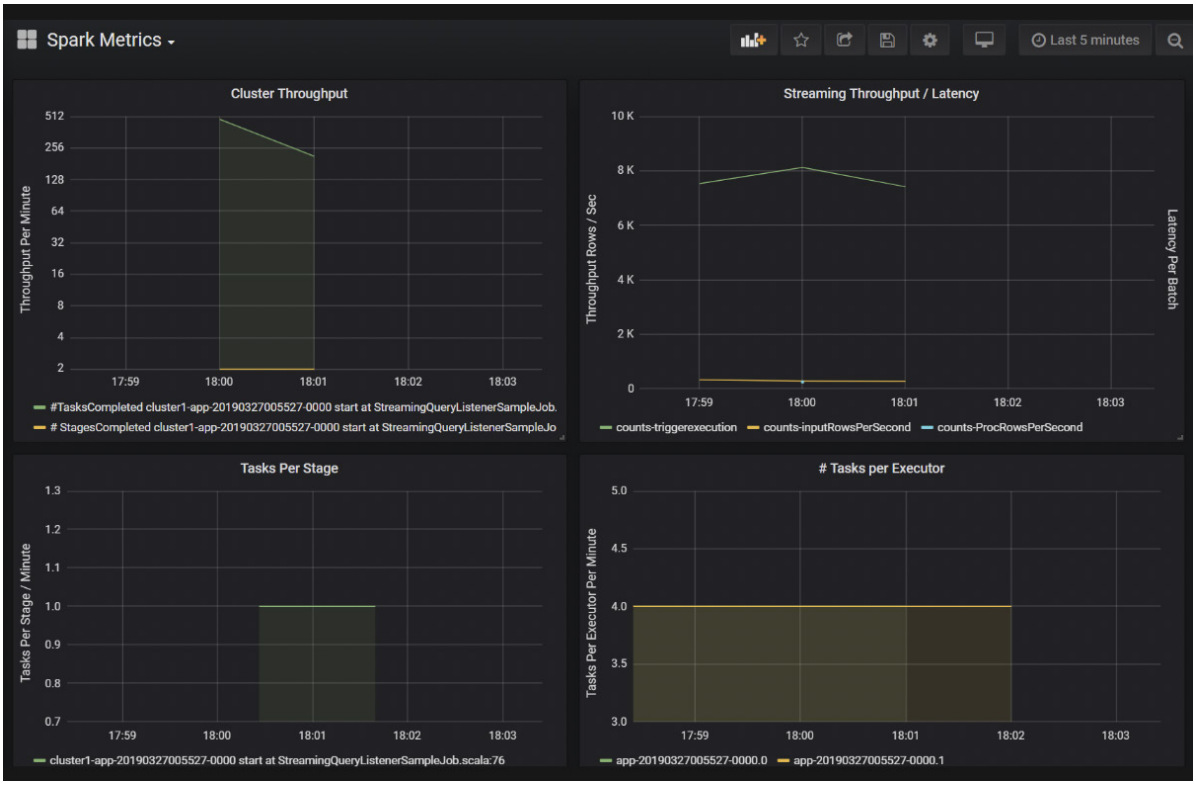
She explained that any system you implement will collect data about its activities, which can then be used to improve everything from security to CX.

The Gartner report recommends focusing on identifying potential use cases or improvements by looking at your passive and active metadata – and practicing moving from monitoring toward reacting to observable data in real time.

Azure supports observability goals by offering a single pane view for managing the entire digital estate, but the specific tools you use here will depend on what your network looks like and what you're trying to measure and improve.

This guide to observability patterns and metrics (McGhee, n.d.) explains how to apply observability data to improve the performance of a big data system. For this scenario, you'll need to set up Azure Databricks, Azure Log Analytics, and Azure Monitor (*132*, n.d.) to get started.

You can use Azure's default metrics or input custom ones. So, here, you might add time series metrics to production workspaces to track things like latency, task execution or resource consumption – and fix issues as they emerge.



You might look at sensor data in Azure IoT to track progress toward sustainability goals (Biron, 2022). Then, perhaps, use your findings to make in-the-moment decisions that reduce carbon emissions.

Or, you might use activity and audit logs from Azure Monitor (*135*, 2022) to ensure that storage practices meet security compliance requirements.

There are countless applications, but the point is, enabling observability drives real-time action, and by extension, helps you reach goals faster and avoid serious issues down the road.

Build a collaborative environment for fusion development

Bringing citizen developers into the fold humanizes digital experiences (Connolly, 2022) and ensures that end-user needs come first.

Most IT pros understand this, in theory. However, requirements often pass through two, three channels before reaching developers, and critical information is lost.

Azure's value comes from its ability to unify both sides of the innovation coin. More than that, it does this in a way that fits naturally into existing workflows and meets people where they are.

Technical and non-technical users, across all departments, can collaborate on shared projects using insights and tools that align with their role and experience.

For instance, Microsoft offers different paths for developing cloud-based apps (*137*, 2022). Low-code platforms like Power Apps and Power Automate allow citizen developers to create apps and automation with visual, drag-and-drop tools.

Meanwhile, pro devs can take advantage of cloud-native development tools to build new apps from scratch or extend the capabilities of apps designed by non-technical colleagues.

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The insurance provider is now using data gathered from bot interactions to build new models for answering questions and providing support. As a result, Progressive has been able to reduce costs and deflect over 50% of chats from live agents to intelligent bots.

Secure the entire digital estate

Orgs are optimizing cloud security by streamlining protections across platforms and services.

Increasingly, they're leaning on AI and automation to optimize security operations, enforce governance, and take proactive action against evolving threats.

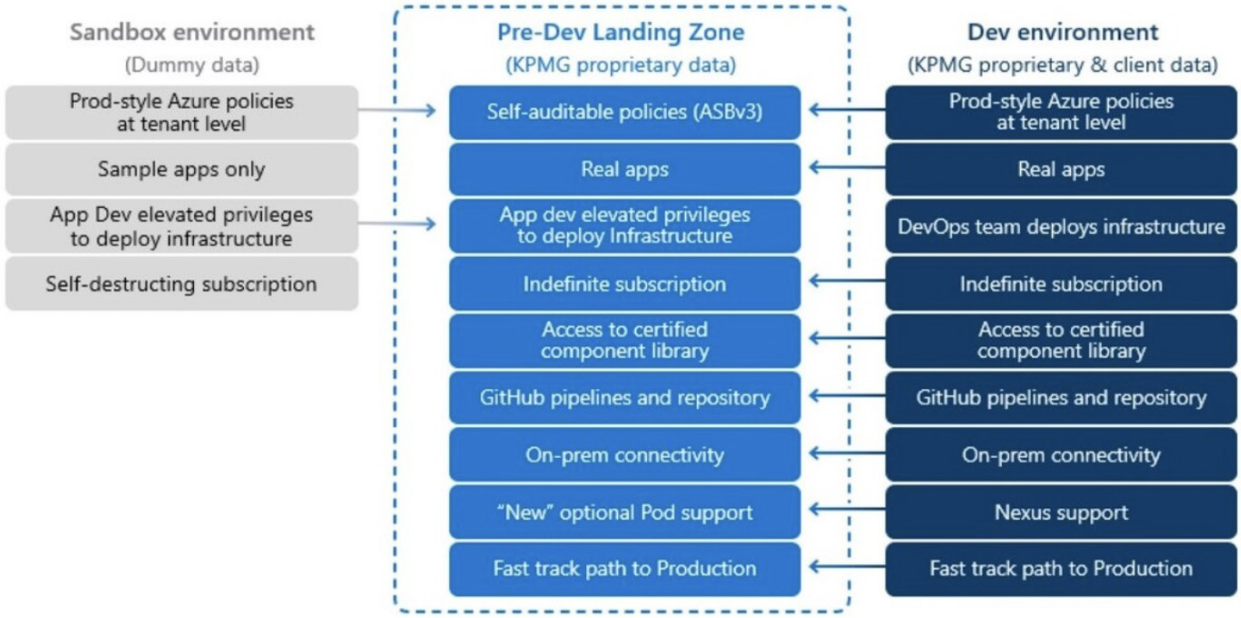
Azure helps businesses strengthen their security posture on all levels (*141*, n.d.).

First, it provides a unified platform for managing all security operations using Zero Trust principles and best practices.

Tools like Microsoft Sentinel provide security analytics (*142*, n.d.) from your entire estate, while Defender for Cloud (*143*, n.d.) continuously scans your network for vulnerabilities, so you can protect critical workloads from incoming threats.

Azure also allows you to embed enhanced protection into development environments, analytics tools, and AI/ML models.

For example, KPMG (*144*, 2022) created a pre-development sandbox that allowed developers to work with the firm's proprietary data – with baked-in controls for safeguarding critical insights.



By improving security, the firm was able to provide greater access to developers, fast-tracking app delivery. Experts could quickly turn demos into projects, rapidly prototype in the cloud, and use highly-classified data to work with AI and ML models.

Ultimately, Azure's centralized controls and proactive threat prevention and detection capabilities allow organizations to minimize risk without slowing development.

Final thoughts

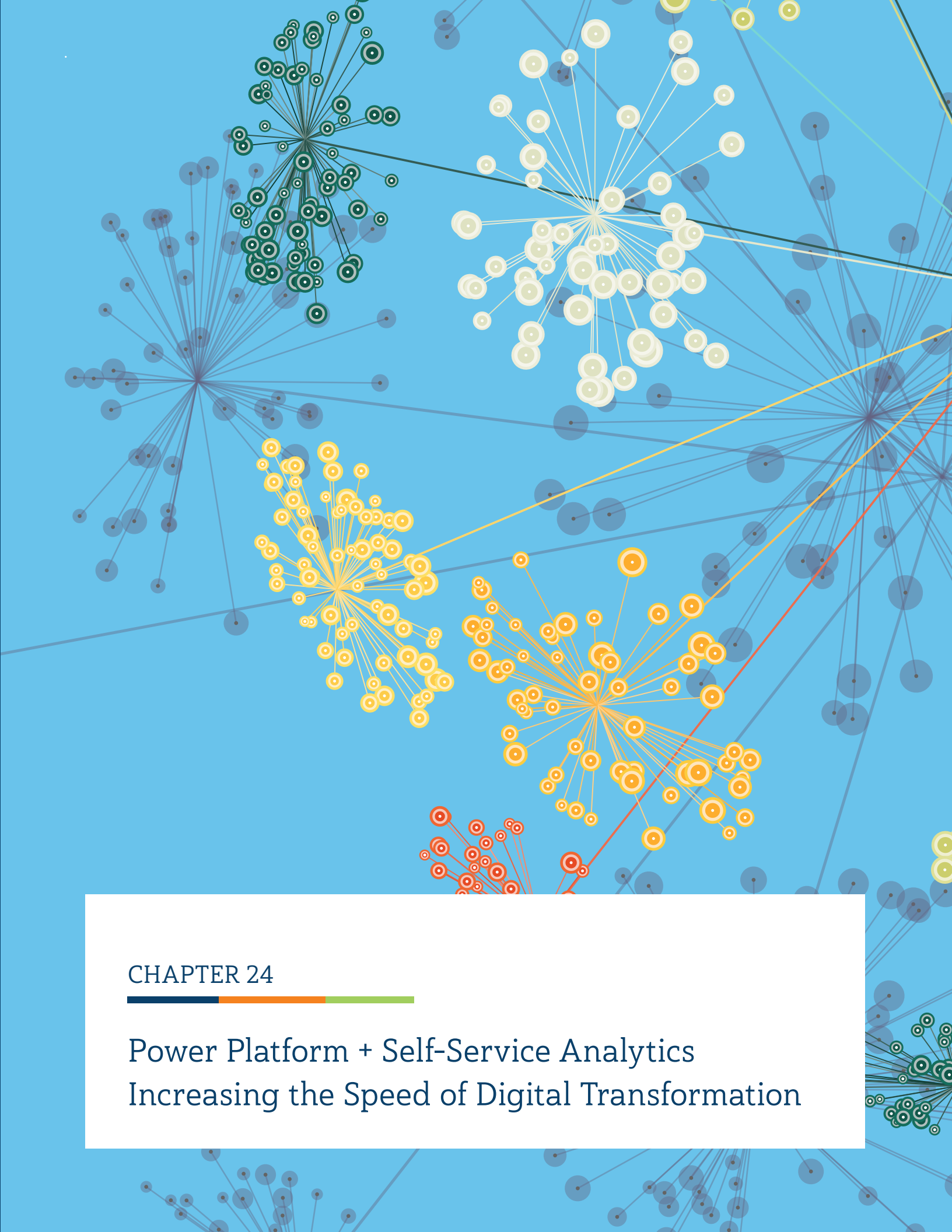
Microsoft Azure and Azure DevOps are total game-changers for digital transformation strategies everywhere.

While DX can be daunting, Microsoft Azure and Azure DevOps can help you power through this transition – bringing people, processes, and technologies together to collaborate on shared goals.

Businesses can accelerate their software development lifecycle while benefiting from the agility, flexibility, scalability, security, and privacy that come with the cloud.

But, it's important to note that Azure's strength lies in its ability to extend the capabilities of the rest of your digital ecosystem – particularly the Power Platform's suite of low-code dev tools.

In chapter 24, zoom in on the Power Platform and explain how these self-serve tools are empowering employees of every skill level to take action on DX goals.



CHAPTER 24

Power Platform + Self-Service Analytics Increasing the Speed of Digital Transformation

It's not enough to have data-savvy IT and data science teams and an insight-driven C-suite. *Everyone* – from the front lines to middle management to those at the very top – must learn to effectively work with data to drive innovation, generate value, and mitigate risk.

Low-code development and self-service analytics are part of a broader movement to tackle immediate challenges by enabling high-speed innovation – at scale.

According to Salesforce (*144*, 2022), 72% of IT leaders are already using low-code development tools, and the trend is quickly spreading to all teams, regardless of technical capabilities. What's more, 63% of respondents say they have plans to invest in AI and automation capabilities to maximize productivity and innovation.

IT leaders are building these "innovation toolkits" to insulate themselves from disruption and drive growth.

Business leaders are realizing the only way to compete in this new digital economy is by leveraging big data and next-gen tech like AI, ML, and the IoT to innovate and adapt.

The Microsoft Power Platform allows non-technical users to build apps and websites, automate processes, and analyze and work with data in new ways. These tools democratize data and enable users to activate the data they're already sitting on.

Below, we look at some of the ways you might use self-serve tools like the Power Platform to ramp up DX efforts and bring the entire team up to speed.

Empower citizen developers

As big data gets bigger, facilities get smarter, and digital footprints expand, organizations will become more dependent on non-technical workers to power digital transformation.

It doesn't make sense for business leaders to go on a developer hiring spree every time things get hard. Nor does it make sense to nurture this kind of talent internally – there's simply not enough time.

What makes low-code and self-service solutions particularly exciting is that they allow users to bypass the many years of formal education and on-the-job training it takes to "make" an experienced developer or data scientist.

The idea is, anyone can analyze data and work with insights in new ways – whether that's building apps, automating processes, or empowering profitable decision-making.

For example, Power Apps (*145*, n.d.) pulls from existing data models and business processes, allowing users to automatically generate dynamic, responsive apps for any device. They can also use the platform's drag-and-drop editor (*146*, 2022) to tailor the in-app experience around specific segments or roles.

Self-service solutions like Power BI allow end-users to perform queries and pull reports by themselves – without intervention from a data scientist or the IT department.

Additionally, we're seeing more orgs embrace reusable components, templates, and AI automation to scale human expertise, optimize core processes, and deliver knowledge through new delivery models.

This gives non-technical users a strong foundation for their project, and it allows technical users to move faster – offering a shortcut to the creative, meaningful work that benefits most from their expertise.

Innovate at speed & scale

The primary benefit of low-code development tools is that they provide a "shortcut" of sorts to innovation.

According to Forrester (*148*, n.d.), a key part of designing effective "insights-to-action" processes is aligning data and analytics. This sets the stage for building innovative solutions fast, as well as making meaningful improvements based on real-time insights.

Self-service analytics speed up data delivery – serving up fresh insights to developers (citizen or pro) so they can immediately start working with it. Meanwhile, the Power Platform allows orgs to adopt fusion development, a joint collaboration between non-technical experts and developers and data scientists.

Subject matter experts and customer-facing teams can develop solutions based on what they're hearing from customers. Then, they can hand off those prototypes to developers to polish and refine their vision.

To give you a better sense of how this might work, check out Microsoft's fusion development documentation (*149*, 2022).

In it, MS breaks down the process of building a prototype for an app that helps service techs check inventory out in the field. The hypothetical employees used direct feedback and an Excel workbook as the basis for a Power Apps Canvas App – then built it out via the platform's built-in editor.

We also share examples of how professional services firms use the Power Platform to solve client problems in another blog post.

Leverage institutional knowledge

New ways of working have changed the way collective knowledge is accessed, shared, and used to create value. At a basic level, collective knowledge plays an important role in ensuring employees have what they need to do their work and driving cultural alignment.

The Power Platform is designed to help organizations make the most of their collective knowledge.

It works with the Microsoft Dataverse (*150*, 2022), a secure data store solution that combines and standardizes all connected data sets – making it easy for users to build apps and automations.

As an example, Mitsui & Co (*151*, n.d.) wanted to promote DX on an org-wide scale so that employees could work together to solve problems using data analysis.

The Japanese professional services firm took advantage of a Microsoft support program, Data Hack, which helps organizations build Centers of Excellence promoting the use of digital technologies.

Mitsui & Co used Azure and Power BI to unify data from OT processes with digital insights, AI, and the IoT.

They built an e-learning program that helps *all* employees (it's mandatory) take full advantage of capabilities like data visualization, forecasting, predictive ML models – and apply that knowledge to as many projects as possible.

The project resulted in major gains for the firm. Non-technical employees developed data analysis skills that produced better outcomes than data scientists by leveraging first-hand knowledge with user-friendly AI and ML-driven analytics.

However, the firm also emphasizes that these gains wouldn't have been possible without its infrastructure team, which designed the environment and governance rules that enabled them to train users with real data – and apply new solutions to real projects.

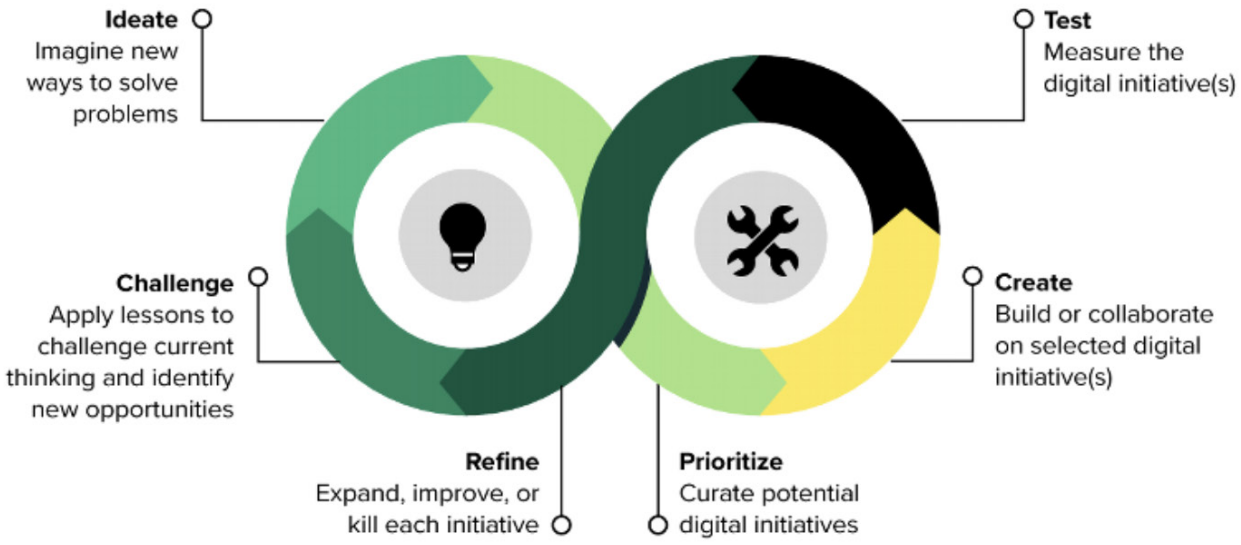
The firm also had a dedicated team responsible for promoting data utilization and supporting staff during the transition.

Create dedicated environments for exploration

Per a recent Forrester report (Wannemacher, 2022), business leaders should think of their digital strategy as an "engine of exploration."

The idea is, leading companies know they can't predict the future. They've accepted this reality, and, rather than doubling down on their old ways, focus more on continuous learning and exploration.

Forrester analysts recommend following a continuous cycle, such as the one pictured below, to ensure that new ideas lead to sustainable long-term growth.



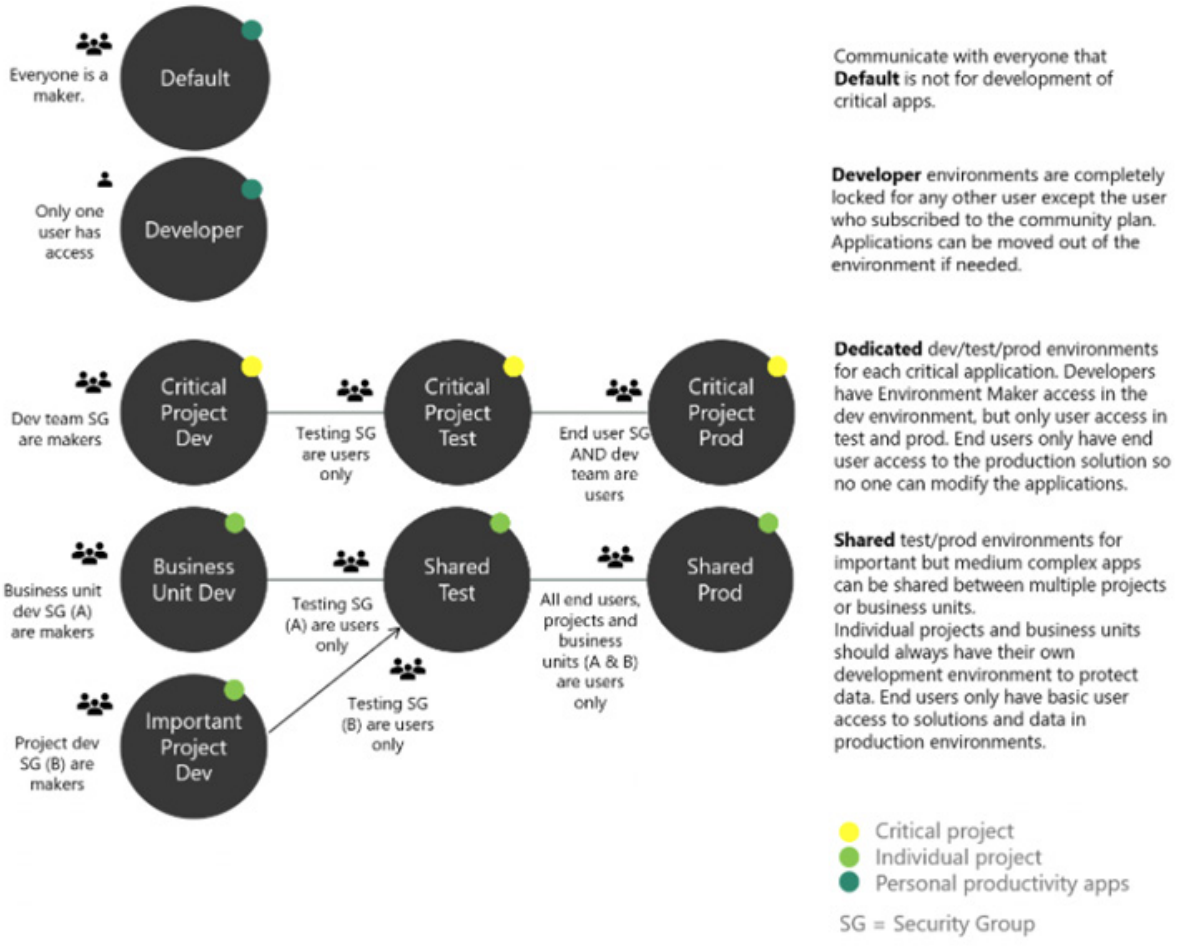
Low-code and self-serve tools let organizations make bolder decisions and be more experimental in their efforts to solve problems or develop innovative new solutions.

But, it's important to understand that, without the proper controls, your citizen developers can become a serious security threat.

Luckily, the Power Platform allows admins to build and manage environments (*152*, 2022) where different groups can work with data in different ways.

Admins can set custom permissions that determine who has access to what digital assets.

For example, you can manage data loss prevention policies, create sandbox environments for testing and experimentation, and govern all low-code assets (Strauss, 2022) in one place.



Automate manual processes

Power Automate (*155*, n.d.) works great for simple automations like data entry and approval flows, but those won't deliver the transformative benefits that really make a difference.

Power Apps allows you to automate app lifecycle management (ALM) using GitHub Actions. The Power Apps- GitHub integration (*156*, n.d.) lets users make front end changes directly from the Power Apps Portal.

Then, when changes are published, updates automatically show up in the test environment. That way, users can make sure that everything is working properly before sending apps on to production. Users can also automate deployment using one of two built-in workflows designed to expedite the process.

Or, you might use Power Automate to define policies and automate enforcement using a series of triggers and actions. Automations can be used to guide users through multi-step process flows.

Think – guided prompts that ensure users follow a certain set of steps in a specific order. You might use the platform to streamline employee onboarding or maintain data consistency by making sure everyone follows the same process for handling support requests or placing a purchase order.

Final thoughts

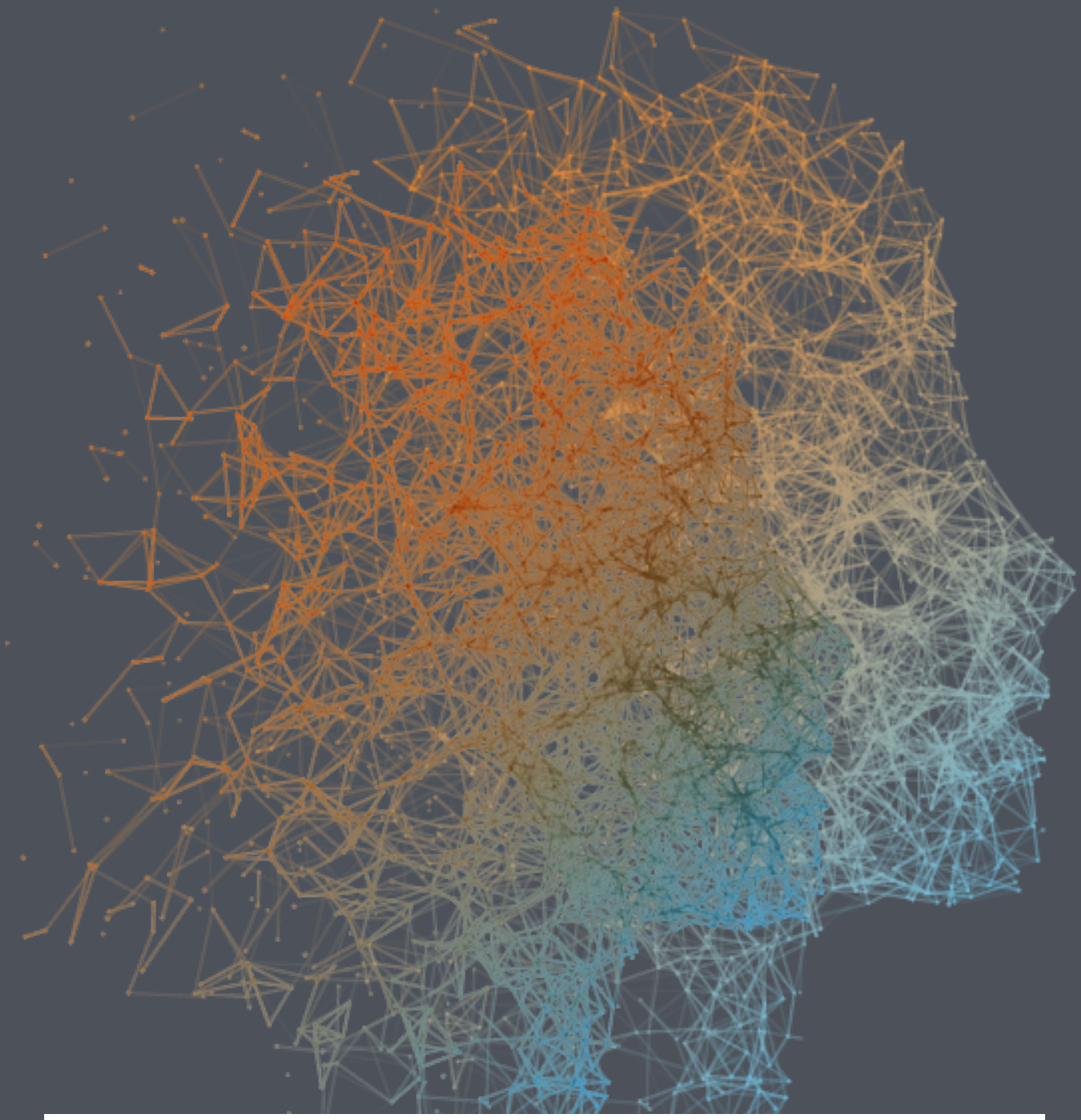
Self-service analytics and low-code solutions are a game-changer.

They make data both more accessible and more actionable – enabling businesses to drive success at every level – from the C-suite to the finance department, sales and marketing to customer success, operations, and HR.

At the same time, it's important to understand that just because solutions like the Power Platform promise to make BI, automation, and development more accessible, doesn't mean people will intuitively understand how or why to use them.

You'll need to build training programs around these new solutions that prepare users to leverage them toward a specific outcome. And, we'll say it now, it's harder than you think.

Next up, we focus on another powerful force in the world of digital transformation: artificial intelligence.



CHAPTER 25

Role of AI in Digital Transformation

Artificial intelligence (AI) is easily the most important enabler – no, accelerant – of digital transformation.

You've likely been hearing some version of the same panicked refrain for 10, 12 years.

You know, the one where companies are getting crushed by mounting pressure to keep up with the rapid pace of change, respond to rising consumer demands, and make real-time decisions that determine the ultimate fate of their business.

We've watched these predictions play out in real-time – amid conditions no 2010s-era alarmist could possibly have imagined.

The point is, coping with the challenges we anticipated, plus all of the post-COVID chaos we didn't, is a lot for us humans to take on by ourselves.

And while it's still true that the most important parts of digital transformation have very little to do with technology, the execution can't happen without artificial intelligence (AI).

Here, we look at AI's central (and growing) role in digital transformation, how it's evolving, and why DX can't happen without AI.

How Does AI Help Digital Transformation?

The simple answer is, AI supports digital transformation by augmenting human capabilities.

It can analyze massive data sets and instantly serve up actionable insights humans wouldn't be able to identify on their own – at least not quickly enough to make a difference.

It automates key processes so that front-facing employees can focus on creating value and building relationships. For example, chatbots and virtual assistants provide 24-7 support, help human agents handle support tickets, and give employees more time for meaningful work.

Overall, AI powers smarter, faster decision-making, boosts productivity, and allows orgs to create tailored products, content, and end-to-end experiences for super-specific customer segments and even individual end-users.

The real (and more complicated) answer to this question is, it depends. AI can be applied to countless use cases and used to achieve a near-infinite set of goals.

But only if you have a comprehensive game plan, a proven business case, good data, and the ability to use it.

The AI Strategy is Changing

Accenture (*154*, n.d.) defines AI maturity as having both mastered a set of core capabilities and, crucially, understanding how to apply those capabilities to the right use cases, using the right combinations and the right data.

Business leaders really need to grasp the fact that automating simple processes and deploying a couple of bots won't yield anything remotely "transformational."

Basically, AI solutions don't just "work" straight from the box, and companies should plan on tailoring their platforms based on the customer insights and real-time data they capture over time.

Here's a quick look at the key ingredients of a transformative AI strategy:

Data Mastery

Digital leaders have the ability to scale human-centered AI across all business operations, and they do this by using proven business cases and end-user feedback to inform the strategy, not recommendations from the IT or data science team.

In other words, the teams that have been most successful with AI already have a mature data strategy in place.

Deloitte's latest State of AI in the Enterprise report (*157*, 2021) revealed that AI-driven businesses treat data as an asset. They automate data-related processes like cleaning, validation, and governance to preserve its integrity. And, they

Keep in mind, while current AI models are trained on historical data, adaptive AI (*158*, 2022), which can be trained using real-time, is starting to gain traction. So, as you can imagine, a strong data foundation will soon become even more imperative.

A Holistic, Outcome-Driven Approach to AI

Unfortunately, too many orgs still invest in incremental improvements. And, as a result, they waste valuable resources on AI initiatives that not only fall short of big-picture goals but fail to generate any real value.

According to Forrester (*159*, n.d.), if orgs truly hope to achieve tech-driven transformation, then they must embrace an approach to AI transformation analysts call "connected intelligence." Basically, that means moving away from a "tactical" approach and toward a more holistic, "transformational" strategy.

McKinsey experts agree (*160*, 2021), and say embedding AI across the entire organization (and all departments, locations, processes, and people within it) is the only way to unlock its full potential.

So, you're not just looking at chatbots or language processors as one-off applications, you're building these connected ecosystems that span all channels, touchpoints, data models, services, and so on.

That "connectedness" allows orgs to bridge silos, fill gaps, and facilitate cohesive experiences that move you closer to a specific goal – be it optimizing service operations, risk modeling, or creating new AI-driven products of your own.

Commitment to AI Best Practices

According to Deloitte (*171*, 2021), becoming an "AI-fueled organization is the best way to unlock value and achieve high-level business objectives. Yet, a third of business leaders say they've adopted leading best practices.

Already, this is a problem.

Organizations that don't have the right data infrastructure and strategies in place won't unlock the value promised by the AI/ML solutions coming down the pipeline.

Even worse, they could cause a lot of damage. For instance, unleashing an adaptive AI model on poorly-governed data could lead to bad business decisions, faulty digital products, and potential ethical violations.

Deloitte experts advise leading with business requirements, not data scientist discoveries, to ensure that AI strategies align with actual business requirements and long-term strategic goals. Organizations also tend to see more success when they make significant changes to workflows, processes, and roles.

Analysts also emphasized that leading orgs use MLOps (*172*, n.d.) – a set of practices for managing machine learning models. MLOps ensure that models stay aligned with goals, deliver anticipated outcomes, and that AI is used responsibly.

Additionally, McKinsey's State of AI in 2022 (*173*, 2022) breaks down AI best practices by category – data, strategy, models/tech, and ways of working – it's worth checking out if you're interested in learning what top performers are doing right.

Employees are Empowered with the Right Training & Tool

Tapping into the true power of AI hinges on the end-user's ability to combine data sources and work with real-time insights in creative, new ways.

AI and ML projects fundamentally change everything about how a business runs, connects with customers, and drives growth.

So, you'll need to ensure your people have everything they need to effectively leverage AI on the job.

That means making sure everyone has access to plenty of data and that they receive training on agile best practices, AI ethics, and how to actually use new technologies in the flow of daily work.

Low-code/no-code tools enable non-technical employees to create AI apps and optimize processes on their own.

For example,the Power Automate AI Builder (*175*, n.d.) makes it easy to build tailored AI models that simplify tasks and support decision-making.

Users can create predictive models from pre-built scenarios, automate data entry, and analyze customer sentiment. And – they can also train models by embedding them into workflows and use insights to improve products, experiences, and processes.

Or, users might use intelligent chatbots or process automations that augment and streamline daily tasks.

AI Must Be Implemented with Care

Finally, it's important to remember that anything involving an algorithm requires a lot of care (and caution).

One of our clients, Gatsby Chocolate initially reached out because they needed help streamlining their inventory management process and leveraging automation to boost business agility.

First, we implemented D365 Business Central – giving the Gatsby team the connected ecosystem they needed to begin their DX journey. This enabled them to continue processing orders if supply chain conditions changed, manage a growing network of outsourcing partners, and bring more products to market faster.

Over time, we helped Gatsby use the data captured via D365 BC to identify opportunities to automate processes. It's important to mention that we implemented AI and automation one phase at a time – starting with an ERP implementation and strong manual processes, and gradually layering in more advanced capabilities.

Skipping steps or cutting corners can put your company (and customers) at-risk. AI processes massive data sets and runs processes at a rapid pace – flooding your system with bad data and amplifying the impact of things like poor planning, sloppy implementation, or even just a handful of one-off reporting errors.

This impacts everything – project, resource, and financial management, sales performance, the ability to deliver on what was promised in client contracts or function as a trusted partner that gets results.

In some cases, errors can fall through the cracks and wreak havoc on real peoples' lives.

Data breaches and cyberattacks on IoT/OT linked to critical infrastructure are big ones.

But so are overzealous algorithms.

As a recent example, Bank of America was fined $225M (*176*, 2022) for mishandling pandemic relief funds when an automated fraud filter froze legitimate accounts. Customers were unable to access those benefits – and in several cases, were blocked from using customer support channels to resolve the problem.

Now, BofA is a giant bank, capable of moving past a financial blow of this magnitude, but it'll likely face challenges winning back consumer trust/losing customers to competitors – which could lead to serious long-term losses (potentially a major decline).

Final Thoughts

Look, AI's potential benefits and use cases are as expansive and unique as the organizations using this game-changing tech.

So, the real (read: more complicated) answer to this question is, AI can be applied to countless use cases and used to achieve a near-infinite set of goals.

However, those use cases must support a proven need (aka – you have data to back up this decision). And – you'll need to have the right strategy, infrastructure, and cultural foundation in place to support your AI initiatives.

Otherwise, you could end up amplifying existing problems and creating all sorts of expensive, damaging issues with the potential to take down your business – and, worst case scenario: cause serious harm to your customers, partners, and the general public.

Chapter 26 takes us back to the human side of transformation – shining a spotlight on customer experience, the driving force behind all digital strategies.

CHAPTER 26

How Digital Transformation Improves the Customer Experience

Whether you know it or not, your customer experience and digital transformation strategies are one and the same.

Customer expectations have always been the driving force behind digital transformation initiatives (at least the successful ones). See, at its core, digital transformation is all about using technology to keep pace with ever-evolving (and ever-escalating) expectations.

And – even when it seems like the goal is efficiency, cost-cutting, or increased profitability, the primary concern of digital transformation is achieving those goals by improving the customer experience.

In this chapter, we examine the powerful connection between DX and CX and explain why all transformations start with the customer.

The Link Between Digital Transformation and the Human Experience

According to ClearAction founder and CX expert (*178*, n.d.), Lynn Hunsaker, CX innovation is about creating mutual value for anyone that fits into the broad definition of a customer or end-user.

To pull this off, Hunsaker explains, companies must address the customer's "jobs-to-be-done" on a holistic level.

Obviously, your main focus is on the customers or clients you serve.

But, it's important to note that employees, partners, and other stakeholders with real skin in the game are part of this "end-user" group, too.

The difference here is, employee and partner needs are, at least in part, dependent on the customer's requirements.

For example, modernizing legacy systems goes a long way in supporting your teams. It enables employees to better support and engage with customers, communicate and collaborate with colleagues, and use data to drive positive business outcomes. Think – expanding product and service offerings, providing faster, more effective service, and creating personalized experiences that feel both authentic and relevant.

Transformations can also take place behind the scenes.

Think – automating endpoint protections or embracing passwordless log-ins across your entire network. While modernizing security solutions may not directly impact the customer experience, these investments prevent them from becoming victims of credential theft, ransomware attacks, and data breaches.

They also protect your brand from experiencing the devastating fallout of a high-profile cyber incident.

In other words, DX investments in improving employee innovation or collaboration typically improve customer experiences, too. And, by extension, those investments also benefit the bottom line.

What Do Customers Want?

Constellation Research VP & Principal Analyst, Dion Hinchcliffe calls the "seamless customer experience" (Hinchcliffe, 2019) the most discriminating factor for determining how a business performs in a "turbulent" digital landscape.

Hinchcliffe says companies can survive by evolving at the rapid pace of change. Or, they can thrive – using bold, data-driven actions and out-of-the-box solutions to disrupt their industry and gain the competitive advantage.

The third option is a bit dark – laggard companies fail to act, fall further and further behind, and eventually, they die.

This particular warning dates back to 2019, and arguably, it's a timeless reminder that losing sight of the customer comes with real peril. That said, it also conveys how high the stakes were before the pandemic.

Not surprisingly, experts interviewed in a 2020 IBM report (*178*, n.d.), agreed with Hinchcliffe, stating that DX initiatives must directly translate to improved customer outcomes.

Post-COVID, digital standards (and stakes) have never been higher – nor have conditions ever been more turbulent.

Now, we already know that customers expect seamless journeys, digital payments, personalized interactions – delivered with the same consistency and speed across all touchpoints.

But, that's just the bare minimum. Customers need help navigating challenges and solving problems. They want insights they can't find inside their own analytics dashboards and capabilities they can't buy off the shelf.

A recent Gartner poll (*115*, 2022) found that 74% of orgs believe that creating a seamless customer service journey is either "important" or "very important" when it comes to growing their business. Yet, only about half of those participants believe their company makes it easy for customers to find information and solve problems on their own.

Business leaders need to get serious about what it means to provide "value."

As an example, GE used Azure Synapse and Power BI (*180*, n.d.) to revamp its safety analytics as a service platform, enabling more effective predictive maintenance capabilities.

With the new platform, GE's engineer customers can ID abnormal events and link them back to a specific performance issue – then get it fixed ASAP. Analysts can then dig into the data to learn more about why there was an issue and update the maintenance strategy, if necessary.

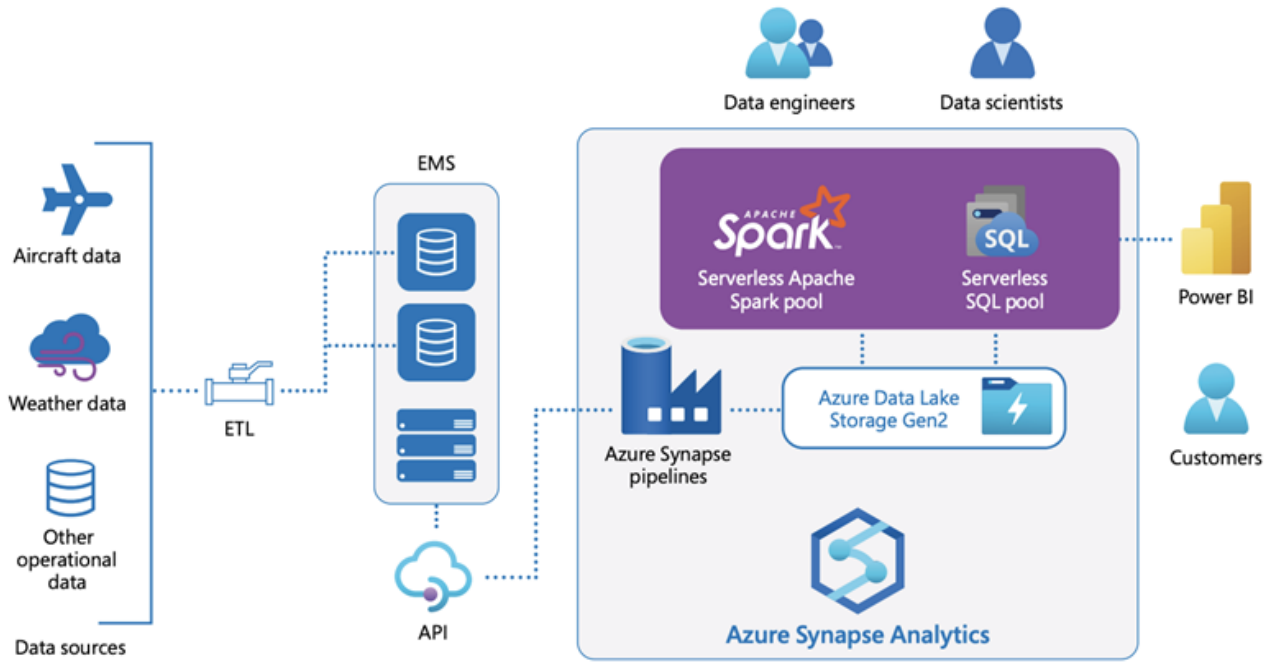


Figure 6: High-level solution design for GE predictive maintenance on Azure Synapse

Digital Innovation Must Solve Real, Data-Backed Problems for Real People

All DX initiatives must align with the overall business strategy and address a specific problem or need that can be backed up with hard data and real customer feedback.

Meaning, you'll need to produce some tangible evidence that the solution you're proposing will achieve a specific outcome for your customer and your organization.

Mercer Transformation Leader, Melissa Swift told Enterprisers Project (Guide, n.d.) that the pandemic has forced business leaders to look at DX with the "problem-solving focus" it's deserved all along.

She says perceptions among IT and HR pros are shifting away from the tired "spoiled employee" narrative linked to demands for best-in-class tech and are increasingly seeing these investments as critical to daily operations.

Swift also notes that post-COVID, more CIOs are prioritizing projects like expanding customer support through intelligent chatbots, eliminating redundant systems and processes, and building business resilience through automation.

IDG's ebook (*182*, n.d.), New Era of Data and Analytics provides a detailed example illustrating how businesses might use data to inform internal DX initiatives.

In it, a hypothetical group of decision-makers were tasked with building a new workplace model better

aligned with the realities of hybrid work and capable of meeting social distancing requirements during the post-lockdown, pre-vaccine phase of the pandemic.

They began the process by gathering data to help them understand the parameters of the project – drawing on employee preferences, business requirements, measurements, and current space utilization data (and COVID requirements) to inform their designs.

From there, they used predictive modeling to analyze different variations of their design to determine which option best aligns with their goals. In this case, that meant balancing reputational and operational risks and opportunities to maximize savings with employee and customer requirements.

Finally, decision-makers used metrics like cost per person, peak workspace utilization rate, and utilization by group to track usage patterns and ID even more improvement opportunities. Think – using sensors and occupancy data to control heating and electricity use (and, in turn, reduce energy costs).

Or – building a simple app that allows employees to book workspaces (and easily comply with capacity limits).

It's worth noting that connecting the customer experience to specific business outcomes is more important than ever. In an uncertain economy, DX leaders will be under more pressure to deliver value – fast. Otherwise, they may lose their budget.

DX Improves Customer Outcomes - at Speed and Scale

While rising expectations and a complex business landscape present new challenges for brands, IDC Program VP for Digital Strategy & CX Alan Webber points out a silver lining in the report.

He says we're just now reaching a point where we can use technology to be more empathetic with customers – at a speed and scale that, until recently, was completely unheard of.

Already, savvy brands are using technology to enhance soft skills like empathy and problem-solving. For example, Campari Group (*183*, 2022) wanted to create a more expansive customer experience across its portfolio of 50+ premium spirits brands – something that resonated on a deeper level than just "taste and flavor."

The company leveraged the combined capabilities of D365 Marketing, Customer Insights, and Power Apps to build a real-time customer journey orchestration solution – with the goal of bridging the divide between digital and in-person experiences.

As a result, it was able to use existing data to serve up personalized recommendations, unique bartender trainings, and access to exclusive in-person events.

At one event, guests were given handheld tablets loaded with custom apps designed to capture real-time feedback from customers. Live employees there, mostly to mingle with guests – but also to help them record responses with the tablet. From there, the AI-enabled app used customer responses to generate a custom script (in their native language) and recommend "next steps" based on individual preferences.

Webber adds that companies that demonstrate true empathy during times of crisis, customers will stick with you for the long-haul.

It doesn't matter if you're helping clients navigate this year's uncertain climate or designing experiences that aim to delight and engage your audience – empathy allows you to tap into the end-user mindset and consider key pain points and priorities from their perspective.

Ultimately, it's that deep understanding that allows you to deliver experiences that have real value.

Final Thoughts

Bottom line: digital transformation is always driven by the customer.

It doesn't matter if we're talking about improving service quality, expanding product offerings, or something like document automation – the end-user informs the strategies, actions, and investments that define your DX strategy.

In chapter 27, we turn toward a critical (yet, often overlooked) part of the digital transformation strategy: IT security.

CHAPTER 27

Security Transformation: The Role of IT Security in Digital Transformation

According to Microsoft (*184*, n.d.), we're currently in an era of transformation – cloud transformation, digital transformation, and security transformation are converging.

Together, these transformative forces are redefining business operations, workflows, and how we collaborate, communicate, and preserve institutional knowledge.

As companies strive for greater agility, efficiency, and flexibility and start adding new technologies and processes to the fold, the threat surface only becomes larger and more complex. Remote work, shadow IT, and an explosion of data and devices have introduced new vulnerabilities – on a scale never before seen.

What this means is, digital transformation is a massive opportunity for threat actors – who, by the way, benefit from the same innovations – AI, machine learning, automation – as the retailers, accounting firms, and manufacturers competing in legitimate markets.

With that in mind, it's easy to see how cybersecurity and digital transformation go hand-in-hand. Below, we'll get into some of the more specific reasons security needs to be an urgent priority for *everyone* on the org chart – not just the CIO and IT.

Why cybersecurity is central to digital transformation

For some reason, many organizations still fail to treat IT security with the urgency and importance it deserves.

Digital transformation without IT security always ends in disaster – it's just a matter of when. Tech investments are worthless if they can't do the bare minimum – protecting critical data, valuable assets, and customer privacy against an ever-expanding list of threats.

Still, it's not all doom and gloom. Here, we'll look at the biggest security risks of digital transformation – and what you can do to ensure that DX investments proactively strengthen your security posture while simultaneously moving the needle closer to critical milestones.

Cyber threats

Cyber threats have become increasingly sophisticated – hackers, ransomware gangs, politically-motivated threat actors have benefitted from digital transformation just as much as their counterparts on the right side of the law.

Recent high-profile ransomware attacks like Colonial Pipeline highlight the vulnerabilities of modern infrastructure – and provide some insight into the destructive potential of these kinds of targeted attacks.

Cybercriminals target everything from cloud infrastructure and databases to IoT devices, VPNs, and web apps.

Threat actors are capitalizing on the post-COVID shift to cloud-based apps, targeting tech companies that provide these tools in an effort to gain access to more potential victims. For example, messaging platform Twilio recently fell victim to a social engineering attack (Kapko, 2022), which then allowed attackers to breach Okta (another SaaS provider).

The now-infamous SolarWinds incident (*186*, n.d.) is another example of a multi-tiered attack. Here, a group of nation-state hackers, known as Nobelium, gained access to the networks, systems and data of thousands of SolarWinds customers of its Orion software by delivering backdoor malware in a routine update.

Over 30k public and private organizations were directly exposed – but the attack also put the customers and partners of Orion users at risk, as well as the people and organizations connected to those networks.

What makes this type of incident particularly dangerous is the potential for malware to spread rapidly through networks and increase victim counts exponentially.

Security automation can help you stay a few steps ahead of threat actors. For example, you might configure a workflow that automatically surfaces vulnerabilities like exposed endpoints or unpatched software and takes action to remediate the threat before attackers can get it.

Data leakage

Whether we're talking about accidental breaches, data exfiltration, or slow data theft, data leakage in all forms leads to big problems. Think – revenue losses, lawsuits, regulatory fines, reputational damage, and more.

With data-driven strategies becoming increasingly essential to driving successful outcomes, data has become extremely valuable – to companies and their customers, of course, but also cybercriminals looking to profit.

A 2020 Ponemon Institute survey (*187*, n.d.) revealed that over 80% of participants believe their organization has experienced at least one data breach because of their digital transformation initiatives. And, over 40% of respondents estimate between two and five cyber incidents since implementing new tech.

And – according to Salesforce (*144*, 2022), business leaders now rank data security as their top security challenge – due to converging forces including the ongoing skills shortage, accelerated DX initiatives driven by the pandemic, and rapidly expanding digital footprints.

Because of current conditions, experts say data security is the new enabler of digital transformation – with security breaches posing the biggest threat to DX initiatives – and the business as a whole.

Getting ahead of data leakage requires a multi-pronged approach. It's establishing end-to-end visibility into the entire threat surface and making sure that you have full coverage protection across all apps, endpoints, assets, and so on.

That said, identity should be a core focus. Most leakage incidents are accidental. Think – employee errors such as sending sensitive information to the wrong email address or data stored on lost or stolen laptops or USB drives.

Something as simple as making sure everyone can easily share data, knowledge, and relevant documents within the flow of work can have far-reaching impacts. Employees are less likely to use unapproved apps – reducing the dangerous footprint of shadow IT and blocking risky missteps.

You might implement a solution like Entra Verified ID, which offers decentralized verification and gives employees control over their own credentials – so they have one set of credentials that can be used across multiple apps or scenarios.

For example, project managers at Avendade use the platform (*188*, 2022) to cross-reference employee certification data before assigning them to upcoming projects – saving the firm time, while also enforcing policies that protect personal data in spite of the frequent access.

You'll also need to track real-time usage data, traffic logs, user behavior and activity, etc. in one centralized location – making it easy to spot things like credential abuse or unauthorized access to docs containing sensitive info.

Reputational damage

Cybersecurity has become increasingly central to the customer experience for a few reasons. Phishing scams and malware attacks are on the rise, as are concerns about data privacy and identity theft. And, of course, the rise of remote work, the IoT, and the proliferation of big data have made it more difficult for businesses to provide adequate protections.

Embedding security into your DX strategy from the very beginning can also help you avoid reputational risks like customer service failures, data breaches, and poor transparency around how data is handled and protected.

High-profile breaches erode trust among customers and the general public – damaging a brand's reputation in ways from which it can never recover.

A 2021 ClearSale survey (Lourenco, 2021) found that 84% of online shoppers wouldn't do business with a website again if their data was leaked to fraudsters – viewing a business' inability to protect sensitive information as a serious violation.

According to a 2020 study (*189*, n.d.), close to two-thirds of respondents cite reputation as their primary reason for not reading the fine print of a third-party's privacy and security policies.

While this is great for companies with no known history of data breaches or privacy violations, those with a black mark on their record will struggle to earn back that trust for a while – even if they're proactive about tackling the issues that got them into trouble in the first place.

Research from a Forbes Insights and IBM (Athey, n.d.) report found that 46% of organizations suffered reputational damage as a result of a cyber attack, while nearly 20% experienced damage to their brand due to third-party breaches or incidents. While blaming companies for a vendor's breach might sound unfair, third-party breaches create legal or financial problems for the customers using those services – and may even put their own customers at risk.

Supply chain disruptions

Securing your company's production environment is a critical imperative, as the operational and financial impacts of a shutdown create ripples across the entire supply chain.

In a joint report from Microsoft and the Ponemon Institute (*190*, n.d.), researchers found that IoT and OT devices pose a greater risk to businesses than other assets for a few key reasons.

Improving operations across the entire supply chain introduces thousands of endpoints to the network and generates these huge volumes of unstructured data.

Devices are also distributed across multiple locations, making it hard for users to gain the visibility they need to identify everything connected to their network – let alone secure it.

Agribusiness company COFCO International (Elazar, 2022) needed a practical solution for reducing risk across its global supply chain – which includes 12k employees operating out of 35 countries. The company opted to combine Microsoft Sentinel, Defender for Endpoint, and Defender for IoT with its existing SIEM platform – in large part, because it allowed them to improve their security posture in a non-invasive way.

Instead of installing security in-person at each plant in its large, international network, COFCO was able to implement the new solutions across all locations – establishing end-to-end visibility and a centralized control center that allowed them to standardize all security operations.

As a result the company was able to take advantage of real-time threat monitoring, automated asset discovery, and vulnerability management capabilities to take proactive action against issues like misconfigured or malfunctioning assets that lower plant efficiency and could leave them vulnerable to attacks.

Malicious insiders

Most insider threats aren't malicious, and prevention is more about culture, people, and processes than technology.

So, things like cyber education, transparency, and automations that enforce data governance and prevent employee errors go a long way in reducing risks from the inside.

Malicious insiders, are a different story. This group includes anyone with legitimate access to your network and digital assets – employees, contractors, third-party consultants or partners, etc. – who abuses their privileges in order to steal, destroy, or compromise data – either for personal or financial gain.

In some cases, disgruntled employees might leak confidential information out of retaliation – or because they were promised a significant payout from cybercriminals.

Experts from Palo Alto Networks warn (Vijayan, 2022) that current economic conditions could make employees more susceptible to recruitment from threat actors seeking assistance with carrying out attacks on their employer.

According to ACFE's 2021 Global Fraud Survey (*192*, n.d.), employers should watch for employee red flags like unusually close relationships with clients or vendors, financial problems, or living beyond their means.

You should also implement tighter internal controls around cash handling, expense reimbursements, and credit card use.

Additionally, you'll want to implement continuous monitoring across the entire network that monitors your system for signs of unusual behavioral patterns, traffic, or transactions – and automatically sends out an alert when something seems off. This gives you a chance to intervene before a crime occurs, or at least nip it in the bud before any significant damage is done.

Final thoughts

Our point here is that you can't afford to sleep on IT security. Investing in cybersecurity is a critical step toward protecting your DX investments, your customers, and your entire business.

In chapter 28, we share five actionable steps you can take to accelerate your digital transformation journey – based on lessons learned from our 30+ years supporting client transformations.

CHAPTER 28

Five Proven Ways to Accelerate Digital Transformation

In today's unforgiving business landscape, pressure is mounting for organizations to digitalize, innovate, and transform at superhuman speed and scale.

If you're looking for ways to accelerate your company's digital transformation, you're far from alone. At the same time, successful digital transformations can't happen overnight.

Rushing this process only leads to trouble – placing business leaders eager to catch up with competitors and customers in a tricky (and often expensive) double bind.

But – is there a way to move things along a little faster? As with all things "digital transformation," the answer is, it depends.

If you're looking for a shortcut, you won't find one. But, that doesn't mean there aren't ways to avoid the slowdowns, detours, and budget overruns that cause projects to stall out.

Below, we've outlined five strategies that will set you up for a smooth and speedy transformation.

1. Embrace a digital-first approach

For the uninitiated, digital-first describes an approach where any initiative, strategy, or solution is developed with the assumption that it will be powered by digital technologies.

While "digital-first," as a concept, seems a bit obvious in a conversation about digital transformation, it's about more than digitalization.

Like digital transformation itself, "digital-first" is a vague, expansive, and always-evolving concept that, often, doesn't really mean anything.

WalkMe put together this comprehensive guide (*193*, 2022) to digital-first and its many nuances. And, in it, they explain that digital-first is a mindset. It's a way of thinking and doing things that goes beyond the analog and instead, focus on understanding customers, developing innovative solutions, and using data to inform decisions and strategic direction.

According to that guide, business leaders can accelerate "digital-first transformation" by taking the following steps:

- Stay laser-focused on customer experience. That means creating a culture, processes, and solutions that put customers (and employee end-users) first. The goal here is to ensure that your company can adapt to meet real-time customer needs.
- Ensure that employees have access to critical data, resources and support. In other words, give people the tools they need to support customers and use data to make decisions and proactively solve problems.

- **Leave plenty of space for innovation and experimentation.** Consider ways you might accelerate innovation. Think – investing in low-code solutions, looking for ways to get data into the hands of experts and developers faster, and so on.
- **Build measurable strategies.** You need to continuously measure, improve, and evolve digital strategies.

Digital-first organizations stand to gain the most from digital transformation, as they're already working from a strong foundation and using the right metrics to measure success.

But, according to IDC (*194*, n.d.), there's a period where organizations are transitioning from legacy metrics to new KPIs that better reflect current strategic goals.

IDC analysts point out that the way businesses operate during the initial stages of their transformation journey is much different than how they operate as they develop a more mature digital business. So, as orgs scale their innovation capabilities, they're better positioned to shift into a digital-first mindset and strategy.

2. Go agile

It's kind of a catch-22. Investing strategic digital initiatives enables agility. Meanwhile, agility enables future transformations.

An agile transformation aims to deliver organization-wide change by creating an environment that encourages collaboration, engagement, and a flexible mindset.

With that in mind, here are some of the key changes you can make to become a more agile, DX-ready org:

- **Make plans that bend, but don't break.** Things change, but that doesn't mean you shouldn't go into a DX initiative unprepared. Seriously – poor planning is the root cause of *so* many failed transformations.
- **Accelerate decision-making.** Orgs need a decision-making framework defining when people should make decisions on their own, defer them to someone else, or hold off on pulling the trigger. Also – how you'll ID and address concerns early so decisions don't get delayed. You'll need to define parameters – who gets the final say, who else needs to approve decisions, how you'll live with the consequences of a decision, whether you can change it, etc.
- **Invest in specialized talent, but not at the expense of collaboration.** What we mean is, having dedicated experts and specialist teams can sometimes come at the expense of agility as silos naturally form.
- **Eliminate unnecessary tasks.** Gartner (*195*, 2022) advises orgs to approach this as a team – giving people the ability to kill ideas without making it some big bureaucratic thing, holding weekly "break the rules" meetings to discuss old policies and procedures that aren't working – and come up with alternatives.

While these changes might sound like simple tweaks to the game plan, the reality is, enacting meaningful change on this scale is really difficult.

You're essentially changing your company culture – forcing people out of their comfort zone.

Gartner VP Analyst Kristin Moyer explains (*198*, 2022) that accelerating digital business transformation requires orgs to work differently and at a faster pace. However, it's important to understand that people don't just change habits on-demand.

Moyer says executive teams need to frame proposed changes for employees by defining new values and linking them to expected behaviors.

3. Optimize IT

IT optimization involves maximizing the performance of the technology within existing environments or infrastructure.

Per a recent IBM report, *Digital Acceleration* (*199*, n.d.), COVID-19 really put business infrastructure to the test. Organizations saw an explosion in digital transactions, while employees working from strained resources and ramped up cloud adoption.

Almost three years on, companies have begun embracing more sophisticated cloud strategies that help them ensure business resilience and continuity.

For example, top-performing orgs use cloud-based tech to improve the security of their network and processes more than 70% more often than their peers and leverage intelligent automation to manage risk nearly 150% more frequently.

The table below – from that same report – highlights some of the key opportunities to use technology to optimize IT.

IT resiliency and business continuity

Technology	Use and adoption	Performance differentiating	Role	Key opportunities
Cloud	Medium	High	Differentiator	Improve resiliency of core business systems, run applications on multiple clouds to mitigate outages and threats to business continuity, enable automatic scaling in response to spikes in demand
AI	Medium-Low	Medium	Opportunity	Manage IT resiliency and risk and improve support services
Edge	Low	Low	Emerging	Explore for securing data at point of action
Blockchain	Low	Low	Emerging	Enable buyers to work with new suppliers rapidly
Intelligent automation	Low	Medium-High	Opportunity	Improve risk management and reliability

Organizations will need to start thinking more critically about how they build and optimize these digital ecosystems to create a competitive advantage.

For example, you might start by looking for opportunities to improve architecture design or move workloads to the cloud.

But, over time, you might embrace a multi-cloud strategy that enables you to prevent outages from shutting down operations and other continuity threats. Or, maybe you automate data governance to preserve data integrity or enable automatic scaling in response to peaks and valleys in demand.

You'll also want to focus on improving IT flexibility through virtualization and containerization (*200*, n.d.). Virtualization uses software to extend the capabilities of physical hardware. This makes it easy to rapidly move on-prem workloads to the cloud. You only pay for the computing resources you need, allowing you to scale up or down as needed.

Embracing a container strategy, on the other hand, is ideal for multi-cloud environments. Apps exist in their own secure container, and typically, can be deployed in a matter of clicks.

Done right, containers give orgs the flexibility they need to migrate between clouds – say, moving from public to private or from AWS to Azure.

4. Put together a strong partner ecosystem

In 2020, Deloitte (Schroeck et al., 2020) wrote about "Industry 4.0" and the changing role of partnerships. After everything that's happened since, partner ecosystems have become an even more urgent priority.

Accenture says (*201*, n.d.) we're in uncharted territory. Business leaders are learning they can't transform on their own, and as a result, the nature of partner-provider relationships has changed.

To prepare for future disruption, companies must move away from fragmented partners working in silos and instead, focus on building these cooperative networks that span multiple channels and specialization.

While the partnership itself isn't new (hey, we've been in the game for more than three decades), the terms of engagement are changing. These days, partner alliances span a wide range of categories, including:

- Co-innovation. Co-innovation describes partnerships where clients and service providers work together to develop new solutions that address a specific business need or challenge. As an example, you might work with a consulting firm that can help you come up with new ideas, but also work directly with your team to find better ways to accomplish your goals.
- Co-investing. Increasingly, partners and clients alike see themselves as part of a broader ecosystem – understanding that they can only accelerate innovation by not only working together but pooling their resources to create mutual value. Traditionally co-investing includes things like co-marketing, development funds, or joint ventures. According to Accenture (*202*, n.d.), new co-investing methods are emerging, such as innovation funds, non-financial investments, marketplaces, and innovation labs.
- Technology. Technology partners include IT services, software and cloud providers, as well as partners like Velosio that implement and support specific products or industries. Technology service providers might be involved in co-innovation strategies. For instance, if you're building an industry cloud solution, you might work with a cloud provider and a consulting firm to ensure that your investment produces the desired outcome.

A recent HBR piece (*203*, 2022) points out that many companies make the mistake of building what it calls "egosystems." You have business leaders that understand the value of the ecosystem, but there's too much inward focus.

So, rather than approaching partnerships as something that equally benefits both parties, leaders remain stuck in this old school mentality – "what can you do for me?"

Results come from partner discussions that focus on strategic problem-solving, not transactions. Both parties must enter this relationship with the mindset that each has one part of the broader solution – and, only together, can they build something better.

The HBR article mentions Siemens as an example. The company's partners include two of the world's biggest cloud providers, Azure and AWS. But, rather than simply paying for those services, Siemens actively works with Microsoft and Amazon to develop joint solutions and products.

For example, Siemens' low-code development business, Mendix, was designed to help orgs accelerate app development. But, it has also created an ecosystem of developers and partners – including an expanded partnership with AWS that allows banking and insurance customers to accelerate DX initiatives with Mendix apps.

5. Take advantage of industry accelerators

Industry accelerators (*205*, 2022) are foundational components designed to support common business needs within a particular industry.

Companies like Microsoft, Salesforce, IBM, SAP, Workday, and others work with their ecosystem of partners to build accelerators for specific verticals – healthcare, financial services, agriculture, whatever.

But, ISVs and partners build accelerators, too, designed around the unique needs of the clients they work with. For example, Velosio solutions like AXIO and Advanced Projects for D365 BC fall into this category.

Industry accelerators might be the closest you can get to a transformation shortcut. Essentially, they allow you to get started faster, building on out-of-the-box functionality.

In a previous blog post, we used the example of a CRM for nonprofits.

Out-of-the-box, D365 Sales includes many of the features nonprofits need to manage relationships and funds.

But, it's designed for "traditional" sales teams, and therefore, doesn't include features for handling fundraising, donor contributions, and campaigns. Microsoft's nonprofit accelerator provides a framework and data schema that supports typical nonprofit activities, but individual orgs will need to flesh out these new additions to align with their actual needs.

If you're using accelerators to accelerate transformation, it's important that you understand your exact business requirements, have a data-backed use case, and a clear picture of where gaps exist between the out-of-the-box solution and your actual business needs.

Final thoughts

Businesses that successfully fast-track transformation can gain an edge on the competition.

Ultimately, you might look at it this way: you're putting all of these elements in place that make it easier to drive continuous improvements.

In a way, it might seem like we're treading over the same territory once again: you need to build a strong foundation to ensure that your transformation initiative is a success.

But – it's worth noting that "acceleration" moves beyond the bare bones foundational stuff like implementing a cloud-based DX platform and a strong data management strategy.

Leaning on partners, leveraging industry accelerators, and embracing digital-first, agile ways of working can give your digital transformation efforts a boost and stay ahead of the competition.

In the next section, we'll circle back to the self-evaluation. Only this time, you're measuring your digital maturity so that you can refocus your plan based on where things stand today.

CHAPTER 29

Digital Transformation Maturity Model

Often, companies keep doing the same things until they no longer work.

Unfortunately, they typically don't find this out until it's too late – after customer expectations have changed, employee expectations have evolved, or disaster strikes and you're left picking up the pieces.

Outdated tech, analog processes, and too much comfort with the status quo can block growth and limit flexibility – particularly in a fast-moving environment where agility and innovation are a business' biggest differentiators.

A digital transformation maturity model can help you be more proactive – highlighting opportunities to leverage technology to improve your business.

Read on and we'll explain how, then share some examples of models you might use to benchmark your progress, depending on your goals.

What is a digital transformation maturity model?

Like the digital transformation readiness assessment, a digital transformation maturity model – also known as a digital maturity model, or DMM – aims to provide a baseline understanding of your organization's current digital strategies, systems, and processes.

But, the readiness assessment is designed for orgs that haven't yet started the DX process, whereas the DX maturity model helps those already in the midst of a transformation map out the next phases in their journey.

So, in this context, digital maturity refers to your organization's all-around capabilities. Typically, maturity is measured in four or five stages that might look something like this (*206*, n.d.):

- Incidental. Your org still needs to do the work of building a strong digital foundation. There's no system or strategy in place for achieving DX goals
- Intentional. You're in the process of building a strategy, but haven't yet made improvements to the entire business. Maybe that's automating some, but not all, simple processes or starting to use data to make improvements.
- Integrated. At this stage, you've successfully integrated DX strategies across the entire business. You've achieved org-wide buy-in and everyone is working toward a shared set of goals.
- Optimized. Finally, you've reached the point where DX is firmly embedded into your organization's culture. You're constantly making improvements and have the agility you need to pivot in real time as conditions change. Most importantly, digital initiatives actively produce value.

The DMM essentially acts as a framework you can use to get a better sense of your org's current level of digital maturity – which you can then use to build a roadmap for achieving DX goals, planning future initiatives, and measuring progress.

Digital maturity models

Digital transformation maturity models are a diverse bunch.

Some DMMs focus on specific business units such as sales or marketing, whereas others center on specific capabilities like innovation, AI, or data management. Other models look at the bigger picture.

In any case, DMMs provide data-backed insights into how your digital transformation journey is going thus far – so you can figure out your next steps.

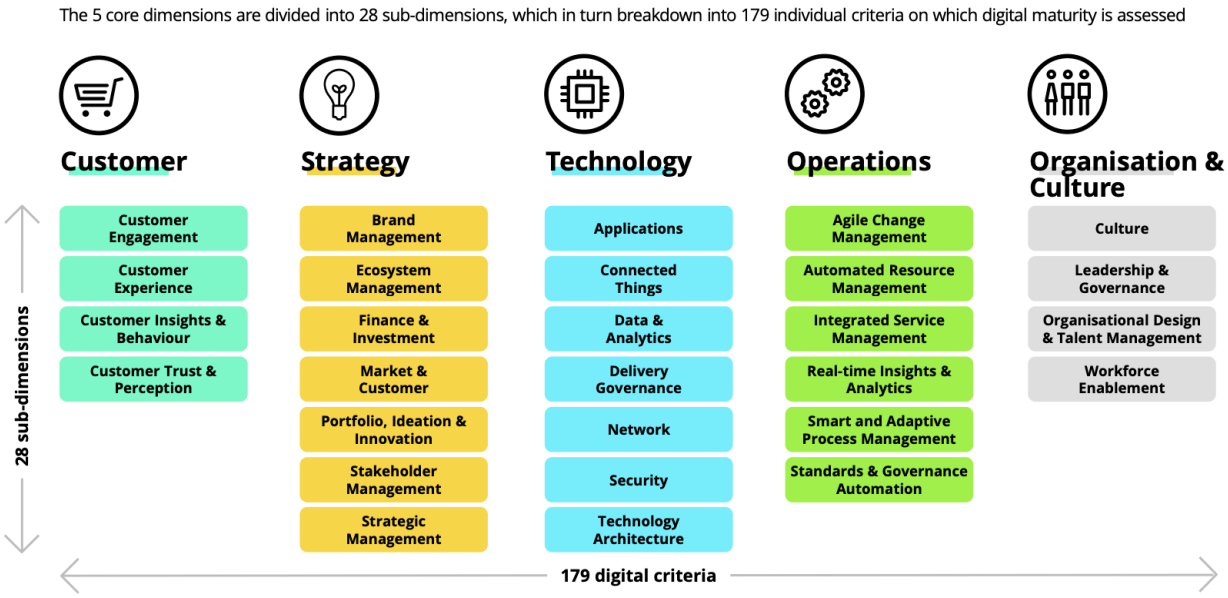
Below, we've included some popular models you might use to assess your digital maturity from a variety of angles.

Deloitte Digital Maturity Model

The Deloitte Digital Maturity Model (DMM) (*207*, n.d.) measures digital maturity across five business dimensions:

- Customer
- Strategy
- Technology
- Operations
- Organization & Culture

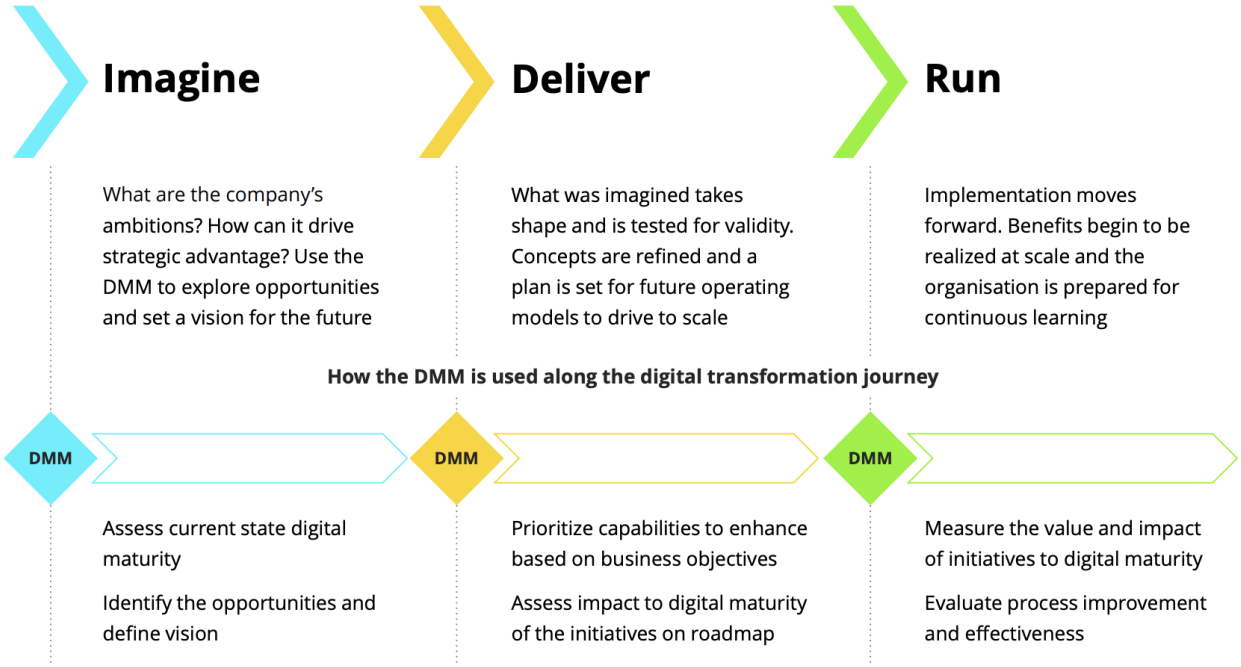
Each core dimension breaks down into a series of sub-dimensions (pictured below) that are then split into individual criteria for measuring digital maturity.



According to Deloitte, using the DMM at each phase in the DX journey allows orgs to identify gaps and figure out what areas to focus on next.

Experts emphasize that this model was not designed to replace an overarching DX framework, but that it's intended to serve as a guide business leaders can use throughout this process. Its primary purpose is to help leaders prioritize digital capabilities – say, strategy or people, based on their ambitions.

As you can see in the screenshot below, Deloitte's DMM helps business leaders map out how to turn their DX vision into reality.



First, it's understanding the current state, defining high-level ambitions, and identifying the opportunities that will unlock the desired future state.

From there, leaders can prioritize capabilities based on business objectives, refine plans, and put them into action.

Then, finally, it's measuring the impact of DX initiatives and evaluating the effectiveness of key processes.

In other words, it's designed to support the continuous improvement cycles that define modern digital transformation journeys.

UNITE Business Capability Map

The UNITE Business Capability Map (*208*, n.d.) provides a visual summary of your company's capabilities so that you can figure out how to best leverage existing strengths and assets for transformation initiatives and other future improvements.

Like the Deloitte DMM, UNITE's model is designed to help business leaders size up digital capabilities on an org-wide level. But, as you'll notice in the screenshot below, the UNITE map measures an organization's strengths and weaknesses in a slightly different way – with three main categories: Leadership, Operations, and Proprietary Assets, each containing eight sub-capabilities.

The capabilities outlined in the UNITE Capability Map represents the processes, skills, systems, and assets that companies use to create value, generate revenue, and compete against other orgs. It's designed to help companies reflect on capabilities and systematically identify and assess "core" and "differentiating" strengths.

Essentially, the map should give you a clear understanding of your company's capabilities so that you can "deal with them appropriately."

That might mean cutting costs, prioritizing innovation, or leveling up your change management strategy – whatever might help you address critical gaps or take advantage of a high-impact opportunity.

Three Horizons Model

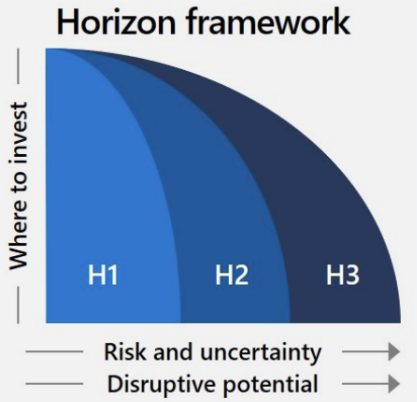
The Three Horizons Model is a framework (*208*, 2009) that aims to help organizations build a foundation for innovation.

This approach, initially developed by McKinsey, groups projects into three categories, or "horizons," that progressively move from optimizing core business models and processes to using technology to create game-changing new revenue streams and secure a competitive advantage.

As you can see in the graphic below, each "Horizon" represents a different type of initiative.

At level 1, you have smaller upgrades like process optimizations that, while necessary, don't offer much in terms of a competitive advantage. Horizon 2 includes emerging opportunities that help orgs expand their reach into new segments or markets. Then, there's Horizon 3 – which represents the most innovative and disruptive DX initiatives.

- Horizon 1 represents initiatives that optimize existing business models and **core business functions** in the short term.
- Horizon 2 initiatives take advantage of **emerging opportunities** to expand to new markets and customers.
- Horizon 3 involves disruptive and innovative **new business models** that focus on future timelines.



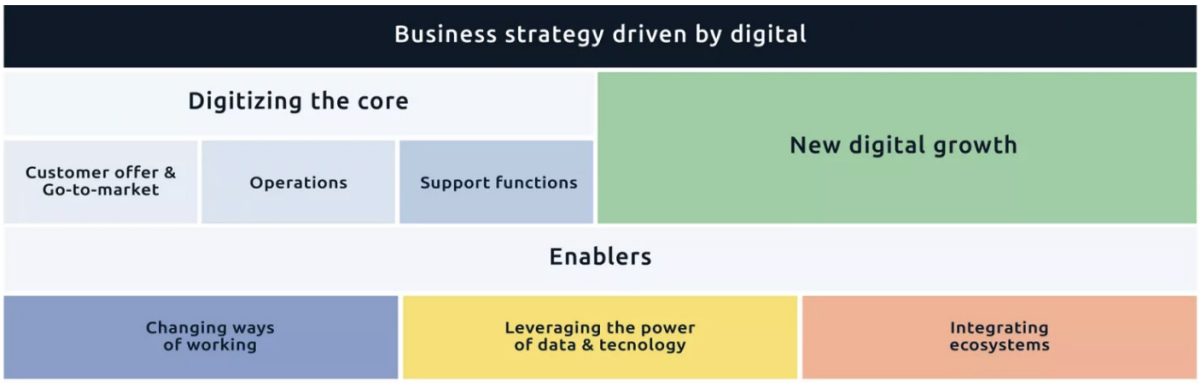
According to Microsoft (Bentley & Murdzhev, 2021), the Three Horizons Model is ideal for building an innovation architecture because it centers on people, processes, and outcomes. But, it was developed back in 2009. Tech advances and other converging forces have changed how time factors into the bigger picture.

Three Horizons assumes that breakthrough innovations take years of research and development, a luxury most companies no longer have. These days, orgs can implement Horizon 3 business models ASAP – repurposing Horizon 1 initiatives and reusable components into something with far more disruptive potential.

BCG Digital Acceleration Index (DAI)

BCG's Digital Acceleration Index (DAI) is a framework designed to help organizations audit their current digital capabilities against six key building blocks:

- Strategy is driven by digital
- Core value chain is digitized
- Digital is driving growth
- Digital is changing ways of working
- Future-ready data management & technology
- Integrated ecosystems



BCG's DAI Building Blocks

Digital Leadership

Now, the Digital Acceleration Index (*210*, n.d.) is unique in a couple of key ways. It's a questionnaire-based assessment that measures an organization's digital maturity across 42 dimensions (sub-categories within each core building block).

Unlike models like the UNITE map, which can be downloaded for free, the index is available exclusively to BCG clients through three different pricing tiers: Light, Full, and Extended.

The Extended plan allows clients to measure their maturity against competitors using data from the DAI database – which gathers insights from 8000+ orgs across 1500+ data points. BCG continuously collects data from participating orgs and uses its findings to update maturity benchmarks and rank companies against their peers.

It's designed to be used as a diagnostic tool that helps business leaders ID where they're losing ground to competitors, gaining traction, and what areas they should focus on to become more competitive.

So, while costs might be a barrier for some companies, you can get a more objective measure of how you stack up against the competition.

Final thoughts

The digital maturity models featured above only represent a fraction of the DMMs that are out there.

You might find that there's another model – or multiple models – better suited to measuring maturity in context with your industry, business goals, or the needs of your customers and stakeholders.

That said, it's important to understand that DMMs are just analog templates. They're designed to help you organize your digital transformation progress, plans, and goals in a way that enables you to identify next steps and put them into action.

They don't tell you what to do next, nor can they prevent you from misinterpreting your data or making poor decisions.

In the next chapter, we'll highlight a group of folks who can prevent you from making bad or uninformed decisions – digital transformation partners.

CHAPTER 30

What to Look for in a Digital Transformation Partner

Nothing about digital transformation is easy.

Delivering on transformation goals demands a specific skill set that, let's face it, a lot of companies haven't quite mastered.

It also requires a significant amount of time, resources, and "all-in commitment" from the entire org chart – from the front lines to the back office, the C-suite and everything in between.

Naturally, that means there's a lot that can go wrong, and for that reason, savvy business leaders understand that if they want to see this journey through, they can't go it alone.

A digital transformation partner helps organizations identify, implement, and optimize the best-fit solutions. Though, it's worth noting, that like all things DX, what your partner actually *does*, depends on the needs of the business.

In the next few sections, we'll walk you through the process of finding the right partner and what you need to know before committing to a provider. Read on to learn more about what goes into making this critical decision.

Experience & tech capabilities

While DX services tend to focus primarily on business and process improvements, partners that can analyze, plan, develop and deploy the right technology are in the best position to help their clients weather the transformation storm.

For instance, you might intuitively seek out providers offering industry-specific experience – which totally makes sense – industry experience is important.

It's just that, it isn't everything.

Instead, you'll want to consider experience in broad, flexible terms – evaluating prospective partners based on their experience leading digital transformations, rather than focusing too much on business type or a particular technology.

If you're looking for a migration partner, then you'll want to ask questions that focus on skills related to modernizing on-prem solutions and their experience helping clients transition to the cloud.

These types of questions will help you more than whether that prospective partner has worked with companies just like yours.

Velosio, for example, organizes its client segments around different business models. Think – professional services, agribusiness, field services, and so on.

But, those categories are based more on the technological, regulatory, and business model challenges clients face than who they serve or what they sell.

One Velosio client manufactures and repairs specialty vehicles like fire trucks and ambulances – and faces numerous challenges due to the complex nature of their work.

Repair and maintenance jobs require builders to quickly determine whether parts are available, under warranty, or need a serial number to order a replacement. And – because they're working on emergency vehicles, tracking down parts is a time-sensitive matter – as outages could prevent people from receiving life-saving services.

This client engaged us because they needed a better system for managing inventory, capacity, and complex projects -- each with a unique parts list and one-of-a-kind requirements.

We replaced the client's 10-year-old legacy system with Microsoft Dynamics 365 Finance & Operations. This enabled them to track all aspects of their business in real-time – inventory, projects, operations, capacity, and so on. It also allowed them to part with redundant subscriptions and licenses weighing them down.

Now, a company that builds and repairs fire trucks might seem a lot different than, say, a commercial HVAC company or a professional services firm. But – overlapping challenges – massive parts catalogs, complex projects, capacity limitations – call for overlapping solutions.

The point is, digital transformation, by nature, is all about adapting to changing conditions.

Yes, you want a partner that understands your industry and the niche needs specific to your company, but it's more important to find a partner that knows exactly what it's going to take to compete five, ten, 20 years down the line.

Communication skills

Consider how much communication comes into play when you're launching a new project or policy internaily. Change just doesn't happen without clear and constant communication between all stakeholders.

The same logic applies when you're bringing external partners into the fold. Perhaps even more so, given that your digital transformation partner may be involved in helping you improve internal communications or change management tactics essential to the broader transformation strategy.

In any case, you'll want to do some investigating to learn more about your prospective partner's communication skills.

Before reaching out directly, you'll want to take a look at content, social presence, and service offerings to get a general sense of their overall approach. You might try asking yourself the following questions as sort of an informal screening process:

- *How do they talk about themselves?*
- *What kinds of resources do they offer?*
- *Does their content focus on things like business improvements, process optimization, and client outcomes?*
- *Or is it all about the company and the technology they use? In other words, do they keep saying they're the best without offering any evidence that it's true?*
- *Is your prospective partner a "thought leader?" in the DX space or within your industry?*

A recent Forbes article (*211*, n.d.) advises business leaders to watch out for red flags – including "experts" that communicate exclusively in buzzwords or firms only offering one-size-fits-all DX services.

It's also a huge red flag when a prospective partner agrees to take you on as a client without asking questions about your pain points, strategic goals, or what your business is like – just in general.

Methodology

Assessing vendor communications is only "phase one" of your investigation. While you can weed out the more obvious "bad fits" with some strategic Google searches, you'll need to go deeper to find out which partner (or partners) is truly the ideal fit.

That means, you'll need to have an actual conversation with the vendors on your shortlist – gathering specific details about how they approach discovery, planning, execution, and long-term support before making any big decisions.

Focus on asking thoughtful questions that force prospective partners to prove they know what they're doing. For example:

- *What experience do you have within X sector?*
- *What is your process for engaging clients?*

- *What experience do you have leading transformations?*
- *How do you approach planning/requirements gathering/process optimization/etc.?*
- *How do you ensure DX projects align with goals/produce the right outcomes?*
- *What skills/expertise do employees have?*
- *What is your process for analyzing current operations/processes/technology/culture?*
- *How will you support adoption/training/testing?*
- *What kind of experience do you have with agile-like processes/continuous improvement?*
- *Etc.*

Now, your goal here is two-fold. First, you're trying to determine whether the vendor's general approach aligns with your organization's workflows, processes, and preferred solution.

Another client of ours, Micromeritics, brought in a consulting firm to help them choose the right ERP system and the right implementation partner. First, the company narrowed their search to three options – Oracle, SAP, and Dynamics 365 Business Central.

Then, after deciding BC was the best fit, they began searching for implementation candidates. The consultant recommended Velosio, but Micromeritics researched several options, wanting to find the perfect fit.

Micromeritics Director of Global Business Systems, Shaun Purvis explained that they went with Velosio because it was clear that we had the expertise needed to help them get the most from the software. Purvis says their sales rep always brought along a technical expert to explain the system's functionality and how it can solve specific problems.

The second part of this is screening for intangibles like adaptability, creative problem-solving, and the drive to keep learning and experimenting.

These qualities are crucially important to helping secure a competitive advantage and keep building on it. They help you create a culture that embraces change and constant improvement.

Client roster

Another way to gauge whether a prospective partner is a good fit is looking at the clients they're already working with – and what kinds of results they've achieved during those engagements.

Initially, you'll want to look at reviews and testimonials to get a sense of whether people were happy with this vendor's work.

Read case studies to learn more about how this vendor has helped others in the past. You might even ask if it's possible to interview existing clients.

A few examples of questions you might ask to narrow your search:

- *How do they engage customers? Ideally, your partner should engage in a strategic, yet empathetic manner.*

- *What is their process for discovery, planning, and implementation?*
- *What can they offer in terms of ongoing support? Like, will they play a proactive role in helping you optimize processes/strategies/etc. long-term?*

Here, your goal is figuring out whether your prospective partner can make good on the promises made in their web copy, case studies, and 1:1 conversations. In other words, is there tangible evidence they can deliver on critical objectives?

Long-term support

A true partnership is mutually beneficial – with both parties working together toward the same set of goals. As such, you'll want to make sure your partner can align your DX objectives with customer needs and your big-picture business goals.

It's not just about minor process improvements. It's about partnering with experts that enhance your business in ways that your internal teams either can't or don't have time for.

You want to partner with a vendor that understands the landscape and is already looking at the next steps you should take, the next trends on the horizon, and what's brewing within the depths of the competitive landscape. These capabilities, in turn, will help you figure out how to mitigate risk or further optimize business processes.

So here, you might ask prospective DX partners the following questions to learn more about what kind of long-term support they offer clients:

- *How do prospective partners engage clients long-term?*
- *How have they helped others overcome the DX challenges and barriers you're currently facing?*
- *What have they done since then to help those clients gain and sustain that competitive advantage?*
- *How are they actively working to ensure clients stay ahead of the curve?*
- *How do they keep a pulse on what's happening within your industry?*
- *How do they use industry insights in context to help clients optimize processes and reach new heights?*

The point is, digital transformation is an ongoing process. Which means, it's important to find a partner – or an ecosystem of partners (*212*, 2021) – that's in it for the long haul. You're looking for a trusted advisor who can guide your transformation journey for years to come.

The real value of a digital transformation partner lies in these long-term relationships. More traditional vendor-client relationships tend to focus on the short-term and follow a more transactional exchange.

This doesn't work for digital transformation, a continuous process of measurement, implementation, and optimization that demands a nuanced understanding of the client's business and strategy in order to deliver on DX goals.

Final thoughts

No matter what transformation means for your organization, taking on this journey without the right team of experts on your side is a risk that could undermine future success.

A digital transformation partner can help you design, execute, and accelerate transformation and achieve long-term success amid relentless and rapid change.

We've talked a lot about how every transformation is unique – even within the same industry. And, while we stand by those statements, it's also important to understand that within each vertical, digitalization introduces many overlapping benefits and barriers.

In chapter 31, we look at how those differences play out among the core groups we serve.

CHAPTER 31

Digital Transformation Benefits by Industry

Whether we're talking about CPGs, distributors, or professional services orgs, digital transformation typically centers around the same set of high-level goals.

Think – responding to changing customer expectations. Improving product and service quality. Rolling out new revenue streams. Driving operational efficiencies.

On top of that, organizations – regardless of size or sector – typically lean on similar tools, tactics, and tech stacks to achieve the desired outcomes.

Big data analytics, AI, automation, and low-code/no code are key players in just about any DX journey.

All that in mind, digital transformation is no one-size-fits-all affair. DX use cases, strategies, and processes vary dramatically between verticals – and these differences have major implications.

Here, we try to put this in perspective – examining the impact of digital transformation within the different industries we serve.

DX and its impact on different verticals

We've talked a lot about the fact that every transformation is unique. Even within the same industry, each business has different needs, goals, and priorities.

Those requirements are informed by a long list of variables, say, whether they're using legacy tech or several phases into their DX journey. The condition of their data. Whether their team embraces change or knows how to put insights into action. And so on.

At the same time, organizations share some common challenges, opportunities, and pain points with others in their vertical.

For instance, field services orgs often struggle with routing, scheduling, and predictive maintenance, while CPGs and distributors face numerous logistical and inventory challenges.

Meanwhile, professional services firms – which typically don't deal with physical inventory – tend to have a hard time scaling and monetizing human expertise in the digital age.

In these next few sections, we'll go over some of these core differences, across the verticals we serve.

1. CPGs

Like every industry on the planet, digital disruption is shaking up the consumer packaged goods (CPG) space.

According to Deloitte (*214*, n.d.), CPGs often struggle to stay organized, and, in many cases, still operate with fragmented data sets that fail to produce actionable insights. That means, many organizations are sitting on mountains of valuable insights that never get used.

On top of everything else, they're dealing with these massive inventory catalogs, complex supply chain operations, and super-slim margins.

While digital has already changed how CPGs sell to and interact with customers, how they use data, and how they design supply chain operations, the industry has some catching up to do.

Old business models and legacy tech are no longer working, and CPGs must break with the status quo if they want to stay in the game.

Here, you'll learn how real brands are transforming supply chains, partnerships, and everything else – by embracing big data, AI, and a new mindset.

Tap into the Benefits of the "Connected Supply Chain"

BCG explains that, oftentimes, CPGs are looking at two transformations (*215*, 2022). First, they need to modernize the core stack – so moving from a legacy platform to a unified cloud-based one like D365.

Then, they need to immediately get started on applying AI and automation to unlock immediate value.

Eventually, CPGs can leverage predictive analytics to improve forecasting and demand planning – which allows them to move from a reactive approach to a proactive, forward-looking strategy where they can rapidly respond to new customer needs and prepare for many versions of the future.

But it takes time to get there.

For example, Conagra Brands took on a multi-year digital transformation (*216*, 2022) that eventually enabled them to better predict demand forecasting. The company digitized their entire supply chain, then layered in IoT devices to further enhance visibility and efficiencies across all of its facilities.

And, BRF eventually worked its way up to deploying Azure Machine Learning (*217*, 2022) across the entire company – improving decision-making, efficiency, customer satisfaction, and profitability.

However, in both of these cases, moving from manual processes to a fully automated, intelligent supply chain was an incremental process.

Balance Growth With Resilience

Digital transformation can help CPGs navigate the tricky double bind of trying to build resilience while also fueling growth.

Essentially, that means using digital technologies in two distinct ways – as a means of controlling and optimizing costs, and as a tool for fueling constant innovation.

A few things you can do here:

Reallocate Resources to Fund Growth. A big theme across all industries right now is strategic cost optimization. Per Gartner (*219*, n.d.), this is a continuous cycle of measuring functional processes, cutting costs in non-essential areas, then reallocating those funds to the areas that need it most.

As an example, PwC (*220*, n.d.) helped a Fortune 200 CPG overcome stagnation after experiencing years of steady growth. The company – still netting billions of dollars in annual revenue at the time – needed to free up funding to build out digital capabilities.

Initially, the client was looking for help identifying cost-cutting opportunities. But, consultants soon realized that they needed to completely overhaul the company's core operating model, structure, and internal culture to win back its position in the global marketplace.

Consultants worked with the client to ID and eliminate process inefficiencies, redesign the sales model, and help clients redeploy assets toward engineering and research activities that could support product innovation.

The company saved ~$500M over a three-year period and is currently seeing an increase in organic growth. But, PwC reports that the company is still implementing its transformation plan, layer by layer.

Pursue the Right Digital Partnerships. MIT experts (Brown, 2022) advise orgs to pursue "dynamic, digital partnerships" to reach new market segments and offer a wider range of products to existing customers.

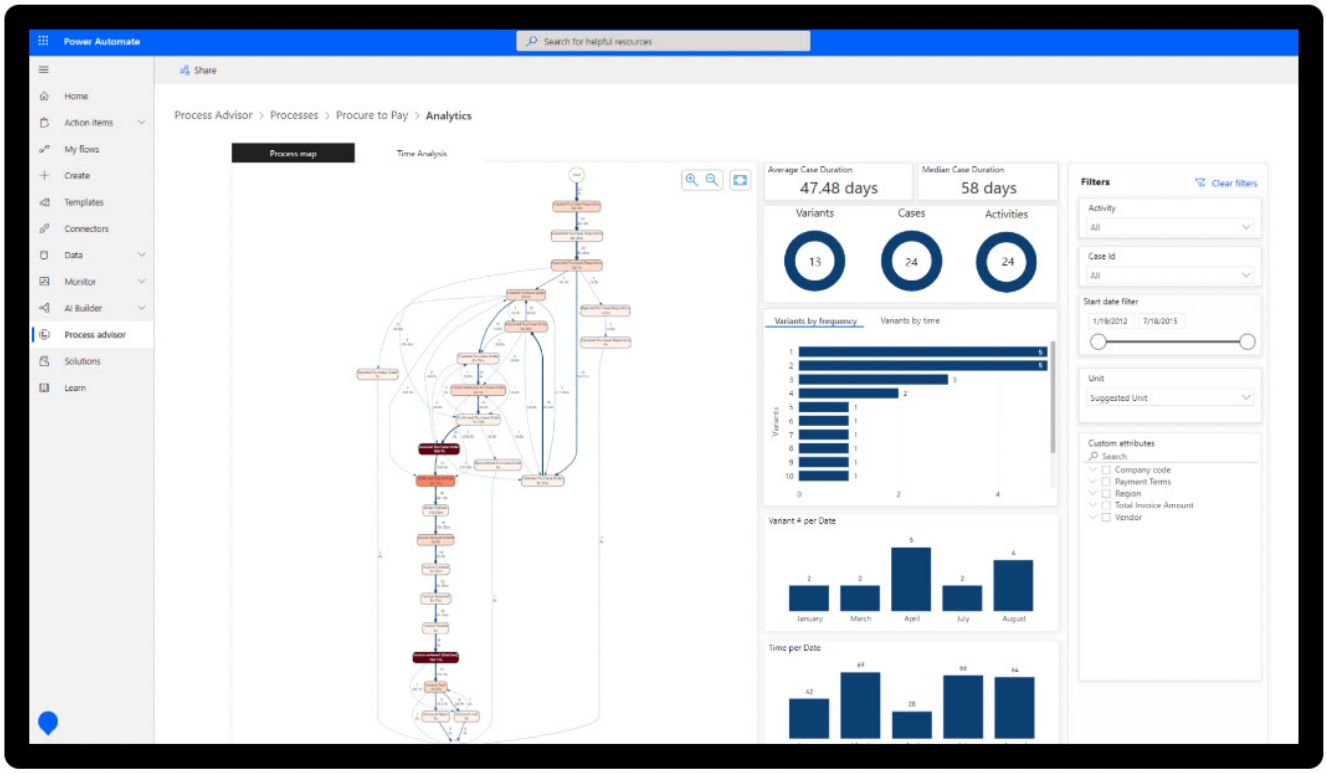
Essentially, digital partnerships allow CPGs to pool limited resources. That way, they can reap the benefits of having more inventory and generating new business without overspending on warehousing, advertising, and so on.

That said, in order to reap the benefits of digital partnerships, you'll need to have a digital strategy in place. Think – self-service portals, omnichannel shopping and support, and an e-commerce solution that connects to the rest of your business.

Optimize Supply Chain Operations. Another way you might drive cost-effective improvements is by accelerating investments in automating and optimizing the supply chain.

For example, if your supply chain management solution is built on a unified platform like D365, you'll gain end-to-end visibility into performance and operations, which then empowers employees to make faster, smarter business decisions.

You might use something like the Power Automate Process Advisor (*221*, n.d.) to identify inefficiencies in your workflows.



Or, use cognitive AI analytics to surface insights from unstructured product, process, and consumer data, which can then be leveraged in a variety of ways to drive improvements to core processes.

This allows you to run reports on critical KPIs that quantify things like quality, productivity, even what percentage of packaging materials are made from post-consumer waste.

Facilitate Innovation

You'll need to find ways to make it easier for employees to drive improvements on their own.

For example, prioritizing the "connected supply chain" makes it possible for everyone – manufacturing, finance, marketing, customer service – to communicate and align around a shared vision.

Then from there, cross-functional teams can join forces and focus on the improvements and opportunities with real transformational power.

That said, you'll probably need to do more than tear down silos.

For L'Oreal (*221*, 2022), part of the solution was investing in better hybrid work solutions. The cosmetics brand used Microsoft 365 and Microsoft Teams to enable collaboration and co-creation across all business units, locations, and time zones.

Teams allows colleagues to take "factory tours" remotely – allowing global teams to work together to identify and solve problems, bounce ideas off one another, and troubleshoot challenges.

While L'Oreal is a massive global enterprise, transforming remote collaboration allowed them to embrace the agile best practices typically found among smaller, digitally-native orgs.

Additionally, the company used Teams to build a virtual training program, which connects disparate colleagues in training sessions that teach new skills like project planning, as well as breakout rooms and community groups that bring together employees with shared interests.

CPG transformation begins with the supply chain. Everything – from fueling growth and optimizing inventory to streamlined procurement and delivering consistently great experiences – depends on gaining control of the supply chain.

Like every digital transformation, it's still a matter of unifying data and operations. But – in this sector, a connected, intelligent supply chain offering end-to-end visibility is the foundation that paves the way for more transformative projects.

2. Distributors

Wholesale distributors are up against a lot. Globalizing markets. Supply chain issues. Customer expectations that sometimes verge on the impossible. Inflation. The rise of AI and machine learning.

Without a strong digital-first strategy, distributors will lose market share, profits, and even their ability to keep their doors open.

There's no denying that distributors face an awful lot of pressure. But – the flip side of this is, the industry has been slow to embrace digitalization – which means, distributors that can manage to nail their DX strategies ASAP will be poised to win for years to come.

Here, we outline some of the key ways distributors are using technology to achieve their most critical objectives.

Build Resilience with Flexible, Responsive Supply Chains

According to InformationWeek (Englund, 2022), as companies, products, and services have become increasingly complex in response to customer and market demands, global supply chains have gotten more complex, too.

Transforming supply chains sets the stage for resilience, agility, and sustained growth.

AI and machine learning are transforming supply chain logistics – resulting in improved performance, less overhead, and better customer experiences.

But it's hard to know where to begin if you're just starting your DX journey. Microsoft recommends (Smith & Peterson, 2022) focusing on three key initiatives first, before moving on to more advanced projects.

Improving supply chain visibility. Again, it all comes back to that unified platform. You'll want to make sure that you have a global view of all inventory and supply chain activities, your core financials, your customers, and the rest of the business.

By embracing intelligent supply chain solutions built on a unified data ecosystem, distributors can integrate AI-driven insights into all core operations – allowing them to anticipate change, improve processes, and make rapid decisions using real-time data.

Microsoft just rolled out a new service (Garland & Leonard, n.d.) for D365 Supply Chain Insights that allows subscribers to create a digital twin of their physical supply chain. Users can run simulations through the digital twin to prepare their response for future disruptions – be it weather, war, or persistent shortages.

Enabling better collaboration. In order to boost supply chain agility, you'll need to ensure that everyone has access to real-time supply chain data and the ability to take action in the moment. Here, "everyone" means internal teams, as well as external logistics partners and suppliers – you want to make sure each group has what they need to proactively respond to disruptions so orders still arrive on time.

Redesigning operations for a circular economy. If you're already redesigning core operational processes, you might as well design them with sustainability in mind.

For example, Microsoft used D365 SCM and the Power Platform to establish product flows that facilitated the recycling of the hardware and servers used in its data centers – making serious progress toward emissions targets.

Deliver the B2C Experiences Buyers Want

Today's B2B customers expect the kinds of B2C experiences they get from their favorite digital-native brands. Think – seamless journeys, responsive service, and personalization.

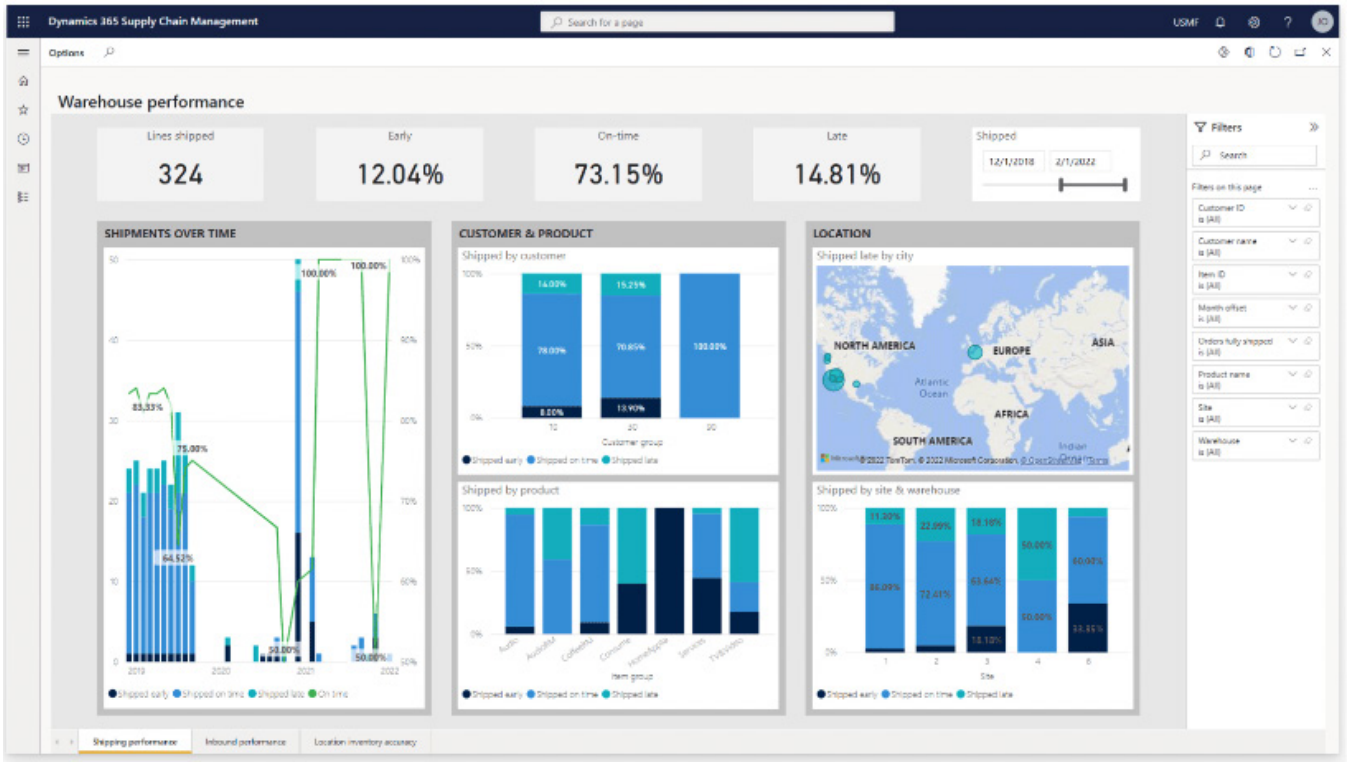
Distributors can improve experiences by focusing on a few key areas:

Embrace omnichannel e-commerce. According to InformationWeek (Englund, 2022), e-commerce brands are in an ideal position for using data and technology to improve customer outcomes.

The most successful companies use technology to build on existing capabilities. They're not just enabling the seamless experiences long embraced by digital native D2Cs, they're also leveling up logistics, financing, and long-term support.

Convenience. Creating self-service portals makes the process of researching products and placing orders much more convenient. Customers can log in to check the status of an order, look up pricing information, and find out if a product is available.

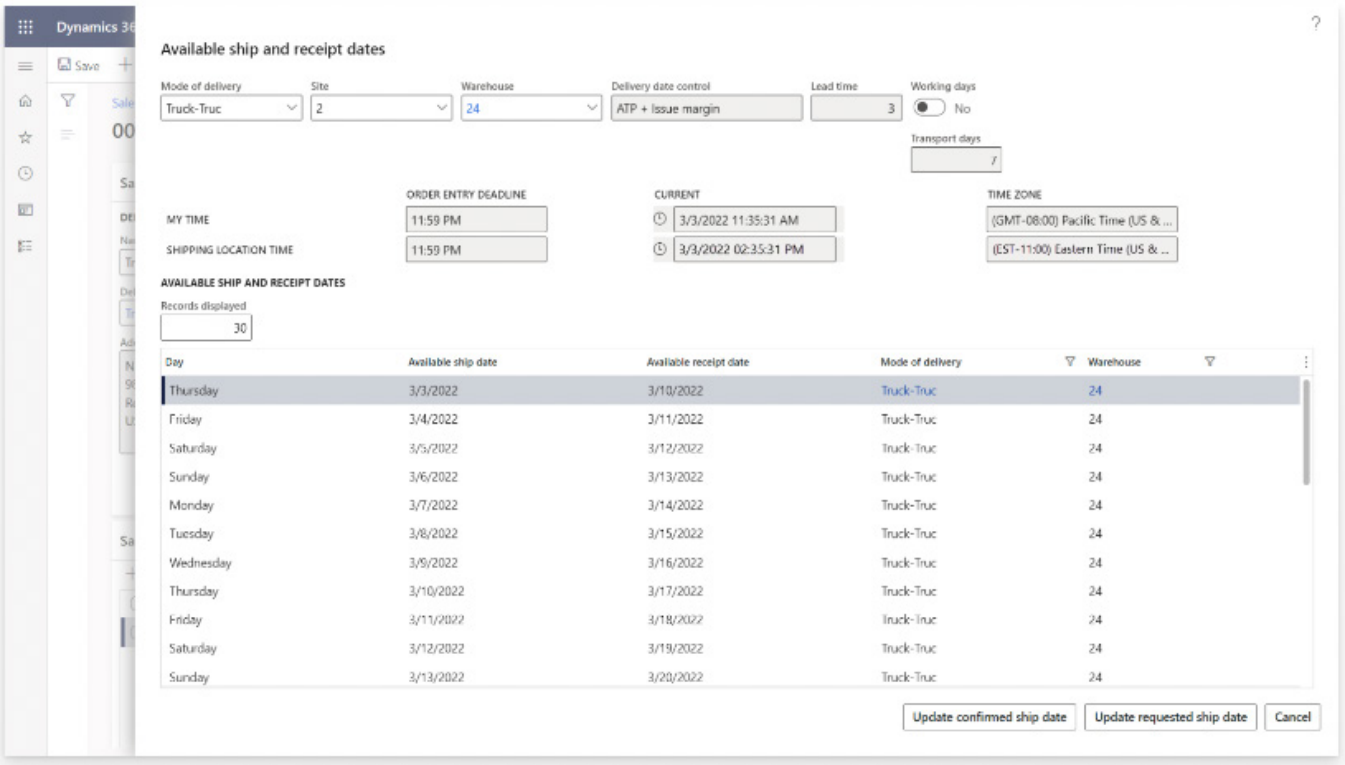
If you're using D365 Supply Chain Management, you can consolidate warehouse data via the platform's management model, ensuring that the information customers receive is always accurate and up-to-date.



They can also manage things like service agreements, company profiles, and payment information on their own – without emailing back and forth.

Speed. Customers also have high expectations around product availability, responsive service, and on-time delivery. Intelligent supply chain operations and a modern ERP platform help distributors to exceed these high expectations – without placing extra demands on human workers.

SCM users can also allow customers to make delivery reservations in the self-service portal, using real-time inventory and available-to-promise (ATP) data.



Baked-in automations enable orgs to process and fill orders around the clock. Customers automatically receive a confirmation email, inventory counts are updated, and orders routed to the right department.

And, if you ship from multiple distribution points, your ERP can automatically determine which warehouse to ship from using various data points like customer location, available inventory, sell-through rates, and more.

Personalization. Distributors can also enhance the shopping experience by orchestrating personalized journeys. D365 Commerce can help you integrate all backend systems and databases (van Splunder, 2021), then connect all touchpoints in the journey – payments, inventory, orders, returns, etc.

Tap into New Digital Markets

The distribution space is in the midst of transitioning to a digital-first model – bringing increased competition from new entrants and big-name retailers like Home Depot, Ace Hardware, and Amazon.

While more competitors bring new challenges into the mix, it's pushing traditional distributors and wholesalers to explore new revenue streams.

Direct sales. If you primarily sell to larger retailers and enterprise consumers, one option is to tap into the SMB market. Historically, selling to smaller accounts wasn't cost-effective, as typically, agreements and distribution processes are complex and tailored to individual customer needs.

By embracing digital transformation – and the AI/ML tools that help you scale – you no longer have to focus exclusively on the accounts that generate the largest share of your revenue.

For example, D365 users can create templates and automations that streamline the process of onboarding new clients. They might also set up a dedicated ecommerce store that enables these customers to place smaller orders on their own.

B2C e-commerce. Another option is getting into the B2C game. Building a proprietary online retail platform allows distributors to sell to end-consumers directly – often by spinning off into a subsidiary business that operates under a different name. Here, you can use data from your core business to connect with new customers and present them with competitive offers and pricing.

Services. Many wholesalers and distributors already offer a range of services like warehousing, consulting, supply chain management, and more. But, leaning into digital transformation allows them to ensure these services deliver maximum value to consumers.

Proprietary insights. Finally, distributors might look for ways to capitalize on the mountains of data they collect. Supply chain and ecommerce insights might be packaged and delivered to other companies as a SaaS subscription. Or, you might use them as the basis of your consulting service – offering original insights to clients, in the vein of the professional services business model.

In order to compete, distributors must modernize their entire business, starting with the supply chain. From there, they can leverage new technologies to unlock new business models, keep up with customer expectations, and get ready for disruption.

3. Field Services

Modern field service orgs face tremendous pressure to increase efficiency, boost revenue, and keep customers happy amid challenging, rapidly changing conditions. You know, just like everyone else.

Providers must learn to cope with constant disruption and high-speed change by learning to leverage technologies like AI, ML, and big data analytics platforms. Again, just like everyone else.

But – consistently delivering efficient, agile service is harder than it sounds.

Field service operations hinge on getting all of these different variables to work together to produce the right outcome. And, often, it feels like those variables are actively working against you.

Here, we'll look at the challenges modern field service orgs face, and how you can use technology to overcome them and capture new opportunities.

Transform the Service Experience

Field service companies still using legacy apps and manual spreadsheets lack the capabilities they need to handle service requests with the efficiency and accuracy modern customers expect.

To stay competitive in today's digital landscape, field service orgs must prioritize investments in customer-centric technologies. Think – CRM apps that provide a deeper understanding of customers in context, self-service portals, and remote support.

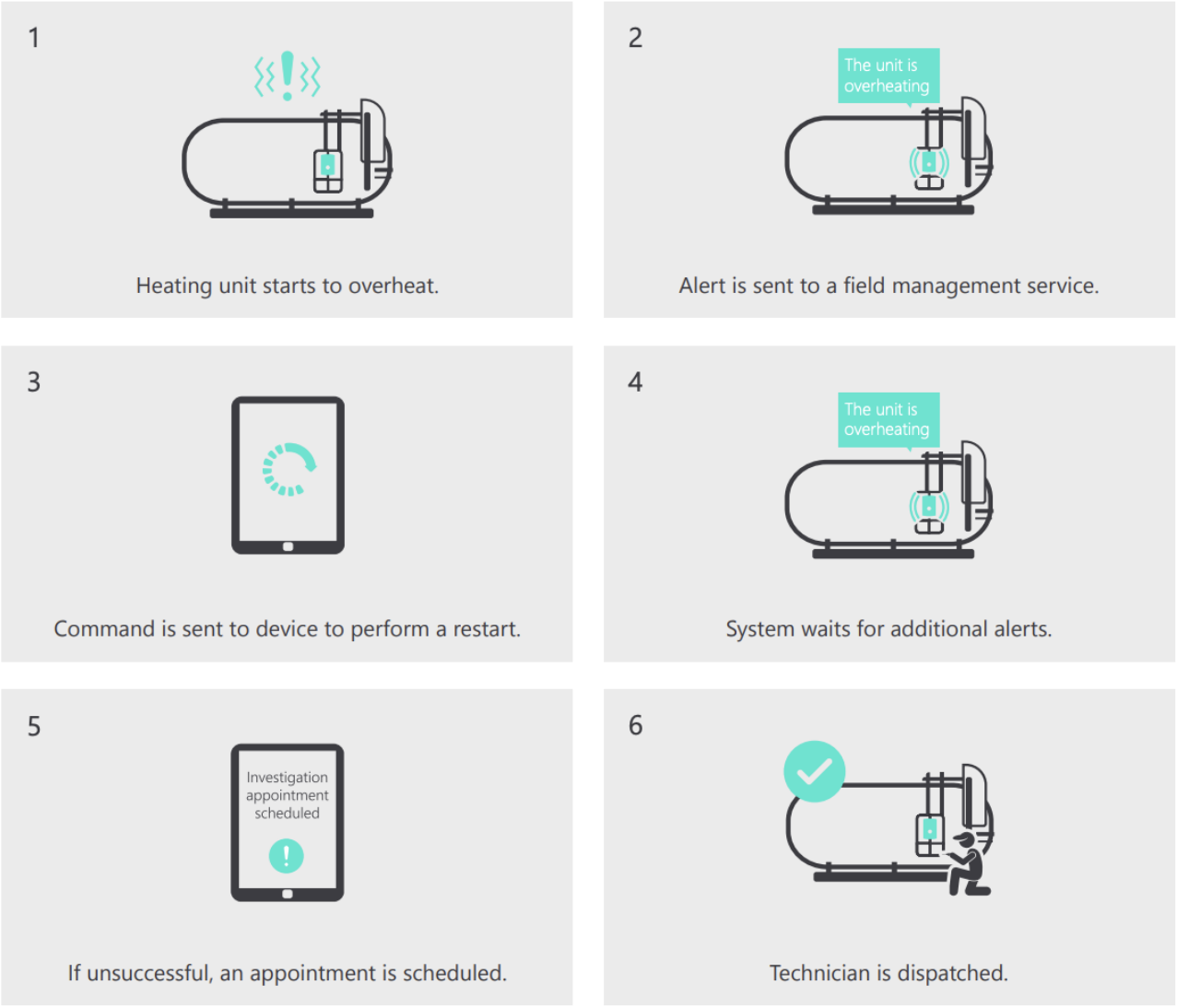
One of the better-known portals is AAA's roadside assistance app (*225*, 2021), which allows its members to call for help when and where they need it. If member plans change, the system automatically updates the service request.

Behind the scenes, the app optimizes each technician's schedule based on factors like availability and location.

If you're using D365 Customer Service, you can build and launch your own self-serve portals and virtual assistants to provide 24/7 support. Customers can submit an issue by following a series of automated prompts on their phone.

Service orgs using the connected field service model (*226*, n.d.) can take a more proactive approach. Each machine is outfitted with an IoT sensor that transmits data back to the main ERP.

This allows orgs to monitor assets remotely, diagnose and fix problems before there's a breakdown, and troubleshoot remotely. Essentially, the built-in AI follows a decision tree similar to the one pictured below.



You might also deploy an AI assistant to respond to incoming requests and run diagnostic scans on its own. In many cases, the bot can help customers perform simple fixes on their own.

For more complex problems, it can schedule a repair for the next available time slot. Or, it can escalate the issue to an after-hours technician for an emergency repair.

Boost Technician Productivity

These days, pretty much every service technician is armed with a smartphone and a handful of apps that keep them connected to clients and colleagues while they're on the move.

The problem is, these tools tend to be siloed off from the rest of the business.

Modern ERPs like Dynamics 365 connect field service operations with core productivity apps like Teams and Outlook, as well as Power BI dashboards and other real-time data sources. .

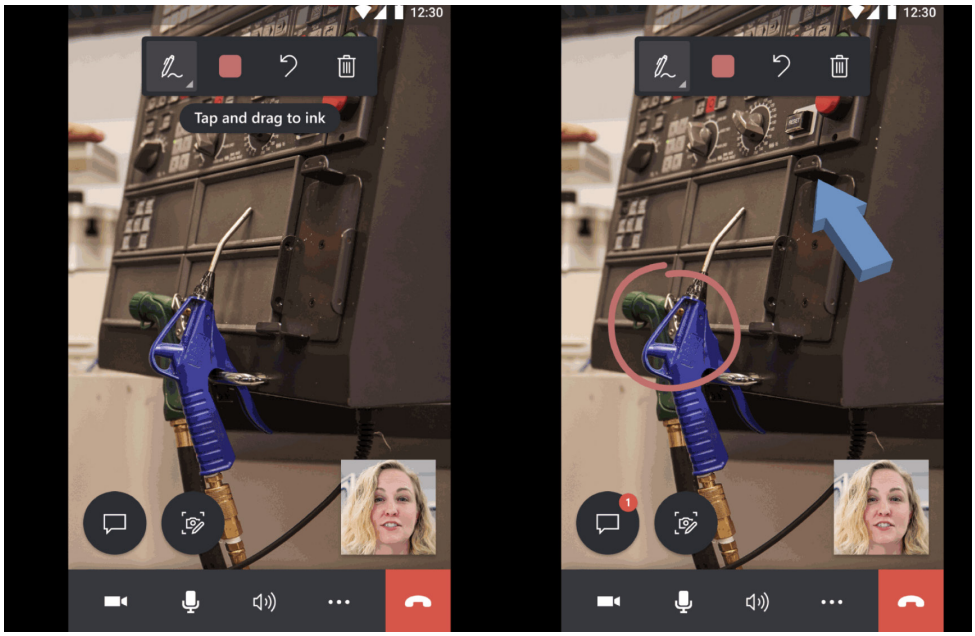
That tight integration enables office staff to respond to incoming service requests and coordinate with technicians on-the-fly. D365 Field Service serves up maps and directions, info about service calls and clients, and step-by-step instructions for how to tackle a particular repair.

The mobile app makes it easy for field technicians to manage appointments and immediately start solving problems by highlighting the two or three root causes most likely to be causing the problem.

In-app AI can pull in predictive insights to make just-in-time recommendations, while bots can help techs quickly find information about work orders, customers, or parts.

You might also invest in a remote maintenance solution (*225*, n.d.).

With HoloLens2 and Remote Assist, techs connect with experts to troubleshoot in real-time or follow visual instructions with the holographic computer.



Or, if customers have the headset, techs can guide them through the repair process – no need for a site visit. The latter option has yet to gain traction due to cost constraints among other factors.

Microsoft customer Maribu (Würtemberger, 2022) just completed a successful proof of concept, and is now rolling out a broader initiative to offer remote assistance and training to its customers.

The company sees this investment as a way to not only enhance its maintenance experience, but reduce the costs and carbon footprint of shipping machines back and forth for repair or flying techs out anytime there was a breakdown.

Optimize Resource Management

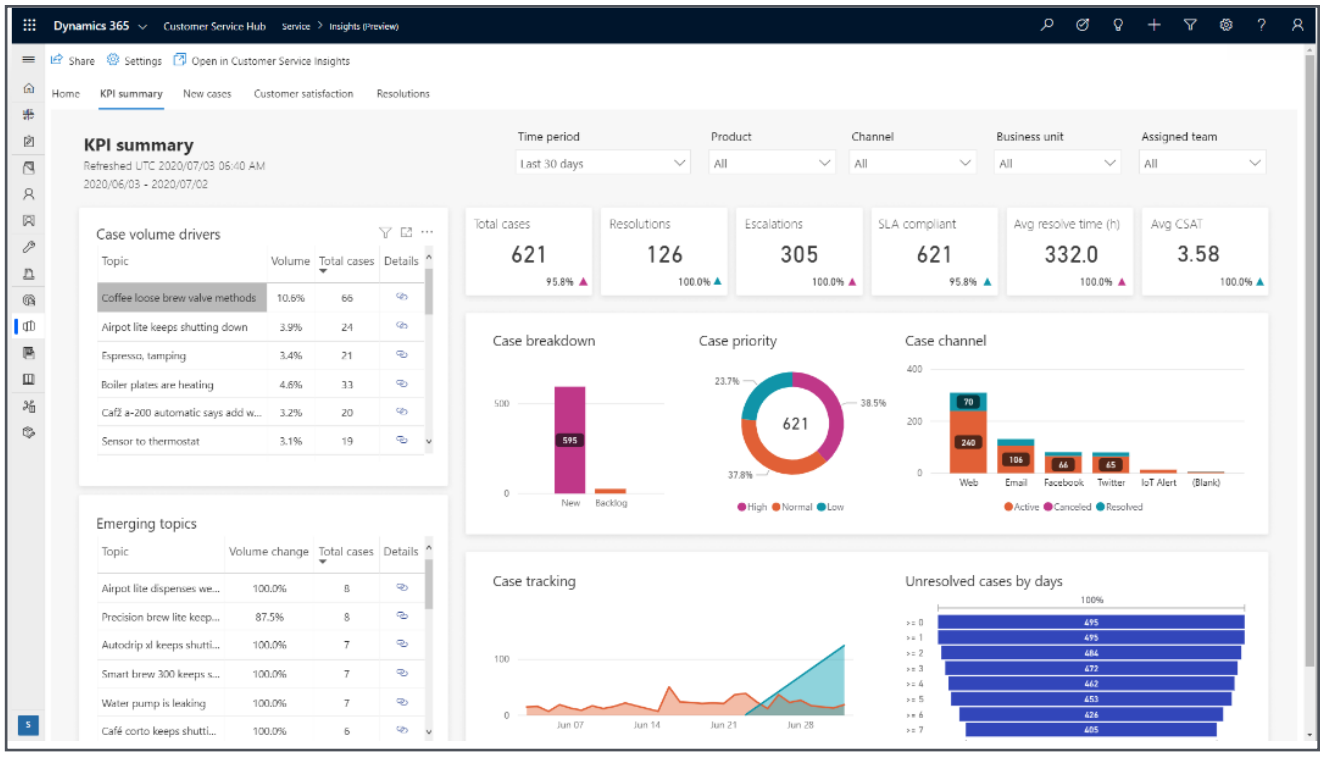
Digital transformation is also unlocking new opportunities for field services orgs to optimize resource management.

When all data, workflows, and operations live in one place, service orgs can improve everything from scheduling and dispatching to customer engagement and asset management.

In-house support staff can optimize service outcomes by following the data.

Borrowing an example from the D365 guided tour (*227*, n.d.), a service manager might navigate to her KPI dashboard to ID improvement opportunities and any time-sensitive issues that require her to take action.

Say she notices that a disproportionate number of recent cases are related to loose brew valves.



She might then head over to Teams to gather more info from technicians re: what's going on with the brew valves. If it turns out the instructions for this repair are unclear, she can ask the content team to add images and enhanced steps to produce a better outcome.

As you capture more data, you can tap into more advanced optimizations like automated dispatching and route optimization.

Digital twins, for example, can help service techs work through complex problems remotely, without the time and expense of an additional visit or bring new hires up to speed.

IoT-enabled assets and inventory can automatically alert techs when a repair is needed, and provide an accurate ETA based on when parts will be in stock.

Whether we're talking about HVAC, plumbing, or IT services, field services is a uniquely challenging space for several reasons – silos, mobility issues, emergency service calls, and so on.

Digital transformation gives service providers an opportunity to fundamentally change how they run their business – allowing them to maximize the value of critical resources and serve customers with the accuracy and speed they expect.

4. Agribusiness

Digital technologies like AI, machine learning, and the IoT are transforming agriculture in profound ways.

They're enabling orgs to take on the challenges that farmers have faced from the very beginning. And – they're helping growers tackle new ones like climate change, hunger, and an unforgiving regulatory landscape.

Under the "agribusiness umbrella" there's a lot of diversity – produce farmers, cannabis growers, horticulturists, etc – each with its own challenges and needs.

At the same time, agriculture businesses have many critical pain points in common – many of which link back to fragmentation and data management problems.

In these next few sections, we'll explore how real ag companies – from traditional farmers and growers to digital native cannabis companies – are transforming their businesses at every level.

Overcome Fragmentation with Industry Accelerators

In a lot of ways, the history of agriculture also charts the history of data – from stone tablet ledgers and almanacs to today's high-speed data streams and sensor-enabled tractors.

But, while the act of capturing and analyzing data goes all the way back to the very first farms, today's growers still have trouble turning raw data into measurable value.

Agribusiness orgs need to unify cultivation, harvesting, and quality control with finance and accounting – otherwise, they can't transform.

The problem is, there aren't any good out-of-the-box solutions built for this niche. CRMs and ERPs generally don't include things like seed-to-sale software, baked-in quality assurance tools, or integrated insights that track individual plant growth.

Microsoft Dynamics 365 changes all that. Rather than relying on patchwork solutions, agriculture orgs can tap into the benefits of the D365 ecosystem with industry accelerators that build on the system's core functionality. That way, they can put together an integrated system that aligns perfectly with their niche requirements.

Microsoft does offer some accelerators (Guggenheimer, 2019) directly to subscribers, but only for a handful of industries including, nonprofits, financial services, and healthcare. Meaning, agribusinesses will need to find an ISV solution from one of Microsoft's partners.

For example, Velosio's Greenhouse Cloud Solutions bring greenhouse management functionality directly to D365 BC. So, growers can track product costs, identify growth opportunities, and replace spreadsheets with intelligent accounting, finance, and inventory capabilities – all from one intuitive system.

Keep in mind, the "partner" element matters a lot. When we worked with United Plant Growers, the plant broker had been in business for 40+ years, but tripled the number of stores it serves within the last five years.

As UPC grew, it became untenable to manage orders and inventory with Excel spreadsheets – prompting them to contact us for help unifying all of their systems, locations, and customers.

We've helped them through hundreds of upgrades and tweaks to optimize performance and adapt to changing conditions.

Manage & Automate Complex Operations

A core part of digital transformation is building these connected systems that span the entire business – allowing data to flow between different apps and processes in real-time.

As mentioned, agribusinesses have historically had to juggle different platforms and rely on manual processes, making it difficult, if not impossible, to keep track of inventory, crop yields, quality testing, and so on.

Cannabis growers have a particularly hard time – not only must they meet certain quality standards, they also need to meet compliance requirements that vary from state to state. On top of that, they're also dealing with customer orders, inventory, and sales forecasts.

SilverLeaf, our Microsoft ERP solution for cannabis growers integrates all data sources in D365 Business Central. That includes state-mandated tracking systems, core finance and operations, sales reports, customer insights, and everything that goes into planning for the upcoming coming season. Growers can automate operational processes, track costs, and ID opportunities to improve business performance.

Centralized visibility, combined with the power of the IoT can also help agriculture companies keep operations secure.

As an example, global agribusiness company, COFCO (Elazar, 2022), deployed Microsoft Sentinel and Microsoft Defender for IoT to proactively manage and secure all of its operational technology (OT). Each plant had specialized equipment from a diverse range of vendors, making it difficult to get a holistic view of its security operations.

The cloud-based solution unified all OT data in one place – bringing agentless monitoring and control to each plant's employees, while also providing a global view for the security team.

Balance Productivity with Climate Challenges

Digitizing agriculture has massive implications for the entire food chain, the human race, and the future of our planet. Meaning, the stakes are much higher than the "typical transformation," where successes and failures are generally felt by a specific group of stakeholders, not the actual Earth.

According to an Agricultural Economics (*228*, 2022) paper agriculture companies face several challenges re: increasing productivity while simultaneously reducing the negative impact their operations have on the environment.

For example, conventional practices like using chemicals to kill weeds and pests, row cropping, and others are no longer sustainable – depleting soil nutrients and carbon stocks and, in some cases, causing harm to nearby communities via poor air quality or compromised water supplies.

Increasingly, growers are looking toward AI-enabled technologies to collect information about growing conditions, as well as things like how much nitrogen is in the soil or the presence of weeds and pests.

Agribusinesses are especially vulnerable to a whole host of problems that range from poor visibility and quality control issues to inventory and accounting challenges that wreak havoc on profit margins.

5. Professional Services

For professional services firms, digital transformation is largely about transforming business models that have been around for centuries. This industry has always been about relationships – built on a model where experts' time and knowledge are sold by the hour or by the project.

That's still true. However, technology has transformed how knowledge is packaged and sold.

Hourly engagements aren't necessarily the norm anymore – but instead, part of a diverse set of service offerings that cater to new needs and varying price points. And, on top of that, allow firms to deliver more value to clients on their terms.

Then there's the fact that professional services firms have undergone the same changes as everyone else.

For example, there was the COVID-induced move into cyberspace. There's this mounting pressure to become "data-driven." Firms are increasingly embracing AI and automation as a way to augment human expertise and fill critical skills gaps.

The professional services industry is changing rapidly, with current economic and market conditions accelerating those changes.

Firms must embrace new technologies and rethink everything – from business processes and service offerings to how they engage clients – if they want to survive in today's competitive environment – let alone thrive in the years to come.

Turn Data into a Serious Competitive Advantage

The most effective way to set the stage for future success is to develop a data-driven mindset and really sophisticated analytical capabilities.

As such, the first critical digital transformation goal professional services firms should focus on is establishing a single source of truth for all operations and business units.

This ensures total visibility into the entire business, links project activities to financial records, enables firms to gain control over resource utilization, revenue, etc.) allowing them to better respond to changing demands, market forces, and the inherent uncertainty that defines this space.

But – unifying your data isn't transformative anymore. It's the bare minimum.

The change in language is subtle, but instead of looking at deep expertise as the core value prop, the value now comes from providing context and interpreting insights in new ways.

Gartner recommends that finance teams (*230*, n.d.) focus on a few key goals: using data to create dynamic narratives, leveraging the cloud to achieve enterprise agility, augmenting data management, and consolidating their data and analytics platforms into one, unified platform.

But – it's worth noting that this advice is just as valuable for the C-suite, project teams, and the employees working the front lines.

Redefine Centuries-Old Business Models

Take away the tech stack and you'll find that many proserv orgs still use the same approach firms have used for centuries. You know, something like this: expert insights at premium prices, a strong focus on personal relationships, and the driving philosophy that maximizing billable hours is the only path to profit.

Now, there's nothing wrong with doing things the "old" way– assuming "the old way" gets the right results. The problem is, it doesn't.

Customers are changing. They expect new digital products and services, seamless transactions, and flexible productivity tools and communication channels that support new ways of working. They also have new needs, different priorities, and fluctuating budgets.

These changes in consumer behaviors and expectations have led to the increased commoditization of professional services. Think – insights delivered through a SaaS-like web app, subscription-based billing, and on-demand access.

As it stands, many firms are rethinking how they package, deliver, and bill their services so they're more in line with clients' current expectations.

They also need to embrace digital business models and manage projects as profit centers to ensure they're bringing in predictable revenue. For example, we're seeing a lot of service-based organizations replace time-and-materials billing with outcome-driven structures and subscription-based revenue models.

As an example, PwC developed ProEdge (*241*, n.d.), a digital upskilling platform that helps its clients identify and close skills gaps, automate repetitive tasks, and engage employees with personalized learning experiences. So here, you have a consulting firm addressing this well-known need – a global skills shortage as well as this long-term need to ensure that employees continue to develop their skills.

Another example comes from Mercer MacKay Digital Storytelling (MMS) (*242*, n.d.), a firm that provides marketing services to tech companies. Initially, the firm provided one-on-one service to clients.

In an effort to future-proof and scale its business, MMS built a specialized marketing platform to help its clients tell their own stories.

But, according to President and Chief Storyteller, Gail Mercer-MacKay, the real value comes from combining analog skills like empathy, collaboration, and marketing savvy with technology. In other words, the new platform extends the value MMS already brought to the table – making them more agile and resilient.

Leverage the Power of AI & Automation

According to Gartner's Top Priorities for Finance Leaders 2022 report, we've entered an era where AI, hyper-automation, continuous processes, and other algorithm-centric innovations hold the key to unlocking serious financial benefits.

We're talking: cost-savings, governance controls, security protections, automatic calculations, predictive modeling capabilities, scheduling & resource optimization, the list goes on.

Firms need AI-driven capabilities to maximize billable time, understand resource availability, optimize portfolios, and drive consistent experiences in spite of all the variables working against them. You know, all of the materials, milestones, stakeholders, etc. that must come together to deliver a successful project – on time and on budget.

For example, professional services automation tools help project-based teams assign projects to the right people, improve project tracking, maximize utilization rates, and improve overall profitability. Other ways AI improves project-based work: AI-enabled resource optimization, flexible budgeting and forecasting, smart pricing and bids, streamlined business operations, etc.

Of course, with all that promise comes a lot of hard work. Firms will need to invest in developing the digital skills that allow them to take advantage of cutting edge technologies – and continue to provide training and upskilling opportunities to prepare their workforce for future success.

Optimize Your Workforce

The shortage of skilled labor, coupled with the rapid pace of change is forcing proserv firms to rethink how they support their workforce long-term.

The most successful organizations are taking advantage of new tools and really thinking about how they might use them to create digital experiences customers are excited about.

For example, employees can use augmented analytics platforms to deliver critical insights to clients, helping them connect the dots between data points and understand those connections in context. Or, they might use journey orchestration capabilities to deliver rich, personalized experiences at every touchpoint that deepen existing client relationships.

Business leaders need to find ways to increase revenue, drive efficiencies, and scale capacity up or down in response to fluctuating demand. Which means they'll need to get used to digging into the data to optimize portfolio performance – otherwise, they'll lose ground to data-savvy competitors.

And–project managers will need to learn how to use AI-driven capabilities to maximize utilization rates, match the right people to the right projects, and maximize profits.

All of this means that firms need to get serious about hiring people with the right skills (most of which center around working with data) and continuing to develop their workforce.

Another critical transformation area is investing in new solutions for sharing information and accessing critical insights – both internally and with clients. For example, advanced content management systems help teams access and share content and insights with clients. Many come with an advanced search function that makes it easier to find the right information faster – and without switching between apps.

So, it's not just about training, it's also about providing the tools that enable employees to deliver the best possible service to clients.

Taking in all of these big changes can seem overwhelming. Between rising customer expectations, the pressure to embrace new business models, and an increased reliance on AI-driven insights and automations, firms are staring down a long list of challenges.

Ultimately, though, it doesn't matter how much the forces of digital transformation are redefining the industry, people will always be at the heart of any professional services firm.

As you start your transformation journey, it's important to keep that in mind. Consider how technology allows you to provide more value to your clients, deepen existing relationships, and get more from the resources you already have.

Final thoughts

Look, our point here is digital transformation journeys take many different forms. What's good for agribusiness orgs isn't necessarily good for professional services firms or distributors.

While each of these groups might have similar reasons for pursuing digital transformation – and use many of the same tools to reach their goals, their journeys are very different. In order to get this right, business leaders (and the partners they work with) must have deep knowledge of both the industry and the organization itself.

In chapter 32, we'll focus on one leader in particular – the CFO – and the unique role they play in supporting transformational change.

CHAPTER 32

The CFO's Guide to Digital Transformation

Whether they asked for this responsibility or not, CFOs are now the corporate face of org-wide transformation.

According to Microsoft (*234*, n.d.), CFOs have gone from chief "number cruncher" to strategic partner in a short time. And, today, it's the big finance boss that makes transformations happen.

Gartner experts agree (*235*, n.d.), and say it's the CFO's responsibility to set the organization's digital strategy and ambition. It's their job to understand what outcomes the company is trying to achieve. That way, they can ensure all decisions and investments support those outcomes.

The CFO sits in the sweet spot where finance meets strategic planning. They're perfectly positioned to fuel growth and meaningful, sustained change through digital investments.

In this guide, we'll discuss six ways digital transformation has changed the CFO role, and what that means for companies moving forward.

1. Finance fuels innovation

According to McKinsey (Agrawal et al., 2022) many department leaders still view the CFO and finance team as barriers to innovation. However, that perception doesn't necessarily reflect reality.

Data from the PwC 2021 US Pulse Survey (*236*, n.d.) showed that CFOs are increasingly seeing serious growth opportunities in the digital economy. Research revealed that 46% predicted high growth in this area, while 36% said they expected to see modest growth.

McKinsey analysts say that the innovation process is all about resource allocation. Companies need to identify high-impact DX projects, set clear goals for realizing specific outcomes, and measure progress toward those objectives.

It only follows that the CFO must function as an "innovation ally."

For instance, building innovation goals into the company's overall growth strategy allows the CFO to work with other senior leaders and come up with a plan for exploring new opportunities beyond minor process improvements.

Finance leaders can also speed up the budgeting process, by moving resources to critical areas as needed, rather than operating on quarterly or annual timelines.

2. Real-time data informs financial decisions

According to a 2020 survey (Webb, 2020), 64% of CFOs believe their most valuable asset is the finance and accounting skills they bring to the table, while 67% of CEOs say it's actually the CFO's strategic insights they value most.

Michael Magaro, a Senior VP at Workday, told PwC (*239*, 2021) that finance needs to move faster than ever. It's finance that needs to be the company's trusted source for real-time data.

He explained that company planning works best when everyone – marketing, sales, HR, and so on – is working from the same data sources.

Because finance is in this position where they have this high-level understanding of each department's goals – and that all of those goals link back to the core financials – finance is best equipped to deliver the real-time insights the organization needs to reach its objectives.

BARC research (*240*, 2021) found that investments in self-service planning tools are on the rise, as finance leaders scramble to adapt to a more dynamic environment. Advanced scenario planning, real-time forecasting, and AI simulation are quickly replacing traditional spreadsheets.

Magaro says that his company launched Workday Adaptive Planning, which gathers inputs from the entire organization, allowing the finance to dynamically reallocate resources as opportunities emerge and needs change.

3. Accelerate digital transformation with AI & automation

Automation & AI will transform finance. That is, if CFOs can manage to think outside-of-the-box.

Microsoft predicts (*251*, n.d.) CFOs will continue to prioritize investments in AI and automation capabilities that will free people from repetitive finance tasks.

As it stands, about 80% of finance leaders report that at least 5% of their workflows leverage robotic process automation (RPA) or other simple automations. 90% of those respondents say the primary benefit of automation is reducing the amount of time spent on time-consuming manual activities, while just 32% say it's the cost-savings these tools have unlocked.

While these capabilities do drive efficiency, accuracy, and agility, they don't deliver any real competitive advantage.

CFOs must instead invest in technologies designed to tackle more complex tasks that actively generate value. Though, it's worth noting that this process may require a bit of soul searching.

Deloitte researchers (*251*, n.d.) say, automating operations has implications for the role of finance moving forward – and as a result, finance teams will need to rethink what it means to provide value.

This shift will require finance teams to deliver high-quality, unique insights and top-tier customer service. Meaning, CFOs will also need to allocate resources for building dedicated business centers and enabling cross-functional knowledge sharing and collaboration.

4. Manage & respond to complex risks

CFOs need to be able to quickly size up complex risks – cyber threats, climate change, supply chain disruptions, COVID– and gauge their potential impact on the bottom line.

In today's volatile environment, striking the right balance is high-stakes for CFOs –and finance leaders must gain a deep understanding of how spending connects to org-wide digital strategies and the desired outcomes for those strategies.

According to Gartner (*252*, n.d.), CFOs aren't solely responsible for their company's digital strategies.

But, they do play a critical role in weighting strategies toward one side or another.

And – they use factors like risk appetite, potential impact, costs, etc. to guide decisions about where to invest.

Gartner researchers say that CFOs must balance process optimization with large-scale transformations in order to ensure their org achieves critical business outcomes – efficiency gains, revenue growth, or whatever else.

That said, with a recession looming over the horizon, finance leaders may need to make some tough decisions about how to weather the next storm. While it's tempting to cut things like upskilling programs or IT investments, successful organizations focus on efficiency gains and future resilience (Sollitto, 2022).

5. Tackle skills gaps and shortages

Reskilling, upskilling, and preparing employees for future unknowns are critical imperatives for CFOs.

A 2022 PwC survey (*253*, n.d.) found that 55% of CFOs consider attracting and retaining talent a serious business risk – as finance leaders struggle to overcome "great resignation" challenges that put businesses in a vulnerable position.

Moving forward, the CFO will be instrumental when it comes to prioritizing capability-building and investing in development, AI augmentation, and other solutions that will help their organizations avoid skills gaps in the future.

It's on the CFO to ensure that critical investments in less tangible areas like professional development don't get slashed when people freak out about the economy or some other disruptive force.

Strategic investments in AI can help companies get more from smaller teams or less experienced staff. As an example, food flavoring company McCormick used AI (*254*, n.d.) to supplement the knowledge of junior food scientists. With a helping hand from AI, new hires were able to perform at the same level as senior scientists with 20+ years on the job.

We should note that AI isn't being used to replace senior scientists – it's more of a supervised partner, there to help leaders accelerate training and get more value from new hires.

6. Transform workforce strategies

The modern CFO has a data-driven, collaborative mindset and offers strategic insights that help the entire organization work together to gain (and sustain) a competitive advantage.

It only follows that more and more CFOs are taking the reins when it comes to remote, hybrid, and return-to-office strategies.

They're looking at the bottom line impact of these new work structures and analyzing the costs and benefits that come with the territory.

For example, organizations are looking for insights that might tell them how much they stand to save on office space by going remote. Or, what kind of financial impact they can expect by letting employees work from home some or all of the time.

The CFO's unique perspective can help business leaders weigh pros and cons of each model and make decisions that are rooted in reality.

Consider the pervasive idea among business leaders that working in an office is always better for the company. Employees, however, feel differently. Many workers say they've been happier and more productive working from home.

The CFO can look at the actual numbers and create different forecasts based on different workforce models – remote vs. in-office vs. hybrid. And, from there, they can bring more nuance and context to a discussion largely based on assumptions, emotions, and individual preferences.

Additionally, CFOs can help orgs evaluate potential tech investments that support remote collaboration – and measure the impact of those investments against various metrics – revenue, customer experience, employee productivity, and so on.

Final thoughts

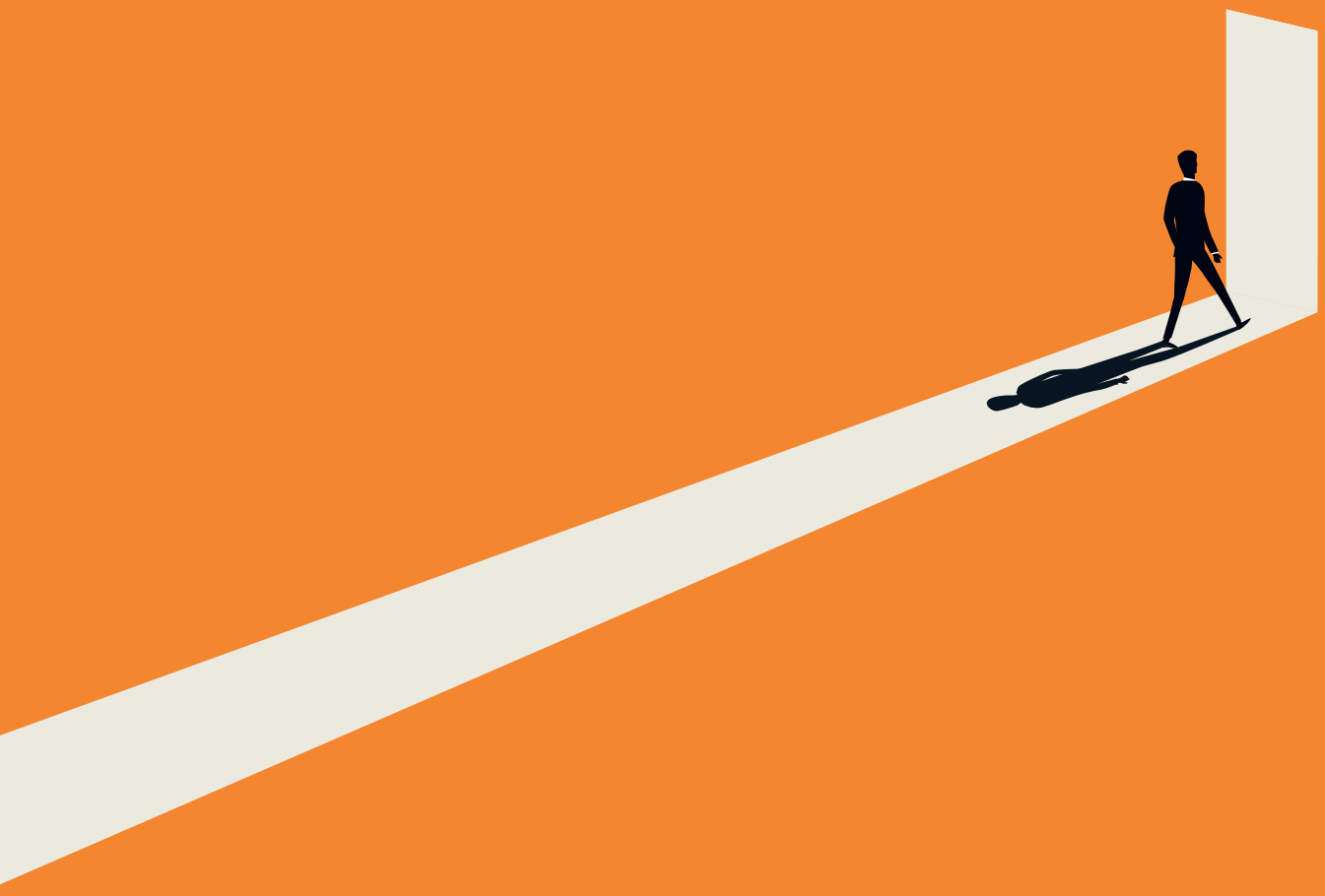
The main takeaway here is this: the CFO's role in the organization is changing fast. It's no longer enough to make top-down financial decisions about strategy and spending.

While many finance leaders are aware that things need to change, making that happen comes with its fair share of challenges.

In our 33rd (and final) chapter, we set our sights on what lies ahead for digital transformation and what that means for business leaders moving forward.

CHAPTER 33

Future of Digital Transformation



Over the past couple of years, we've watched an already-rapid pace of change accelerate – and then, keep upping the ante.

So, not only are we seeing technology evolve at an increasingly faster pace, we're seeing it evolve in ways infinitely more complex – and unpredictable – than what came before.

Given the current state of affairs, digital leaders are understandably adopting a more pessimistic mentality – with distinct shades of "doomsday prepper."

Many organizations are struggling to navigate a chaotic and complex landscape, while still reeling from the last wave of disruptions.

Increasingly, they're leaning on technology to plan for a future that promises more of the same – only next time, the stakes are higher, the pace is faster, and there's *way* more pressure to get it right the first time.

DX Will Always be Defined by Uncertainty

Look, if you want to win the future economy, you'll need to build your entire strategy around the idea that uncertainty is the only thing you can count on.

For example, we're seeing increased investments in proprietary solutions. Per a recent internal survey of our clients, 73% of organizations are currently using next-gen technologies to develop first-party IP: with machine learning (39%), IoT (37%), AI (32%), and blockchain (29%) representing the lion's share of those investments.

Proprietary solutions improve agility and resilience by offering more control and flexibility of how IP and the data it generates is monetized, used, and protected. In turn, you're able to eliminate the risks of relying on third-party solutions.

Think – breaches, bottlenecks, and data loss when accounts are canceled and services shut down.

Industry cloud platforms are still gaining traction due to their ability to accelerate the development and deployment of industry-specific solutions.

According to a 2022 Gartner survey 40% of participants said their organizations were already using industry cloud platforms, while another 15% told analysts they had pilots in progress – aiming for full-scale deployment by 2026.

These platforms combine traditional cloud services with industry-specific functionality, allowing companies to leverage pre-packaged capabilities, composability tooling, and integrated data fabric.

Companies are looking for ways to innovate faster – investing in citizen development and data science initiatives, as well as productivity apps and automated solutions that allow them to do more with fewer resources.

Big Data and AI Strategies Need to Grow Up Fast

While most business leaders understand that data maturity is a prerequisite for transformation, the reality is, their data and AI strategies have a lot of growing up to do.

Per IBM (Alverson, 2022), two-thirds of all business data isn't being leveraged. That means, companies are sitting on a wealth of valuable insights doing nothing but eating storage space, wasting time, and putting their business and customers at risk.

For example, something like intelligent asset management or predictive forecasting can't happen unless you've already achieved data maturity. You need access to real-time predictive insights, to be sure. But, crucially, employees need to know exactly how to use them to produce the desired outcome.

Now, it's important to understand that the bar for "maturity" is much higher than it was when these revelations came to light.

Digital transformation requires orgs to continuously redefine processes and strategies to keep pace with rapidly advancing algorithms. And, sadly, orgs that haven't mastered the basics will only fall further behind peers already leveraging intelligent chatbots and AI-enabled big data.

Future-Ready EX is Life or Death

Forrester's Predictions 2022 (McQuivey, 2021) declared that this year, executives would finally be forced to care about the employee experience. For the most part, they were right. But, it is worth noting that they may have been motivated by Great Resignation-related fear, rather than newfound empathy.

In 2021 and 2022, the EX conversation centered around the "WFH" vs. "RTO" debate, wage inequality, and attracting and retaining talent.

While all of these things are still hugely important, the EX dialog is changing.

According to MIT Sloan research (Harbert, 2021), a big part of employee experience is "future-readying." Organizations will need to embrace new ways of developing talent, in line with this high-speed, continuous transformation.

Mounting pressure to become "agile" and "resilient" has more orgs rushing to embrace solutions like automation, predictive insights, and AI/ML scenario planning to meet these challenges and prepare for future unknowns.

And, that's great. It's just that their enthusiasm is bumping up against the reality of employee capabilities.

What's more, big data, AI, and NLP jumped leaps and bounds just within the last several months. And now, business leaders are realizing they don't have the "future-ready" workforce they need to compete in the future.

From here on out, your main focus should be preparing your workforce to take quick action as new opportunities, barriers, or scenarios reveal themselves – and making sure that you're providing the structure and support people need to thrive in these conditions.

You're trying to get to a place where everyone in your company accepts and anticipates rapid change – whether good, bad, or totally unexpected – as part of the daily routine.

The point is, organizations must empower people to become the flexible, responsive, and innovative employees that will make their DX vision a reality.

It's Time to Confront Tech's Darkest Realities

Tech offers all this promise and possibility, but we've seen how quickly blind optimism sours into something far more sinister like the labor issues linked to app-based gig work, biased algorithms, and the real-world damage brought on Facebook's misinformation problem.

Over time, digital technologies, once considered promising, have started to show us they have a dark side.

The same tools that helped us stay in touch with friends and family, grow our businesses, and eliminate friction from so many aspects of our lives are increasingly being leveraged in very real (and very scary) ways.

Innovations like lab-grown meat, robot surgeons, and algorithms saddled with heavy responsibilities like processing insurance claims, predicting patient outcomes, and decisions about hiring and firing workers – all of which could result in disastrous outcomes for actual people.

Demand for responsible, ethical (Overby, 2022), and explainable AI (*256*, n.d.) is on the rise – helping companies enforce transparency and best practices, while also allowing them to embed safeguards directly into the code.

So, in this case, developers might look toward solutions that use ML to model different scenarios and run multivariate analyses to determine which decisions will produce the best possible outcome.

Increasingly, organizations face major ethical dilemmas that force them to look at the implications of their solutions from all possible angles.

Naturally, this includes thinking about how tools like ChatGPT might impact not just peoples' jobs, but society in general.

There's also the fact that AI and ML use a lot of energy, so as they become more ubiquitous and generate even more data, they'll need more cloud-based data centers to pick up the slack. Business leaders will have to find ways to reduce energy consumption to meet emissions goals.

Final thoughts

Look, we understand why there's so much anxiety about digital transformation, the business landscape, and the price of rapid innovation.

Abstract concepts like "post-traumatic growth," "post-truth era," and "algorithmic bias," when combined with the more tangible factors shaping our reality – climate change, inflation, war, and a lingering global pandemic offer little assurance that things will, eventually, get better.

It's easy to walk away feeling like we've already reached "peak dystopia," we are noticing some bright spots

within these emerging trends. There's a widespread desire to use technology for good – whether that's leveraging AI toward climate goals or coding ethics into AI models.

As we move into 2023, it's time to get serious about what's next for your digital transformation journey. How might you use technology in a way that's more ethical, sustainable, and human-centric? And, crucially, stay aligned with critical business objectives.

Closing thoughts

When it comes to digital transformation, there's no such thing as a "sure thing."

The problem is, while most business leaders understand that uncertainty is our new reality, many still struggle to define what it'll take to keep up with the rapid rate of change.

Constant disruption means that DX is a "forever" commitment. You'll need to put together a game plan for systematically getting from one point to the next – and, then put that process on repeat.

We know disruption and innovation come with the territory. And, we know that agile companies with adaptable, data-driven strategies are in the best position to not only stay in the game, but win the market.

We also know that digital transformation is a massive undertaking – too big for organizations to tackle on their own.

Velosio's Digital NEXT Roadmap is a structured, strategic solution designed for today's disruptive, fast-paced digital landscape.

Our DX experts help clients leverage data, processes, and technologies to achieve critical business outcomes – offering a range of services from ERP modernization and AI-powered optimizations to proactive advisory that sets the stage for lasting success.

Contact us today to get in touch with a digital transformation expert.

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