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NextGen Series

Managing Digital Transformation

Navigating the evolving digital world

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The state of play: the real deal of digital transformation

The unprecedented frenetic pace of change in today's business landscape has firmly put digital transformation (DX) in the spotlight. It is now an absolute must for enterprises to ensure that they are constantly evolving to keep up with the shifting demands and expectations of their respective industries, or risk falling behind the competition.

But what is DX and what does it involve? DX has emerged in the last few years as a buzzword used frequently in boardrooms of enterprises across the globe. However, there is the misconception that DX is simply the adoption of advanced business technologies to streamline business operations. Many enterprises are still yet to understand DX in its entirety and recognize that DX is in fact more of an all-encompassing organizational change involving people, processes and technology "in pursuit of new business models and new revenue streams, driven by changes in customer expectations around products and services," as one CIO.com article put it.[1]

In the modern workplace, DX often involves adopting sophisticated and agile infrastructure such as cloud technology to enable greater flexibility and accessibility while maintaining seamless and secure processes. But truly successful DX must integrate processes that allow employees, using the new infrastructure and technology, to work more efficiently, effectively and productively.

In other words, DX is only deemed a success if it allows the enterprise to seamlessly weave new technologies and infrastructure into its operations and processes, such that workers can maximize their use to deliver the desired outcomes for the business.[2]

Unfortunately, implementing DX is still an uphill challenge for many. This could be due to factors like lack of understanding, poor leadership buy-in, insufficient investment in the appropriate areas of focus, infrastructure complexity, and a lack of resources. Worsening the issue, these factors are gaining prominence as hybrid and remote work become the norm and business operations increasingly move to the cloud. Many workers today want flexible, hybrid or remote work options so they can work when and where they prefer – and with a tight labor market and skills shortages in virtually every industry, enterprises must do what they can to accommodate such demands.

To survive and thrive in such an environment, enterprises today must invest in their people and processes, while adopting a sustainable cloud migration strategy with updated technologies and policies, to build a culture that embraces change and improvement. This will enable the business to develop resilience, increase operational efficiency, improve the user experience, and more. Enterprises will need to ensure that they meet operational and security requirements – such as incorporating Zero Trust Security, Data Loss Protection (DLP) and Cloud Access Security Broker (CASB) software – while engaging a network and infrastructure provider that can meet their business needs and enable successful DX.

Realizing the full potential of DX for all

Although this may sound straightforward on paper, real-world execution is often more challenging than many enterprises expect. Technological solution fragmentation and variance in technological availability in different regions have led to varying stages of DX across industries and markets.

Infrastructure reliability and availability also differ across geographies as demand for specific skill sets and talents – and availability of such employees and skills – fluctuates depending on the market situation and context. Even within markets, larger enterprises may have greater resources than smaller companies, hence allowing them to secure better infrastructure and talent, and invest more in growth and development.

If this fragmentation isn't tracked, monitored and improved, gaps will widen and enterprises who do not have the means to access relevant and timely technologies may fall even further behind in their DX journey. To better understand the situation on the ground, including the current state of DX and what organizations are doing to achieve their ideal transformation, we spoke with several business leaders to develop a sense of their organization's progress and gleaned their insights on how DX should be perceived and implemented company-wide on a technological and social level.

Through these insights, we aim to share what business leaders need to do to identify and evaluate their current and future business needs. This way, leaders and organizations can prepare for an integrated DX approach that works for them; enabling them to close the gaps, develop operational flexibility and, ultimately, achieve their DX objectives.

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Tim Sullivan,
Co-Founder and CEO, Coevolve

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Key insights

Enterprises on their DX journey need to understand that transformation goes beyond just digital and technological investment and expertise. Speaking with technology and business leaders, we've uncovered four key insights to developing the optimal DX roadmap and the approach that organizations should take to improve their chances of a successful DX.

1. **DX is initiated by tech leaders, but requires the concerted efforts of all top management to succeed**

   For DX to be considered effective and successful, technology and transformation must come together to solve real business challenges. To realize this, the company's CIO or CTO must work closely with the rest of the leadership and management to ensure a unified approach to DX.

2. **Enterprises continue to invest significantly in different technologies suitable to their business needs**

   Many business leaders are aware of the importance of DX to facilitate and advance the business's ability to survive and thrive. But the areas that they may choose to support with resources may vary depending on their current stage of transformation and business needs.

3. **Enterprises must direct resources to nurture skills and talent while also investing in technology**

   Technological upgrades are essential in DX, but people are arguably the most important cog in the transformation machine. If there is inadequate investment in workforce upskilling, the lack of talent and skills to utilize technology to its fullest potential will lead to unnecessary waste.

4. **Not every market has access to the critical skills and talent necessary for effective DX**

   There is a skills gap across the globe, but the severity of this talent shortage varies depending on the market. Businesses may need to augment and complement internal teams with trusted external partners that can meet the enterprise's unique needs.

Leading digital change effectively involves all

DX for any enterprise is an extensive, and at times, complicated undertaking regardless of business size or sector. Instead of through a single technological lens, DX should be viewed from three key perspectives: the importance of senior leadership involvement across the whole business spectrum, understanding what critical business goals will be met as a result of DX, and the culture of change that needs to be developed to support the transformation.

Senior leadership engagement across the enterprise is critical

For effective change to take place, the organization's technology chief needs to take charge and drive the process, and there must be top-to-bottom acceptance of this transformation. However, while it is often the CIO or CTO that will initiate the DX process, there needs to be collaboration across the entire leadership team and an understanding of the enterprise holistically – not just from a technological standpoint – so that the DX can be guided effectively.

This close collaboration between IT and senior leaders is what has helped organizations like INSEAD to achieve the DX progress they have strived to achieve.

> "The larger part of digital transformation involves working very closely with business leaders to understand what the [business] strategies are, and then trying to understand what digital capabilities are needed to achieve those goals."
>
> **Choo Tatt Saw,**
> CIO, INSEAD

Business and DX goals must intertwine

For DX to be successful, top management cannot view DX goals and business goals in silos. DX and business goals feed into each other, as DX must be grounded in the current business context to be relevant and timely – and to achieve greater benefits for the enterprise at large.

The inclusion of business leaders who may be less technologically inclined provides a broader business perspective that can help the digital teams in charge of the transformation to align their strategies. When senior leaders across different business functions can come to an agreement regarding the digital direction they wish to steer the company towards, a single, unified vision can be formed, resulting in a more effective, impactful DX journey.

Build a digital-first culture from top to bottom

With cooperation and alignment across top management, the growth of a digital-first culture that embraces change and innovation is enabled, thereby empowering the enterprise to achieve greater levels of transformation and improvement. The leaders we spoke to have experienced this first-hand.

"Leadership needs to provide motivation, coaching and guidance to employees and allow staff to innovate, transform and believe in the DX. A people-centered leadership will be the most effective," says KPMG Singapore CTO Kelvin Wong.

Such a culture and approach will be fertile ground for continuous development and improvement, which in turn will help drive positive change across the organization and support further progress.

"Leadership is no longer a one-man vision or goal driving the entire team. It is about the people within the firm."

Kelvin Wong,
CTO, KPMG Singapore

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Investment in DX across the enterprise continues to increase

Upgrades to existing hardware and software form a large part of DX, and the rapid technological shift in recent years has driven IT spending up across the board. Alongside investment into hardware and software, enterprises must also put resources to reskilling and upskilling their employees, hiring or developing new talent, and building work environments that welcome change and foster continuous improvement.

Spending is up

According to Gartner,[3] worldwide IT spending is expected to rise by 5.5% from 2022 to 2023, growing to US$4.6 trillion. IT services spending, in particular, is forecast to increase by 8.5% to US$1.3 trillion while enterprise IT spending on public cloud is projected to grow to almost US$1.8 trillion in 2025.[4] These trends reflect increasing IT needs faced by all industries globally due to the accelerated rate of DX catalyzed by the COVID-19 pandemic.

"In my organization, even with revenues impacted by the COVID-19 crisis, the amount of spending on IT has been increasing. That shows the importance of technology by my organization and others. I think this will continue," says INSEAD's Saw.

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Invest appropriately

While there is no lack of budget, business and IT leaders must ensure that money is being invested into the right technology and organizational areas to ensure that DX is properly aligned with business goals.

In addition, the leaders we spoke to emphasized that investment in DX should also be extended to human investment – the global skills and talent shortage may not be new, but filling these gaps takes time. A report by McKinsey shows that 87% of companies are currently experiencing a skill gap[5] or expect to in the coming years, and this can only be expected to shrink if there is sufficient investment in people.

Investing in talent – whether it's through reskilling and upskilling to retain existing employees or hiring more skilled workers – plays a key role in progressing DX. Even with the latest IT solutions on hand, an enterprise that lacks people with the skills and expertise to implement these new systems and processes will still see stalled or suboptimal DX. As such, it's also important to work on organizational change management to ensure that the overall transformation will be effective.

"We have to start changing our processes and make them more efficient. Don't be too worried about letting go of established and existing processes, because that's part of transformation," says Saw. "We want people to feel comfortable changing the norms, to grow and create something better."
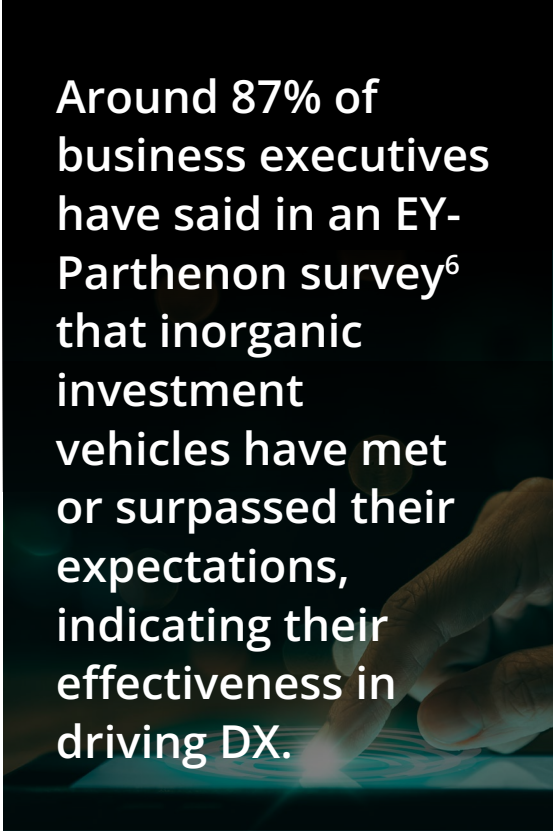
Investment must be across the board

Although there are key areas within DX that may require more attention, business and IT leaders must not forget that transformation cannot be viewed in segments and silos. DX investment must be done holistically for the organization to grow as an entity with a singular goal.

For instance, inorganic investments such as mergers and acquisitions, partnerships and corporate venture capital also play key roles in DX, providing alternate avenues of capital generation and higher-quality technology targets. In fact, around 87% of business executives have said in an EY-Parthenon survey[6] that inorganic investment vehicles have met or surpassed their expectations, indicating their effectiveness in driving DX.

On a more technical front, enterprises are committing resources to thriving in today's data-driven world by leveraging analytics to understand user experience – enabling the business to improve this for greater engagement and hence better performance – and optimizing business processes through automation and actionable insights. Enterprises are also investing more resources in networks, with a growing understanding that the network is the root of the business. Among other things, many business leaders have begun to question the efficiency and effectiveness of the underlay, and now prioritize investment at the edge.

By creating an optimized blend of investments which include inorganic investments, business leaders can expect to see better results and ROI when it comes to DX.

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The transition towards modern IT infrastructure is unique to each enterprise

As technology advances and new systems and solutions are introduced, most enterprises have modernized their infrastructure to become more flexible and future-proof.

Some enterprises are replacing legacy systems entirely

With the shift towards modern cloud infrastructure, many enterprises have begun to gradually phase out their legacy systems so that they can become future-ready and achieve better business performance and agility. This transition is set to ramp up in the next few years, with one Gartner report estimating IT spending towards cloud migration will grow from 41% currently to 51% by 2025,[7] overtaking traditional IT.

While the pace of modern technology adoption will differ depending on individual industry needs, some organizations have accelerated their DX further by adopting a wide range of new advanced solutions.

Over the last few years, KPMG has focused on workplace transformation to enable the 'Future of Work', revolving around "technologies that allow multi-sensory collaborative work to be done in the office", says Wong. This has enabled KPMG employees to work remotely while still experiencing the same high level of safety and security, regardless of their physical location.

In the future, virtual reality and augmented reality also have roles to play in the corporate setting as they allow companies like KPMG to "work with clients and showcase systems, and touch on different senses, dashboards, applications and hardware," adds Wong.

IT spending towards cloud migration will grow from 41% currently to 51% by 2025[10]

While others are maintaining a delicate balance

On the other hand, some enterprises – particularly those in banking and finance – may not be able to move away from certain legacy systems completely as the sector itself and its underlying infrastructure may be thoroughly entrenched. This could make migration technically challenging and costly.

Even with an effective DX and cloud strategy in place, it could still be difficult to achieve clear improvement in efficiency and effectiveness.[8] However, these enterprises must find ways to balance new and old systems to achieve the desired results.

Organizations like INSEAD have focused on managing the integration of both legacy and modern systems to ensure that all systems can work in tandem seamlessly, minimizing operational disruptions. This is achieved through API-enabled systems that can 'talk' to each other, allowing old and new systems and processes to work together.

There is merit to both DX approaches; the primary concern is when enterprises are resistant to either.

Understandably, some organizations may not have the capability to make this shift on their own due to the costs involved. But the rise of managed service providers has allowed businesses to access infrastructure solutions they could not attain before, providing an avenue to advancing their DX.

Either way, enterprises must embrace DX and change

The business and technical leaders we spoke to were clear: disregarding DX due to infrastructure challenges will lead to untenable costs down the line. Not only will maintaining legacy systems become more expensive in purely financial terms, but it will also incur great environmental, staff, technical and opportunity costs[9] and severely hamper the organization's success and competitive edge moving forward.

DX should never be a one-off initiative; a core part of DX is continuous improvement and growth, the ongoing enhancement and development of processes, technologies and employees to the betterment of the entire organization.

With that in mind, enterprises must build a sustainable foundation for their DX – one that can grow and change as the enterprise does. This is difficult to do with legacy infrastructure and operating models in place.

For Wong, it all boils down to a shift in mentality. "The challenge is in change management. Change management often requires more soft skills to create awareness among the people about why we want to create this change. More importantly, the desire to equip people with new knowledge," he says.

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The most important resource

For DX to be successful, organizations need to examine and evaluate if they have the right resources that can boost their transformation efforts. This can be explored in monetary, hardware, software and manpower terms, and should include investment into fostering a workplace culture that embraces change for the better. However, at present, the talent shortage is ringing the most alarm bells. As the business leaders we spoke to shared, the skills gap is a big issue across industries and geographies today.

The world is seeing an alarming skills shortage

It has now become increasingly difficult to retain and attract talent due in part to technological advancement outpacing the existing pool of skilled workers.

If the problem is not addressed quickly, the world could be looking at a skills shortage of over 85 million people and a projected US$8.5 trillion in unrealized annual revenue by 2030.[10] Enterprises today therefore need to cultivate a workplace that is attractive to talent and implement plans to both retain existing employees and attract new talent.

One solution is to boost engagement and retention

The question is, what can be done? In most cases, salary, learning and development incentives and ensuring a conducive, safe and fair work environment can go far in bridging this gap.

However, leaders must also understand that people want to be involved in meaningful work, so talent management strategies must account for this. This might call for a culture change from the top down so that leaders and managers at all levels can receive management and communications training that encourages a broader cultural shift.

"Make sure that the strategy, vision or mission filters down all the way to every employee. If someone feels that they're contributing to the mission or vision, it gets them engaged. "When people are engaged, there'll be a lower chance of them leaving the organization."

Choo Tatt Saw,
CIO, INSEAD

The right external partner could also help fill the skills gap

Enterprises may also turn to external service providers and partners who specialize in certain areas of DX and possess specific skill sets to address the skills gap. These areas include cybersecurity, data management, business intelligence analytics, and cloud-agnostic enablement skills, as well as knowledge of and expertise in next-generation network technologies and network architecture.

By gaining access to such personnel, organizations who lack the ability to attract such talent can now potentially level the playing field as they push forward with DX.

As enterprises draw in the right people equipped with the right skills, they can expect the DX process to be optimized even further thanks to higher technical proficiency.

"Process optimization and improvement that capitalizes on artificial intelligence, machine learning and robotic process automation allows improvement in productivity, hence alleviating the constraint in resources."

Kelvin Wong,
CTO, KPMG Singapore

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"A lot of the time, we tend to focus on the latest and greatest technologies. But we tend to forget that the most important piece of the puzzle is actually the people."

Kelvin Wong,
CTO, KPMG Singapore

Closing the gap

In recent years, most enterprises have come to accept that change is the only constant. To survive and thrive even in the face of unexpected events, enterprises must develop a new level of resilience to reach greater heights. This requires businesses to cultivate a digital mindset and understand the power of DX. In a world that has become much more globalized and digital, DX has the potential to transform your business. When aligned with business goals and objectives, DX can optimize your business performance and operations, advance growth, help you attract and retain customers and employees, and – perhaps most critically today – build business resilience.

Ensure strong and technologically-minded leadership

DX is inherently technologically driven by the organization's head of IT; when identifying companies who have achieved the best business success, standout performers often have a technology leader helping to shape organizational strategy.[11] Make full use of the deep well of expertise and experience of your enterprise's IT leaders to plan, execute and deliver effective DX.

Promote a culture of adaptability in the organization

Increased flexibility and agility must also be incorporated into every aspect of business operations, from infrastructure and network to workplace culture, through to business strategy and leadership. This requires the right skills and talent, as well as strong support and buy-in across the board, to drive change throughout the entire enterprise.

Involve the whole organization in the transformation journey

Whether it's the CIO or CTO who spearheads the DX, the entire strategy cannot fall on just their shoulders. The sooner companies understand that DX cannot be done in isolation – and is instead an organizational change that requires close collaboration across all leaders – the quicker they can propel their transformation forward.

Outsource where possible to level the playing field

Upskilling and reskilling can greatly help enterprises attract and retain talent. But third-party service providers can also help fill the gap and deliver the technical expertise to support DX management at a deeper level, especially if businesses lack the resources and internal support to drive this transformation.

"Like other noteworthy achievements, successful DX begins with building a solid foundation – the network. Paired with a holistic approach, sufficient investment and proper resources and support, successful DX will become a realistic target that all organizations can achieve."

Ciaran Roche,
Co-Founder and CTO, Coevolve

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