



the role of IT when digital transformation is the norm

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About this report

Constant innovation and reinvention is at the heart of efforts to transform organisations digitally, and these so-called digital transformations (DX) are taking place throughout public and private sectors.

What does it take to be successful now that digital transformation has become a norm in many industries? This study will focus on how the relationships between the IT and non-IT functions in organisations are changing. Now, more than ever, IT will need to form strong connections with parts of their organisations to produce sustainable success with DX initiatives.

This report, produced by The Economist Intelligence Unit and sponsored by BMC Software, surveyed 303 senior executives from organisations headquartered in North America, Europe, Asia-Pacific and Latin America. The respondents spanned the energy, financial services, government, healthcare, manufacturing and tech sectors. Additionally, we conducted in-depth interviews with the subject-matter experts listed below and would like to thank them for their contributions:

- Emer Coleman, technology engagement director, Co-op Digital
- Jessica Federer, founder, Innovayte, and former chief digital officer, Bayer
- Kalman Tiboldi, chief business innovation officer, TVH

Figure 1

Survey respondents by geographic region

(% of total)

Asia-Pacific	Europe	Latin America	North America
27%	26%	20%	27%

Figure 2

Survey respondents by their company's annual revenue*

(% of total)

US\$100m to <us\$500m< th=""><th>US\$500m to <us\$1bn< th=""><th>US\$1bn to <us\$5bn< th=""><th>US\$5bn or more</th></us\$5bn<></th></us\$1bn<></th></us\$500m<>	US\$500m to <us\$1bn< th=""><th>US\$1bn to <us\$5bn< th=""><th>US\$5bn or more</th></us\$5bn<></th></us\$1bn<>	US\$1bn to <us\$5bn< th=""><th>US\$5bn or more</th></us\$5bn<>	US\$5bn or more
19%	32%	35%	14%

^{*} For respondents from the public sector, the figures represent size of budget oversight.

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Executive summary

In this report, we define DX as using technologies to radically improve processes and create new products, services and distribution channels. Most organisations by now have been at it for years. This is difficult and competitive work. Yet, a majority of respondents in our survey of 303 senior executives from around the world say they are achieving at least some of their DX goals. This seems to be a digital success story.

However, peering beneath the hood reveals challenges for the IT function. At a time of widespread change, many IT teams have maintained a role as technology gatekeeper, focused on legacy-system resilience and security. However, a majority of organisations rarely consult their IT teams when selecting applications and systems for DX initiatives, but still hold them accountable when something goes wrong.

Something has to give. Will IT teams grow increasingly irrelevant to DX now that it has become standard across organisations? When it comes to providing support for DX, what do non-IT functions ultimately want from their IT teams? What difference does having a collaborative IT department make for DX initiatives? This report addresses those questions and concludes that IT departments are still crucial to the success of DX but not in their traditional roles. Organisations that are succeeding in their DX initiatives will be looking for IT teams that regularly connect with and support other functions, drive innovation and bring to the table new expertise on cutting-edge technologies.

Key findings:

- **DX is the norm now.** A large majority of respondents (73%) have had DX initiatives in place for two years or longer. In addition, 58% say they are achieving some or all of their DX goals.
- However, IT departments have not been moving at the speed of business. In a
 profound shift from the past, 66% of respondents say they never or seldom involve
 their IT departments when acquiring IT systems and solutions for DX initiatives.
- IT teams have different priorities for DX compared with others. When it comes to new technologies for DX initiatives, IT are focusing on integration with legacy systems and maintaining system resilience. That is frustrating teams outside of IT, which are prioritising revenue growth and controlling costs.
- IT teams still remain on the hook for DX outcomes, though. Forty-three
 percent of respondents say the IT department is accountable when something
 goes wrong with a DX initiative. This is unlikely to be sustainable.
- Organisations with collaborative IT teams are much more confident about
 overcoming challenges and realising the benefits of DX. Collaboration is
 not a buzzword. Respondents from organisations with IT teams that work with
 others and see more collaboration in the future are nearly three times more likely
 to be "extremely confident" about overcoming challenges.
- The IT function needs to become a source of knowledge and expertise
 with emerging technologies. Only 17% of non-IT respondents say IT services
 should be outsourced, suggesting that the role is still relevant, but it needs to
 focus on new areas.

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CHAPTER 1:

Priorities change as DX initiatives mature

What are the DX initiatives that organisations are actually working on today? The most frequently cited initiative is shifting to cloud infrastructure, with 65% of respondents saying this is a part of their DX. Other initiatives include the creation of agile development processes (56%) and co-development with external partners (47%). This is notably consistent across geographies, functions and different organisation sizes and suggests intense competition.



Which DX initiatives are organisations working on? (% of respondents) Shifting to cloud/multi-cloud infrastructures Creating agile development processes Co-development with external partners Adopting open-source development models Forming digital platform strategies Funding start-up accelerators/incubators 35%

Furthermore, all survey respondents have ongoing DX initiatives, with the majority (73%) saying they have had initiatives in place for two or more years. No respondent says their initiatives are less than a year old. Time and experience do matter. Sixty-three percent of respondents who have had DX initiatives in place for three or more years strongly agree their organisation is already realising the benefits of DX, much higher than the 42% of respondents whose DX initiatives are only one or two years old.

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The pursuit of efficiency

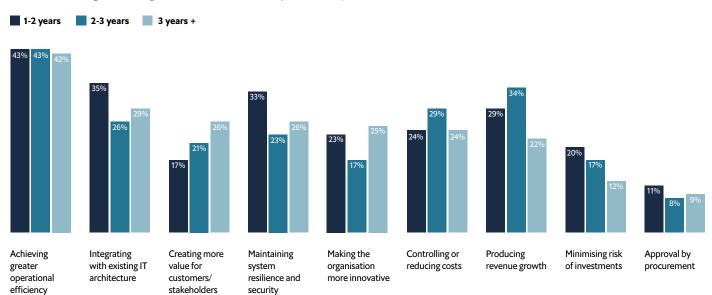
Interestingly, DX is currently being driven more by internally facing goals, but there is evidence that will change as digital organisations mature. Greater operational efficiency is the most frequently cited DX priority regardless of how long the initiatives have been in place and whether or not the respondent is in the IT department. Other priorities include integrating new technologies with existing IT infrastructure, growing revenue and reducing costs. This suggests that organisations may be pursuing a rational process of establishing an efficient platform so that they can later deliver greater customer value. "Digital is not where it needs to be in terms of integrated solutions—it's still very risky, very costly," says Jessica Federer, founder of Innovayte and former chief digital officer of Bayer. "Interoperability tools that pull together systems and platforms become the most important enablers."

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Figure 4



Priorities according to how long DX initiatives have been in place (% of respondents)



Respondents who have had DX initiatives in place for longer than three years are more likely to prioritise creating more value for customers and stakeholders. More than a quarter of this cohort (26%) cite customer value as a priority compared with 21% of respondents with initiatives that are between two and three years old and 17% of those with initiatives between one and two years old.

It is important to build a case among stakeholders, and using digital technologies to make internal processes more efficient can be a useful way to do just that.

Building a case

Ultimately it is the customer that should matter and be central to DX initiatives. The goal of relentless innovation that is at the core of DX should not only be to create ever more efficient ways of making widgets or delivering services; it is to establish a competitive advantage through a stronger relationship with customers. Senior executives do not disagree. However, it is important to build a case among stakeholders, and using digital technologies to make internal processes more efficient can be a useful way to do just that.

Demonstrating tangible benefits that digital technologies can bring to stakeholders is an effective way to enable wider applications that can directly affect customers, says Kalman Tiboldi, chief business innovation officer at spare parts supplychain company TVH. "The first step is about showing the value, showing the way forward. This is the classic way of getting ambassadors within the organisation, and convincing people from both business and technology sides to work together."

Our point is not that organisations need to persevere through the first few years of their DX initiatives before the real payoffs can happen. It is that priorities will change over time, and we posit there will and should be an increasing focus on customer and stakeholder value. The next section will explore how DX is changing the relationship between IT and non-IT functions and not necessarily in a sustainable way.

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CHAPTER 2: The IT silo

As many technologies are now more accessible, division heads in organisations are simply not waiting around for slow and inflexible IT teams that may be standing in the way of meeting DX objectives.

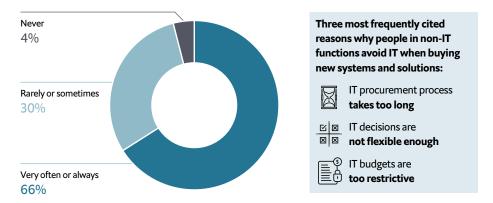
In a profound shift, IT departments are not always involved in the procurement process for DX initiatives. Two-thirds of respondents (66%) say they very often or always purchase IT systems and solutions without involving IT teams. The most commonly cited reason is that the procurement process takes too long (37%) followed by IT decisions not being flexible enough (30%). "Digital technologies are trivial to purchase," says Emer Coleman, former adviser to the government of Ireland on its open data initiative and technology engagement director for Co-op Digital, which supports ethically focused technology companies. "Why would you go through all the pain of procurement? Digital makes it possible for departments to say, 'We'll just pay for it.""

IT departments are not always involved in the procurement process for DX initiatives. Two-thirds of respondents (66%) say they very often or always purchase IT systems and solutions without involving IT teams.

Figure 5

Shadow IT goes mainstream

How often are IT systems and solutions purchased without going through IT? (% of respondents)



Most concerning though is that 31% of respondents from non-IT functions say IT decisions are not aligned with their DX goals.

DX is no longer experimental; it has become fundamental to the way business is done. The fact that nearly a third of non-IT respondents are avoiding the IT department because their objectives would be compromised is a sign of serious organisational misalignments. We think this is happening in at least two related areas: priorities and leadership.

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DX priorities

We divided IT and non-IT respondents based on what they selected as their DX priorities into primary, secondary and tertiary objectives. That made it clearer and more useful to compare objectives and how they were ranked. Both cohorts recognise the importance of DX initiatives for greater efficiency, which is a primary goal of both groups. However, IT respondents prioritised integration with legacy systems and system resilience over revenue growth and cost reductions.

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Our point is not to say a specific DX priority is more important than another. Rather we are identifying areas where there is potential for misaligned goals. These areas may be contributing to teams outside of IT avoiding IT altogether.

DX leadership

Priorities are set by the leadership of an organisation and here again is a potential source of friction. When asked who in their organisations is mandated with the success of DX initiatives, 32% of non-IT respondents say the CEO but only 8% of IT respondents say the same. Of all the roles we asked about, IT respondents were much more likely to say that the IT department itself owns the mandate, with 29% saying so compared with only 12% of non-IT respondents.

The picture emerging is that IT teams are approaching DX initiatives from their own silos, prioritising differently. Non-IT teams want their organisations to be more efficient to grow their businesses. IT teams are too slow to react and too focused on other goals, so they are sidelined.

However, the picture is more complicated. When asked which role or function is held accountable if something goes wrong with an application or service related to DX, the most frequent answer among respondents is the IT department, at 43%, followed by the CIO (29%) and the relevant division head (15%). This is relatively consistent across geographies, industries and functions.

"The business can find itself running ahead, which leads to fragmentation and a lack of transparency; but if things go wrong, IT is still in the firing line," says Ms Federer.

As organisations increasingly put their customers at the centre of DX efforts, they cannot afford a spiralling technology problem to hurt their competitive position or reputation. There is too much at stake.

In the next section, we will explore what difference it makes when IT teams come out of their silos.

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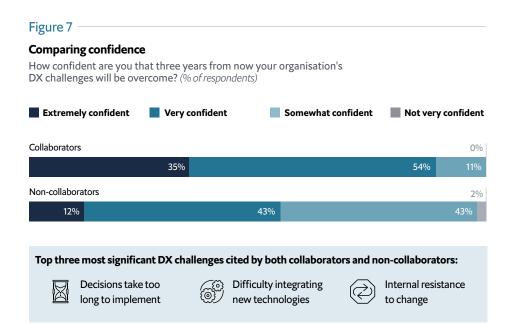
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CHAPTER 3:

Why collaboration is not just a buzzword

Do IT teams really need to be involved with DX initiatives? In the previous section, we saw that many organisations say they will turn to their IT colleagues if something goes wrong, but having a *dedicated* IT team to troubleshoot does not at first blush seem necessary.

To understand the value that IT can bring to DX initiatives, we looked at a cohort of respondents who say division heads in their organisation frequently work with IT on DX initiatives and they are expected to work even more frequently with IT in the next three years. We also made sure all respondents in this cohort, which we will refer to as *collaborators*, say they are satisfied with the way IT and non-IT teams work together in their organisations.



Collaborators are much more confident compared with non-collaborators about being able to overcome their most significant DX challenges. This is important because both collaborators and non-collaborators cite identical challenges in the survey. The top three most frequently cited challenges according to both are: decisions take too long to implement, difficulty integrating new technologies and internal resistance to change. Eighty-nine percent of collaborators say they are confident about prevailing over these obstacles, with 35% saying they are "extremely confident". That is a lot higher than the 55% of non-collaborators who say they are confident and only 12% who say they are "extremely confident".

Rather than avoiding the IT department, collaborators engage them and feel they are better prepared for their DX initiatives. In addition, collaborators are also much more likely to say that their IT teams are agile when meeting DX needs and that their organisations manage the cost and security requirements of DX well.

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New technologies and skills

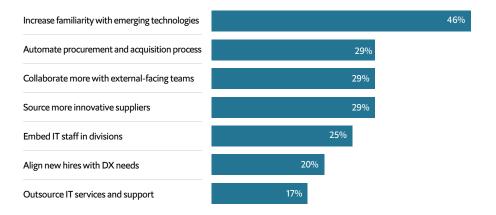
When we asked non-IT respondents what could their IT departments do to significantly improve support of DX initiatives, only 17% say outsource IT services. IT teams do provide value but they need to focus on new areas. Nearly half of respondents (46%) say IT should increase familiarity with emerging technologies. This view is consistent regardless of how long organisations have had DX initiatives running.

IT teams do provide value but they need to focus on new areas.

Figure 8

Stay ahead of the game

What can IT departments do to improve support of DX initiatives? (% of non-IT respondents)



The three most frequently cited technologies that respondents expect will become priorities for them in three years are blockchain (49%), artificial intelligence (46%) and augmented/virtual reality (46%). Once again, time and experience matter. Respondents who have had DX initiatives in place for three or more years are more likely to say that these technologies are actually current priorities for them.

A fifth of non-IT respondents also say IT teams should make sure new hires have the skills that match with the needs of DX initiatives. Ms Federer thinks that this could even be expanded beyond the IT department.

"All roles need to be digitally enabled. You can do an audit of every job description, and then some thoughtful analysis of skills needed in each role... The result is a higher-value workforce," she says.

In any case, IT teams will have their work cut out for them. Time and experience also appear to matter to the ways in which IT can better support DX initiatives. Our survey data are too limited to permit direct comparisons of non-IT respondents based on how long their DX initiatives have been running. However, we can identify two trends. First, embedding IT people in business or administrative divisions, as opposed to a central IT team, appears to be an idea that loses some popularity as DX initiatives mature. To be clear, this is different from agile development approaches in which cross-functional teams temporarily form to solve specific problems. That model remains useful because it enables organisations to respond quickly to changing market conditions and customer feedback.

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"We have transformed into an agile organisation, with teams in cross-functional squads," says TVH's Mr Tiboldi. "The product owner and delivery manager are from the business, these work with software engineers, data engineers, all with the same remit."

The second trend is that the longer an organisation has DX initiatives in place, the more willing non-IT functions are to empower DevOps to make more decisions. DevOps teams bring together application development and operations to respond quickly to customer needs without a drop in quality. Nearly a third of non-IT respondents (31%) who have had DX initiatives in place for three or more years say empowering DevOps would significantly improve IT support of DX.

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CONCLUSION:

The future of IT

Now that DX has become common among organisations, it has become clearer that technology should not be the only focus of their journeys. Management of people and processes are also important for success.

This report has shown that people in non-IT functions are forging ahead with purchases of IT systems and solutions to achieve their objectives, even if it means sidestepping their IT departments. Our study showed that in a not insignificant share of cases, IT decisions simply don't support the DX objectives of the rest of their organisations. In these cases, IT departments have become less of a gatekeeper and more of a roadblock.

Yet, only a small share of people in non-IT functions want to outsource IT services. IT teams are an important backstop if things go wrong with DX technologies and systems. The problem is that getting someone to fix something they did not evaluate in the first place is risky, particulary when the customer is moving to the centre of DX objectives. Working on DX initiatives in separate silos is not sustainable.

Organisations that frequently work with their IT teams and expect that collaboration will increase in the future are more confident about overcoming DX challenges. They are also much more likely to be managing well the costs and security requirements of DX initiatives.

To get DX right then, IT departments of the future should be much more collaborative with other functions in their organisations and take into account the priorities of the rest of the enterprise before setting their own. Their focus will need to broaden to include understanding the relevance and potential of emerging technologies such as blockchain and Al. In short, IT departments should become less of a gatekeeper and more of an enabler of their organisations.

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London

The Adelphi 1-11 John Adam Street London WC2N 6HT United Kingdom Tel: (44.20) 7576 8000 Fax: (44.20) 7576 8476 Email: london@eiu.com

New York

750 Third Avenue 5th Floor New York, NY 10017 United States Tel: (1.212) 554 0600 Fax: (1.212) 586 0248 E-mail: newyork@eiu.com

Hong Kong

1301 Cityplaza Four 12 Taikoo Wan Road Taikoo Shing Hong Kong Tel: (852) 2585 3888 Fax: (852) 2802 7638 E-mail: hongkong@eiu.com

Geneva

Boulevard des Tranchées 16 1206 Geneva Switzerland Tel: (41) 22 566 2470 Fax: (41) 22 346 93 47 E-mail: geneva@eiu.com

Dubai

Office 1301a Aurora Tower Dubai Media City Dubai Tel: (971) 4 433 4202 Fax: (971) 4 438 0224 Email: dubai@eiu.com