Capgemini
RESEARCH INSTITUTE

Understanding digital mastery today

Why companies are struggling with their digital transformations

Introduction

There is no doubt that organizations understand the importance of digital transformation. Worldwide spending on digital transformation technologies – hardware, software, and services – is expected to cross the $2 trillion mark by 2021.[1] The investment commitment to putting the infrastructure in place is not in question.

But, are organizations turning these investments into successful transformation journeys? In our 2012 research with the MIT Center for Digital Business, we established that a high-performing cohort of organizations – digital masters – outperformed their peers in every industry.[2] Six years on we undertook new research to gauge whether large organizations have mastered the art and the science of digital transformation.

We surveyed more than 1,300 executives in over 750 global organizations and interviewed senior executives responsible for their organizations' digital transformation programs. Six years after our original research, organizations have had time to build capability and experience in driving digital transformation and one would expect the level of digital mastery to have progressed from 2012. However, our research does not find a clear advancement. Organizations are still struggling to turn their investments into business successes. This might reflect the difficulty for organizations to adapt to the dizzying pace of change in technology innovation (e.g., artificial intelligence, internet of things, automation). Moreover, business model disruptions in many industries are challenging traditional value-chains. But, it could also be that organizations were overly optimistic in 2012 and have now realized the magnitude of the challenge, coupled with rising expectations of markets, employees, and customers.

In this report, we focus on three key areas:

- An assessment of how organizations have progressed with their digital transformations in the last six years
- The major challenges that organizations face as they implement their digital transformations
- Key recommendations for how organizations can sustain their digital transformation journeys based on what digital masters do differently today.

35% Percentage of organizations who have the leadership capabilities required in 2018 for their digital transformations

Many organizations are finding their digital transformation journeys a struggle

In our 2012 research,[3] we established our digital mastery framework. Organizations should progress on two dimensions to be digital masters – digital capabilities and leadership capabilities. Our 2012 definitions are below.

- **Digital capabilities** are the use of technology to change how the company interacts with customers, operates internal processes, or defines its business model.
- **Leadership capabilities** are about creating the necessary conditions required to drive the transformation. In 2012, they included the transformation vision, the governance model to lead the journey, the necessary information technology and business relationships to produce the results, and engaging employees in the journey.

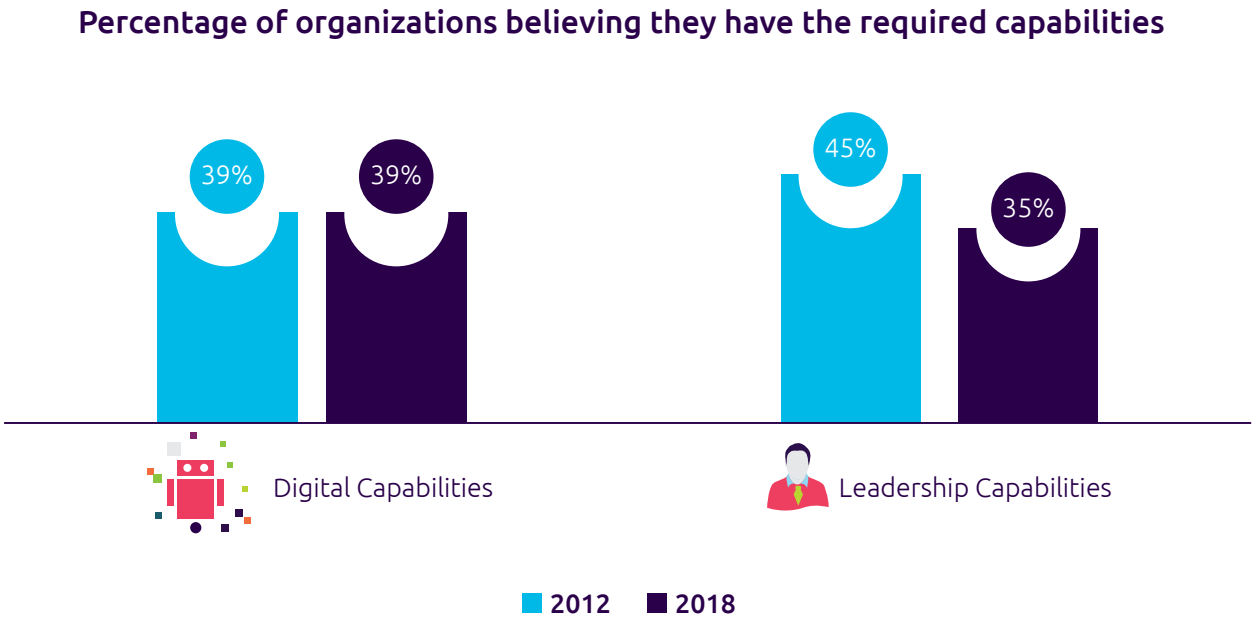
In this section of the report, we make a like-for-like comparison between 2012 dimensions and our 2018 data to gauge progress.

Only a minority have the digital and leadership capabilities required

Given the pace of change in technology, new and emerging competition, and the increasing expectations of employees and customers, today's organizations face significant challenges compared to 2012. Six years on from our previous research, we found that organizations are struggling with both the digital and leadership capabilities required for success.

On average, 39% of organizations today say they have the digital capabilities required – the same level as in 2012. For leadership capabilities, only 35% of organizations today, on average, say they have the leadership capabilities required, compared to 45% in 2012 (see Figure 1). While expectations have increased, many organizations have not kept pace.

Figure 1. Organizations that have the digital and leadership capabilities needed: 2012 versus 2018



Source: Capgemini Research Institute, Digital Mastery Survey; April–May 2018, N=1,338 respondents, 757 organizations; Capgemini Consulting and the MIT Center for Digital Business, "The Digital Advantage: How digital leaders outperform their peers in every industry," 2012, N=391 organizations.

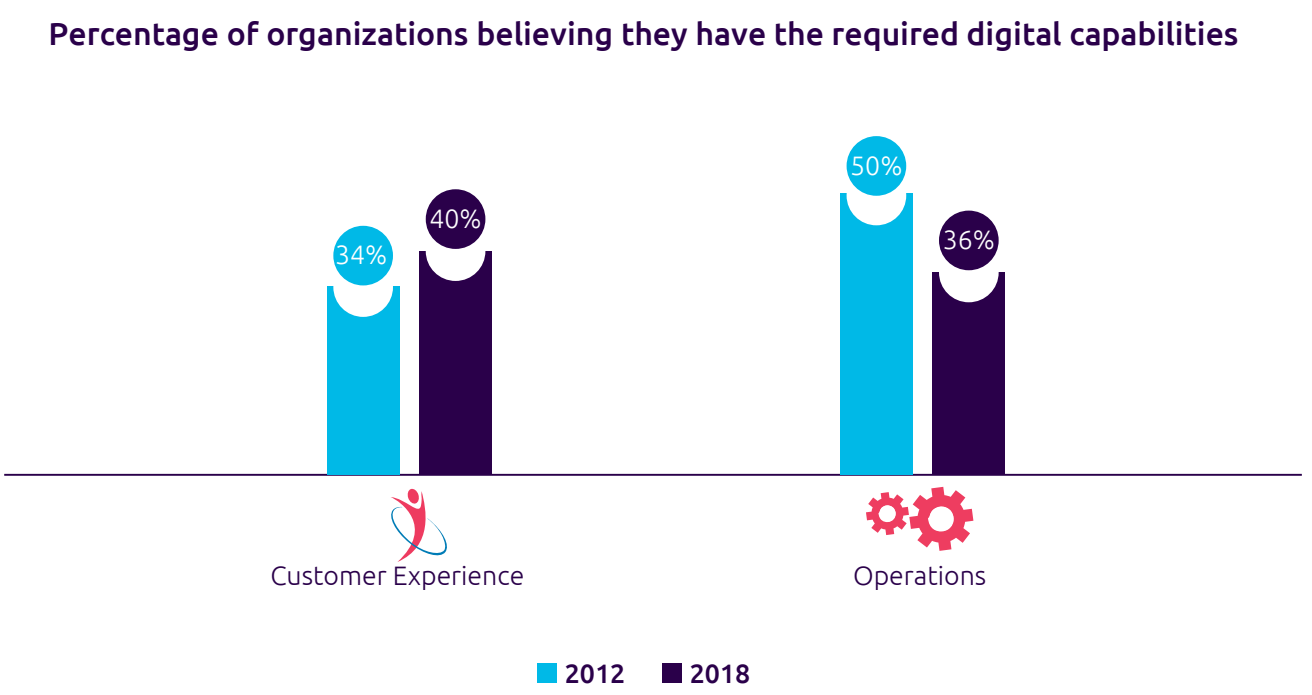
*Calculated based on the average percentage of organizations agreeing to the questions in each category (rating of 5, 6, 7 on a scale of 1 to 7); Questions included in this analysis are the same in 2012 and 2018.

To explore this finding more deeply, we looked closely at the two dimensions: digital capabilities and leadership capabilities.

1. Digital capabilities

To understand how organizations have progressed in terms of building digital capabilities over the past six years, we examined the average ratings of the two included categories – customer experience and operations (see Figure 2).

Figure 2. Organizations that believe they have digital capabilities in place: 2012 versus 2018



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Organizations making headway on customer experience

Organizations made the most significant progress on customer experience, which in the 2012 definition encompassed things like: analytics, social media, location-based marketing, mobile channels, and connected products.

For example, 43% of organizations today are using mobile channels to sell products and services, compared to 23% in 2012. Moreover, nearly 40% of organizations are improving their knowledge of markets and customers through devices embedded in products, compared to 17% in 2012. These gains are not surprising given the widespread use of mobile channels and apps among consumers and advancements in internet of things (IoT) technologies.

Sephora, the French-founded cosmetics company, has made significant progress in optimizing its customer experience and blending physical and digital. It opened its first digitally-enabled store in Paris in 2015, and it offers all the perks of online shopping combined with hands-on experimentation, like sampling products and participating in beauty workshops. Sephora's use of technologies like virtual try-on tools, skin scanning devices, and digital shopping carts are not only inspiring and educating customers, but also giving them the confidence to purchase.[4] The North Face, an American outdoor product company, personalizes product recommendations through IBM Watson technology which has helped to drive customer engagement.[5]

36% Percentage of organizations who said they excelled in operations

Operations is challenging to execute

In 2018, a little over a third of organizations agree that operations – which comprises aspects such as, digital design of products and services, the ability to adapt operational processes quickly, real-time monitoring, and the ability of employees to share knowledge, collaborate digitally and perform their work from any location – is an area they excelled in. While there were small gains from 2012 to 2018 in the percentage of organizations that design their products digitally (38% to 40%), many organizations seem to struggle in other areas:

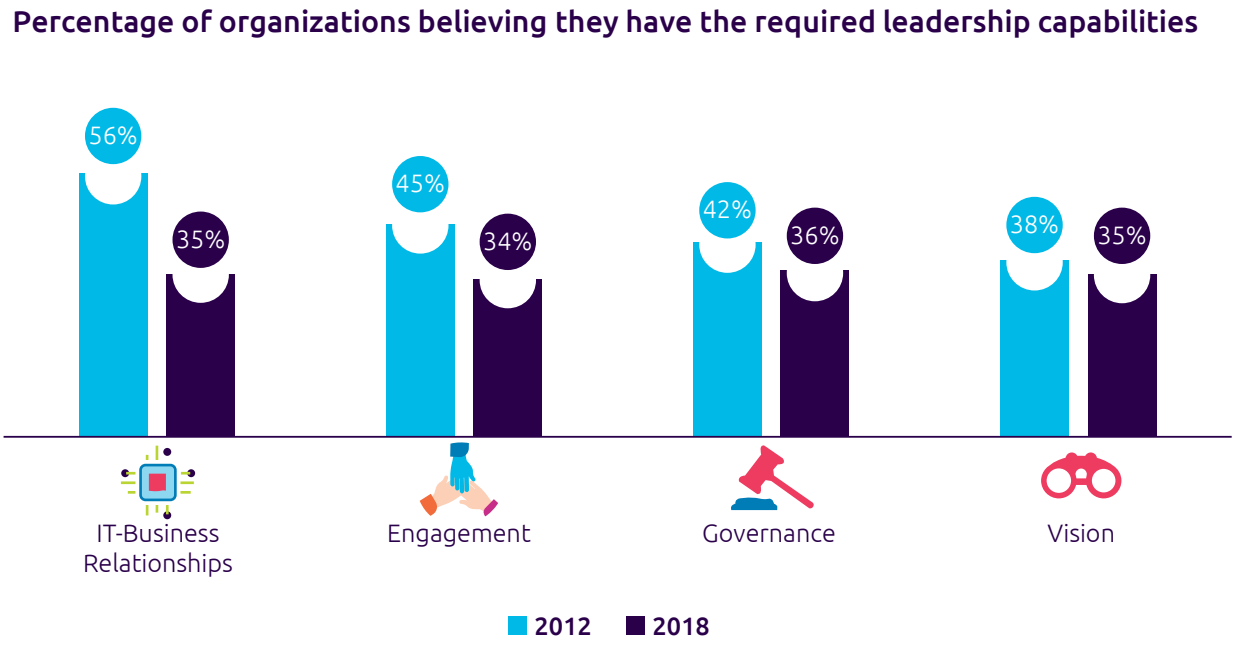
- Fewer organizations agree that they are monitoring operations in real time (35% in 2018 compared to 48% in 2012).
- Fewer organizations agree that they are modifying operational processes to adapt quickly to external changes (29% in 2018 versus 34% in 2012).
- Fewer organizations are providing the tools and capabilities that their employees might expect. For example, only 38% of organizations say that their employees can collaborate digitally with other employees, compared to 70% in 2012. And, just 33% of organizations agree that digital technologies improve communication between senior executives and employees versus 62% in 2012.

Implementation challenges and the increased complexity of technology appear to be hindering organizations' ability to make progress in operations. The movement in collaboration tools and capabilities might suggest that employees adopted tools and platforms with enthusiasm at the beginning but stopped using them. Furthermore, availability does not necessarily translate to actual use, particularly among senior executives who are already time-pressured.

2. Leadership capabilities

As Figure 3 shows, mastery of leadership capabilities has not kept pace with ambitions across all dimensions since 2012. Thus, organizations do not appear to be fully leveraging the potential of digital transformation. Organizations might be realizing that the challenge is much more difficult than they originally anticipated.

Figure 3. Organizations that believe they have leadership capabilities in place: 2012 versus 2018



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IT and business relationships have not kept pace with need

While the relationship between the CIO and other members of the leadership team is critical in a digital age, there appears to still be a disconnect.

- For example, in 2012, 65% of organizations felt that the CIO and senior business executives have a shared understanding of the role of IT in their organization, compared to 37% in 2018. Enrico Maria Bagnasco, head of Technology Innovation at Telecom Italia echoes the sentiment, *"There are always new ideas in the market. You must be proactive rather than market-reactive, and there is pressure on the technical team to deliver. Achieving the balance between business and technology is a difficult game."*[6]
- In 2012, over half (59%) of organizations felt that the CIO and senior business executives have a shared understanding of how IT can be used to increase productivity of the organization's operations, versus 35% in 2018.
- In 2012, 53% of organizations agreed that the CIO and senior business executives have a common view of IT investment priorities, compared to 36% in 2018. These trends may suggest that optimization is still occurring in silos or that business leaders are impatient with the pace of IT and are spinning up shadow IT (i.e., IT devices, software, and services outside the ownership control of the IT organizations) to lead their initiatives. In fact, it is estimated that 38% of technology purchase is managed, defined and controlled by business leaders (up from 28% in 2015).[7,8]

Engagement is a key challenge

It does not appear that many organizations are bringing their employees along with them on their digital transformation journeys and creating the necessary culture to make that possible. For example, today, fewer organizations agree that there are possibilities for everyone in the firm to take part in the conversation around digital initiatives (36% in 2018 compared to 49% in 2012). *"This is the most intimidating part for many companies, [companies] need to enable employees to participate,"* says Tariq M. Shaukat, President of the Customer Team at Google Cloud. *"You need to create an environment where leadership is available for people to ask questions and get feedback. By giving employees the permission to speak, to collaborate, and to contribute, organizations end up moving people towards a more digital culture."*[9] We explore this challenge in more detail later in this report.

Vision is still not a core focus

Aligning the organization around a common vision is a key first step in articulating the digital transformation journey. Today, few organizations have that clarity, with only 31% agreeing that senior executives share a common vision of how the business should change through digital technologies (compared to 44% in 2012). As Ethan Bernstein, assistant professor, Harvard Business School says, *"Vision, values, and strategy help senior management ensure that the collective attention of the employees is focused around the organization's raison d'être."*[10] In addition, only 36% of organizations believe that senior executives have a radical digital transformation vision that is a departure from past practices (30% in 2012). Not only that, only 34% of organizations say that senior executives have a digital transformation vision that crosses internal organizational units, compared to 41% in 2012.

Governance still presents challenges

A strong governance structure will help to translate the vision into action; however, organizations remain challenged even on that front.

- In 2012, 38% of organizations felt that roles and responsibilities for digital initiatives were clearly defined within the company, versus 32% in 2018.
- In 2012, 40% of organizations agreed that processes exist to ensure that all digital initiatives are aligned with corporate objectives, compared to 35% in 2018.
- Organizations have made progress on ensuring digital initiatives are assessed through a common set of key performance indicators (26% of organizations in 2012 versus 33% in 2018).

Overall, our research suggests that the early enthusiasm for digital transformation in 2012 has been dampened by difficulties encountered in implementation. Organizations have made progress in customer experience. But, the lack of key competencies and increased complexity of the technology appear to be slowing down progress in operations. On the leadership front, organizations remain challenged to drive substantial progress. Six years on, they might have realized just how difficult it is to create an aligned organization and a strong governance model that supports the vision, and to ensure employees are engaged in the journey.

> "Achieving the balance between business and technology is a difficult game" - Enrico Maria Bagnasco, head of Technology Innovation at Telecom Italia

31% Percentage of organizations who say senior executives share a common vision of how the business should change through digital technologies

How do we define digital mastery in 2018?

In our 2018 research, Capgemini evolved the 2012 model in both the digital and leadership dimensions (see Figure 4).

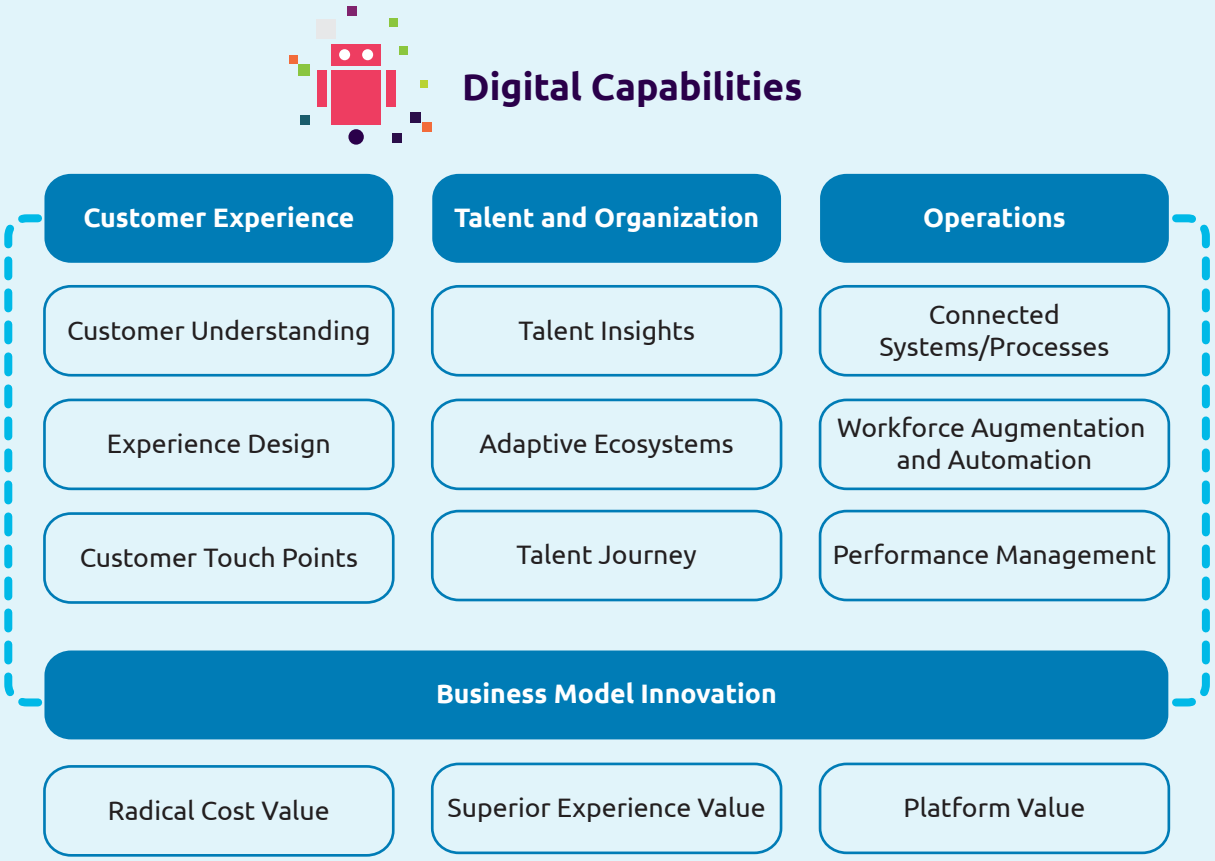
Digital capabilities now encompass a talent and organization pillar which reflects the increasing need for organizations to invest in the employee experience and adapt their structure to the demands of a digital organization. For example, this pillar includes understanding the current and future skill needs, as well as designing an effective employee value proposition.

Capgemini also modified the business model innovation pillar which includes radical cost value (i.e., step change in the cost structure of the business to provide increased value to customers), superior experience value (i.e., providing a better customer experience than competitors through technology), and platform value (i.e., leveraging platform economics such as scale effect to innovate at scale and reach customers in new ways).

Lastly, Capgemini added new questions on digital capabilities across the pillars to reflect advances in technology (e.g. analytics, artificial intelligence, automation, internet of things), IT practices (e.g., DevOps, agile), and customer needs (e.g., co-creation, loyalty).

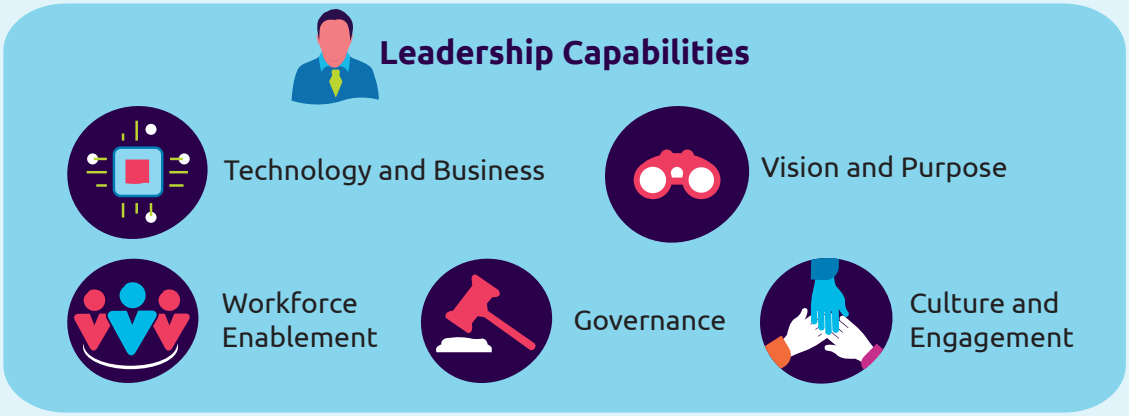
Leadership capabilities now includes a workforce enablement pillar, which focuses more specifically on skills development and learning. In addition, Capgemini added new questions on culture and modified other elements slightly. Capgemini's research has shown how important culture is to the success of digital transformation.

Figure 4. The building blocks of digital transformation



Source: Capgemini Consulting.

Figure 4. The building blocks of digital transformation *(cont'd)*



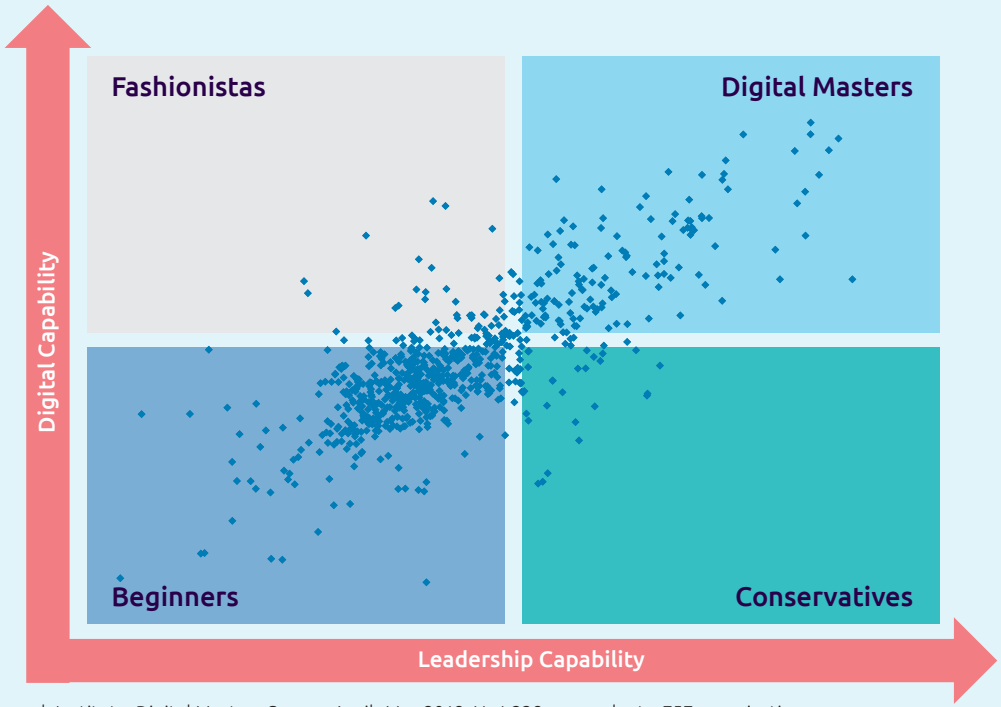
Source: Capgemini Consulting.

Based on this unique framework, we can categorize organizations according to their relative digital mastery, with this report looking at the four groups that emerge:

1. Beginners – low mastery of both digital and leadership capabilities
2. Conservatives – mastery of leadership but not digital capabilities
3. Fashionistas – mastery of digital but not leadership capabilities
4. Digital masters – high mastery of both digital and leadership capabilities.

Figure 5 shows the placement of organizations on the digital mastery matrix.

Figure 5. The four groups of digital mastery



Source: Capgemini Research Institute, Digital Mastery Survey; April–May 2018, N=1,338 respondents, 757 organizations.

In the next section of the report, based on findings from our 2018 research, we explore a key reason why organizations are struggling with their digital transformation journeys.

Our research reveals a significant weakness – organizations are still not tackling the talent and culture dimension.

36% Percentage of organizations that say there are possibilities for everyone to take part in the conversation around digital initiatives

Employees are not being invited on the digital transformation journey

Our 2018 research reveals that the people dimension is a significant barrier to digital transformation progress. Leadership is failing to get their employees to collaborate, to actively involve them to achieve their digital transformation objectives, or to invest in their personal development.

Organizations do not make employees partners in the transformation program

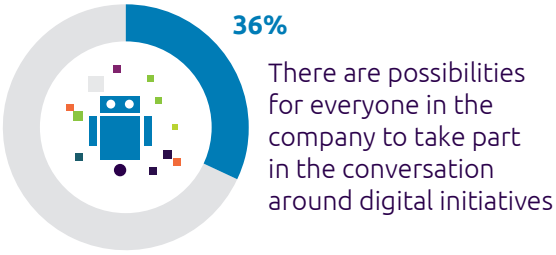
Organizations often start digital initiatives without the buy-in of employees:

- Only around one third (36%) of organizations say both senior executives and middle managers share a common vision of digital transformation
- Moreover, only 36% of organizations say it is possible for everyone in the company to take part in the conversation around digital initiatives (see Figure 6).

It is important to make employees part of the transformation process – providing mechanisms for them to voice their opinions and secure their feedback. It is also critical for sourcing new ideas.

"The board and the CEO need to back the digital transformation program completely," says Mats Munkhammar, senior vice president and CIO/IT director at Green Cargo, a Swedish logistics company. *"Secondly, you must get the firm excited about the program and secure their involvement. You need to have a clear plan on how to do it or else you will not be able to convince the organization."*[11]

Figure 6. A minority of organizations allow employees to be part of digital initiatives



Source: Capgemini Research Institute, Digital Mastery Survey; April–May 2018, N=1338 respondents, 757 organizations.
*Based on the percentage of organizations agreeing to the question (rating of 5, 6, 7 on a scale of 1 to 7).

Organizations do not leverage analytics to understand their skill needs

2017 Capgemini research showed that the majority of organizations agree that the lack of digital talent hinders their transformation efforts.[12] In addition to understanding current skill needs, organizations must plan for the future. With advancements in digital technology and analytics, talent management processes and structures should equally change. For example, one might expect to see more scientific approaches in the way people are managed and skill needs are identified. But our survey shows that only one in four organizations use data and analytics to understand their employees' preferences (e.g., career development, training) or to identify the skills needed both today and into the future.

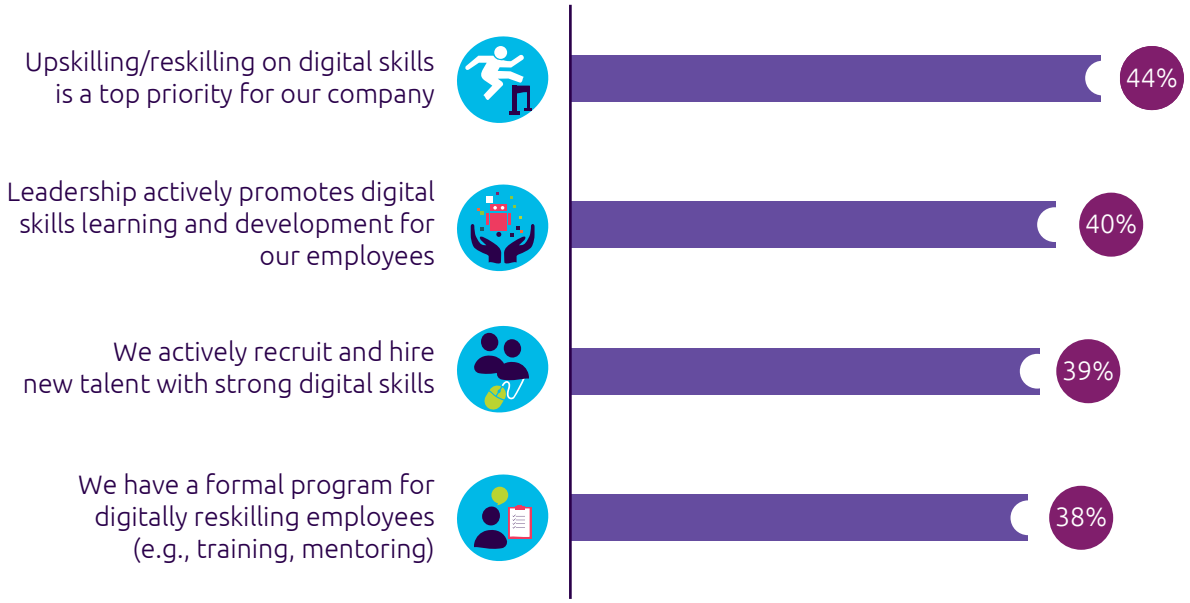
Figure 7. Few organizations use data and analytics to identify skill sets needed

Source: Capgemini Research Institute, Digital Mastery Survey; April–May 2018, N=1338 respondents, 757 organizations.
*Based on the percentage of organizations agreeing to the question (rating of 5, 6, 7 on a scale of 1 to 7).

Organizations are not upskilling employees

To reduce skills shortages, organizations need to put effort into attracting, developing, and retaining digital talent. In Capgemini's 2017 digital talent research, over half (58%) of digital talent said that their next job change will be a result of the new organization offering better skill development.[13] In our current research, only 39% of organizations say they actively recruit and hire new talent with strong digital skills and 38% say they have a formal program for digitally reskilling employees. A recent study found that 74% of companies are only investing $500 per employee on learning and development.[14] Jeremy Walsh, senior vice president at Learning House, a sponsor of the study said, *"It's just ridiculous to see that amount of money being spent,"* he said. *"I think we will start to see a shift in how much [companies] are willing to invest in skilling and reskilling."*[15]

Figure 8. Organizations are not actively working toward narrowing the digital talent gap



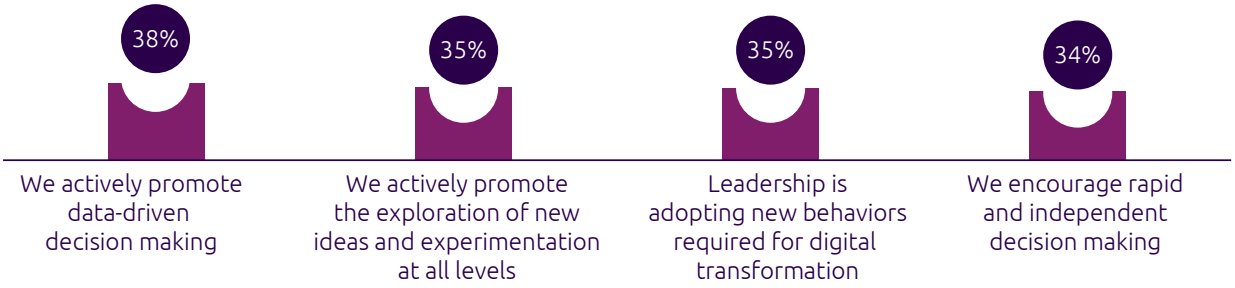
Source: Capgemini Research Institute, Digital Mastery Survey; April–May 2018, N=1338 respondents, 757 organizations.
*Based on the percentage of organizations agreeing to the question (rating of 5, 6, 7 on a scale of 1 to 7).

35% Percentage of organizations that agree their leadership is adopting new behaviors required for digital transformation

Organizations are not paying enough attention to the crucial ingredient – digital culture

2017 Capgemini research found that a majority of organizations (60%) point to culture as the number-one hurdle to digital transformation.[16] By digital culture, Capgemini means seven attributes: agility and flexibility, collaboration, customer centricity, data-driven decision making, digital-first mindset, innovation, and open culture.[17] *"Culture is the glue that either keeps us doing things well or keeps us doing things poorly,"*[18] according to Ethan Bernstein, assistant professor, Harvard Business School. *"Culture evolution is a critical building block of a digital transformation, almost a prerequisite," says Pete Blackshaw, global head of Digital and Social Media at Nestlé. "Larger organizations can be very codified in their ways of working and calcified in their habits. You therefore need to liberate the thinking, soften the silos, restructure the incentives, and ultimately take much bigger leaps forward."*[19] However, our survey shows that only a minority of organizations are displaying the attributes required (see Figure 9).

Figure 9. Most organizations fail to promote a digital culture

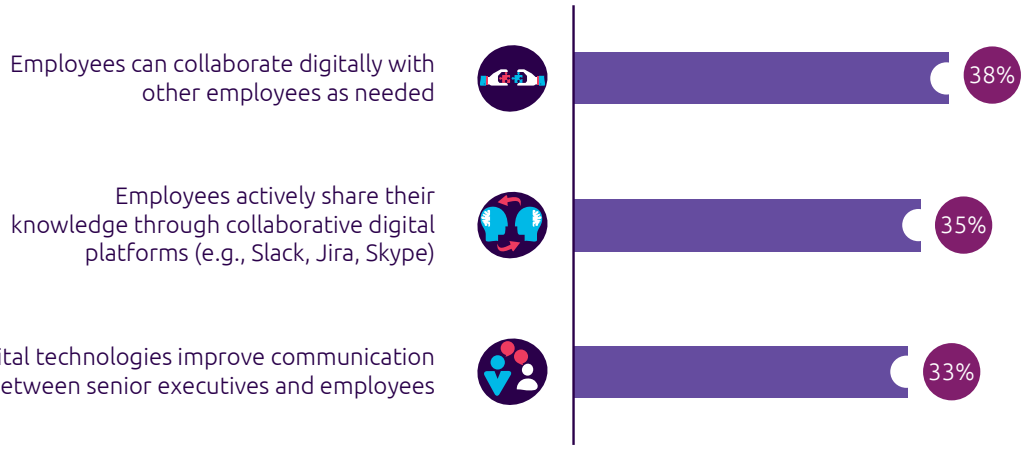


Source: Capgemini Research Institute, Digital Mastery Survey; April–May 2018, N=1338 respondents, 757 organizations.
*Based on the percentage of organizations agreeing to the question (rating of 5, 6, 7 on a scale of 1 to 7).

Collaboration is one key component of digital culture. Vala Afshar, chief digital evangelist, explains the culture at Salesforce, *"We are first and foremost an incredibly social company, and this is one of the key determinants of our culture. We, for example, use Chatter – our internal collaboration tool – more than we use email. Our social nature means that we have a culture of transparency, collaboration, and continuous learning."*[20]

But as Figure 10 shows, fewer than 40% of organizations say that employees can collaborate digitally with other employees as needed. In addition, only a third of organizations say digital technologies improve communication between leadership and employees. With increasing complexity and changing expectations toward communication and involvement, collaborating and communicating digitally accelerate the speed of change and engagement and increase transparency in the organization.

Figure 10. Fewer than two in five organizations arm employees with the right tools and technologies



Source: Capgemini Research Institute, Digital Mastery Survey; April–May 2018, N=1338 respondents, 757 organizations.
*Based on the percentage of organizations agreeing to the question (rating of 5, 6, 7 on a scale of 1 to 7).

A view on technology – leveraging AI and IoT in customer experience and operations

In our survey, we asked about organizations' use of advanced technologies, such as artificial intelligence (AI) and internet of things (IoT) in customer experience and operations. Given that digital masters constantly identify innovations, explore new ideas, and experiment (refer to Figure 13), it is not a surprise that they are faster to make use of innovative technologies like AI and IoT.

	Average	Digital Masters	Beginners
Customer Experience			
We have implemented AI to improve the customer experience	35%	55%	20%
We use IoT technologies to understand customer usage patterns of products and services	28%	54%	8%
We use IoT technologies to provide pre-emptive customer service remotely/on site	30%	61%	11%
Operations			
We have implemented AI into our operations	32%	53%	17%
We have implemented IoT technologies into our operations	29%	57%	12%

Source: Capgemini Research Institute, Digital Mastery Survey; April–May 2018, N=1338 respondents, 757 organizations.
*Based on the percentage of organizations agreeing to the question (rating of 5, 6, 7 on a scale of 1 to 7).

We are first and foremost an incredibly social company, and this is one of the key determinants of our culture. We, for example, use Chatter – our internal collaboration tool – more than we use email. Our social nature means that we have a culture of transparency, collaboration, and continuous learning."

Vala Afshar,
Chief Digital Evangelist at Salesforce

What can we learn from digital masters to sustain digital transformation?

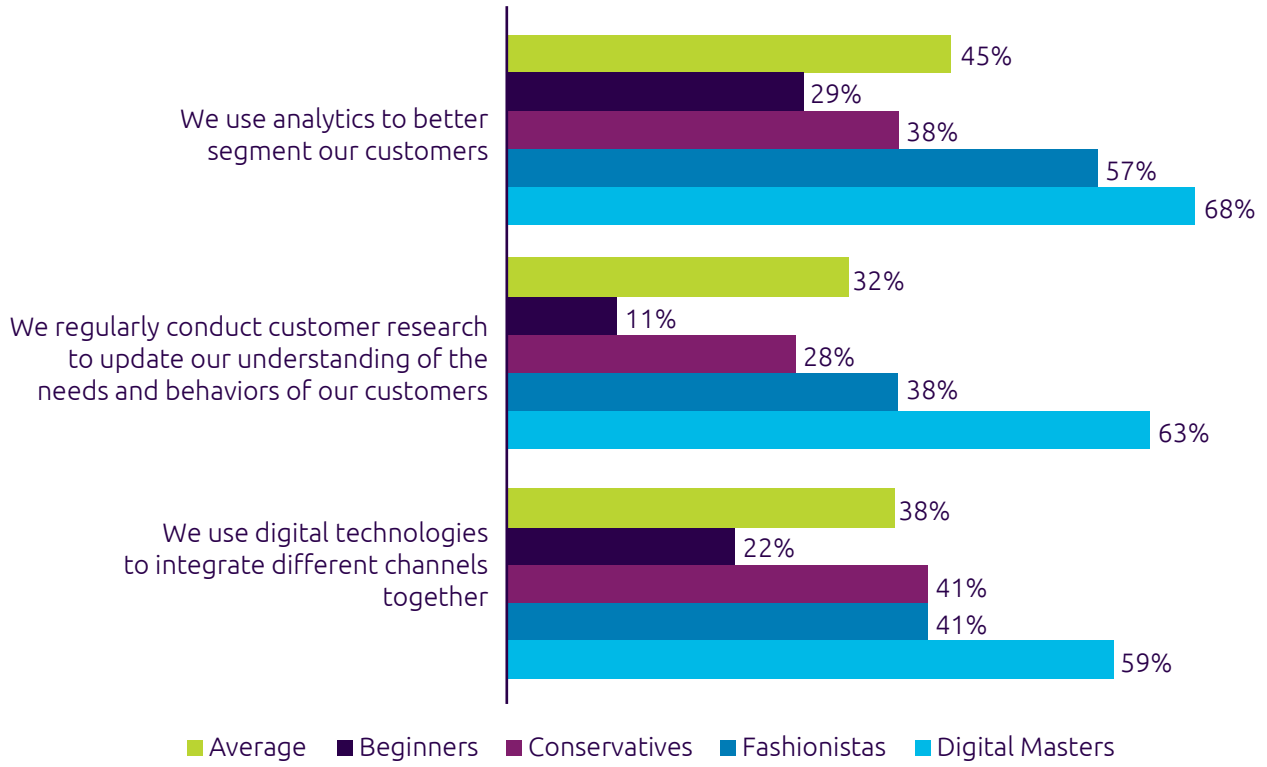
Digital transformation programs often fail because they lose momentum. The world has changed significantly, but it seems just as difficult today as it was in 2012 to be successful in digital transformation. Organizations still need to pay attention to the same dimensions that constitute success, such as customer experience, operations, vision, or, governance. Organizations must also place particular emphasis on talent and culture, which are two major impediments to achieving digital mastery.

We analyzed what digital masters – the cohort of high-performing organizations in our survey – do differently to identify best practices across both dimensions of digital and leadership capabilities and offer recommendations for organizations to sustain their digital transformations. This section of the report only includes questions that were not included in the digital mastery model. In other words, we wanted to be careful to not use the same questions to classify digital masters and to explain their practices.

Know your customers more intimately

Digital masters have a better understanding of their customers. Given that customer preferences change so fast in a digital world, organizations need to continuously monitor their knowledge of the market. Close to 70% of digital masters use analytics to better segment their customers and more than three out of five digital masters regularly conduct market research to gauge their customers' needs (see Figure 11). Nearly 60% of digital masters also offer an integrated cross-channel experience, using digital technologies. Only 22% of beginners can say the same. Sprint, the US-based telecom, created a Hadoop-based data lake to analyze customer data, to improve the way it recommends products to customers.[21]

Figure 11. Digital masters know the pulse of their customers better



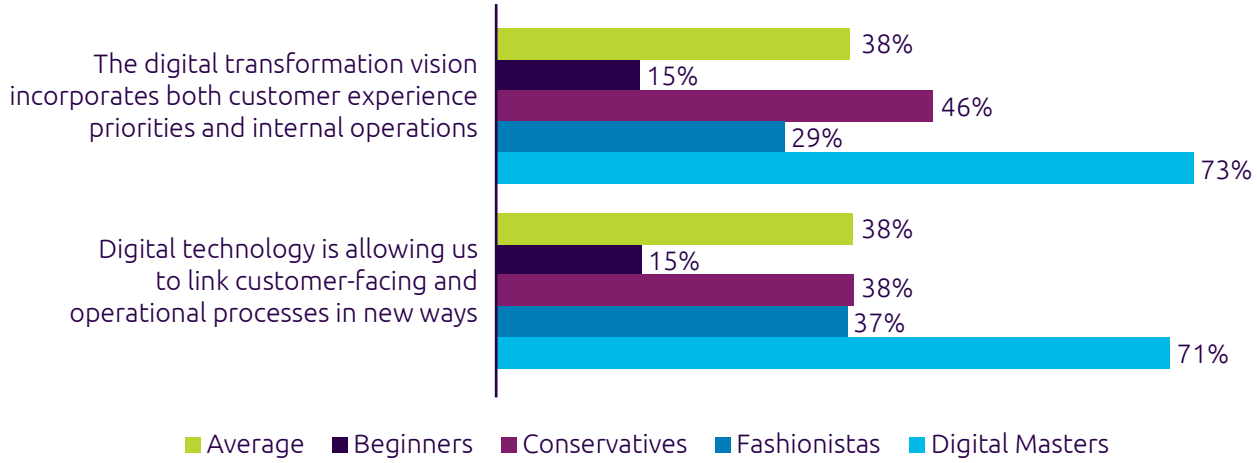
Source: Capgemini Research Institute, Digital Mastery Survey; April–May 2018, N=1338 respondents, 757 organizations.

*Based on the percentage of organizations agreeing to the question (rating of 5, 6, 7 on a scale of 1 to 7).

Align customer experience and internal operations

Digital masters align their operations to meet customer demands. They realize the importance of organizing consistently around the needs of the customer. As Figure 12 shows, 73% of digital masters incorporate both customer experience and operations priorities into their vision and 71% use digital technology to link customer-facing and operational processes in new ways. The Lego Group links customers directly to their product design process. Through its Lego Ideas website, Lego allows users to design their products, and then the company builds an actual Lego product from the most popular design.[22]

Figure 12. Digital masters ensure their operations are customer centric and linked to the vision



Source: Capgemini Research Institute, Digital Mastery Survey; April–May 2018, N=757 organizations; N=244 Digital Masters.
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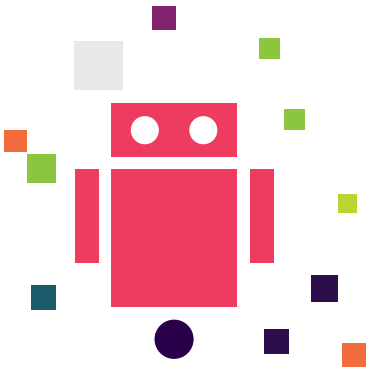
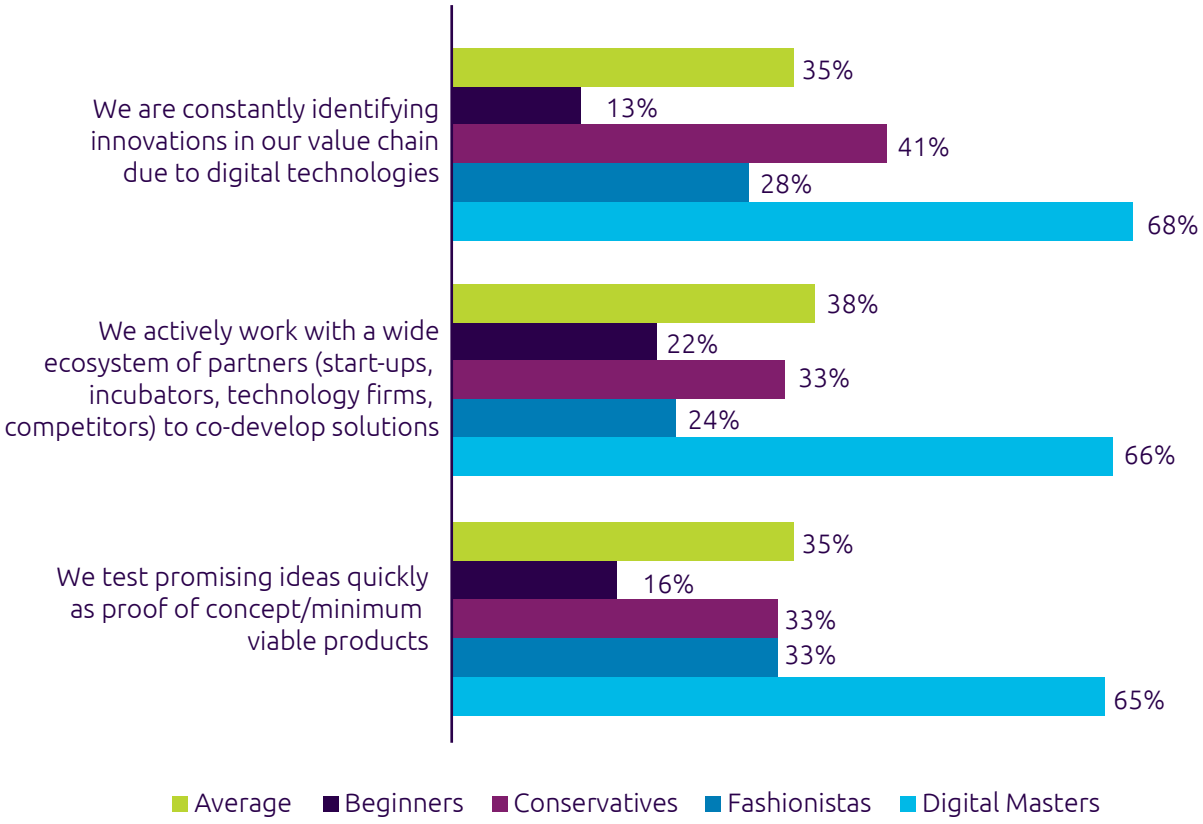


71% Percentage of digital masters that use digital technology to link customer-facing and operational processes in new ways

Stay abreast of innovations in your market

Digital masters constantly explore emerging technologies and business models. They are always on the look-out for new ideas. Two in three digital masters claim they are looking for innovations in their value chains. To accomplish this, digital masters (66%) work with a wide ecosystem of partners, compared to only 22% of beginners. Digital masters also test promising ideas quickly (see Figure 13).

Figure 13. Digital masters constantly identify innovations and test ideas



Source: Capgemini Research Institute, Digital Mastery Survey; April–May 2018, N=757 organizations; N=244 Digital Masters.
*Based on the percentage of organizations agreeing to the question (rating of 5, 6, 7 on a scale of 1 to 7).

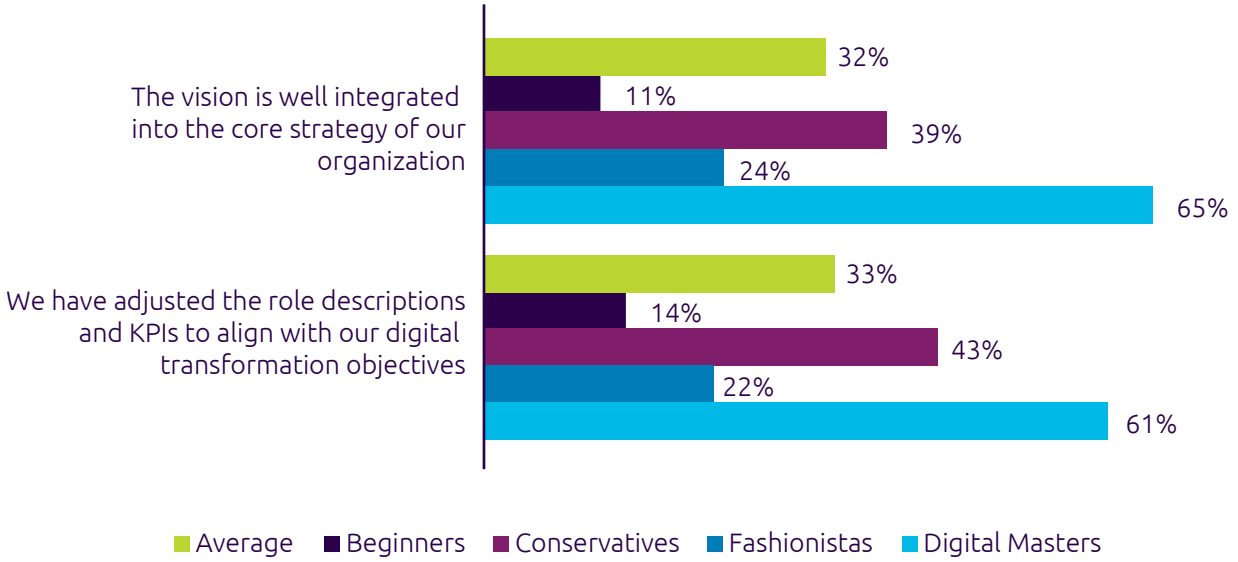
Set a vision and tie it to strategy and governance

Digital masters have aligned their strategy and KPIs with their vision. To drive an organization-wide change effort, Leadership should also explain a clear vision of where they want the organization to go. Such a vision should directly align with the business strategy. They also need to explain the importance and the need for the transformation program across the firm. While digital initiatives are often supervised by senior management, it is middle management that is typically involved in the day-to-day execution. Organizations must also ensure these employees are accountable by aligning roles and KPIs to the digital transformation objectives.

Close to two in three digital masters agree that the vision for their digital transformation is well integrated into their core strategy. For example, when Under Armour, a US footwear and apparel manufacturer, set a new vision to transform itself into a digital health and fitness company from an athletic apparel company, they developed a strategy to acquire technology-based fitness companies. As a result, Under Armour quickly mastered the digital capabilities needed to transform successfully.[23]

Sixty-one percent of digital masters also adjust their role descriptions and KPIs to align with their transformation objectives. Mark Jamison, global head of New Product Development at Visa, Inc. says, *"Successful companies understand the purpose of their existence. They really understand what their purpose is, the 'why,' and they don't get caught up over the long term in the 'what.' I call it 'freedom within a framework,' a strategy that tells you where you are going."*[24]

Figure 14. Digital masters have a strong governance program backing their vision



Source: Capgemini Research Institute, Digital Mastery Survey; April–May 2018, N=757 organizations; N=244 Digital Masters.
*Based on the percentage of organizations agreeing to the question (rating of 5, 6, 7 on a scale of 1 to 7).

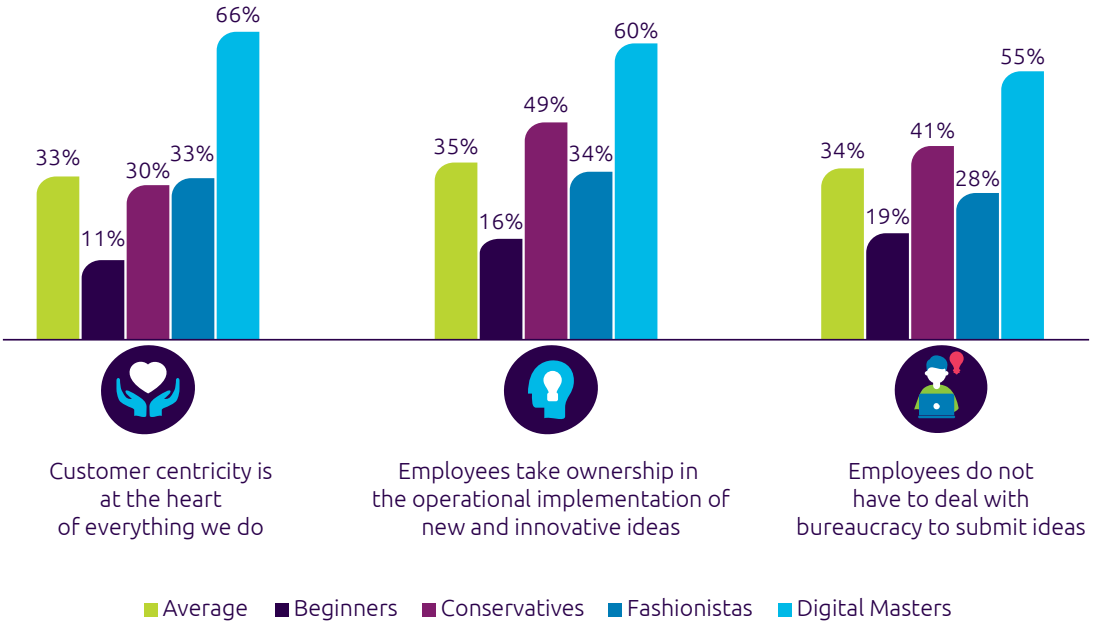
"Successful companies understand the purpose of their existence. They really understand what their purpose is, the 'why,' and they don't get caught up over the long term in the 'what.' I call it 'freedom within a framework,' a strategy that tells you where you are going."

Mark Jamison,
Global head of New Product Development at Visa, Inc.

Empower employees and put customers first

Digital masters work on setting up a digital culture. Organizations cannot truly transform themselves without transforming their culture. As Ian Rogers, Chief Digital Officer for LVMH says, *"The big moment for an organization is when they have embraced the fact that digital transformation isn't a technical issue, but a cultural change."*[25] Digital masters establish a digital culture in their organizations by focusing on data-driven decision making, experimentation, and customer-centricity, among others. Nearly two in three digital masters agree that customer centricity is at the heart of everything they do, compared to just 11% of beginners. Sixty percent of digital masters say their employees take ownership in the operational implementation of new and innovative ideas compared to just 16% of beginners (see Figure 15). Australia Post, the government postal service, drove cultural change by creating a new division – Digital Delivery Centre (DDC). The DDC leads innovation and integrates digital practices and agile approaches, rapid prototyping and design thinking into the organization's traditional processes, culture, and infrastructure.[26]

Figure 15. Digital masters empower their employees and focus on the customer



Source: Capgemini Research Institute, Digital Mastery Survey; April–May 2018, N=757 organizations; N=244 Digital Masters.
*Based on the percentage of organizations agreeing to the question (rating of 5, 6, 7 on a scale of 1 to 7).

To bring out the required culture change, organizations can reward the behaviors that comprise their unique digital culture, like data-driven decision making or digital-first mindset. These rewards could be financial and non-financial such as recognition or privileges.[27] *"You have to create an environment where there are incentives and rewards for collaboration as well as no penalty for someone speaking their mind,"*[28] says Vala Afshar of Salesforce.

Continuous feedback is also important to culture change. Mats Munkhammar of Green Cargo explains the importance of feedback when driving a cultural change. He says: *"To help bring about a culture shift, we must ensure we are giving good feedback on our employees' performance especially when we expect them to do things in a different way than they are doing today. We need to encourage the new behaviors for this new way of working."*[29]

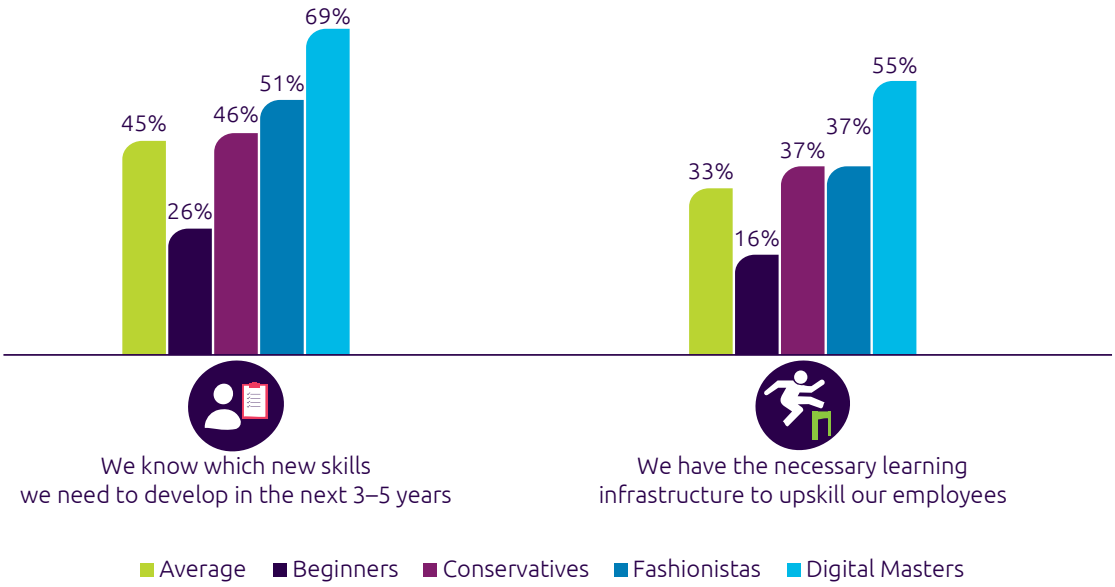
69% Percentage of digital masters that know which new skills they need to develop in the next 3–5 years

Proactively narrow the digital talent gap

Digital masters focus on talent development. Organizations need to take digital talent seriously and equip themselves with the talent and skills to succeed. 2017 Capgemini research revealed that over half (54%) of organizations agreed that the digital talent gap is hampering their digital transformation programs.[30] Digital masters are being proactive in understanding their needs and upskilling their employees.

Nearly 70% of digital masters say that they know what new skills they need to develop in the future compared to 26% of beginners. Over half (55%) of digital masters say they have the learning infrastructure to upskill their employees compared to just 16% of beginners (see Figure 16). Darren Shimkus, general manager, Udemy, a learning platform, emphasizes the importance of understanding skill needs from the employees. *"Corporate learning programs were all based on what the company thought an employee should know,"* he says. *"Now we are seeing much more employee-driven learning. Employees can decide. 'Do I need to learn the principles of data science to do my job? Do I need to learn digital marketing campaigns to do my job?' Employees are the ones who really understand what skills they need in order to accomplish their goal or to get to the next level in their career."*[31]

Figure 16. Digital masters develop their employees and plan for the future



Source: Capgemini Research Institute, Digital Mastery Survey; April–May 2018, N=757 organizations; N=244 Digital Masters.
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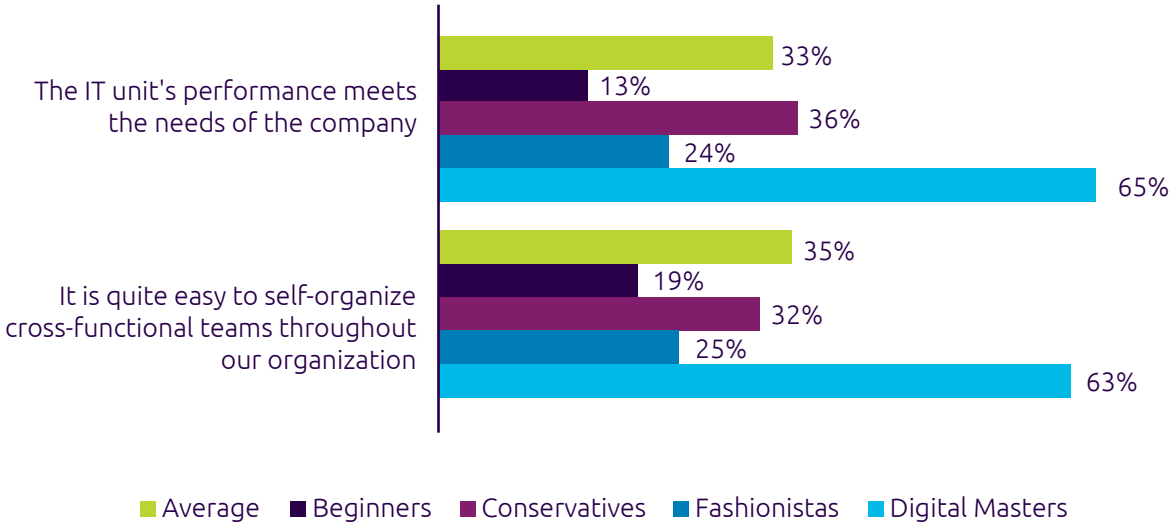
To ensure a focus on talent development and appeal to digital talent, organizations should also create an environment that prioritizes and rewards learning and establish a supportive and cooperative atmosphere. This support could mean providing digital talent the required tools to collaborate, have a flexible workplace, or an open and flat culture. As Gert Stuerzebecher, partner at DHR International Neumann, a global executive search firm says, *"Some companies do not give their digital experts the power to revolutionize. Therefore, resistance is built up against these people, which limits their success. Young digital talent are ambitious and want to work in a certain atmosphere. If organizations are too old-fashioned, digital talent will not succeed."*[32]

Break silos between business and technology

Digital masters' business and technology functions work together. The business and IT teams both play key roles in digital transformation, thus is it very important for the CIO, IT, and business teams to be aligned with the objectives of the program. This is certainly the case for Atif Rafiq of Volvo who combines consumer-facing innovation and technology with the digitization of the internal enterprise in his joint CIO/CDO role. From his vantage point, Rafiq is better positioned to connect the dependencies between the two, such as platforms that serve both consumer and enterprise use cases like the connected car platform. He says, *"By combining the consumer and enterprise digitization efforts in my role, we aim to leverage common capabilities more effectively."* [33]

Digital masters ensure their business functions and IT departments work with each other and that their objectives are aligned. Nearly two in three digital masters say that their IT unit's performance meets the needs of the company compared to just 13% of beginners. In addition, 63% of digital masters agree that it is easy to self-organize cross-functional teams versus 19% of beginners (see Figure 17).

Figure 17. Digital masters are satisfied with their IT team's performance and can organize across silos



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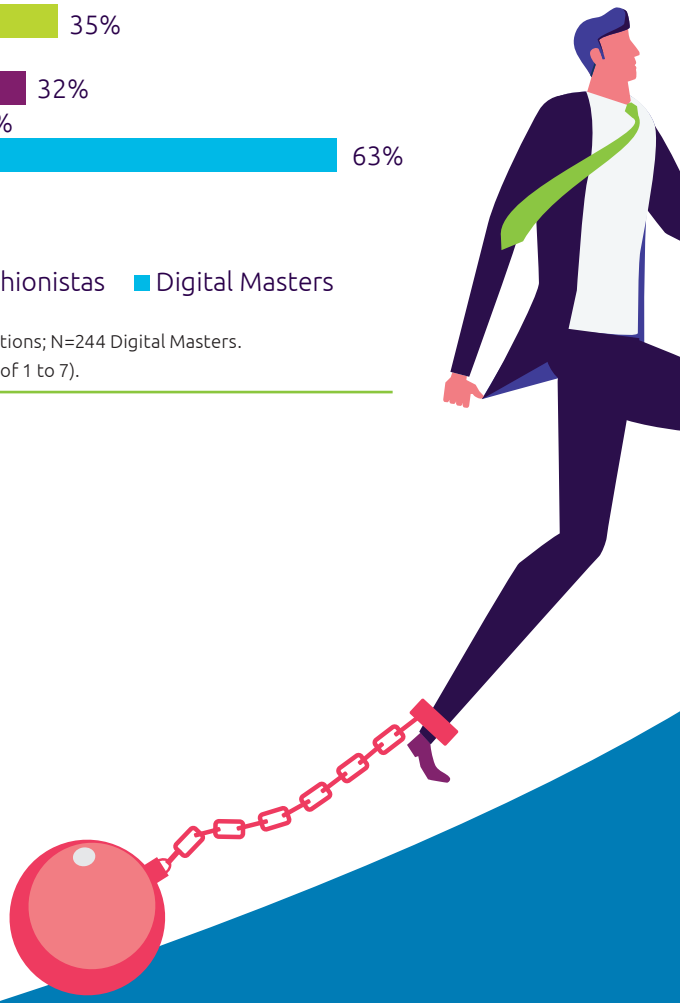
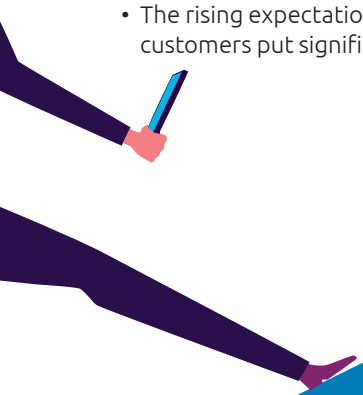


Conclusion

Despite six years after our original research, we find it is just as hard today as it was in 2012 to make digital transformation a success. While we see progress on customer experience, organizations have not kept pace on building the necessary capabilities in operations, IT-business relationships, vision, engagement, and governance. Today, many organizations might face the realities of the complexities of their journeys and realize just how challenging successfully transforming can be. Organizations have not moved forward fast enough. We believe this to be the case for a few reasons:

- It is difficult for organizations to adapt to the dizzying pace of technology innovation (e.g., artificial intelligence, internet of things, automation)
- Organizations might have been overly optimistic in 2012 and have now realized the magnitude of the challenge
- There are business model disruptions in many industries which are challenging traditional value-chains
- The rising expectations of markets, employees, and customers put significant pressure on organizations.

Our 2018 research also revealed that talent and culture represents a major challenge that stands in the way of success, and organizations are often failing to ensure their employees feel part of the journey. A renewed focus on the key dimensions for success in digital transformation, such as operations and governance and in particular, talent and culture, will help organizations revitalize their digital transformations. If organizations do not re-focus, they might continue to lag behind.



“Some companies do not give their digital experts the power to revolutionize. Therefore, resistance is built up against these people, which limits their success. Young digital talent are ambitious and want to work in a certain atmosphere. If organizations are too old-fashioned, digital talent will not succeed.”

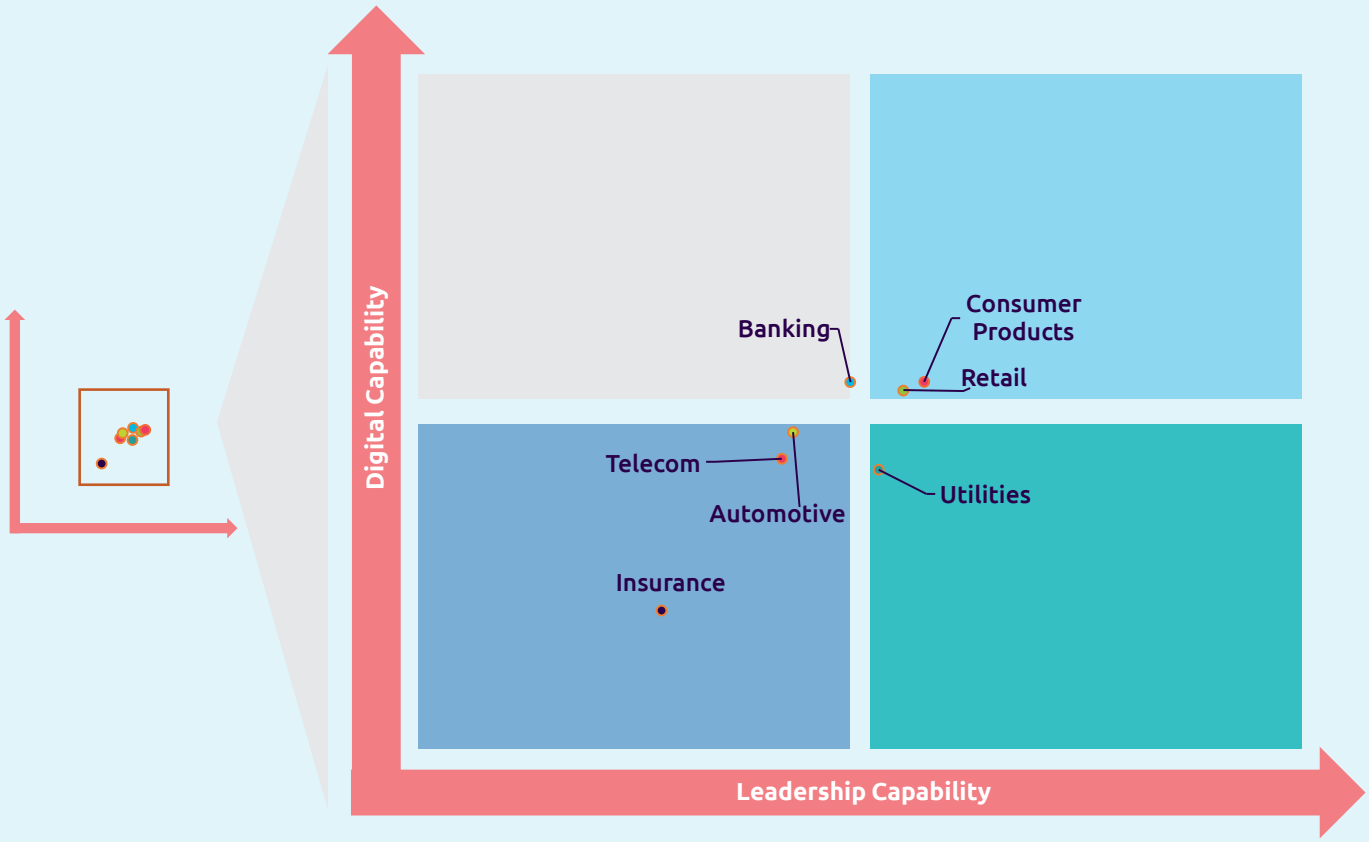
Gert Stuerzebecher,
Partner at DHR International Neumann

Digital mastery by industry

Of the industries we surveyed, the one that has the greatest digital mastery is consumer products (see Figure 18). The consumer products industry has long focused on customer experience, and prolifically makes use of data, mobile, and social to analyze consumer trends. This, coupled with strong leadership capabilities, has likely made the industry rank first in digital mastery. L'Oréal is one such organization that is doing well in its customer experience. The company collects extensive customer data from direct-to-consumer websites in order to anticipate new trends. L'Oréal has also focused on upskilling its workforce, connecting with start-ups across the world and integrating new technology into the customer experience. Even digital masters know that digital transformation is a constant journey. Lubomira Rochet, chief digital officer, says that digital transformation happens in stages, *"We're only in the midst of the first phase of putting digital at the center and at the heart of all we do … we're constantly evolving."*[34]

Insurance trails retail banking in the implementation of artificial intelligence and automation.[35] Insurers are also playing "catch-up" on customer experience given that customer satisfaction is lower for insurers than banks in service transactions.[36] These trends might help explain the industry's placement in the lower left quadrant.

Figure 18. Digital mastery of industries*

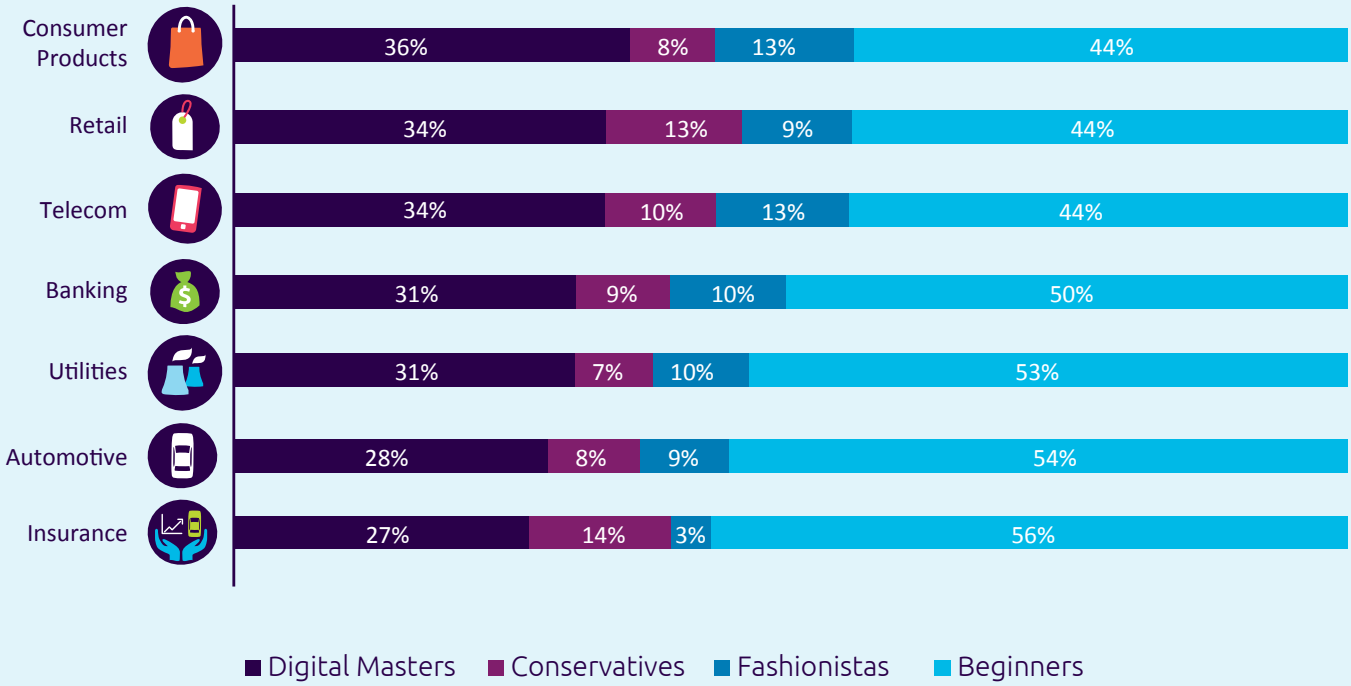


Source: Capgemini Research Institute, Digital Mastery Survey; April–May 2018, N=1,279 respondents, 705 organizations.

*Industries were included in this analysis if they had 85 or more organizations.

Figure 19 helps clarify the digital mastery differences among industries. It shows the percentage of organizations in each industry by quadrant. Consumer products has the highest percent of digital masters (36%) while insurance has the highest percent (56%) of beginners.

Figure 19. Digital mastery breakdown by industry



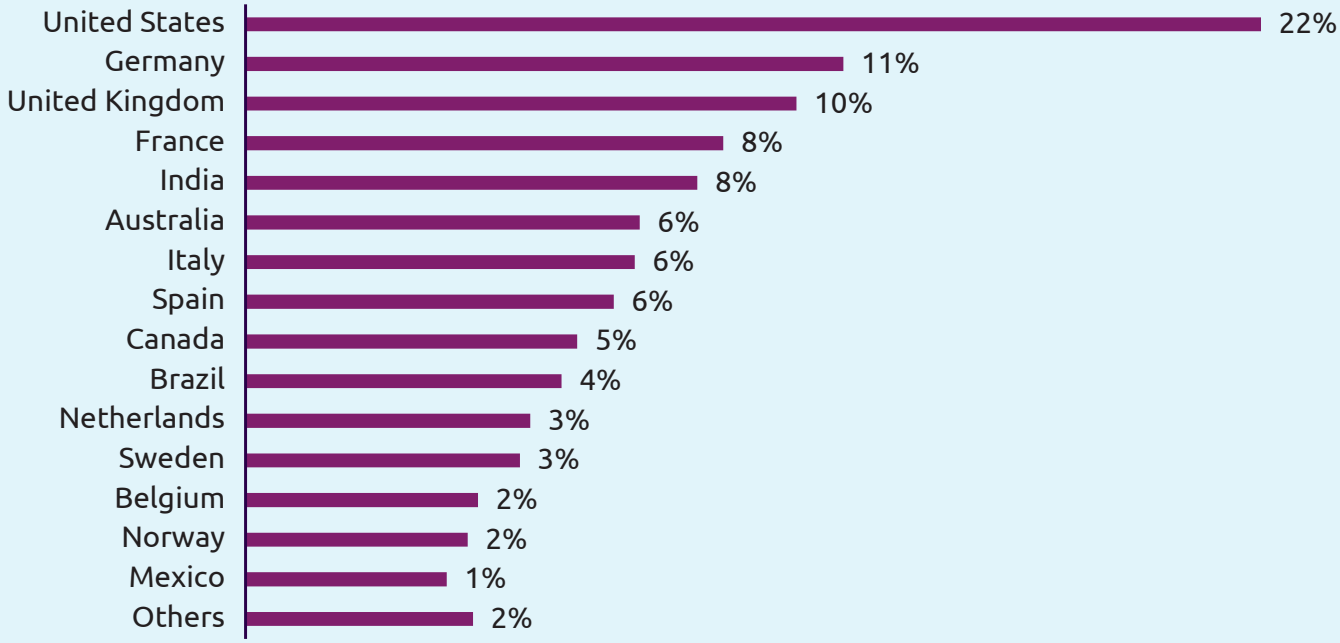
Source: Capgemini Research Institute, Digital Mastery Survey; April–May 2018, N=1,279 respondents, 705 organizations.

*Industries were included in this analysis if they had 85 or more organizations.

Research Methodology

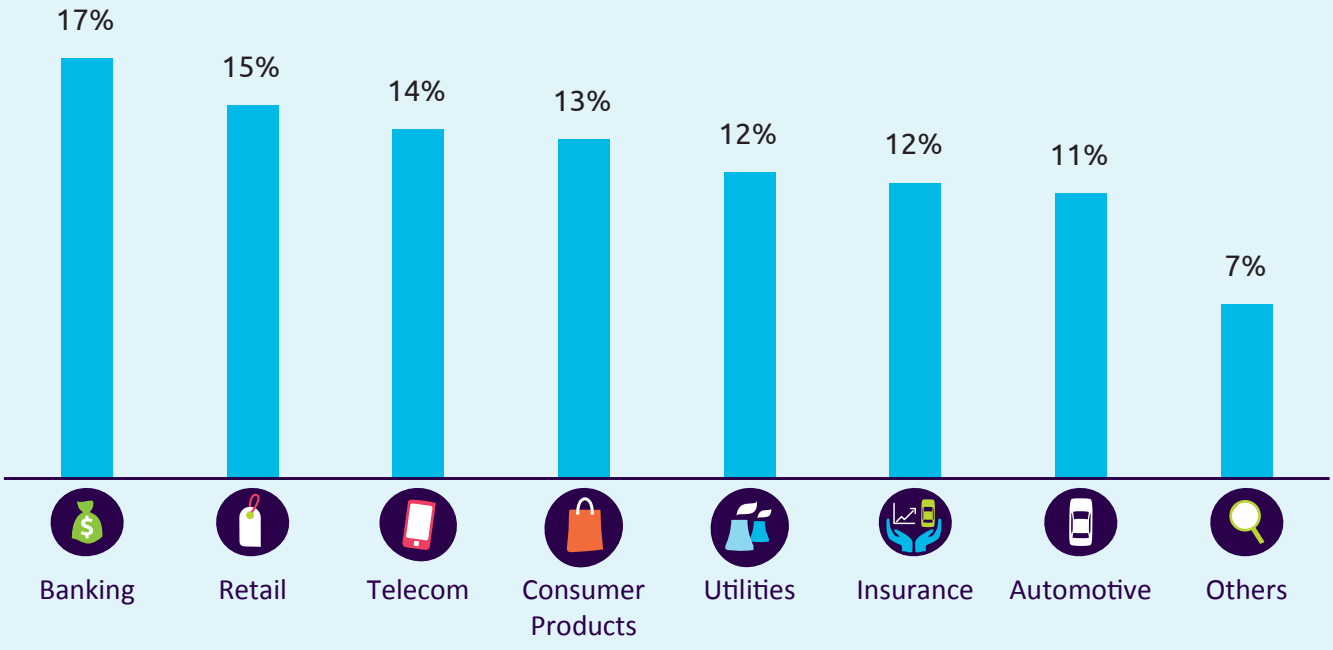
We surveyed 1,338 business leaders at the manager level or above at 757 organizations. Seventy one percent of organizations had reported revenue of more than $1 billion in FY 2017. The global survey took place from April to May 2018. More detail is below.

Organizations by country of headquarters



Source: Capgemini Research Institute, Digital Mastery Survey; April–May 2018, N=1,338 respondents, 757 organizations.

Organizations by industry



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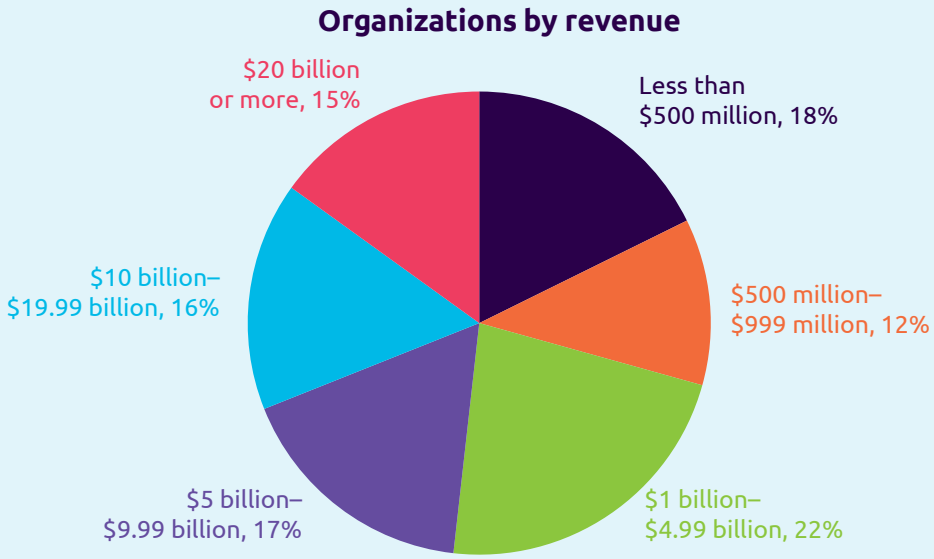

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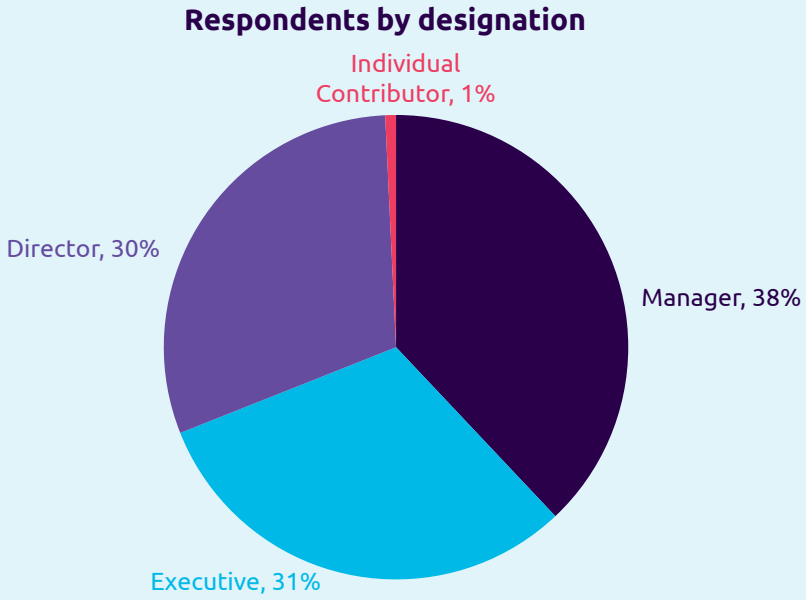

Source: Capgemini Research Institute, Digital Mastery Survey; April–May 2018, N=1,338 respondents, 757 organizations.

A note about the analysis:

The digital mastery matrix (Figure 5) was constructed using 77 of our survey questions out of a total of 116 questions.

- Section 1 entitled "Many organizations are finding their digital transformation journeys a struggle" only includes the 43 questions that were asked in the exact same manner in 2012 and 2018.
- Section 2 entitled "Employees are not being invited on the digital transformation journey" only includes questions that were used in building the digital mastery model.
- Section 3 entitled "What can we learn from digital masters to sustain digital transformation?" only includes questions that were not used in building the digital mastery model.

References

1. IDC, "IDC forecasts worldwide spending on digital transformation technologies to reach $1.3 trillion in 2018," December 2017.
2. Capgemini Consulting and the MIT Center for Digital Business, "The Digital Advantage: How digital leaders outperform their peers in every industry," 2012.
3. Ibid.
4. Forbes, "Creating more personal connections at retail," August 2017.
5. Medium, "How the North Face is using artificial intelligence to close the gap between the in-store and online experience," November 2017.
6. Capgemini Research Institute, Digital Mastery Interview with Enrico Maria Bagnasco, Head of Technology Innovation, Telecom Italia, May 2018.
7. Gartner, "Make the best of shadow IT," January 2017.
8. Gartner, "Bring shadow IT out of the dark," June 2015.
9. Capgemini Research Institute, "Digital Transformation Review 10th Edition – The Digital Culture Challenge: All On Board," 2017.
10. Ibid.
11. Capgemini Research Institute, Digital Mastery Interview with Mats Munkhammar, SVP and CIO/IT director, Green Cargo, May 2018.
12. Capgemini Research Institute, "The Digital Talent Gap: Are companies doing enough?" October 2017.
13. Ibid.
14. The Learning House, Inc. and Future Workplace, "Closing the Skills Gap," 2018.
15. Ibid.
16. Capgemini Research Institute, "The Digital Culture Challenge: Closing the employee-leadership gap," June 2017.
17. Ibid.
18. Ibid.
19. Capgemini Research Institute, "Digital Transformation Review 10th Edition – The Digital Culture Challenge: All On Board," 2017.
20. Ibid.
21. CIO, "16 real-world digital transformation success stories," February 2018.
22. FastCompany, "The secret to Lego's social media success is in the creative power of crowds," June 2017.
23. Forbes, "Under Armour is now the largest digital health and fitness company on earth," September 2017.
24. Capgemini Research Institute, "Digital Transformation Review 9th Edition – The Digital Strategy Imperative: Steady Long-Term Vision, Nimble Execution," 2016.
25. Capgemini Research Institute, "The Digital Culture Challenge: Closing the employee-leadership gap," June 2017.
26. Forrester, "Case Study: Australia Post embraces digital business transformation," 2017.
27. Westerman, George, Bonnet, Didier, and McAfee, Andrew. "Leading Digital: Turning Technology into Business Transformation," Harvard Business Press, 2014.
28. Capgemini Research Institute, "Digital Transformation Review 10th Edition – The Digital Culture Challenge: All On Board," 2017.
29. Capgemini Research Institute, Digital Mastery Interview with Mats Munkhammar, SVP and CIO/IT director, Green Cargo, May 2018.
30. Capgemini Research Institute, "The Digital Talent Gap: Are companies doing enough?" October 2017.
31. Ibid
32. Ibid
33. Capgemini Research Institute, "Digital Transformation Review 11th Edition – Artificial Intelligence Decoded," 2018.
34. Ad Exchanger, "L'Oréal's digital transformation is far more than skin deep," November 2017; Which-50, "Who is doing digital transformation well? Let's start with L'Oréal," July 2017.
35. Capgemini Research Institute, "Growth in the Machine: How financial services firms can move intelligent automation from a cost play to a growth strategy," 2018.
36. Capgemini, "World Insurance Report 2018," 2018.

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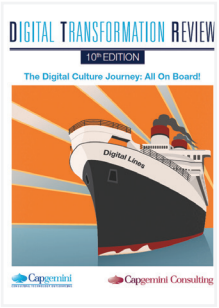

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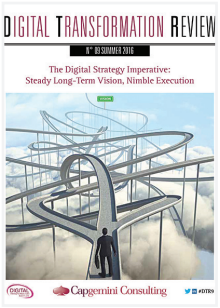

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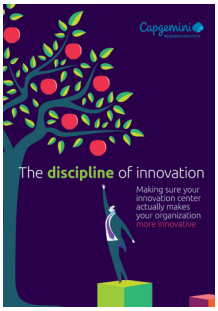

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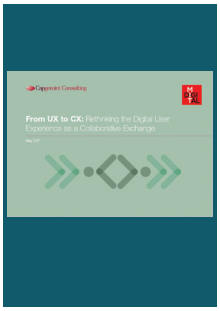

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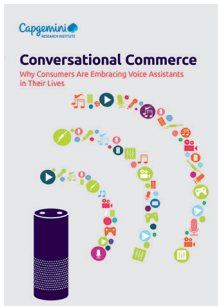

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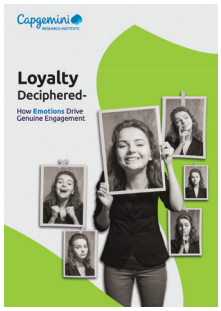

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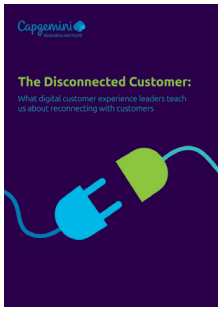

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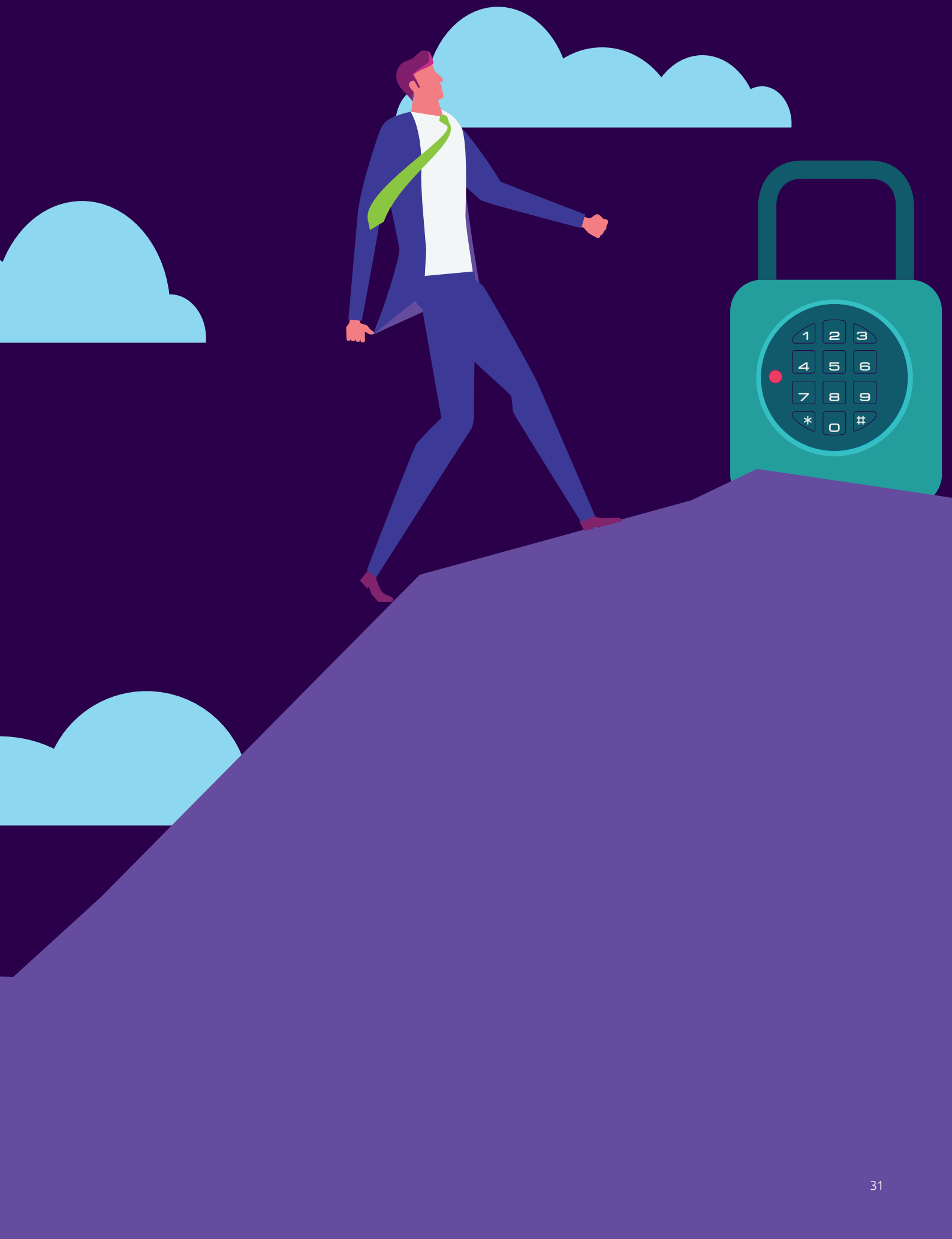
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