D&LLTechnologies

Embracing a Digital Future Transforming to leap ahead

Research by Vanson Bourne & Dell Technologies exploring the implications of digital disruption around the world, how companies are transforming to meet changing customer demands and business leaders' plans to succeed in the connected future.

Foreword

It's the dawn of the Internet of Everything – what many have called the next industrial revolution. This is a revolution that is fundamentally altering the way we live, work and relate to one another, and will transform the way every business in every industry operates.

We believe that this monumental change is rich with opportunity. But for businesses to play a part in this next industrial revolution, they must transform digitally. How are businesses reacting to this revolution and the great opportunity – and yes, threat – it represents? We think it's a very interesting question – one which ought to be answered. So we commissioned a team of researchers to find out. After surveying 4,000 business leaders across 16 countries and 12 industries, what can they tell us?

"We believe that this monumental change is rich with opportunity. But for businesses to play a part in this next industrial revolution, they must transform digitally."

First, the revolution is already here, and the pressure is on established companies to act. Over half (52%) of respondents have already experienced significant disruption to their industries as a result of digital technologies and 78% of respondents consider digital start-ups as a threat, either now or in the future. In my view, the barriers to entry that used to protect established companies, are significantly lower, perhaps even non-existent. Strikingly, 48% of respondents said they don't know what their industry will look like in 3 years' time – a stark contrast to the past when established companies were stewards for their industry and the products and services they delivered to customers.

So what does the research suggest about how respondents are reacting to the pressure to transform? The researchers found that while many organizations have begun to respond, progress is patchy.

They plotted the progress of all 4,000 respondents along a Digital Transformation Index. The curve shows there are five types of businesses traveling on the path towards their digital future.

Businesses in the top group – the Leaders – are delivering new customer experiences by writing software to make their products smart or take their services online. They proactively drive change and seek to take control of their digital destiny, delivering on the attributes of a digital business as a result. This group represents just 5% of the business population. Companies in the Digital Adopters group – representing 14% of respondents – are still doing a stand-up job. They've got a pretty mature plan and they've implemented a number of programs driving their digital future. The largest chunk of respondents, 34%, find themselves in the Digital Evaluators group and are gradually embracing innovation ('gradually' being the operative word). A full 32% are classified as Digital Followers; companies that are still at the very early stages of their journey. They've got a lot of catching-up to do. Firms in the Laggard group resist change - their very survival hangs in the balance. They represent 15% of respondents.

Foreword

Suffice it to say, the majority of businesses are only beginning their digital transformation. If you're a part of this majority, are you doomed? No, of course not. While the revolution is upon us, it's nowhere close to completion. The opportunity is and will continue to be massive. But the time to act is now.

I encourage you to read this research and take the time to honestly appraise your own progress. Where on the curve do you fall? The research not only identifies the present state of digital transformation today – it highlights the barriers many of your peers will have encountered in taking their first steps towards their digital futures – barriers, that you can now know to avoid.

"While the revolution is upon us, it's nowhere close to completion. The opportunity is and will continue to be massive. But the time to act is now. Almost one in two (45%) report their company may become obsolete within the next three – five years."

And if after reading you find yourself asking the question "How can I adapt my business to operate in this new digital world?" know that we at Dell Technologies are at the ready to help. We have the right vision, the practical steps to get there and the market-leading technologies and services to help you adapt your business and achieve your digital future.

Jeremy Burton Chief Marketing Officer Dell

Pressures to transform

The pressures to transform are coming from every direction, from customers, competitors, the C-suite and heads of department.

Together, they're making any business that's intermediated, high cost and transactional in nature, ripe for digital disruption. In theory, the customer has always been king. But years ago, the reality was quite different. Businesses set the agenda; they shaped consumer trends and meted out customer care at their convenience. The balance of power has now shifted. Today, respondents say customers are a top driver behind their digital business strategies.

Related to this, is the emergence of non-traditional start-ups. A rising generation of consumers, whose insatiable appetite for faster, slicker, personalized services is creating a fertile environment for nimbler, information-driven companies to thrive in.

"We've been in business for 140 plus years. We used to provide armed security guards. We're now the largest professional installer of home automation solutions in the U.S. We're very fortunate in that over the last couple of years, we've seen a lot of market disrupters. They've forced us to keep transforming and stay relevant within the marketplace."

- Alexander Bingham, Platform Architect, ADT Security

Sixty-two percent of our respondents have seen new competitors in their industries as a result of digital technologies and initiatives. Their presence is ratcheting-up the pressure on established businesses to compete. Almost one in two (46%) claim competition from peers is providing one of the greatest impetuses to transform.

The C-suite/senior management are also advancing digital agendas. Four in ten (41%) claim the top echelons of their organizations are steering their transformation. In reality, this should be higher, given everything that's at stake. Additional vectors of change are coming from employees, partners and stakeholders; together making the pressure to transform immense.



The good news is progress is being made – but it's patchy, across organizations and industries globally. Respondents tell us only parts of their business are thinking and acting digitally and the vast majority (73%) admit digital transformation could be more widespread throughout their organization.

This is further evidenced by business success against the five attributes of a digital business. In 2015, business leaders agreed there are a core set of attributes businesses must embrace to succeed over the course of the next decade. At the time, only one in 10 companies were performing any of the five digital business attributes well and company-wide. In 2016, this climbed to one in three.

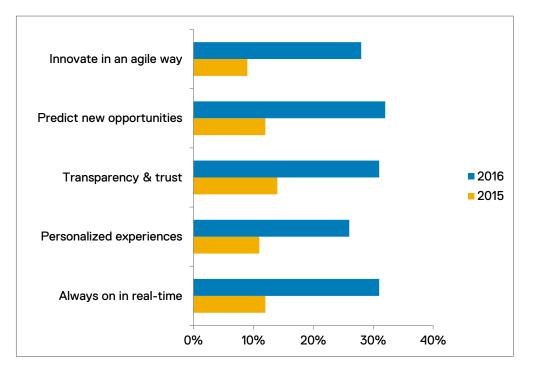
The rise deserves some applause. However, the majority of businesses still have a lot of catching-up to do. Only 7% of businesses are executing all five attributes well and company-wide.

Most people say the attributes are only being implemented in pockets of an organization. Half of these respondents call-out the IT department for addressing digital attributes. Forty percent credit marketing and finance for the same reason. But only 29% think the R&D folks are performing the attributes, followed by 22% for sales.

Furthermore, organizations are reporting deficiencies in a related range of areas:

- · 72% of executives admit to not innovating well, organization-wide
- · 64% confess to not acting on intelligence in real-time
- · Around six in ten are unable to completely meet customers' digital demands

On average, only 1 in 3 businesses are performing any of the five attributes of a digital business well and company-wide.



Barriers to progress

Digital transformation efforts are being stymied by a wide range of issues – particularly a lack of budget and resources. On average only 23% of IT budgets will be tied to digital transformation efforts over the next three years.

The lack of resources points to a bigger issue: digital transformation is not a central strategic pillar for many organizations.

The top barriers to progress are:

- 1. Insufficient budget and resources
- 2. Lack of executive support
- 3. Inadequate expertise and skills
- 4. Technologies that can't work at the speed of business
- 5. Data privacy and security concerns

The fourth barrier 'technologies that can't work at the speed of business' can be traced back to existing, traditional infrastructure and the difficulties of battling legacy technology.

For example, seven in 10 (69%) businesses believe their organization is being held back by too many traditional apps. This only intensifies the threat posed by digital start-ups: 41% claim these digital start-ups are more agile because they're free of legacy technology.

"I've been digitizing my whole life. We used to move paper around. The difference today is everything's much faster; big data is real. We're embracing technology to better serve our customers."

- Jamie Dimon, Chairman and CEO, JPMorgan Chase

Prioritizing digital

In light of the acute portent of disruption, rescue plans are being created and businesses are starting to escalate a remedy. To advance their digital transformation, 73% are in agreement that a centralized technology strategy needs to be a priority for their business and 66% feel incentivized to invest in IT infrastructure and digital skills leadership. These are significant strides forward.

Every business, from laggards in healthcare to those currently leading the pack in media and entertainment, will need to go on a digital journey. Businesses are realizing as much and equipping themselves accordingly. Almost three in four (72%) of respondents are now expanding their software development capabilities. This is a particular area of focus for businesses at the top end of the maturity spectrum (84% in Mexico, 80% in India and 78% in Brazil are developing their software development capabilities).

Businesses are also starting to make purposeful, data-driven technology choices by drawingup three-year investment plans. According to the 4,000 respondents, the top four technology priorities are converged infrastructure, ultra-high performance compute, data analytics and data processing and IoT technologies.

"Whether you're a product company or service firm, new software is required to make your product smart, or to take your service online. The challenge for many companies is that they haven't written a line of code in 20 years."

- Jeremy Burton, Chief Marketing Officer, Dell

This refocus on digital is extending beyond IT and into the Boardroom and wider workforce. A minority of businesses are allowing their digital strategy to shape who they do business with, how they run their budgets and organize themselves.

For instance:

- 35% are partnering with digital start-ups and now follow an open innovation model and 28% have acquired skills and innovation they need through M&A and joint ventures.
- 28% have spun-off a separate part of the organization more boutique and agile in nature.
- · 38% have a dedicated executive committee to assess digital transformation progress.
- · 46% are integrating digital goals into all department/staff objectives.
- 36% have created a full digital P&L and 17% measure success according to the number of patents they file.

Taken together, it's apparent that digital strategies are being drawn up and plans are being crystallized; the buds of which are starting to bloom around the world.

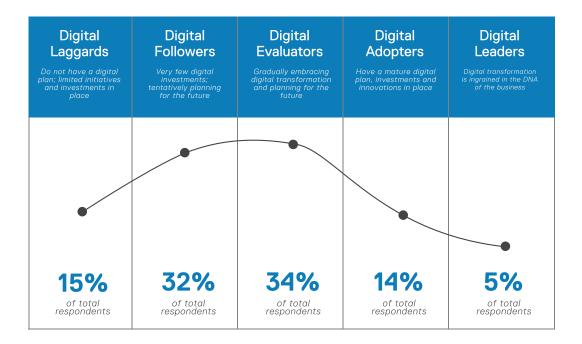
Benchmarking digital success

To create the Digital Transformation Index, research company Vanson Bourne, analyzed and scored responses to questions based on performance against a set of digital business attributes (defined by business leaders as imperative for success over the next decade). It also examined companies' stated investments and plans for their company's digital transformation.

Vanson Bourne then split respondents' businesses into five different maturity groups. The group with the highest mark, out of 1,000, represents the most digitally mature businesses. The group with the lowest result, represents the most immature businesses. There is a sliding scale in-between.

The results of the benchmark are as follows.

Currently the Leader group represents just 5% of the business population. Digital Adopters represent 15% of respondents - they have a pretty mature plan in place and have implemented a number of programs to advance their digital futures. The largest proportion of respondents, 34%, find themselves in the Digital Evaluators group, gradually embracing innovation. Nearly half are classified as Digital Followers or Digital Laggards, showing that across the globe, there is still an awful lot to do to succeed in the digital economy.



In addition to ranking each respondent by business group, Vanson Bourne also provided a country and industry ranking, based on respondents' geography and vertical.

The benchmark tells us very quickly how some industries and nations are faring, compared to others. For instance, it shows that the healthcare and insurance industries are trailing behind, whereas telecoms and media and entertainment are paving the way.

| India Telecoms Brazil Technology Mexico Media and entertainment | NOS |
|---|-------------|
| | |
| Mexico Media and entertainment | TMA |
| | MOST MATURE |
| | |
| Canada Insurance | LEAS. |
| China Private healthcare | AST MATURE |
| Japan Public healthcare | |

The Digital Transformation Index reinforces the uneven state of play and gives businesses the information they need to assess their performance and forge ahead. While some businesses should be applauded for taking a digital-first approach, it should be emphasized that no industry is immune from a sudden change in wind direction.

Companies need to continuously and quickly create new smart products and consumer-grade applications to ensure they won't be 'Uber'd', 'Airbnb'd' or 'Tesla'd' in their own backyard.

There is still a long way to go, but with change comes opportunity

When you take the unfettered nature of change into account, it's clear we're staring into a world of infinite possibility. With the business landscape moving so quickly, the risks of missing the next quantum leap in human progress and falling into obscurity are real. This is certainly the case for a large portion of respondents that we interviewed.

While progress is being made, our evidence suggests that for the majority of businesses, there's still a long way to go. Organizations, at every stage, will need to couple the latest and greatest in technology with a shift in mindset, an investment in their staff and a bold approach which includes rethinking business models.

Put another way, digital transformation requires a commitment to transform not only people and processes, but also the very technology upon which a business is built, from the edge to the core to the cloud.

Businesses of every kind still have a chance to leap ahead. Change, if embraced correctly, can open a world of opportunity.

"Callaway is transitioning from a golf club company to a digital company, from the way we design product, to the way we understand consumer demands, predict new trends and customize our products. Our aim is to be right there with our customers – arm in arm."

- Harry Arnett, SVP of Marketing, Callaway Golf.

About the study

The research was commissioned by Dell Technologies and undertaken by Vanson Bourne, an independent research company based in the UK.

Four thousand business leaders, from mid-size to large enterprises, were interviewed across 16 countries. The respondents were drawn from 12 industries and key functions impacting the customer experience (from business owners to decision-makers in marketing, customer service, R&D and finance etc.).

The research explores where digital business demands and pressures are coming from, what does a digital business look like, their digital business approach and how well they're doing.

| Job functions surveyed | Industries surveyed | Countries surveyed |
|---|--|---|
| • Owner/Executive | • Media and Entertainment | Americas: USA, Canada, Brazil, Mexico |
| · Finance | Financial Services | |
| • Sales | Public Healthcare | APJ: Australia, China, India, Japan |
| · IT/Tech | • Private Healthcare | |
| Customer services | Automotive | EMEA: France, Germany, Italy, Switzerland, The Netherlands, UAE/Saudi Arabia, United Kingdom |
| Marketing | Technology | |
| Production and | · Telecoms | |
| manufacturing | Insurance | |
| · R&D | Life Sciences | |
| • Digital | Manufacturing | |
| Customer Experience Logistics and supply chain | Oil and Gas | |
| | • Retail and consumer | |

About Dell Technologies

<u>Dell Technologies</u> is a unique family of businesses that provides the essential infrastructure for organizations to build their digital future, transform IT and protect their most important asset, information. The company services customers of all sizes across 180 countries – ranging from 98% of the Fortune 500 to individual consumers – with the industry's most comprehensive and innovative portfolio from the edge to the core to the cloud.

About Vanson Bourne:

Vanson Bourne is an independent specialist in market research for the technology sector. Our reputation for robust and credible research-based analysis is founded upon rigorous research principles and our ability to seek the opinions of senior decision makers across technical and business functions, in all business sectors and all major markets. For more information, visit www.vansonbourne.com.

