2018 TIBCO CXO Innovation Survey

Executive Brief

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Executive Brief — 2018 TIBCO CXO Innovation Survey

Innovation Everywhere

Innovation is top of mind with executives across all industries. It's the topic of conferences, keynotes, and countless articles from Forbes to the Wall Street Journal. Innovation tops the list of strategic priorities for the majority of C-level executives. And like many technology buzzwords before it, this one is often misunderstood. The *2018 TIBCO CXO Innovation Survey* was designed to explore this critical topic in depth and to determine the supporting strategies that executive leaders are using to insure their companies keep pace and lead through innovation. Perhaps more importantly, the research examines the hurdles to success, supporting technologies, and the importance that people, culture, and technology play when combined with innovation strategies.

The Role of Digital Transformation in Innovation

To better understand these strategies, TIBCO's research focused first on the foundation necessary to support, enable, and drive innovation forward: digital transformation. As a strategy, digital transformation has been active for many years. Research firm IDC predicts that by the end of 2019, digital transformation spending will reach $1.7 trillion worldwide[1]. Companies are focused on

better enabling asset management, business ecosystems, business models, customers, initiatives, and processes with technology and automation to move quicker and make better decisions.

Digital transformation allow a company to own its destiny as a digital business, to stay competitive and drive innovation. Smart companies are investing heavily in digital transformation so they can leverage interconnected ecosystems and information intelligence to empower IT as well as all lines of their business.

Digital transformation capabilities have become the necessary foundation for innovation in today's highly competitive landscape. At its core, digital transformation is a necessity to make information the DNA of your business, and in doing so, leads you to sophisticated technologies that leverage and optimize your innovation strategy.

Research Highlights 2018

The 2018 TIBCO CXO Innovation Survey surfaced insights from over 600 global respondents who shared their strategies for innovation. This executive brief highlights nine critical findings from the research.

[1] IDC Research. November 2017. https://www.idc.com/getdoc.jsp?containerId=prUS43188017

Key Findings

The 2018 research covers a wide variety of topics that dive deeply into the drivers of innovation, strategies for success, and the technologies used to create disruption (Cloud, BI/Analytics, App and Data Integration, IoT, AI/ML, Open Source, and Blockchain). The following are nine key findings from the research: Digital transformation is a work in progress; over two-thirds of survey respondents have yet to reach expert status.

- There is a critical dependency between digital transformation maturity and a company's ability to innovate and disrupt.

- Executive management and IT management play a critical role in sponsoring innovation projects, but one-third of projects are originated by other functions and leaders in the organization.

- Technology is critical to innovation, but without empowering innovative people and teams along with creating and supporting an innovative culture, innovation will fail.

- Obstacles to success for innovative projects are directly linked to technology, culture, and people.

- Survey respondents further along in their digital transformation journey use different technologies to innovate than respondents early in the process.

- CXOs drive and sponsor innovation, but new technologies are being driven by teams throughout the organization.

- Respondents are adopting cloud, BI/analytics, and integration solutions as an early part of their innovation strategy. AI/ML, open source, blockchain, and IoT align to more sophisticated strategies.

- Use cases for BI and analytics are now pervasive across the respondent companies, highlighting the critical role that technology plays.

Digital Transformation Journey

Digital transformation maturity can be described in a variety of ways. For the 2018 TIBCO CXO Innovation Survey, we used a model created by the MIT Center for Digital Business and Capgemini Consulting that segments digital maturity into four groups: digital beginners, digital conservatives, digital fashionista (experimenter), and digirati (expert). The survey showed that nearly 35% of respondents were classified as digirati (expert) in their digital transformation maturity, while approximately 65% were spread evenly across the other three segments.

These findings illustrate how difficult, expensive, and time-consuming digital transformation can be. Efforts to transform digitally are not new, and there is a long journey ahead for many companies who are striving to build a foundation for innovation (Figure 1).

Digital Transformation Maturity Drives Innovation

Innovating and disrupting within your industry is critical to staying competitive or taking the lead in a market. The research found a direct dependency on maturity of digital transformation strategy and a company's ability to innovate and disrupt. The research found that 55% of respondents are able to innovate and/or disrupt within their industry, while at the same time, 83% fell short in their abilities in some way.

When examining the research in greater detail, we found that respondents who were segmented as digirati (experts) were innovating or disrupting 71% of the time in comparison to digital beginners who were only using digital capabilities 20% of the time. Even digital conservatives were using digital at a rate of 51%, far exceeding the efforts of digital beginners. The survey shows clearly how critical digital transformation maturity correlates to a company's ability to innovate Figure 2).
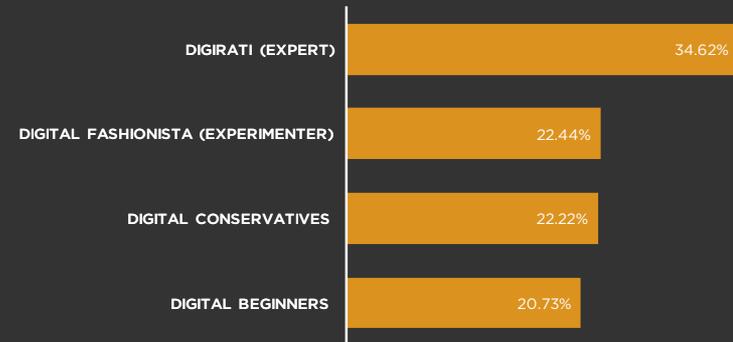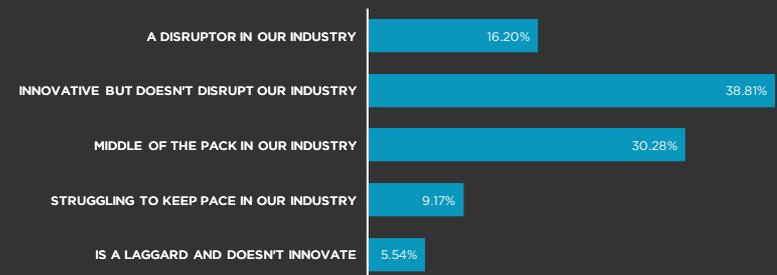
Figure 1

Digital Maturity Segments

DIGIRATI (EXPERT)	34.62%
DIGITAL FASHIONISTA (EXPERIMENTER)	22.44%
DIGITAL CONSERVATIVES	22.22%
DIGITAL BEGINNERS	20.73%

Figure 2

Respondent Participation in Industry Disruption & Innovation

|	
A DISRUPTOR IN OUR INDUSTRY	16.20%
INNOVATIVE BUT DOESN'T DISRUPT OUR INDUSTRY	38.81%
MIDDLE OF THE PACK IN OUR INDUSTRY	30.28%
STRUGGLING TO KEEP PACE IN OUR INDUSTRY	9.17%
IS A LAGGARD AND DOESN'T INNOVATE	5.54%

Sponsoring Innovation

Funding and driving innovation within a company is a role played by many across the organization. Not surprisingly, executive management and IT management play a key role. The survey data also shows that 63% of innovation projects is occurring outside of these traditional stakeholder job titles and budgets.

Finance, the Center of Excellence, and Operations are the top three sponsors of innovation as identified by respondents. But these groups change as industry filters are applied. For example, in Healthcare, Operations (11.5%) leads R&D (10.25%) and Finance (5.1%) (Figure 3).

Figure 3

Innovation Sponsors

EXECUTIVE MANAGEMENT	19.76%
INFORMATION TECHNOLOGY (IT)	17.43%
FINANCE	9.32%
CENTER OF EXCELLENCE	8.71%
OPERATIONS	7.40%
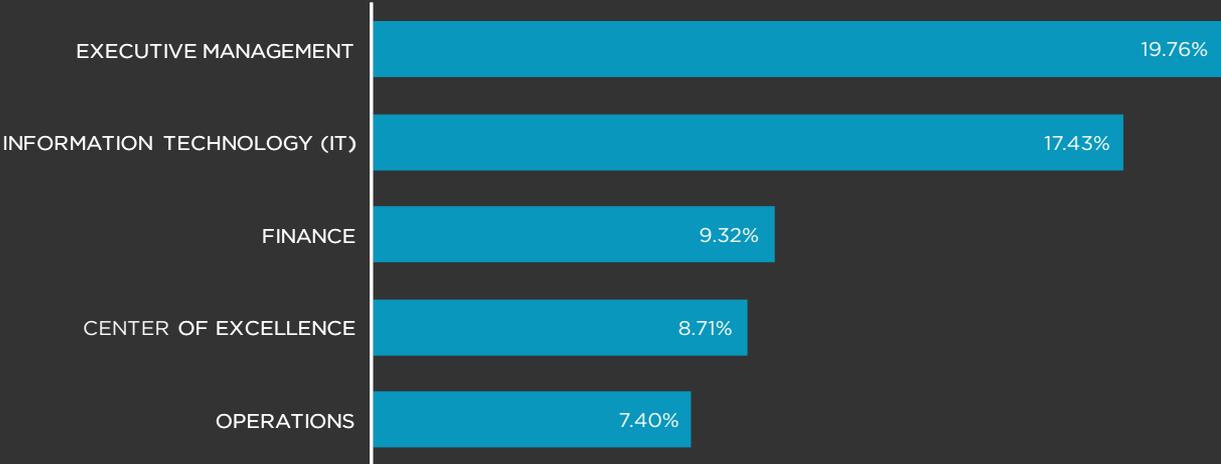
Technology, People, and Culture in Innovation

There are countless variables that help enable a successful innovation strategy. Survey respondents lead with a focus on technology; 40.75% of their effort is based on identifying and deploying innovative technology. This strategy isn't surprising. Technology has a unique effect on businesses.

When innovating, respondents are focusing 59.3% of their effort on people and culture—so while technology leads, it doesn't make up the entire strategy. All three—technology, people, and culture— are critically important and necessary for a successful innovation strategy. They are dependent on one another to drive projects and overcome obstacles and barriers to success (Figure 4).

Obstacles to Successful Strategies

Most innovation projects will encounter obstacles—limited budget, resources, security, skill sets, and even adoption. Companies who have failed to invest in the right technologies, enable innovative people and teams, and build a culture that embraces and empowers innovation, will find themselves challenged to overcome these obstacles. The top five obstacles identified by respondents as seen in the following chart are all addressable with a strong strategy for technology, people, and culture.

Culture can help to solve the top two obstacles. Without an innovative culture, companies don't align resources and budgets to drive innovation. The proper technologies address the third ranked challenge by enabling agility and openness to existing architectures and securing innovation projects. And the last two respondent selections are overcome with a strategy that embraces people as the assets they are (Figure 5).

Three-part Innovation Strategy

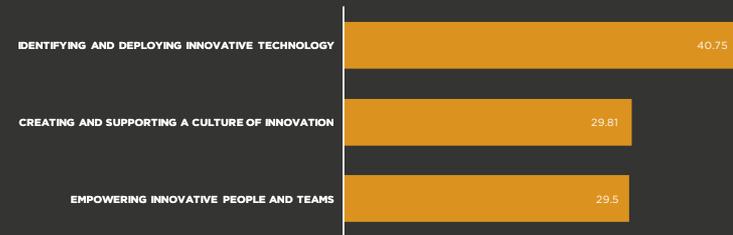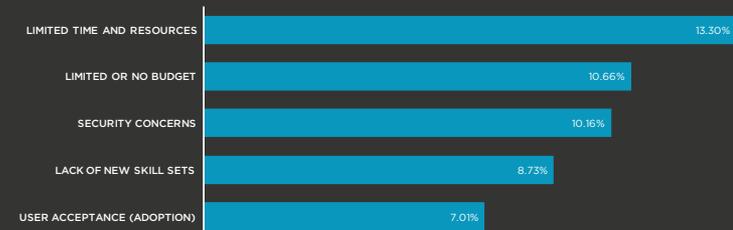
IDENTIFYING AND DEPLOYING INNOVATIVE TECHNOLOGY	40.75
CREATING AND SUPPORTING A CULTURE OF INNOVATION	29.81
EMPOWERING INNOVATIVE PEOPLE AND TEAMS	29.5

Innovation Project Obstacles

LIMITED TIME AND RESOURCES	13.30%
LIMITED OR NO BUDGET	10.66%
SECURITY CONCERNS	10.16%
LACK OF NEW SKILL SETS	8.73%
USER ACCEPTANCE (ADOPTION)	7.01%

Benefiting from an Advanced Digital Transformation Maturity

The digital transformation journey is different for every organization, and as indicated earlier, for survey respondents, only 35% would classify their companies as digirati (expert). The survey revealed a direct connection between digital maturity and a company's ability to innovate and disrupt. Looking further into the data, a trend shows the technologies being selected to increase innovation.

Digirati (expert) respondents are deploying IoT, AI/ML, and blockchain technology at a far greater rate than digital beginners. This gap in technology adoption offers a view into how advanced companies are setting themselves apart from the competition. Adoption of sophisticated solutions opens the door for a wide variety of use cases that digital beginners are not able to leverage, creating a competitive gap (Figure 6).

Locating Innovation in your Organization

Leveraging the best technology for innovation will allow a company to differentiate itself from the competition, and as pointed out previously, digirati respondents are using cutting edge and disruptive technologies at a far greater rate to drive innovation then their less mature counterparts. Understanding how to foster the culture and people connected to this innovation is critical.

Examining the data further, there is a clear contrast between CXO and team priorities. CXO respondents identify these technologies as important and play a role in their adoption. However, in every case, it's clear that team (non-CXO) respondents are leading the charge to bring these technologies into their companies. As seen in the innovation sponsor findings (Figure 3), leadership is part of the equation, but as a line of business drives innovation projects, team members are leading (Figure 7).

Figure 6

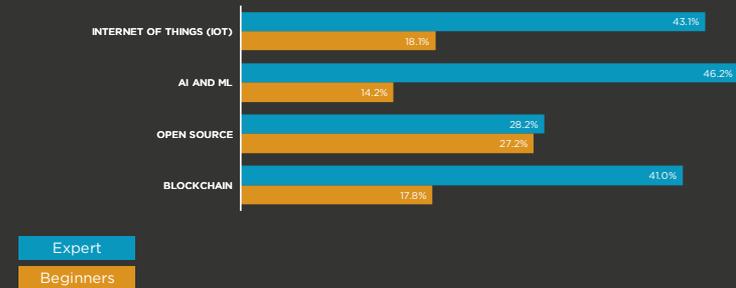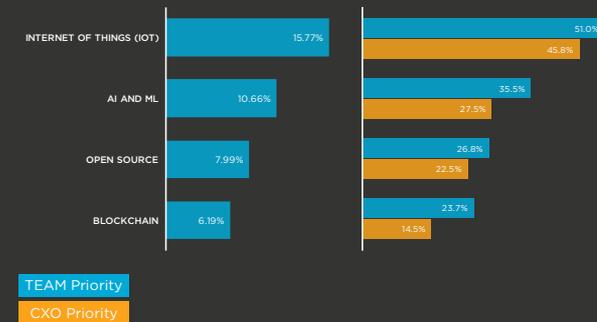**Technologies Used by Innovation Experts and Beginners**

Technology	Expert	Beginners
INTERNET OF THINGS (IOT)	43.1%	18.1%
AI AND ML	46.2%	14.2%
OPEN SOURCE	28.2%	27.2%
BLOCKCHAIN	41.0%	17.8%

Expert
Beginners

Figure 7

Most Often-selected Advanced Technologies for Innovation

Technology		TEAM Priority	CXO Priority
INTERNET OF THINGS (IOT)	15.77%	51.0%	45.8%
AI AND ML	10.66%	35.5%	27.5%
OPEN SOURCE	7.99%	26.8%	22.5%
BLOCKCHAIN	6.19%	23.7%	14.5%

TEAM Priority
CXO Priority

Innovation Technology Journey

The survey clearly identifies the importance of digital transformation maturity as a critical foundation for innovation. The data also shows the journey companies take to achieve their transformation and innovation goals.

Nearly 60% of respondents indicate that they include cloud, business intelligence and analytics, and application and data integration technologies in their innovation strategy. The high level of adoption illustrates these technologies are foundational in digital transformation strategies. When the data is crossed with our maturity segments (digirati, digital beginners, etc.), it's easy to see how advanced respondents use the top three technologies as a foundation for driving innovation. Anecdotal information points to a trend showing these professionals seek vendors that meet both foundational and near-term innovation needs such as artificial intelligence, machine learning, blockchain, etc (Figure 8).

Foundational Innovation Technology Is Pervasive

As indicated throughout the findings, technology plays a key foundational role in innovation and developing a disruptive path. To understand innovation projects, survey results included data on how respondents are using technologies and applying them to specific use cases. As expected AI/ML, Blockchain, Open Source, and IoT are driving highly innovative projects. The data also shows that technology such as BI/Analytics is used pervasively across respondent companies.

This chart shows respondents' top five use cases. The list of possible choices for this survey question included over 20 items. Respondents were asked to select all uses cases that applied to their company. Every use case selected indicated that BI/Analytics is leveraged in most areas of respondent companies. Cloud, Data and Application Integration, and BI/Analytics are core to companies that are leading and competing at the highest levels (Figure 9).

Figure 8

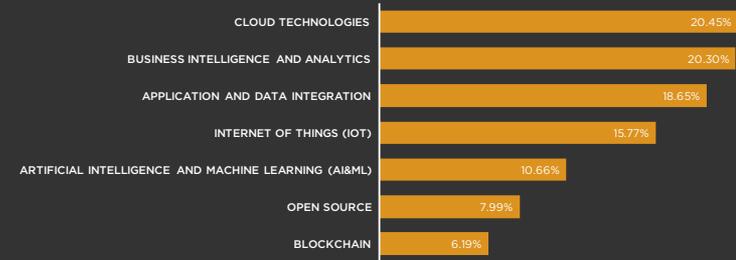### Technologies Included in Innovation Strategies

- CLOUD TECHNOLOGIES — 20.45%
- BUSINESS INTELLIGENCE AND ANALYTICS — 20.30%
- APPLICATION AND DATA INTEGRATION — 18.65%
- INTERNET OF THINGS (IOT) — 15.77%
- ARTIFICIAL INTELLIGENCE AND MACHINE LEARNING (AI&ML) — 10.66%
- OPEN SOURCE — 7.99%
- BLOCKCHAIN — 6.19%

Figure 9

Top Five Technology Use Cases

- PERSONALIZED CUSTOMER EXPERIENCES — 7.63%
- REAL-TIME ANALYTICS AND DECISION-MAKING — 7.44%
- DATA VISUALIZATION AND DASHBOARDS — 5.89%
- OPTIMIZED PRICING AND MERCHANDISING — 5.70%
- BI/ANALYTICS CLOUD DEPLOYMENT — 5.70%

Survey Methodology

Purpose

The 2018 TIBCO CXO Innovation Survey is a global research project designed to explore the innovation strategies and challenges of our customers.

Respondent Panel

Survey results draw from professionals in business and IT functional areas whose job titles included CXO, senior vice president, vice president, senior director, and director. The survey results are based on 634 completed surveys.

Global Regions

Respondents from North America, EMEA, LATAM, and APJ regions participated.

Industries

Respondents came from a wide variety of industries including aerospace, construction, consumer products, inancial services, healthcare, leisure and hospitality, manufacturing, oil and gas, professional services, retail/wholesale, technology and software, and transportation.

Company Size by Revenue

Respondents represent companies of all sizes based on annual revenue:

40.93% Less than $50 million

21.00% $50–500 million

13.17% $500–999 million

16.73% $1–9.99 billion

4.98% $10 billion+

3.19% did not share revenue

Full Research Findings

You can find more information on the comprehensive research findings for the 2018 TIBCO CXO Innovation Survey at the Apex of Innovation website, along with additional information designed for C-level executives interested in business innovation, data sovereignty, and the business of data and data-driven experiences.