

## **Appendix—Full survey results**

### Technology in the mid-market—Taking ownership

A Deloitte Growth Enterprise Services report  
August 2016

The first part of the paper discusses the importance of the research and the objectives of the study. It then presents a literature review of the existing research on the topic. The second part of the paper describes the methodology used in the study, including the data collection and analysis techniques. The third part of the paper presents the results of the study, and the fourth part discusses the conclusions and implications of the findings.

The study was conducted using a quantitative research design. Data was collected from a sample of 100 participants using a survey questionnaire. The data was then analyzed using statistical software to determine the relationships between the variables of interest.

The results of the study indicate that there is a significant positive relationship between the variables of interest. This finding is consistent with the previous research in the field. The implications of these findings suggest that the research has practical applications in the field of study.

In conclusion, the study has shown that the research objectives have been achieved. The findings provide valuable insights into the topic and have implications for future research.

# Technology in the mid-market

## Taking ownership

From June 17 to July 5, 2016, a Deloitte survey of mid-market companies was conducted by OnResearch, a market research firm. The survey examined technology trends taking place in this market segment to determine the role that technology plays and how it influences business decisions.

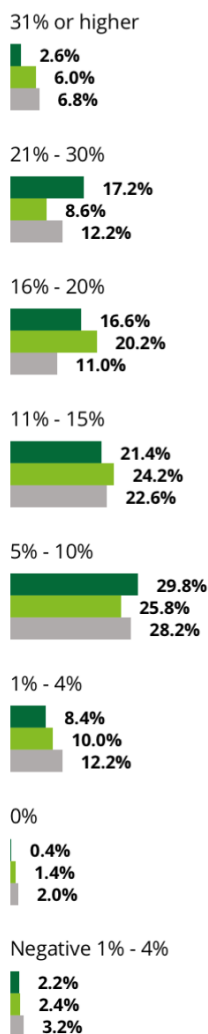
The 500 survey respondents represented mid-market companies with annual revenues ranging from \$100 million to more than \$1 billion. Nearly six out of every 10 respondents were C-suite executives, while the remaining executives held other management roles. Eighty percent of the respondents represented companies that are privately held, while the remainder represented publicly-traded firms. Just over one third of the respondents were from technology, media and telecommunications companies; one quarter hailed from consumer and industrial products companies; the remainder were divided among energy and resources, financial services, life sciences and health care, and other industries.

The full survey results are included in this appendix; some percentages in the charts throughout this appendix may not add to 100 percent due to rounding, or for questions where survey participants had the option to choose multiple responses.

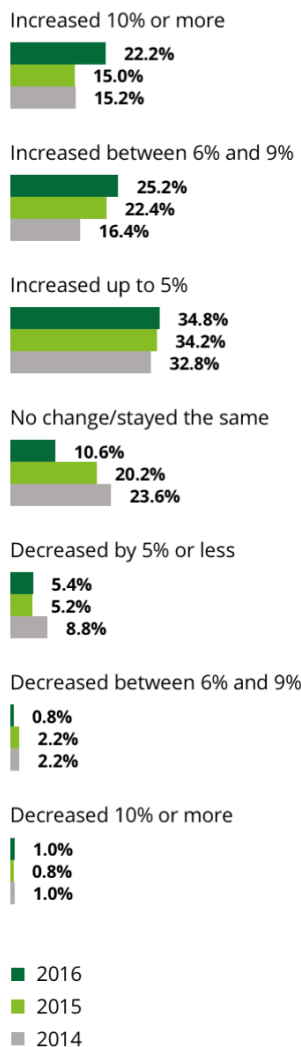
The report based on these survey findings,  
**Technology in the mid-market—Taking ownership,**  
can be found on our website at  
[www.deloitte.com/us/mid-market-technology](http://www.deloitte.com/us/mid-market-technology).

# Business environment

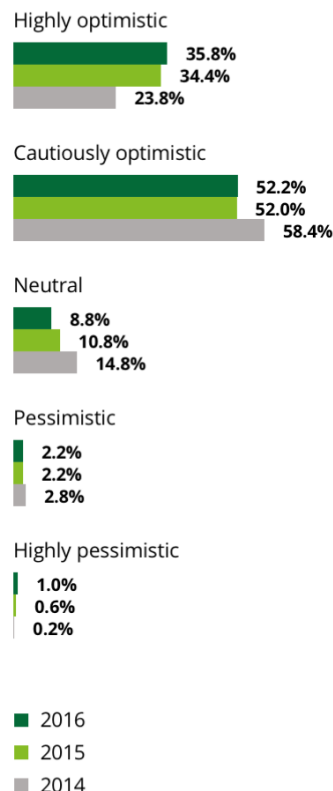
## Over the past 12 months, my company's revenue growth has been:



## How has your company's headcount changed over the last 12 months?



## My company's business outlook over the next 12 months appears to be:



2016  
2015  
2014

# Business environment (cont.)

Please indicate your level of agreement with the following statement: "Operating globally is important to my company's overall strategy."

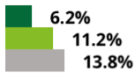
Strongly agree



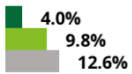
Agree



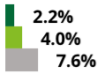
Neither agree nor disagree



Disagree



Strongly disagree

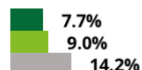


■ 2016  
■ 2015  
■ 2014

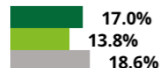
# Technology trends

## What is your company's current "spend" on technology?

We do not currently have a separate, identifiable spend



Our spend is negligible (< 1% of revenue)



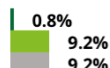
We spend between 1-5% of revenue on technology



Our spend is above 5% of revenue



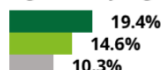
Don't know



2016  
2015  
2014

## Compared to last year, my company's current level of technology spend is:

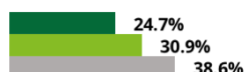
Significantly higher



Higher



About the same



Lower



Significantly lower



2016  
2015  
2014

## Who leads the adoption of new and emerging technologies within your company?

Business leaders (CEO, CFO, COO, business unit I



IT leaders (CTO, CIO, IT department leaders)



Both Business and IT



Other



## What areas were the focus of your company's information technology budget spend in the past 12 months? Select all that apply.

Implementation of new information security processes



Threat prevention (monitoring/ detection)



Educating employees about risks and adhering to security protocols



Investing in software to mitigate security risks



Investing in hardware to mitigate security risks



Hiring or contracting with cybersecurity specialists to address security risk



# Technology trends (cont.)

## How does your organization handle adoption of new technology trends?

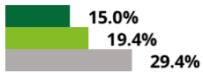
### Driven by IT leadership



### We have processes in place for exploring emerging technologies



### Driven largely by business leadership direction



### Specialized business units are focused on innovation



### Reactionary (driven by customer/supplier need or demand)\*



### Other



■ 2016  
■ 2015  
■ 2014

## How would you describe the role of executive leadership in your organization with regard to emerging and next-generation technologies (including cloud, mobile, and social)?

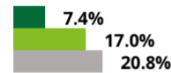
### They are leading the charge



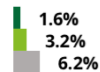
### They are actively engaged



### They are passive, but willing to be engaged



### They have bigger fish to fry



### They are actively obstructing change



### Not applicable/don't know



■ 2016  
■ 2015  
■ 2014

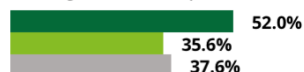
## Technology trends (cont.)

Technology is often perceived differently in organizations. How does your company's leadership value the role that technology plays? Select only one.

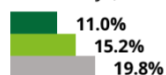
Critical (differentiator and key to growth)



Strategic (not an expense, but more of an investment)



Necessary (sometimes an investment, but often seen as an expense)



Not critical (necessary but certainly not an investment, only an expense)



2016  
2015  
2014

How would you describe your organization's spend on the maintenance of existing systems as compared to investment in the implementation of the latest technology (e.g., an 80-20 mix will include 80% of budget spend on maintenance, with 20% invested in the implementation of new technology)?

80-20



60-40



50-50



40-60



20-80



Other



Don't know



2016  
2015



# Technology trends (cont.)

Which of the following statements is true about your IT department's involvement with the end customer of your organization? Select all that apply.

Our IT department is focused on delivering seamless/integrated customer experiences



We are actively building technology platforms to better engage with customers



Our IT department is involved in designing of products and customer solutions



Our corporate strategy emphasizes customer acquisition, retention and loyalty



Gathering and analyzing customer data is a priority for the IT organization



Technology and Marketing departments have established joint processes and governance



Our IT department has no involvement with the end customer\*



None of the above



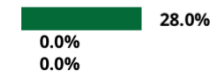
2016

2015

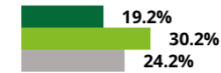
\*Response not offered in prior years

What is the biggest IT challenge faced by your organization? Select only one.

Information security\*



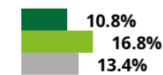
Keeping up with new technology



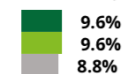
Budget to implement new technology



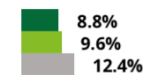
Tactical hurdles



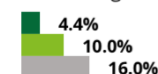
Leadership support



Understanding ROI



Not having the right talent/skill set



Other



2016

2015

2014

\*Response not offered in prior years

# Technology trends (cont.)

Please indicate how technology has generated changes within your business. Select all that apply.

Increased overall productivity to free up talent to assume new or additional responsibilities



Enhanced business planning and execution of strategies



Streamlined business processes to reduce cost



Increased customer conversion or retention by detecting patterns of behaviors



Simplified maintenance of business assets, equipment



Detection of anomalies, disruptions, threats to the business



Other



Don't know/Not sure



Not applicable



2016  
2015

How would you describe the current state of IT governance within your organization?

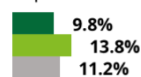
Mature with established processes



Building and developing IT governance and processes and structures



Investigating IT process and improvement, but no formal governance in place



Little to no formal IT processes, structures, or awareness



Don't know/Not sure



2016  
2015  
2014

# Technology trends (cont.)

**What will be your organization's top three technology priorities for the next 12 months? Select up to three.**

Managing cybersecurity and information risk



Improving existing business processes



Reducing IT costs and driving efficiency



Maintaining availability and performance of IT systems



Simplifying IT infrastructure and applications



Assisting in business innovation - developing new products and services



Adjusting/redesigning current IT operating model



Driving large complex technology implementation projects



Developing/improving the organization's digital capability



Providing timely and relevant information to business stakeholders



Other



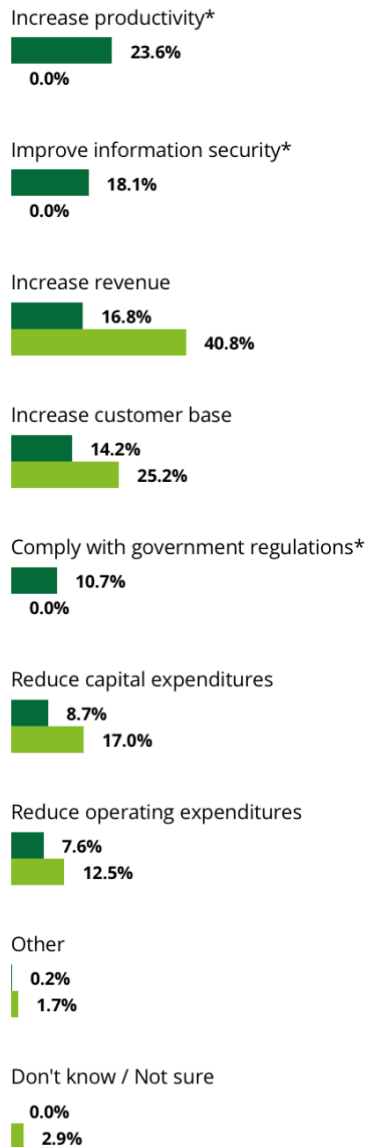
Don't know/Not sure



# Technology trends (cont.)

What are the biggest drivers of technology investment at your organization? Select and rank the top three.

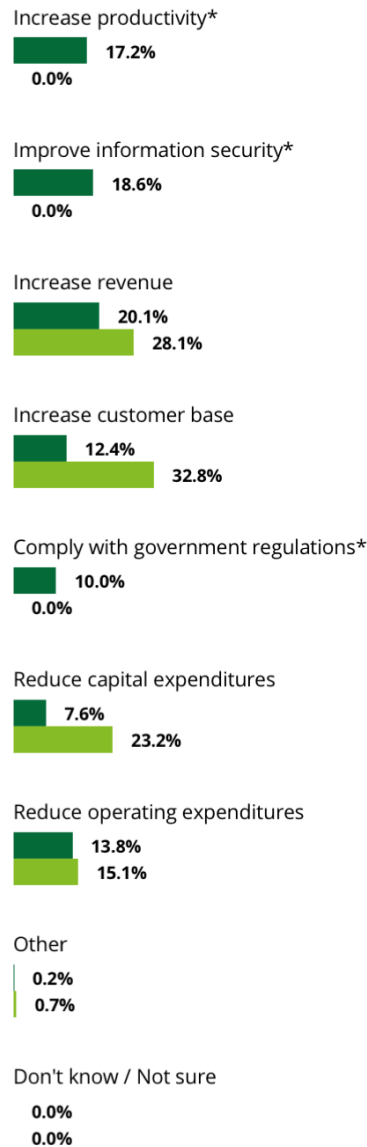
## Ranked #1



■ 2016  
■ 2015

\*Response not offered in prior years

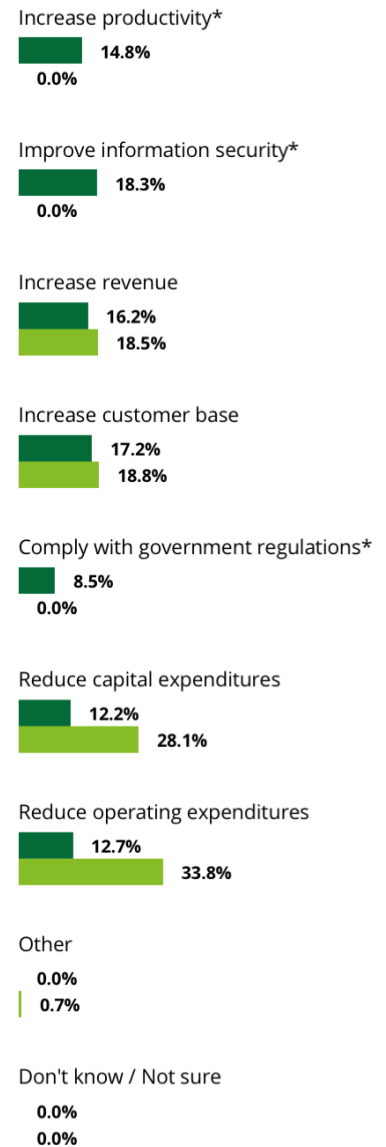
## Ranked #2



■ 2016  
■ 2015

\*Response not offered in prior years

## Ranked #3



■ 2016  
■ 2015

\*Response not offered in prior years

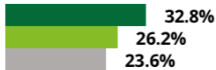
# Technology trends (cont.)

## What is the preferred technology approach model for your business?

On-premises: systems, hardware and support staff at your physical location



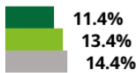
Hosted solutions: pre-built system run, located and operated at a fixed monthly fee



Hybrid: A mix of on-premises, off-premises solutions based on your application and business needs



Off-premises: systems applications run and managed in the cloud using Software as a Service (SaaS) approach



Other



Don't know



2016

2015

2014

## For hosted solutions, what is your preference?

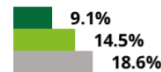
On-premises as a fixed price traditional variable licensing model



A fixed monthly cost for your hosted preconfigured solution



Off-premises leading practice design solution with little ability to customize and pay-as-you-go pricing



Don't know



2016

2015

2014

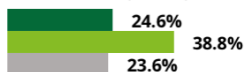
## Technology trends (cont.)

**If your preference is off-premises, what are your goals?**

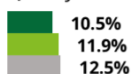
Increase flexibility to scale, acquire, divest



Reduce IT CapEx/OpEx costs



Quickly obtain SOX compliance



Readiness for IFRS



Don't know



2016

2015

2014

**If you prefer a hybrid approach, what is most important to your company?**

Ability to quickly adjust to a business need/change



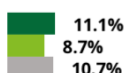
Ability to customize



Ability to have IT own your system



Greater control over disaster recovery



Other



Don't know



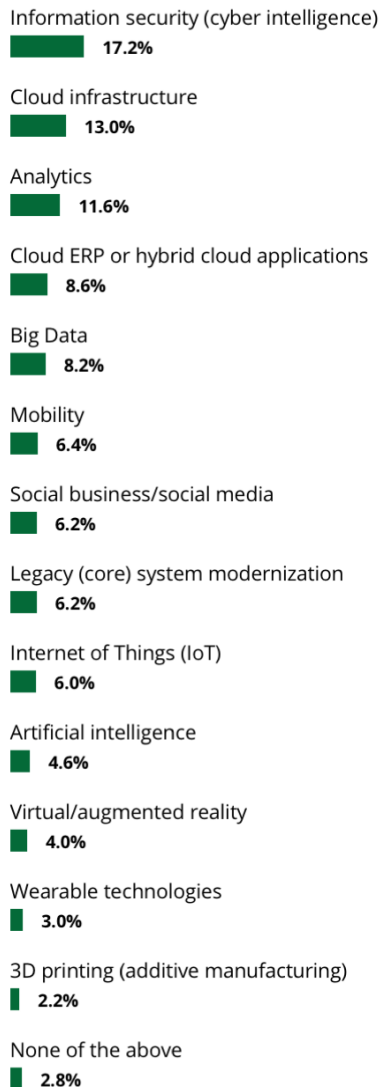
2016

2015

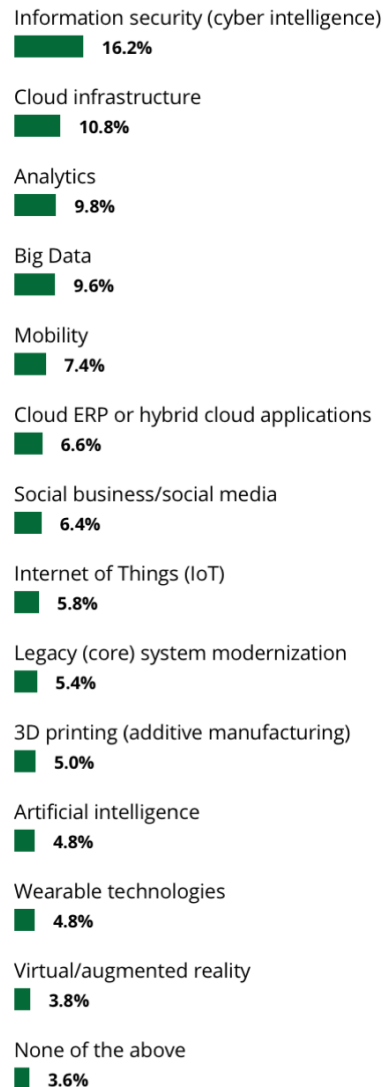
2014

# Technology trends (cont.)

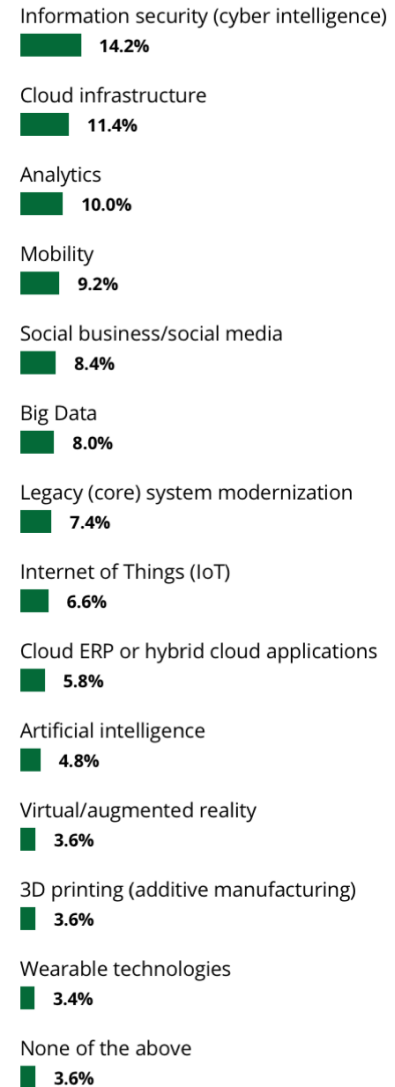
Which of the following technology-related trends had the most significant impact on your business in the past 12 months? (Top ranked responses shown.)



Which of the following technology-related trends will have the most significant impact on your business in the next 12 months? (Top ranked responses shown.)




Which of the following technology-related trends currently have the most significant impact on your workforce? (Top ranked responses shown.)




# Technology trends (cont.)


**Which of the following technology-related trends currently have the most significant impact on your customers? (Top ranked responses shown.)**


Information security (cyber intelligence)  
 12.4%


Mobility  
 10.8%


Analytics  
 9.0%

Social business/social media  
 8.8%


Cloud infrastructure  
 8.4%


Cloud ERP or hybrid cloud applications  
 7.8%

Internet of Things (IoT)  
 7.6%


Artificial intelligence  
 6.2%


Big Data  
 6.0%

3D printing (additive manufacturing)  
 4.8%

Legacy (core) system modernization  
 4.6%

Wearable technologies  
 4.6%

Virtual/augmented reality  
 4.4%

None of the above  
 4.6%

**Which of the following technology-related trends have the potential to produce the greatest productivity gains for your organization? Select all that apply.**


Cloud infrastructure  
 39.8%


Analytics  
 38.0%


Big Data  
 36.8%


Internet of Things (IoT)  
 35.0%

Mobility  
 34.6%

Information security (cyber intelligence)  
 32.0%


Cloud ERP or hybrid cloud applications  
 28.4%

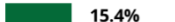
Social business/social media  
 26.4%


Legacy (core) system modernization  
 20.6%

Artificial intelligence  
 18.8%

Wearable technologies  
 16.6%

Virtual/augmented reality  
 16.2%

3D printing (additive manufacturing)  
 15.4%

None of the above  
 1.2%



# Cyber and information security

**Of your company's technology spend, what percentage is tied to information security? Select only one.**

Our spend is negligible (< 1% of overall technology spend)



We spend between 1-5% of overall technology spend on information security



Our spend on information security is above 5% of overall technology spend



Don't know/Not sure



2016

2015

**What are the data privacy and security risk issues of concern to your company? Select all that apply.**

Phishing and targeted attacks\*



Employee-introduced risk compromising data or infrastructure\*\*



Migration to cloud



Integration with external systems (business partners, customers)



Mobility



Internal access controls



2016

2015

2014

## Cyber and information security (cont.)

**How does your company mitigate information security risks? Select all that apply.**

We encrypt sensitive information



We have a plan in place to manage external information security threats



We have a plan in place to manage internal informational security threats



We offer education and training on information security matters



We have governance structures and procedures in place concerning information security threats



We do not currently have plans in place to mitigate information security risks



Other



Don't know/Not sure



■ 2016

■ 2015

*\*Response not offered in prior years*

# Cloud

For each of the following functions, please describe each function's relationship to the cloud.

## Financials and Accounting



## Enterprise Resource Planning (ERP)



## Customer Relationship Management (CRM)



## Human Resources



## Enterprise Performance Management (ERP)



## Manufacturing Resource Planning (MRP)



## Supply Chain Management (SCM)



## Knowledge Management System (KMS)



## Sales Force Automation (SFA)



## Data Warehouse/Analytics



- Mature: successful deployments
- Building: in the deployment phase of production
- Experimenting: pilot projects started or being planned
- Investigating: interested in the potential opportunities
- No action/Waiting
- No action/No need

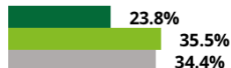
## Cloud (cont.)

What is the most significant factor influencing the pace of your organization's current adoption of cloud-based services? Select only one.

Integrating with existing applications and infrastructure



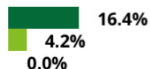
Issues concerning data privacy and security risks



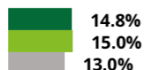
Understanding business drivers and value proposition of cloud-based services



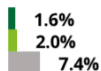
Need for greater "speed to value" in terms of traditional on-premises IT implementation\*



Funding, staffing and talent



No need at this time



2016  
2015  
2014

What do you consider to be your top three challenges in using cloud-based services? (Top ranked responses shown.)

Cost



Confidence in information security



Ensuring data integrity and reliability



Complexity of integration with core systems



Cloud-to-cloud application integration



Business processes and workflow management



Lack of maturity of cloud vendor solutions



Business partner integration



Don't know/Not sure



# Cloud (cont.)

**Please rank your top three reasons to select cloud-based applications. (Top ranked responses shown.)**

Improve speed of implementation (time to value)  
 20.8%

Reduce concerns about data security  
 17.0%

Reduce capital expenditure  
 16.2%

Enable global expansion  
 15.6%

Reduce operational expenditure  
 15.2%

Address growth needs-scaling, M&A activity, etc.  
 13.6%

**If you are using or considering more than one cloud-based application or package, what would you say is the greatest challenge?**

Integration across all packages  
 40.0%

Management of differing cloud solution upgrade cycles  
 22.2%

The ability to manage multiple cloud vendors  
 20.8%

Resource knowledge (internal or external)  
 15.6%

Other  
 0.2%

Don't know/Not sure  
 1.2%

# Internet of Things

As growing numbers of devices are networked, internet-enabled and take action without human intervention, which term most closely describes your organization's current use of the "Internet of Things" (IoT)?

Mature — effective deployments



Building — in the deployment phase of production for Internet of Things



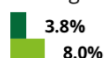
Experimenting — pilot projects started or being planned



Investigating — interested in the potential opportunities Internet of Things offers



Waiting — no action taken yet



No action planned — not relevant to our business strategy



■ 2016

■ 2015

If your company develops products linked to the "Internet of Things," how would you categorize these products?

Smart hybrid cloud monitoring



Smart industrial devices



Smart consumer devices



We do not develop products linked to IoT



What are some common applications for the Internet of Things that your company is pursuing? Select all that apply.

Tracking business processes



Tracking customer behavior



Tracking employee productivity



Predicting customer behavior



Help in managing supplier behavior



Monitoring hybrid cloud



Other



We do not utilize products linked to the IoT



# Analytics

## How is your company using data analytics? Select all that apply.

Increase accuracy in forecasting and reporting business results



Predictive client, customer, or business behavior analysis



Understanding internal operational patterns and behaviors



Exposing the value of data to make sound business decisions



Don't know/Not sure



We do not use data analytics



## What would your organization see as the greatest value of data analytics?

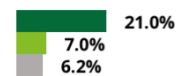
Increased operational effectiveness



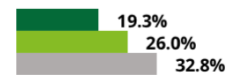
Greater competitive edge in understanding customer trends



Increased customer intimacy



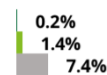
Ability to predictively manage aspects of the business



Other



Don't know/Not sure



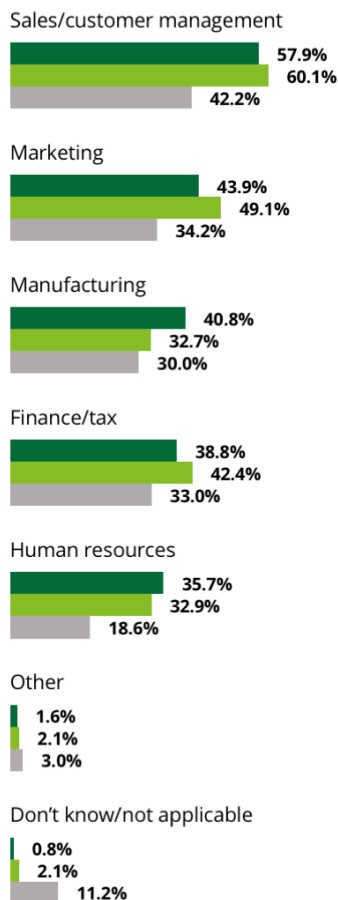
2016

2015

2014

# Analytics (cont.)

Which business areas are using or leveraging data analytics within your company? Select all that apply.



2016  
2015  
2014

Which term most closely describes your organization's current use of predictive (cognitive) analytics?

Mature — successful deployments (e.g. ERP, DRM, HR)



Building — in the deployment phase of production for predictive (cognitive) analytics



Experimenting — pilot projects started or being planned



Investigating — interested in the potential opportunities predictive (cognitive) analytics offer



Waiting — no action taken yet



No action planned — not relevant to our business strategy



2016  
2015



# Analytics (cont.)

## How would you describe the quality of data within your organization?

Fragmented and no clear structure or format across business areas



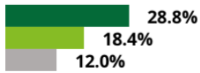
Need moderate data cleansing



Data cleansed but need to structure for efficient use and validation



Data ready for broad analytics use



Other



Don't know/not sure



2016

2015

2014

## Within Human Resources, which are the areas where your company leverages data analytics? Select all that apply.

Workforce planning



Compensation and benefits



Talent sourcing and acquisition



Talent retention and attrition prediction



## What is your biggest hurdle in adopting predictive analytics?

Data quality issues



Availability of skilled resources internally



Understanding what you want to measure and how



Maturity of the organization



Difficulty obtaining skilled external resources



Other



## What is your company's preferred approach to implementing data analytics?

Managed analytics services



Custom development



Package technology



Subscription-based analytics



## Analytics (cont.)

In which areas do predictive (cognitive) analytics hold the most promise for your business? Select all that apply.

Managing large amounts of data (customers, patients, members)



Identifying business investment/expansion opportunities



Predicting disruptive business events



Talent recruitment and retention



No action planned — not relevant to our business strategy



2016

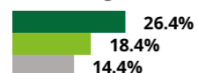
2015

Which of the following is most important to your company with regard to the use of social platforms for your customer interactions?

Real-time communication



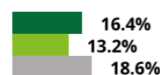
Monitoring and understanding consumer sentiment



Greater integration/intimacy



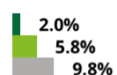
Automation in customer response/relationship processes



Other



Don't know



2016

2015

2014

# Social and virtual/augmented reality

**Which of the following is most important to your company with regard to the use of social platforms for your employee interactions?**

Enhance collaboration, productivity and engagement



Improve transparency within the organization



Create an internal social network for employees to share new activity



Other



**If your company utilizes virtual/augmented reality for its business operations, what are some common applications? (Select all that apply.)**

Enhance employee-employee interaction (e.g., working remotely)



Enhance employee-customer interaction (e.g., sales and advertising)



Enhance ability for customers to train in simulated environments



Enhance ability for employees to work or train in simulated environments



Enhance ability for customers to engage with the product/service in a new way

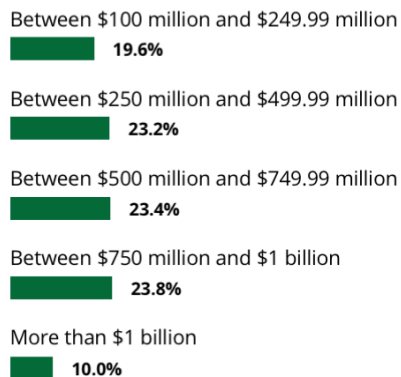


We do not utilize virtual / augmented reality in our business

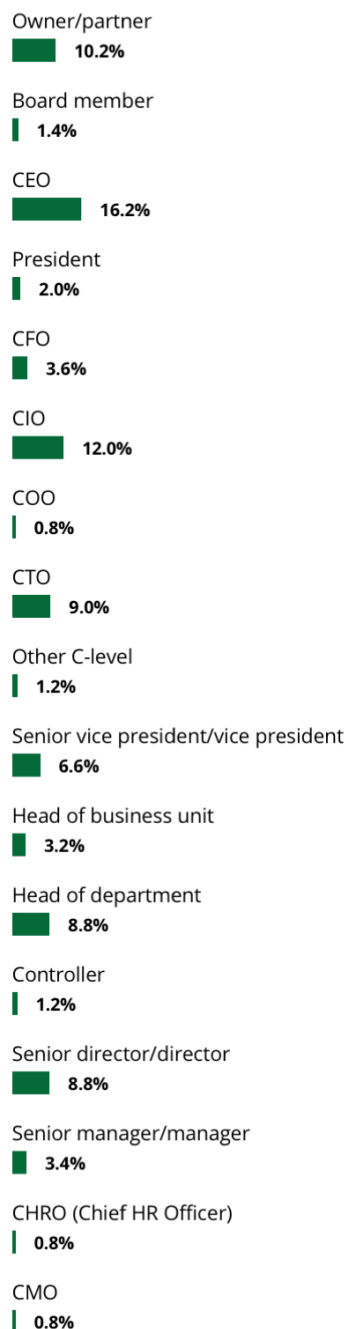


# Survey respondent demographics

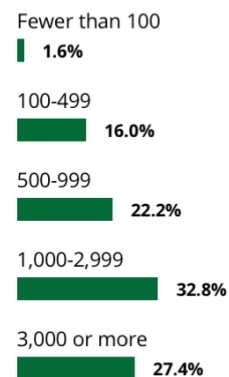
## What was your company's 2015 annual revenue in U.S. dollars?



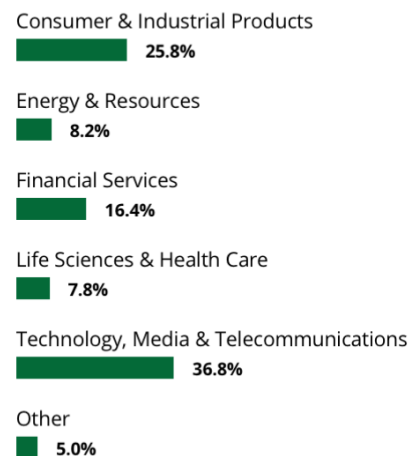
## Which of the following best describes your title?



## Approximately how many full-time staff are employed by your business?



## In which sector does your company operate?



# Survey respondent demographics (cont.)

Which of the following describes your level of knowledge regarding your organization's information technology?



■ I am very knowledgeable about our information technology: 90.4%

■ I am somewhat knowledgeable: 9.6%

Is your company private or public?



■ Private: 80.0%

■ Public: 20.0%

If private, which category best describes your company?



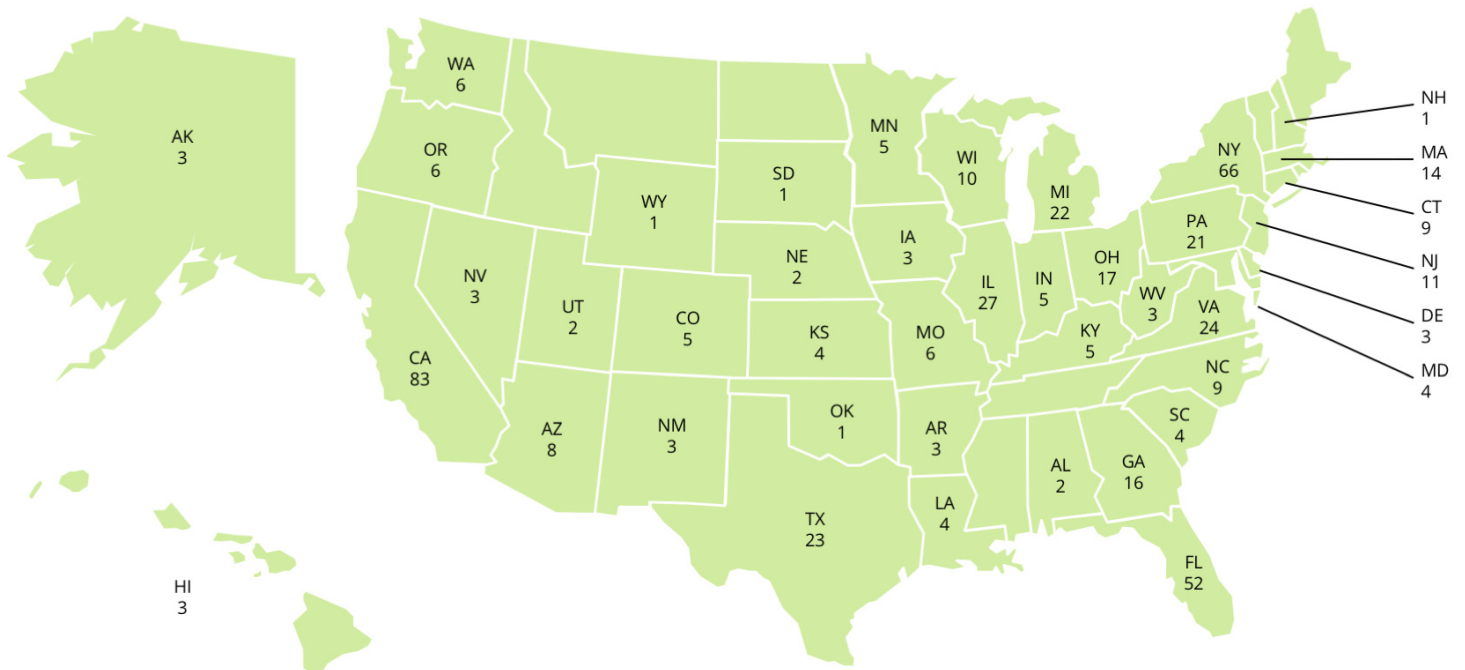
■ Family-owned: 21.3%

■ Closely held (excl. family-owned): 36.5%

■ Private equity owned: 38.8%

■ Venture capital backed: 3.5%

In which state is your company's headquarters located?  
(Number of respondents shown.)



### Perspectives

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