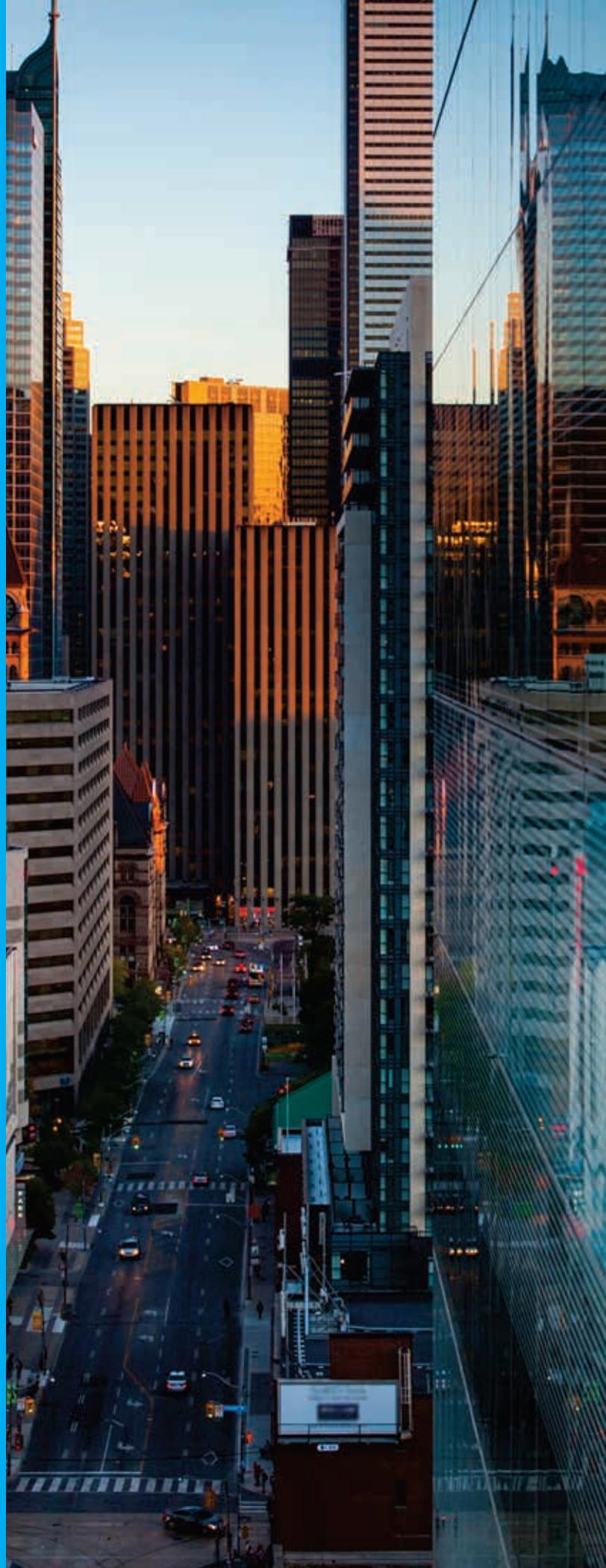




*cutting through complexity*

GOING BEYOND THE  
**DATA**  
TURNING DATA FROM  
**INSIGHTS INTO VALUE**

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# FOREWORD

It was only in the last few years that 'Big Data' became the buzz phrase that confused many and overwhelmed many more. Two years ago, most executives and IT departments were still struggling to understand what the data revolution meant for them and their business; many were just fighting to keep their heads above water as the data deluge surrounded them.

Today, data and analytics (D&A) has clearly entered the mainstream; our survey shows that adoption is up and many are now coming to terms with their initial data challenges.

But much continues to change. The internet of things (IoT), for example, is becoming a reality for many industries and, as such, more data is being generated than ever before, creating new opportunities for businesses.

At the same time, business itself is becoming increasingly demanding as D&A discussions become a part of the increasingly digitally savvy boardroom. And, as a result, competition around D&A is rising, with most organizations now investing time, resources and capital into improving their D&A capabilities.

In early 2014, we published a report that covered how organizations were struggling to turn their data into insights. At the time, we noted that there would be two steps to real D&A success – the first would be turning data to insights, but the second (and likely more difficult) would be turning insights into value. This report suggests that organizations are now starting to think about that second step.

Indeed, as D&A becomes mainstream, executives and their boards are increasingly starting to question whether their organizations are truly realizing the full value of the insights they are getting from their data. Some are concerned that they may not be sophisticated enough in their

approach to D&A to drive actionable insights. Others are struggling to align their D&A initiatives to address critical business issues and needs. And, as a result, many are now missing out on new areas of opportunity and competitive advantage.

*Going beyond the data: turning data from insights into value* delves into the challenges and opportunities today's organizations face as they strive to create value through D&A. In this summary report, we explore the topline results of KPMG International's recent survey of more than 800 senior executives to identify key themes influencing D&A's value proposition around the world.

With contributions from some of the world's leading D&A analysts, insights from data-driven companies and practical advice from KPMG International's network of D&A professionals, this summary report kicks off a series of articles that – over the coming months – will take a deeper look at these themes and opportunities from the viewpoint of different industry sectors, functions and company perspectives.

On behalf of KPMG International, I would like to thank those organizations that participated in our survey. We hope this series helps executives and business leaders improve their understanding of D&A and, in doing so, will help their organization to enhance their cost structure, drive sustainable growth and better manage risk.



**Christian Rast**  
Global Head of Data & Analytics

# GOING BEYOND THE DATA: TURNING DATA FROM INSIGHTS INTO VALUE

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# VAL·UE

/'valyōo/

## **NOUN:**

The achievement of an outcome that has importance, worth or usefulness to an organization.

“

At KPMG, we help to deliver value from D&A by helping clients create solutions to their business problems in a way that allows them to achieve measurable improvements across the three key areas of cost, growth and risk. ”

**Christian Rast**  
**Global Head of Data & Analytics**



# ABOUT THIS RESEARCH

This report is based on survey data collected from 830 senior business executives across more than 15 countries. The survey was conducted on behalf of KPMG International by an independent research partner between August 2014 and January 2015, and was augmented by one-on-one interviews with sector leaders and KPMG subject matter experts conducted in May 2015.

The survey represents a wide variety of the following:

- Job titles, including Chief Financial Officers, Chief Marketing Officers, Chief Human Resources Officers, Chief Information Officers, Chief Analytics Officers and Chief Executive Officers
- Industries, including Telecommunications, Healthcare & Life Sciences, Retail, Insurance, Banking and Industrials & Chemicals
- Markets, including Australia, Brazil, Canada, China, France, Germany, India, Japan, Mexico, the Netherlands, Singapore, Spain, Switzerland, the UK and the US
- Viewpoints, including comments, analysis and insights from global organizations, international services organizations and KPMG's own network of experienced professionals around the world

Thanks to our contributors:

Nova Spivack, CEO and Co-founder of Bottlenose. Mr. Spivack is a serial technology industry entrepreneur and recognized thought leader on search, Big Data, cognitive computing and the future of the internet.

Dr. Mark Kennedy, Director of the KPMG Centre for Advanced Business Analytics and Associate Professor in the Department of Management, Imperial College Business School, London. Dr. Kennedy's research focuses on the emergence of new markets and industries and the more basic building blocks of organizing – categories, identities, forms, strategies, practices and reputation.

For information on the KPMG contributors, please see page 30.

# KEY FINDINGS

## FROM DATA TO INSIGHTS TO VALUE

### STARTING THE JOURNEY: TURNING DATA INTO INSIGHTS

D&A HAS ENTERED THE MAINSTREAM

#### FAST ADOPTION

 **97%** of organizations say they are already using D&A in some area of the business

#### THE US MOVES D&A INTO THE BOARDROOM

US respondents were almost twice as likely as the global sample to say they use D&A in decision making at least once a week

#### EARLY ADVANTAGES ARE ALREADY BEING ENJOYED

 **86%** of respondents say they are already making faster decisions

 **67%** of respondents say they are already reducing business risk

 **80%** of respondents say they are already making more accurate decisions

BUT BIG CHALLENGES STILL REMAIN

#### DOUBTING THE DATA

 **58%** of organizations have difficulties evaluating data quality and reliability

#### STRUGGLING FOR SUFFICIENT SKILLS

 **ONLY 14%** think they have all the talent and capabilities they need to fully leverage D&A

“ While it is understandable that data quality and skills are top challenges, the apparent lack of desire to address the enterprise cost of D&A or to invest in improving the data (at the very least, understanding which data is critical to the business and why) is a deeply concerning trend. ”

– Dr. Thomas Erwin, KPMG in Germany

### STRIDING TOWARDS MATURITY: MOVING FROM INSIGHTS TO VALUE

GETTING INSIGHTS, MISSING VALUE

#### MISSING THE MARK

 **ONLY 19%** say they are already ‘**very satisfied**’ with the insights their D&A tools provide

#### OPPORTUNITY LOST

 **81%** of respondents have improved their understanding of customers but only  **41%** have created more tailored offers to prospective customers

GROWING GAPS BETWEEN GOOD AND GREAT

#### KEY AREAS OF OPPORTUNITY REMAIN UNEXPLORED

 Less than a quarter say they currently use D&A to identify new revenue streams

 **ONLY 31%** of respondents say they have used D&A to drive individualized marketing

 **ONLY 16%** say they use D&A to predict future trends

“ As maturity increases, we have seen a corresponding increase in the complexity of the analytics being undertaken. Recurring themes are emerging, such as the increasing use of multiple data sources, breaking down silos within the organization, the growing use of more sophisticated techniques in innovative areas of the business, and an improvement in the quality and repeatability of the solutions being implemented. ”

– Anthony Coops, KPMG in Australia

# D&A ENTERS THE MAINSTREAM

Back in 2013, almost seven out of every ten senior executives agreed that they needed to do something about D&A. But a staggering 96 percent also admitted they were not using D&A effectively.<sup>1</sup>

Today, evidence points to the fact that D&A is enjoying widespread adoption across the enterprise and around the world. And while certain markets and sectors may seem further ahead, it is clear that industry sectors now understand that D&A will be a game changer.

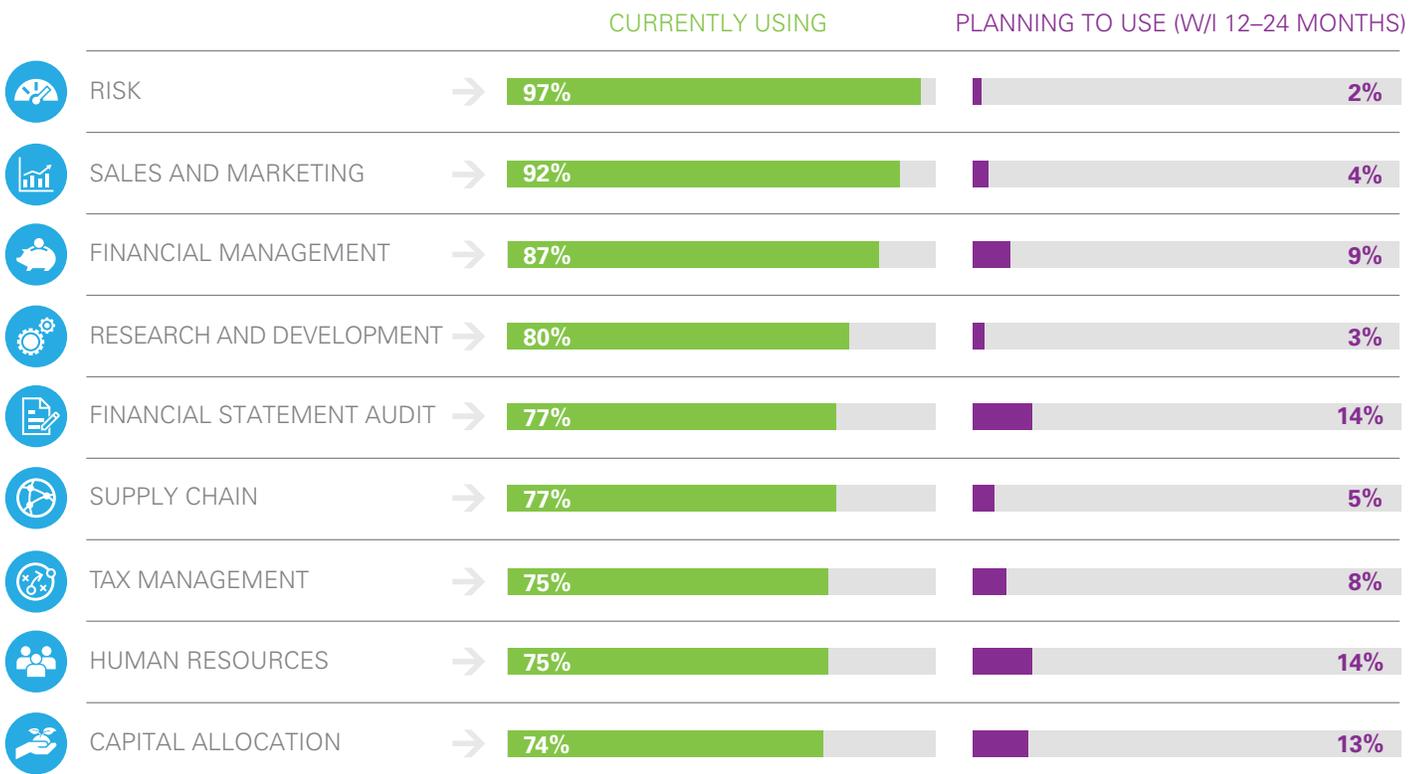
Ask business leaders if their organization uses D&A and you will hear a resounding 'yes.' According to our survey, 97 percent of business leaders say they already use D&A to manage risk (two of the remaining three percent say they will adopt D&A for risk within the next two years). More than nine out of ten say they already use D&A for sales and marketing purposes.

## 1 INSIGHTS TO VALUE: KEY TAKE-AWAY

### ADDRESS THE ISSUES YOU ARE FACING.

Most clients do not ask for a D&A solution, they ask for a solution to a specific business problem. Understanding your biggest issues will direct you to where you can best focus D&A to address them.

## CURRENT AND PLANNED USES OF D&A



<sup>1</sup> Source: KPMG International survey: *Going beyond the data: turning data from insights into value* 2015.

Our data also shows that D&A adoption is starting to spread across the organization. In fact, more than three-quarters of respondents said they already use D&A in areas such as Research & Development, Supply Chain, Human Resources and Finance. Most of the rest say they plan to adopt D&A in these areas within the next two years.

At the same time, the motivation and drivers for adopting D&A are also starting to shift towards value creation. Almost half (47 percent) of respondents said that improving productivity is the primary driver of their D&A activities, while 37 percent said that sales growth drives D&A activity. Only one in six cited cost reduction as their prime motivation.

“Finding areas of potential cost reduction is about looking at historical data and benchmarking your cost structure to find savings and anomalies, whereas identifying new growth opportunities and productivity improvements requires organizations to be more predictive in the way they use and interpret their data,” notes Christian Rast, Global Head of Data & Analytics at KPMG. “At the end of the day, growth and productivity are about adding value to the organization, something that D&A excels at.”

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At the end of the day, growth and productivity are about adding value to the organization, something that D&A excels at. ”

**Christian Rast**  
Global Head of Data & Analytics

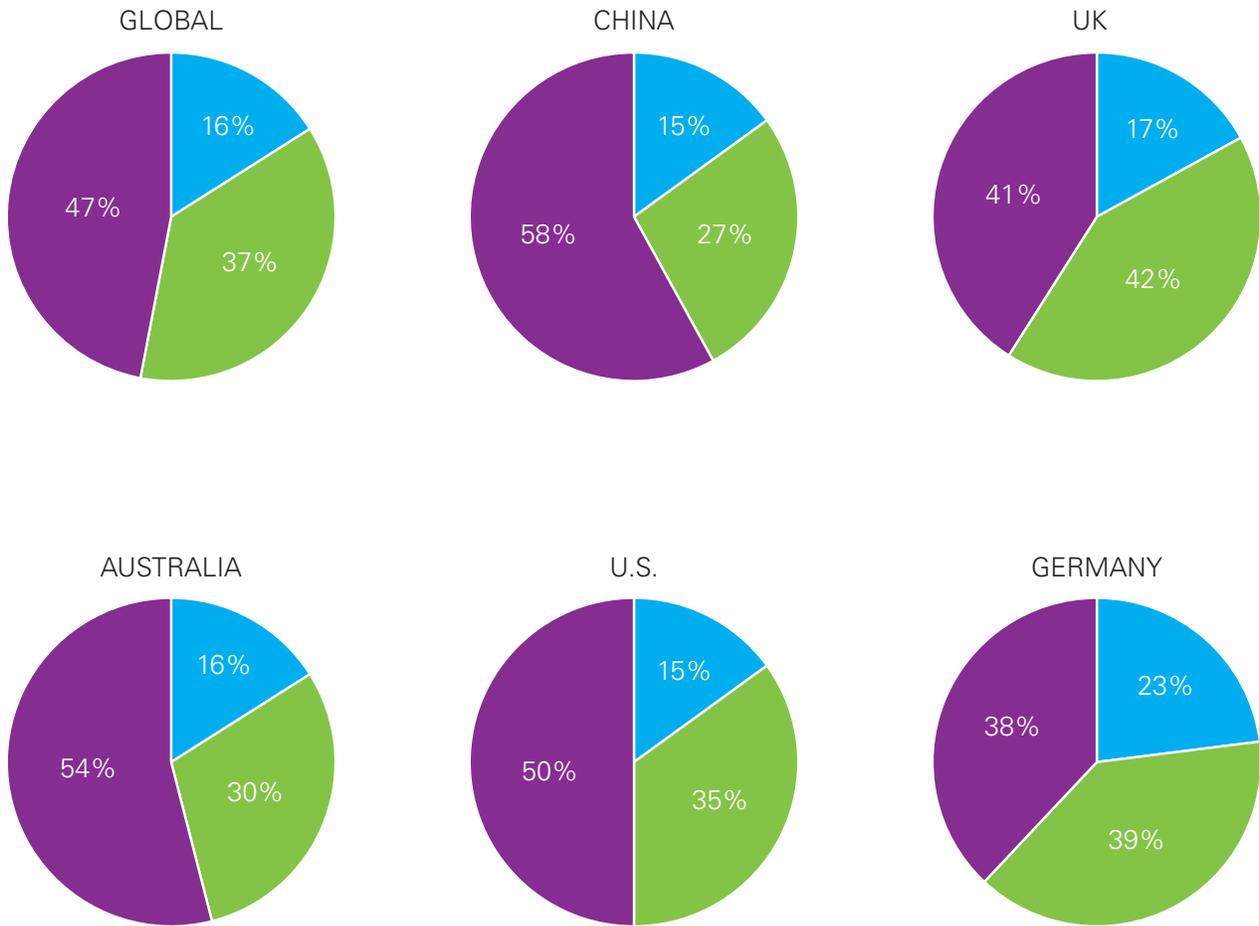
## 2 INSIGHTS TO VALUE: KEY TAKE-AWAY

### **UNDERSTAND THAT THE INSIGHTS DO NOT COME FROM DATA ALONE.**

They come from analyzing the data and working across silos to map this back to the issues and challenges the business is addressing.

### GREATEST MOTIVATION FOR D&A

■ Reducing costs    
 ■ Generating sales growth    
 ■ Improving productivity



Source: KPMG International survey: *Going beyond the data: turning data from insights into value* 2015.

**D&A IMPLEMENTATION VARIES BY REGION**

Interestingly, respondents from Germany seem more focused on reducing costs than their peers, while those from China were most focused on improving productivity. However, looking across markets it seems that most are focused primarily on either improving productivity or generating sales growth.

Similarly, retailers were the least likely to say their D&A initiatives were focused on cost reductions and were most likely to cite sales growth as the top motivator. Respondents from the Telecommunications, Insurance and Banking sectors all suggested that improved productivity was the top driver behind D&A.

As Torsten Duwenhorst, Lead Partner of Data & Analytics for KPMG in China, says, “We have seen rapid take-up of D&A strategy in the China market, where homegrown platforms underpinning the rise of online transactions are of particular interest, as well as the increasingly important roles of social media and mobile devices. These trends are fundamentally reshaping the way consumers in China purchase goods and services, and how businesses operate online. We have therefore seen a significant increase in the volume of customer data through transactions and social media in China, as well as new mobile and targeting technologies that enable companies to understand and predict customer preferences.”

However, while reported adoption rates seem very high, questions remain as to how advanced these capabilities are.

“Many organizations are certainly using D&A-type solutions to generate insights from their enterprise data; the real question is to what extent this is really advanced analytics or just marginally more sophisticated management reporting,” notes Nadia Zahawi, Director, Global Data & Analytics. “D&A increasingly means combining the right tools, capabilities, algorithms and technology to analyze multiple sources of information in near-real-time. Without that, organizations may never be able to reach a stage of maturity where they can conduct more advanced activities such as predictive analytics, pattern recognition, anomaly detection and so on.”



D&A is poised to revolutionize the business environment in China. ”

**Torsten Duwenhorst**  
Lead Partner D&A KPMG China

### 3 INSIGHTS TO VALUE: KEY TAKE-AWAY

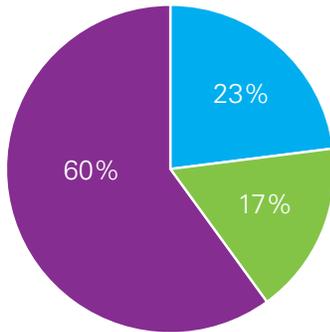
#### **GO BEYOND POINT SOLUTIONS.**

Transcend individual projects towards an overarching enterprise-wide D&A strategy that underpins investment decisions.

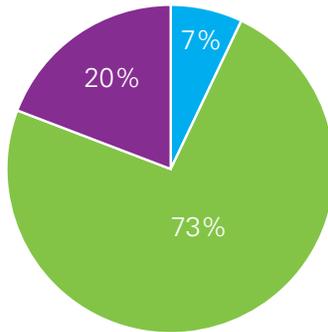
### MOST IMPORTANT DRIVERS OF D&A

■ Reducing costs    
 ■ Generating sales growth    
 ■ Improving productivity

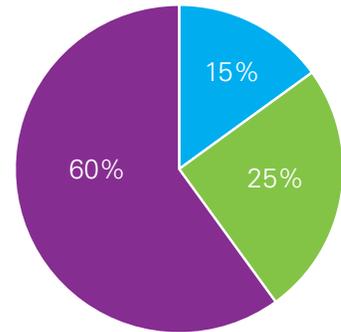
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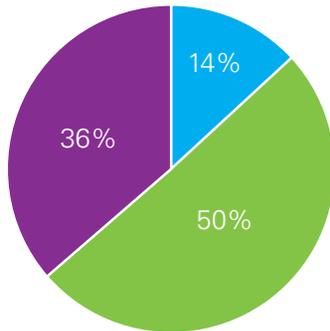
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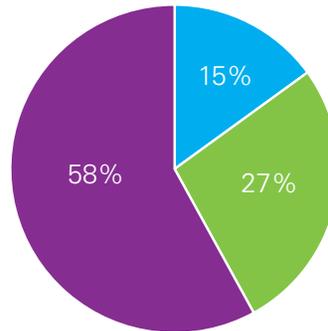
INSURANCE



HEALTHCARE & LIFE SCIENCES



BANKING



Source: KPMG International survey: *Going beyond the data: turning data from insights into value* 2015.



## FOCUS ON CUSTOMERS

**92%** use D&A for marketing purposes

**72%** said they are regular or heavy users of social media data to improve customer relationships

**81%** said D&A has improved their understanding of customers

**41%** said D&A has helped them create more targeted offerings to prospective customers

**50%** of US firms report increased sales from D&A

“In most organizations, data about the customer is often fragmented across almost every function in the organization – from finance and risk through to sales and customer service – and this data needs to be brought together to achieve a richer understanding of the customer,” notes Anthony Coops, Partner, KPMG in Australia. “But organizations can’t just see this as a data or technology issue – driving real value from customer data requires multiple stakeholders to come together to agree on what they want to achieve together and, therefore, what questions to ask the data.”

# DELIVERING ACTIONABLE INSIGHTS

As organizations improve the sophistication of their D&A capabilities and activities, many are starting to find that their greatest challenge lies not in uncovering insights from their data, but rather in creating actionable, business-driven insights that ultimately lead to tangible and sustainable value for the business.

As Gartner wisely noted when they first published the Hype Cycle Model<sup>2</sup>, most organizations tend to set out on a technology journey with somewhat inflated expectations, which is often followed by what Gartner termed the 'Trough of Disillusionment' as expectations are missed and value is questioned.

Our data suggests that the more sophisticated organizations are now entering the trough. The US, for example, demonstrates signs of growing sophistication: US respondents were almost twice as likely as the global sample to say they use D&A in decision making at least once a week. More than a third of US respondents also said they are already using large systems that examine multiple data sources to identify and then react to emerging trends, two indicators of a more sophisticated approach to D&A.

## ARE THE NECESSARY BUILDING BLOCKS IN PLACE TO TURN INSIGHTS INTO VALUE?

Likely as a result of their relative maturity, US respondents also reported the greatest levels of dissatisfaction with the insights that their D&A tools were providing. Just over half (55 percent) said they had managed to generate real cost savings from their D&A; only 50 percent said they had achieved sales growth as a result of D&A.

"Nobody in the US market doubts the potential of D&A; the US is, by all accounts, the most competitive marketplace in the world and so any technology or solution that promises to enhance the cost structure, drive growth and reduce risk will be fiercely fought over," notes Brad Fisher, Partner,

KPMG in the US. "While some sectors are clearly more mature than others, many US organizations are now trying to move beyond pilot projects and siloed capabilities to instead embed D&A into the entire organization as a 'business as usual' tool."

Our data indicates that, while adoption may be widespread, most organizations continue to struggle with some of the fundamental building blocks required to move from data to insights, such as improving the reliability and accessibility of data. Indeed, more than half of all respondents said they are still experiencing difficulties evaluating the quality and reliability of their data.

## 4 INSIGHTS TO VALUE: KEY TAKE-AWAY

### DEFINE WHAT VALUE YOU ARE LOOKING FOR.

What is it you want to achieve? Is it reduced cost? Better management of risk? Improved customer experience? The reality is that 'value' differs depending on the issue you are dealing with.

<sup>2</sup> <http://www.gartner.com/technology/research/hype-cycles/>

Slightly less than half admitted that the appropriate data was not always available. Maurice Op het Veld, Head of Data & Analytics for KPMG in the Netherlands, explains, “The challenge is the complexity of the data structures, especially when using multiple systems. Data quality can already be a challenge when it comes from just one system – but when multiple systems are at play, data quality can quickly become the stumbling block for the organization. And once people start questioning the validity of the data, they are much less likely to have an appetite to take on more ‘value-driven’ projects in the future.”

“

Once people start questioning the validity of the data, they are much less likely to have an appetite to take on more ‘value-driven’ projects in the future.”

**Maurice Op het Veld**  
**Head of Data & Analytics**  
**KPMG in the Netherlands**

### **INDUSTRY FOCUS: HOW DOES MATURITY VARY ACROSS DIFFERENT SECTORS?**

While, perhaps unsurprisingly, these challenges were cited fairly consistently by the different industry sectors, it is interesting to note that respondents from the Banking sector were significantly more likely to say they faced challenges translating data into actionable insights (46 percent) than those from the Telecommunications sector (29 percent). Healthcare & Life Sciences sector respondents were also the least likely to show confidence in their data, with 70 percent citing challenges with their data quality and reliability versus just 45 percent of Banking sector respondents who said the same.

“Clearly certain sectors are ahead of others in terms of where they’re embracing D&A and their level of maturity. Any sector dealing with customers is probably on the forefront because it’s pretty intuitive that the more you know about your customer, the better you can tailor what you sell and, in doing so, the more you will sell,” observes Brad Fisher. “Then there are others that have made massive strides over the past few years but are still probably behind. Healthcare is a perfect example of an industry that is only now moving towards full digitization, and healthcare providers, payers and even governments are soaking up all they can in data and analytics to help them transform. But while the sector is certainly moving quickly to catch up, the fact remains that their level of maturity – and the sophistication of their systems – may be inferior to those data-driven sectors, such as Retail, that have been using D&A for years.”

## **5** INSIGHTS TO VALUE: KEY TAKE-AWAY

### **FOCUS ON CUSTOMERS.**

Ask yourself how to use new forms of data and algorithms to automate decision making in order to bring greater customer service and expand your capacity to transact profitably with customers.

## FOCUS ON RETAIL

Perhaps not surprisingly, retail sector respondents showed a higher level of D&A maturity than most other sectors in our survey, particularly in areas related to customer experience and marketing. Almost nine-in-ten retail respondents said they had already increased sales by leveraging D&A insights and 94 percent said they make either regular or heavy use of social media data to improve their relationships with customers.

According to one IT leader with a European-based global retailer, the desire to improve the customer relationship has been a key driver behind the organization's D&A maturity. "When we started using data and analytics, we were really focused on things like mapping the customer journey using heat maps and transaction data, but we quickly started to recognize that this information provided nothing more than static insights about a point in the past," she noted. "If we really wanted to drive value for the business, we needed to make that information actionable for the business; it needed to be tangible

information that, ultimately, changed the customer experience."

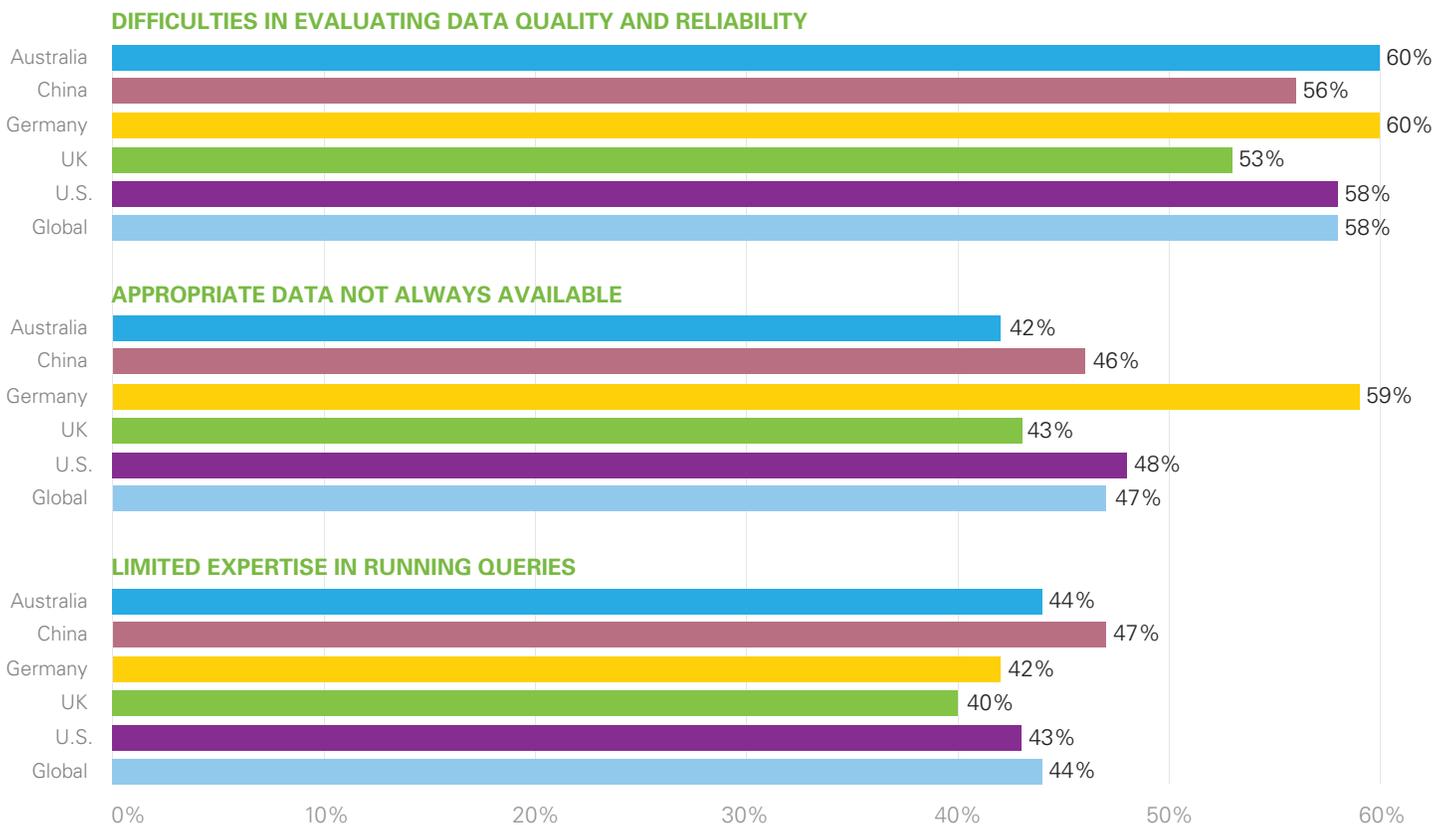
Building strong relationships between the analytics function and the business was central to the organization's success. "It really requires a dynamic combination of the business and the analytics function for D&A to drive value," the IT leader noted. "But first, we needed to start talking in their language. Executives think in business terms about return on investment and customer value so we need to make sure that we were talking to them in the same business terms and using the right visualizations for that audience."

Educating the business about D&A and its potential applications was also vitally important. "We really needed to sit down with the business at the front-end and work with them to think about what type of information would help them create value and then translate that into what questions we needed to ask as a result. And today, the business is very enthusiastic and engaged in the D&A process."

### THE TALENT CHALLENGE

Alongside data quality and reliability, issues related to skills and expertise also emerged as a top challenge for organizations. When asked what actions they could take to improve the value of their D&A programs, respondents were most likely to point to internal education programs and a renewed focus on hiring data scientists. Just 14 percent of respondents said they have all the talent and capabilities they need to fully leverage the benefits of D&A.

## BIGGEST CHALLENGES TO MAKING DECISIONS BASED ON D&A



Source: KPMG International survey: *Going beyond the data: turning data from insights into value 2015*.

“Analytics isn’t about putting a bunch of techies in a room with some cool tools and hoping that something valuable comes out; it takes business-minded technology people and data-minded business people to work together to drive real value for the business,” explains Dr. Thomas Erwin, Partner, KPMG in Germany. “But competition for this type of talent has already become fierce, and organizations are struggling to fill the gap with internal talent.”

Similarly, those using D&A in marketing said the greatest impact of D&A has been on improving information about customers (arguably a passive activity) versus using that information to create more tailored customer offers or to decide which services to launch.

“Companies are getting really good at collecting data, but they are having big problems connecting it. Analyzing a single source of data will never drive real value; it takes multiple streams of data to get real insight,” states Nova Spivack, CEO of Bottlenose.

Largely because of this gap between insights and value, many organizations said the greatest benefits from D&A stem from achieving faster, more accurate or better-informed decision making rather than the discovery and application of new growth opportunities or risks. As a result, many seem to be missing out on some areas of enormous potential, such as individualized marketing, the identification of new revenue streams and the prediction of future market trends.

## 6 INSIGHTS TO VALUE: KEY TAKE-AWAY

### ASK THE RIGHT QUESTIONS.

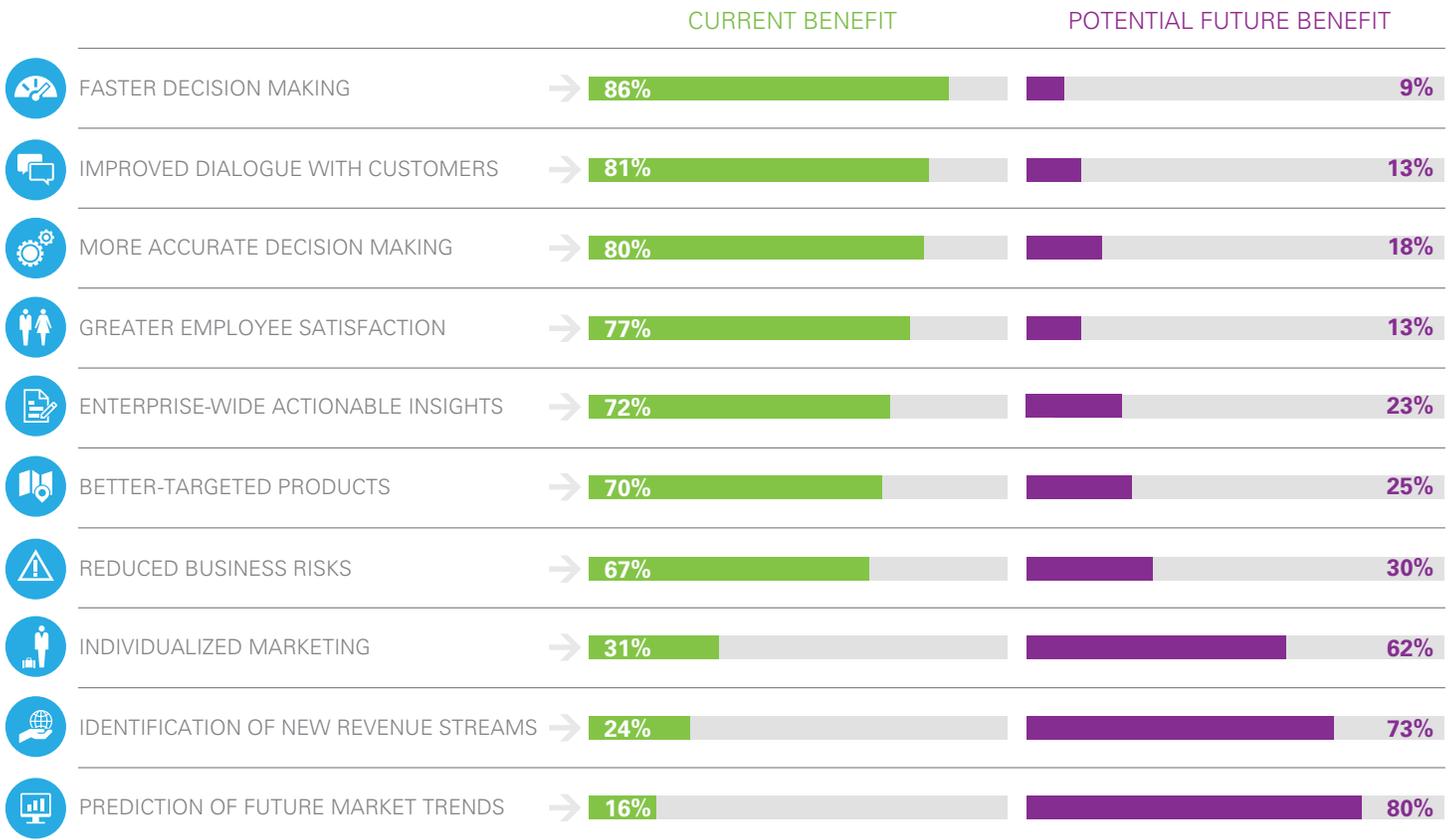
Don’t do D&A just for the sake of doing it. Prioritize your insights and understand their potential value, not only in terms of the ‘size of the prize’, but also in terms of speed and complexity.



Companies are getting really good at collecting data, but they are having big problems connecting it. Analyzing a single source of data will never drive real value; it takes multiple streams of data to get real insight. ”

**Nova Spivack**  
CEO, Bottlenose

## CURRENT AND FUTURE BENEFITS TO COMPETITIVENESS



Source: KPMG International survey: *Going beyond the data: turning data from insights into value* 2015.

# KPMG POINT OF VIEW

## CREATING VALUE THROUGH TAX COMPLIANCE

Few areas in any organization are as focused on data at the transactional level as the tax function. Yet, our experience shows that (with a few notable exceptions) the tax function has generally been slow to take advantage of many of the more advanced benefits that D&A can offer, such as identifying operational efficiencies, improving refunds or reducing the potential for audits.

In part, this is because of two key pressures facing every tax department: an increasing density of regulation and the growing complexity of compliance. Most already recognize that the only way to manage these forces is through the improved use of technology and, with it, data and analytics.

However, while many tax functions are certainly making much better use of their data today than ever before, few have the time, resources or regulatory certainty to really take their tax D&A to the 'next level' where the tax function becomes a more strategic and data-driven partner to the business.

In response, a growing number of organizations are now starting to focus on outsourcing their compliance function in order to refocus their existing resources onto more value- and insight-driven activities. And in doing so, they are achieving increased value from their tax data.

# FOCUS ON RISK

- 97%** said they currently use D&A for risk management
- 87%** have avoided a significant risk as a result of using D&A
- 36%** face challenges translating data into actionable risk management insights
- 63%** use D&A on a monthly basis for decision making
- 7%** use it daily

“From the early detection of new risks to the ongoing monitoring of controls and systems, D&A can help organizations and their boards significantly reduce their risk profile,” noted Paul Tombleson, Partner, KPMG in the UK. “In the Financial Services sector, for example, organizations are using advanced analytics to not only monitor conduct risk, but also to predict – and then avoid – potential misselling situations. The more advanced organizations are then using the same data to develop new products, identify new markets and improve their customer experience.”

# TURNING INSIGHTS INTO VALUE

Capturing value from your D&A initiatives requires three ingredients: actionable insights, strong change management processes and executive support. But more than anything, it requires organizations to take a fundamentally different approach to D&A that starts with understanding what the business wants to achieve and then aligning the D&A tools, capabilities and data to support that.

As our survey suggests, organizations around the world (and their boards and investors) are increasingly looking to connect the insights they are creating from their D&A programs to value generation. Many are finding that much value remains untapped and – while insights may be flowing from the data – very few seem to have figured out how to drive value from that information.

“The reality is that an insight is nothing more than information until you use it to actually change something; maybe it’s a new process or an improved control, or maybe it’s a new product strategy or a tailored offering to an individual customer – the trick is in knowing what you want to change and then applying the right D&A tools and algorithms to get there,” notes Anthony Coops.

Interestingly, while respondents cited challenges related to talent, data quality and education as barriers to adoption, they were far more likely to suggest that improved analytics techniques will be the key to unlocking new revenue from their D&A capabilities.

“

The reality is that an insight is nothing more than information until you use it to actually change something.”

**Anthony Coops**  
Partner, KPMG in Australia

## 7 INSIGHTS TO VALUE: KEY TAKE-AWAY

### **MEASURE YOUR SUCCESS.**

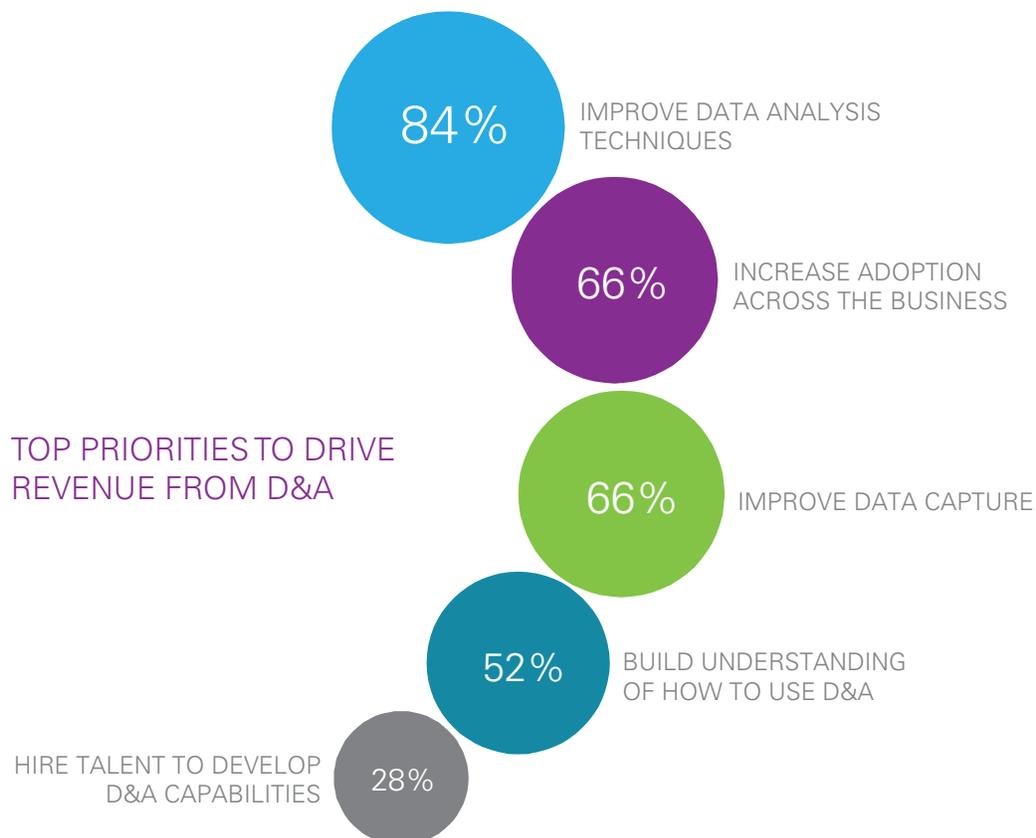
Use your successes to fund more projects and share your expertise and knowledge across the organization.

**BETTER ALIGNMENT**

While improving analytics techniques will certainly be important as the business becomes an increasingly sophisticated consumer of D&A, particular focus will first need to be placed on creating better alignment between the business and the analytics process, which will allow IT and business leaders to better understand what improvements and capabilities might be required to better support the business.

According to Dr. Mark Kennedy with Imperial College, London, “Many people seem to be doing a pretty good job at gathering reliable data together and doing some analysis on it. The challenge is that there is often a disconnect between the people who are doing the analytics work and the people who actually have to make the decisions based off of those insights and then implement them.”

“Very rapid change is a challenge for any organization, and with D&A, it is particularly acute. Organizations now see three drivers of a big gap between the vision and the reality of D&A: the gap between early adopters and laggards (both within and between organizations), the gap between data-savvy and non-data people, and the gap between those at the peak and those in the trough of Gartner’s Hype Cycle,” observes Nadia Zahawi. “These gaps become a particular challenge when organizations try to take the leap from insight to value because it becomes hard to align expectations and build a common understanding of what needs to be done to deliver maximum value.”



Note: respondents were able to select more than one answer.

Source: KPMG International survey: *Going beyond the data: turning data from insights into value 2015*.

### EMBEDDING ANALYTICS INTO THE BUSINESS

A key question is how best to embed the analytics function into the business. “Most D&A functions evolve as the understanding of value changes,” notes Anthony Coops, Partner, KPMG in Australia. “At first, people often see D&A as another technology application and therefore capabilities are hidden in IT or deep within a business unit. Then, as the business starts to see the value of the insights, the capabilities shift towards embedded data analysts within specific functions. Now organizations are starting to recognize that they can achieve significantly more value through cross-functional insights and data sharing, which, in turn, has led more sophisticated data organizations to shift again towards a semi-centralized and connected D&A function.”

However, any improvements in D&A techniques – whether through capabilities, technology, data or skills – should be driven directly by the needs and the objectives of the business. This will help ensure that all investments are focused, monitored and evaluated based on clear performance indicators and business-led value metrics.

“Begin with the end in mind: have a clear vision of what you want to get out of your D&A journey and only then go looking for the data, the algorithms and the technology you need,” advises Dr. Thomas Erwin, Partner, KPMG in Germany. “Organizations will need to learn to be bold in execution, willing to experiment and always focused on challenging whether the insights that have been generated are actually creating value for their organization.”

“

Organizations will need to learn to be bold in execution, willing to experiment and always focused on challenging whether the insights that have been generated are actually creating value for their organization.”

”

**Dr. Thomas Erwin**  
Partner, KPMG in Germany

## 8 INSIGHTS TO VALUE: KEY TAKE-AWAY

### ENGAGE EARLY WITH STAKEHOLDERS.

Articulate the value of D&A to the business and to investors who increasingly see D&A as a transformative strategy, not simply as a way to bring greater insight to your existing business problems.

## INCREASING MARKET VALUE: AN INVESTOR'S PERSPECTIVE

A forthcoming KPMG LLP (US)/KPMG International report *Data and analytics – a new driver of performance and valuation* confirms that D&A strategies have moved beyond boardroom discussions and now impact the capital markets. Specifically, investors expect to see tangible benefits of a company's D&A strategy translate to a company's overall performance. Investors are more likely to reward those who can effectively showcase their D&A strategy and its results with higher evaluations and more favorable investments.

More than half (54 percent) of investors and equity analysts participating said that they expect companies' D&A strategies to cause a disruption in sector dynamics over the next three years, with many commenting on the appeal of data-driven organizations to their investment portfolio. As one equity analyst explains, "We want to hear about data and how companies are using it. We want to know that they're factoring it in and they've built the business case internally for using data to build competitive advantage."

Ultimately, the survey clearly indicates that investors expect to see tangible benefits of a company's D&A strategy translate to a company's overall performance. According to investors, D&A can help organizations achieve three benefits that directly impact their valuation:

- better fundamental operating performance
- stronger growth from their current business model
- growth that comes from identifying new business models

"Companies must be prepared to show Wall Street how they are going to deliver on one or more of those expectations. Analysts will reassess and revalue the companies they follow if they can see the connection," notes Brad Fisher, Partner, KPMG in the US. "But today, most companies are not doing a satisfactory job of explaining either their D&A strategy or the results that will accrue from it. We believe that telling that story effectively will be a major focus for companies in the next decade."

# KPMG POINT OF VIEW

## BETTER AUDITS WITH D&A

First and foremost, data quality and integrity have always been key to performing a robust audit. Recent efforts by organizations around the world to improve their own D&A capabilities, combined with audit firms developing more advanced D&A capabilities, have been instrumental in improving audit quality and that – in itself – has already delivered immeasurable value.

More sophisticated organizations are now starting to look for deeper insights from their audit in order to better understand their performance and risk profiles across departments, business units and peer groups.

During the course of our member firms' audits, we frequently see issues around controls – often inconsistent applications across business units – that, in the first instance, provide us with evidence to inform an audit opinion, but that will also, most certainly, be of interest to the Audit Committee.

We feel safe in saying that Audit Committees will find any innovation that contributes to higher quality audits and deeper insights into risk highly valuable. But these findings could also provide management with information that informs decisions they may make, such as improving the quality of their controls, which, in turn, can benefit their investors and stakeholders.

For example, using D&A, auditors may uncover insights about an organization's purchasing processes that would allow management to assess opportunities to drive efficiency or better leverage their ERP investments by relying more on automated controls. And in doing so, organizations can better address specific challenge areas and achieve more streamlined production.

We believe that enhanced audit quality combined with new insights equals value – value to the users of the audited financial statements that organizations issue, value to Audit Committees and key stakeholders in terms of the quality and effectiveness of the audit report, and value to the boards and management teams in terms of the decisions they make.

# ARE COMPANIES REALLY GOING BEYOND THE DATA?

D&A is rising up the agenda – for executives, for business managers, for customers and for equity markets and investors, as explained in KPMG International's upcoming report *Data and analytics: a new driver of performance and valuation*. Nobody should doubt the progress that has been made over the past two years – most organizations should be fairly pleased with how quickly they have adapted to this new data-driven world.

Today's leading D&A organizations are now focusing on key themes such as how to bring analytics closer to the business, how to break down silos and encourage cross-functional approaches, how to refocus their activity around strategic imperatives, and how to prioritize what should (and could) be done by leveraging D&A.

However, this year's survey suggests that most organizations have not yet realized the full strategic importance of D&A. Clearly, most are now running D&A projects and the vast majority knows that their business's success depends on their ability to both tap into data and build the required analytics capabilities. Given the massive potential of D&A, it is not surprising that most also say they are already seeing value flow from some of the internal returns that come from cost cutting or greater productivity.

Our experience suggests that while some organizations are already making good progress driving value from their insights, it is only in certain circumstances. The Retail sector, for example, tends to demonstrate amazing sophistication when it comes to focusing on their customers. Banks often shine when using D&A to look at risk. And a host of other sectors seems to understand how to achieve value from their insights when trying to improve productivity.

Those that are leading the pack, however, show that they increasingly understand the inherent value that insights can deliver across the organization. They are breaking down the internal silos and bringing the best of their data, people and technologies together across the enterprise. They are experimenting, innovating and being fast to fail. They are prioritizing their efforts to make the most of their limited resources, but, most importantly, they are acting on the insights they find.

We believe that most organizations do not yet see how D&A could transform their company's ability to serve customers and generate revenue in entirely new ways. Many are simply following the blind faith that D&A will, eventually, lead to improved growth or competitive advantage. And they are being driven by highly visible examples of companies that are successfully using D&A to innovate and create new value. But most do not yet have a clear vision of what is truly possible with D&A.

In our opinion, executives need more than a D&A plan. **They need an execution strategy** to follow through on their D&A visions and **reap the greatest benefits from their D&A applications.**

# EIGHT KEY TAKE-AWAYS

- 1 ADDRESS THE ISSUES YOU ARE FACING.**

Most clients we work with do not ask for a D&A solution, they ask for a solution to a specific business problem. Understanding your biggest issues will direct you to where you can best focus your D&A capabilities.
- 2 UNDERSTAND THAT THE INSIGHTS DO NOT COME FROM DATA ALONE.**

They come from analyzing the data and working across silos to map back to the issues and challenges the business is addressing. D&A is a team game.
- 3 GO BEYOND POINT SOLUTIONS.**

Transcend individual projects towards an overarching enterprise-wide data-driven culture that underpins investment decisions.
- 4 DEFINE WHAT VALUE YOU ARE LOOKING FOR.**

What is it you want to achieve? Is it reduced cost? Better management of risk? Improved customer experience? The reality is that 'value' differs depending on the issue you are dealing with and its relative importance to the business.
- 5 FOCUS ON CUSTOMERS.**

Ask yourself how to use new forms of data and algorithms to automate decision making in order to bring greater customer service and expand your capacity to transact profitably with customers.
- 6 ASK THE RIGHT QUESTIONS.**

Don't do D&A just for the sake of doing it. Prioritize your insights and understand their potential value (in terms of not only the 'size of the prize', but also in terms of speed and complexity).
- 7 MEASURE YOUR SUCCESS.**

Use your successes and evidence of the value created to fund more projects and share your expertise and knowledge across the organization.
- 8 ENGAGE EARLY WITH STAKEHOLDERS.**

Articulate the value of D&A to the business and to investors who increasingly see D&A as a transformative strategy, not simply as a way to bring greater insight to your existing business problems.

## ABOUT D&A AT KPMG

D&A, at its core, is a new way of solving problems with insights and innovation. Data sources are exploding, and businesses need to turn data into insights and value. Our D&A strategy focuses on understanding the overall data landscape and getting to the heart of your problems so that our member firm professionals can help solve your most pressing growth, risk and cost concerns.

KPMG has taken a number of steps to develop innovative solutions that help clients unlock the value of their data:

- KPMG Capital is an investment fund focused on accelerating innovation in D&A services and solutions to help clients of member firms unlock tangible value from their data. KPMG Capital is focusing its investments on solutions that address the client issues of risk, cost and growth. For example, KPMG Capital recently invested in Bottlenose, a company that provides stream intelligence to enable enterprises to identify, anticipate and monitor the trends that drive their businesses.
- In March 2015, KPMG announced an expansion of its strategic relationship with Microsoft to include a global collaboration to jointly deliver new suites of innovative solutions and services in D&A, cloud compliance and transformation, and business solutions.
- KPMG member firms have announced a number of acquisitions and partnerships that are designed to offer D&A and digital solutions to clients helping manage risk and cost, and drive growth.

Across sectors and countries, through our Tax, Audit and Advisory services, we can help you gain new insights to remain competitive and relevant. With 4,300 KPMG specialists across the globe focused on delivering D&A capabilities, we believe that KPMG member firms are uniquely placed to solve your biggest business issues and generate real value for you, your company and your shareholders.



# THE GENIUS OF **BIG DATA**

IS NOT THE MOUNTAINS YOU BUILD,  
IT'S THE VIEW YOU GET  
**FROM THE TOP.**

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Anthony is the leader of D&A for the Asia-Pacific region and head of D&A for the Australian member firm. A partner with KPMG, Anthony has global experience working across multiple countries where he helps clients address specific needs in areas such as risk, optimization, workforce and customer analytics.

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Christian leads KPMG's Data & Analytics Strategic Growth Initiative globally. He serves on the board of KPMG Capital and as Chief Solution Officer within the German firm. Christian was the CEO of BrainNet until its acquisition by KPMG in February 2013. Since then Christian has held leadership roles for KPMG in Germany and globally, most recently as head of KPMG's Global Procurement Advisory Services.

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Torsten leads the D&A team in greater China. As a forensic technology partner, he works with multinational clients on proactive and predictive D&A solutions to detect fraud and compliance-related behavior and patterns. Torsten also works with KPMG partners across all service lines and industries to use D&A to help clients achieve their digital strategy visions and growth targets, mitigate overall risk and increase efficiencies.

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Brad is the D&A leader for KPMG in the US and a partner with more than three decades of experience providing professional services to clients in a variety of industries. Brad serves as an internal data 'evangelist,' working to leverage KPMG's advanced capabilities in Big Data, predictive analytics, optimization modeling and analytics technologies to enhance the firm's engagements.

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Thomas is the D&A leader for KPMG in Germany and a partner in Germany's Consulting practice. His work focuses on the risk and performance-based analysis of an organization's business processes and the development of appropriate governance models. He heads up the Continuous Auditing/Continuous Monitoring solution and leads the German firm's activities in the GRC tooling space.

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As Global Head of D&A for Tax, Tim brings more than 20 years of professional experience as an auditor, lawyer and tax professional serving Fortune 500 and mid-market companies in diverse industries. Tim teaches global indirect tax as an Adjunct Professor of Law at Georgetown University Law Center and has published numerous articles.

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Maurice leads D&A for KPMG in the Netherlands, and as a partner, he works with several multinationals in the consumer and industrial market space. Maurice's work includes a focus on using D&A to derive more value from a client's business processes and ERP systems, and to enable a data-driven external audit approach.

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