Article:
The science of winning in financial services – competing on analytics: opportunities to unlock the power of data
The science of winning in financial services — competing on analytics: opportunities to unlock the power of data

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Abstract  
This article presents the results of confidential survey data across banking, capital markets, insurance, and wealth and asset management into the role that data and analytics are now playing in their businesses. We find that (1) data is becoming a fourth “pillar” of the business for leading financial services firms, (2) a holistic approach to data is crucial for success (it is not just a technology problem), (3) leading companies are increasingly investing in data for the upside potential, rather than purely to mitigate downside risk, (4) financial services firms are bullish about their capabilities on analytics, but many admit to needing to do much more and (5) chief data officers (CDOs) are increasingly common, but are not a solution by themselves. These findings paint a mixed picture of the level of maturity in data and analytics at financial services companies. Some areas of the industry, and certain individual companies, have made significantly more progress than others. Insurers, for example, appear to be ahead of banks. Nevertheless, all financial services businesses are on the same journey, working toward a greater emphasis on decision-making that is based on the actionable insights generated from their data.
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They are thinking about how to overcome the obstacles encountered along the way – from fears about regulation and data privacy to the technical challenges presented by legacy systems and skill shortages – and organizing and investing in order to give themselves the best chance of doing so. Part of the challenge will be honest self-appraisal: a willingness to assess current levels of maturity in order to decide where to focus the business’s energies. New challenges, meanwhile, will emerge as companies seek to develop their capabilities. The size of the prize, however, makes these difficulties worth confronting.

1 This article is based on a quantitative survey of 150 financial services firms in the banking, insurance and asset management sectors, undertaken between August and September 2014. The respondents were split equally between North America, Europe and Asia. In addition, qualitative interviews were conducted with senior executives at a number of leading global financial services groups in order to gain further insights. We would like to thank the following individuals for their assistance with this report (listed alphabetically by surname): Mathias Born of Zurich Insurance Group, Andy Brown of Lloyds Banking Group, Brady Cole of Wells Fargo, Heiko Fischer of ING DiBa, Ashley Hirst of AIG, Alastair Kellock of Lloyds Banking Group, Holger Kumm of DZ Bank, Philipp Löffler of Deutsche Bank, Bruno Melo of Vontobel Asset Management, Alex Nakhapetian of Zurich Insurance Group, Wendy Seago of Aviva and Lorraine Waters of HSBC.
1. Introduction: reassessing the value of data

Data is fast becoming the “fourth organizational pillar” for modern financial institutions, alongside people, processes and technology. In today’s uncertain environment, characterized by regulatory and economic risk, as well as intensifying competition for customers, financial services leaders have an urgent need to make well-informed strategic decisions. As a result, many financial services firms are now working to create a data-centric business – and awakening to the enormous untapped value of their data.

“For the first time in the history of our company, data and the data strategy have been included in the business strategy that we publish externally – that says a great deal about our commitment and intent,” says Mathias Born, Head of Group Data Management at Zurich Insurance.

This recognition is widespread. In our survey of 150 financial services companies from around the world, more than four in five executives polled (83%) said they now see data as their most strategic asset. An almost identical number (84%) believe that data will be a source of competitive advantage. “We’re turning ourselves into a data-centric organization,” says Lorraine Waters, Deputy Chief Data Officer at HSBC. “We’re increasing the awareness that, in this digital age, the quality of our data and the way in which we put it to work is absolutely key.”

At the same time, many financial services companies are a long way from extracting the value locked up in their data or exploiting it to its full potential. Almost half (47%) say they do not have a full grasp of that value. Nor are companies as advanced in their implementation of analytics technologies and processes as they are with data collection and management. Almost a third of respondents (31%) describe their ability to realize value from data assets today as immature.

This should not be surprising, as the enormous regulatory burden under which the financial services sector has labored since the financial crisis has been all consuming. The pressure to focus on compliance and risk management, rather than on growth opportunities, has undoubtedly contributed to the delayed realization of data’s value in the industry.
Case study: HSBC's data-centric vision

“When you’re thinking about strategy and your target operating model, you think of people, process, technology, and we’ve added data, so now there are four pillars rather than three,” says Lorraine Waters, Deputy CDO at HSBC, the global banking group, where she also serves as Global Head of Data Governance.

Two years ago, HSBC appointed a CDO at group level, tasking him to build a data organization with teams that are embedded across. The effect, says Waters, has been to dramatically raise the profile of data as a distinct function throughout the group and to begin “turning HSBC into a data-centric organization.”

Part of the challenge is to confront the fragmented nature of any large financial services group, where customer data, for example, is held separately in a string of product silos. At the same time, HSBC is seeking to scale the analytics capabilities it has already built in parts of its business.

“We’re making data-specific decisions and creating data-specific capabilities,” Waters explains. “Historically, in most banks, data has played second fiddle. Banking tended to be very product aligned and all of a firm’s infrastructure tended to be set up along product or business lines – so, for customer data, for example, banks would persist with data in multiple retail banking systems, even if it’s the same customer in each case. What we’re trying to do is make the product system come to the central data system to ensure consistency across the product lines.”

Despite the huge strides the bank has already made, Waters says that getting an organization of HSBC’s size to a position where it is fully exploiting data and analytics capabilities is a long-term project. “We have incremental business benefits that we have to deliver over the next 1, 2, 3, 4 and 5 years, but, ultimately, this is a 10-year program.”
1.1 Turning the corner

Happily though, there is evidence that the financial services sector is now working to catch up. It is notable in our survey that higher-growth firms – defined as those businesses that have seen earnings before interest, tax, depreciation and amortization (EBITDA) growth of at least 15% per year over the past two years – are noticeably more motivated by the potential of new opportunities.

Meanwhile, many firms are racing to get ahead in this area, not least due to the potential that data holds. Australian bank Westpac attributes an AU$22m (approximately U.S.$17.3m) increase in revenues to big data techniques used to provide targeted offers to customers when they interact with the bank, whether in a branch, via a call center or online. The bank is taking advantage of a rapidly growing number of online customer interactions to develop its “know-me” approach, through gathering a huge volume of customer data and applying sophisticated analytics techniques.

However, while some in the sector are well on their way to capitalizing on data to gain a competitive advantage, other financial services companies are only just beginning to set clear priorities for utilizing their data. The challenge for these firms is to bridge the gap between recognizing their data’s value, and improving how data is collected, processed and analyzed, so it can become a competitive tool in future.

This paper is structured as follows: section 2 looks at the characteristics of leaders in data; section 3 considers how data and analytics tools might be used to enhance revenues and boost growth; section 4 provides a roadmap for overcoming the many hurdles business faces; and section 5 concludes.

2 “Westpac using big data to woo customers with offers made to measure,” The Sydney Morning Herald, 4 March 2014.
2. The race to maturity: data leaders versus laggards

At first sight, the financial services sector regards itself as relatively mature in terms of how successfully it is able to generate value from its data assets. Almost two-thirds of respondents (65%) say their overall ability to realize value from data is somewhat or highly mature. Probe below the surface, however, and a different picture emerges. Many organizations are concerned about significant gaps in their capabilities, and there are clear leaders and laggards across the industry. For example, substantial numbers of companies are concerned about their maturity in each of the data-related competencies they were asked about. More than a third of companies described themselves as of only average maturity or worse when it came to possessing relevant data skills and human capital, implementing relevant data processes, the importance attached to data by management, adopting relevant technologies and systems and the setup of the organizational structure for data.

These shortcomings may explain other concerns expressed by many financial services businesses. Just one in four companies (26%) believes it has a full grasp of the potential value of the data their organizations hold, while over half describe themselves as being acutely challenged in sourcing the skills necessary to exploit their data.

Fragmentation is a common challenge. “It is not easy to join up data across a composite business,” says Wendy Seago, Technical Pricing and Performance Manager at Aviva. “With different systems in our life, healthcare and general insurance businesses, it can be difficult to gain a joined-up view of customers.”

Moreover, not all financial services organizations are putting their data to good use. Brady Cole, Head of Wholesale Information Services at Wells Fargo, says: “I have a colleague at another firm who talks about ‘data Darwinism,’ that the person with the best data wins – my point about that is that unless you get a business benefit from working on data, the work just dies.” Specifically, benefit means insight that the business can use to make faster and better decisions that produce quantifiably better outcomes.
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Figure 1: How would you rate the maturity of your organization with regards to each of the following elements related to realizing value from its data assets?

<table>
<thead>
<tr>
<th>Element</th>
<th>Highly mature 1</th>
<th>3</th>
<th>2</th>
<th>Highly immature 5</th>
</tr>
</thead>
<tbody>
<tr>
<td>Overall ability to realize value from data assets</td>
<td>26%</td>
<td>39%</td>
<td>18%</td>
<td>13%</td>
</tr>
<tr>
<td>Relevant data skills and human capital</td>
<td>22%</td>
<td>41%</td>
<td>19%</td>
<td>12%</td>
</tr>
<tr>
<td>Relevant data processes</td>
<td>30%</td>
<td>34%</td>
<td>20%</td>
<td>9%</td>
</tr>
<tr>
<td>Overall leadership on importance of data</td>
<td>23%</td>
<td>37%</td>
<td>23%</td>
<td>13%</td>
</tr>
<tr>
<td>Relevant technologies and systems</td>
<td>29%</td>
<td>36%</td>
<td>16%</td>
<td>12%</td>
</tr>
<tr>
<td>Setup of organizational structure for data</td>
<td>23%</td>
<td>39%</td>
<td>21%</td>
<td>11%</td>
</tr>
<tr>
<td>Data governance</td>
<td>25%</td>
<td>41%</td>
<td>16%</td>
<td>13%</td>
</tr>
</tbody>
</table>
“You have to know what actionable insight you’d like to draw from the data,” says Alex Nakhapetian, who leads direct marketing efforts for Global Life at Zurich Insurance Group. “This challenge is an opportunity to achieve this clarity of thinking: you can’t have multiple data strategies and you have to be clear on what you want to achieve, but once that is in place, it becomes a beautiful thing to work through.”

In that context, only 16% of financial services companies describe their ability to extract insight from data to improve performance or competitiveness as excellent. And just 7% say they have sufficient numbers of data analysts throughout their businesses – the rest are still at various stages of trying to recruit people with the skills to deliver high-class analytics.

With so many financial services companies still in the process of building their analytics resources, certain areas of the business have been prioritized over others. On average, finance is at least twice as likely to be deriving business insight from data as any other function. The fact that areas such as sales, marketing and strategic planning lag so far behind may help to explain why many companies are not yet able to use analytics to deliver growth-oriented insight.

Nevertheless, some financial services businesses have been able to achieve more than others. The largest companies are much more likely to describe themselves as mature in terms of their ability to generate value from data, given the resources they have to tap into here. From a geographical perspective, North American executives typically rate their organizations as more mature than their European or Asia-Pacific counterparts.

While the finance function has been the focus of the analytics effort in years gone by, marketing is now singled out as the function where the biggest improvements in data-driven business insight will be seen next. At Lloyds Banking Group, for example, Andy Brown, Customer Data Director, says: “We’re working on ways we can drive more value from data for our customers and our business. We’re using data to understand what drives a customer to need a product, at a particular time; to continually develop our operational efficiencies; as well as simplify our processes.”
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Figure 2: How good do you believe your organization to be at extracting useful insights from its data to help improve its overall performance or competitiveness, in comparison with its main rivals?
3. Toward data-driven decision-making: delivering meaningful insights

The lesson to be learned from companies growing quickly and sustainably is that investment in new technology alone will not deliver what financial services companies are looking for – this spending needs to be supplemented with additional resources for the right people, processes and organizational change.

But the survey suggests that, in many areas, the appropriate level of resource has not been forthcoming. The number of companies that say their business functions have begun to recruit more data analysts is just 28%. Similarly, just 13% of companies expect to increase spending on data-related change management programs by more than 20% over the next two years.

This may, in part, be because organizations are struggling to find the talent they need, rather than simply a failure to commit funds for the necessary investment. It is not that financial services companies do not understand the challenge. The vast majority (85%) agree that exploiting the data they have will require a strong focus on people and processes, not just technology.

One major issue holding the sector back is the ongoing demands of regulation: 21% of companies expect to increase data privacy-related spending by more than a fifth over the next two years. Another practical problem is the lack of skilled data scientists in what is a relatively new profession. “The ability to understand, manage and manipulate data analytically using traditional databases is something that has become ingrained across organizations in recent years,” says Andy Brown of Lloyds Banking Group. “But with the emerging tools and techniques, we will need more data specialists concentrated in key parts of the organization who are able to understand and manage the complexity of the data, the technology and the business implications.”
High-growth firms: what is their secret?
One of the most notable results from this survey is that high-growth financial services companies – those achieving EBITDA growth of 15% or more in each of the last two years – are significantly more likely to be able to extract value from their data than other businesses in the research.

More than a third of these companies (35%) say they are highly mature in this capability, compared with fewer than one in four (23%) of the rest. At the same time, one in four (27%) high-growth companies describe itself as excellent at extracting useful insights that improve overall performance or competitiveness, more than twice as many as their lower-growth peers (12%).

What is their secret? The answer does not appear to be investment in technology, where increases in high-growth companies’ spending have broadly run in line with their rivals. Instead, high-growth companies are more likely to be significantly increasing spending in areas such as change management (24% plan to spend at least 20% more over the next two years, compared with just 7% of lower-growth companies) and personnel and skills (24% against 7%).

High-growth companies are also much more likely to have a specific individual with ultimate responsibility for analytics and insight (70% have such a role, compared with 58% elsewhere). And almost three times as many have overcome skills shortages in data analysts (14% against 5%), though there is clearly plenty of work still to do.

In other words, it is not the commitment to technology itself that is driving the high-growth companies’ lead in data and analytics, but their emphasis on the people, processes and structures necessary to ensure this technology delivers value throughout the business.
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Figure 3: How would you rate the quality of the data-driven insights in your organization across the following areas?

<table>
<thead>
<tr>
<th>Area</th>
<th>Very good</th>
<th>Average</th>
<th>Poor</th>
<th>Very poor</th>
</tr>
</thead>
<tbody>
<tr>
<td>Insight into customers</td>
<td>41%</td>
<td>33%</td>
<td>15%</td>
<td>7%</td>
</tr>
<tr>
<td>Insight into competitors</td>
<td>24%</td>
<td>42%</td>
<td>19%</td>
<td>3%</td>
</tr>
<tr>
<td>Insight into markets</td>
<td>33%</td>
<td>40%</td>
<td>18%</td>
<td>3%</td>
</tr>
<tr>
<td>Insight into risks</td>
<td>28%</td>
<td>45%</td>
<td>13%</td>
<td>4%</td>
</tr>
<tr>
<td>Insight into workforce issues</td>
<td>27%</td>
<td>36%</td>
<td>23%</td>
<td>8%</td>
</tr>
</tbody>
</table>

3.1 From insight to action
Financial services companies also need to address the question of how to disseminate insight so that it may be turned into practical action. “If an analyst can find stuff, that’s great, but how do we make it actionable or meaningful for the segment you’re looking at?” says Brady Cole of Wells Fargo. “It’s not our executives that actually touch the customers for the most part — it’s a relationship manager, and so, to turn insight into something actionable, you need to get to those sorts of people.”

These difficulties are resulting in only patchy success for companies seeking to move from recognizing the value of data to generating and exploiting insight. Some 68% of companies say they are effectively using data to drive more value from existing customers, for example, but only 58% are as confident about initiatives that will identify new customers.
Again, there are clear leaders and laggards. For example, large firms are much more likely than their smaller counterparts to be using data to effectively extract value from customers, identify risks, improve operational efficiency and make better decisions. North American firms also seem to be ahead of their peers elsewhere on most effectiveness measures.

Above all, however, it is the high-growth firms that once again stand out as leaders in the race to generate actionable insight. They are more than twice as likely to be using data very effectively to improve operational efficiency (41% of high-growth firms make this claim, compared with 19% of the lower-growth businesses) and show significant leads in most other areas too.

Lower-growth companies, meanwhile, are especially ineffective at using data to generate insights that will improve the identification of new customers and are also failing to pick up on opportunities to move into new product or service areas. One explanation for this may be that high-growth companies appear to be working hard to generate insight across a much broader range of functions. Asked which business functions are most advanced on analytics, high-growth firms’ answers were split broadly equally between finance (22%), sales (24%) and marketing (14%), while at other firms, the finance function dominated.

In other words, high-growth firms are more likely to be focusing their analytics efforts on the upside – new opportunities for revenue-enhancing growth – while lower-growth businesses have been less ambitious so far.

To see this in action, let’s take an example from Zurich Insurance Group, which is putting data to use in new and exciting ways. “Our ability to detect various triggers that would speak to the propensity of buying certain insurance products is the most pertinent example,” says Alex Nakhapetian. “We must harness the disjointed data elements and convert them into insights.”
Case study: Making data a science at AIG

“The primary measure of success is, have I helped AIG’s decision-makers be better decision-makers?,” says Ashley Hirst, Head of Science for the Americas and Europe, Middle East and Africa (EMEA) at the global insurer AIG. “Not to make better decisions, but to be better decision-makers, and they are very different things.”

Hirst’s unit, which is distinct from a separate function in AIG responsible for collecting and managing data, is focused on working with teams within the business in order to help them make more decisions for themselves, based on analytic insight. “If we’re trying to help them be better decision-makers, then we need to build tools, put them in their hands and teach them how to use those tools, even when we’re not in the room,” he explains.

This approach, Hirst argues, is the key to generating value from data. “We create far more value by working with people who have genuine experience and insight into their business areas and giving them another arrow for their bows than we ever would by simply working on a set of specific questions” he says.

Crucially, Hirst’s team does not operate as a stand-alone technology function but as a business partner with data analysts and scientists who work throughout AIG. The idea is that they’re on hand to respond to particular challenges but also have sufficient understanding of the business to generate their own ideas.

“We believe that the data toolkit, in its widest sense, combined with great quant talent and great business consultant talent, can add value to every single stage of the value chain in every single part of the company,” Hirst adds.
4. Clearing the way: how to cope with bumps in the road ahead

The way ahead for financial services companies is becoming clearer as they work toward unlocking the value in their data. However, there will be some very specific obstacles to navigate as the journey continues. Many companies are already conscious of at least some of these difficulties and are beginning to take steps to confront them. In particular, the sector is primarily grappling with five broad challenges.

1. Regulation and data privacy concerns still dominate

The top two obstacles listed by companies worried about how to maximize their use of data are concerns over regulatory issues (44%) and data privacy restrictions (37%). Financial services firms are right to focus on compliance and risk management, given the potential for such serious financial and reputational damage in the event of a failure. Nevertheless, they must work hard to ensure that this focus does not prevent them from exploiting the upside potential of data. Further, they must also think about privacy and security in the context of customers. “If you use data, you have to create customer value because if it’s not valuable for the customers, they will immediately ask why we are using their data,” argues Heiko Fischer, Head of IT & Project Management at ING-DiBa.

2. Firms need to develop a clearer vision of what they want to achieve with their data

Just one in four firms (26%) disagrees with the suggestion that it does not have a firm grasp of the potential value of its data. Until financial services businesses have accurately mapped what data they currently collect, what might be possible to collect and the potential insight to be extracted from this information, they will not have a full picture of this value— or be able to make rational decisions about which workstreams they should prioritize most highly. Businesses must learn to walk before they try to run, argues Holger Kumm, Head of IT Application Development of DZ Bank. “The data discussion is pointless if you haven’t done the basics,” he argues. “The first step is to develop the capability to draw sensible conclusions from the data you already have.”
3. Legacy systems make it difficult to introduce new technology solutions
Many financial services companies operate as groups of businesses that have traditionally operated independently of one another. Many have developed after years of M&A transactions. As a result, these firms typically have a wide array of legacy IT systems that are poorly connected and unable to communicate with one another. Bridging the gaps between these systems or replacing them with new platforms represents a serious challenge. “Most of our legacy systems come from the companies we have acquired,” says Mathias Born of Zurich Insurance. “The problem is that, whenever you need to get a view on any aspect of our business, you have to deal with a multitude of sources – sometimes the end user is not even sure what the source is, and that makes it tough to trust the insights you’re generating.”

4. Many firms are struggling with skill shortages in key areas
Data and analytics are relatively new disciplines and companies in many industries report that it is difficult to find sufficient numbers of people with the right skills. In analytics, in particular, there are simply not enough data scientists to go round. More than one in four financial services companies (27%) sees this issue as a particularly serious obstacle holding its organization back. There are various challenges here. One is that companies need a mix of skills and experience: both those with a pure data science background, and those with more experience of commercial applications. Another is that there is also a need for those capable of working in isolation and for others who can operate within a specific business unit. “There is sometimes a desire for analytics to be driven centrally, but you do need local presence as well to understand local issues and help to embed the use of analytic solutions,” says Aviva’s Wendy Seago. Meanwhile, despite the competitive salaries the financial services sector can offer, there is significant competition for these kinds of skills from other sectors, notably the hi-tech industry.

5. Unstructured data represents a particular challenge for many firms
Unstructured data – everything from social media inputs to audio and video streams – is a rich resource for those companies with the skills and technologies required to collect this information and to extract value from it. However, many firms lack these attributes: 31% of those polled see this as an obstacle. “We’re still working out how to manage our structured data,” says one executive at a large banking group. “We haven’t even scratched the surface when it comes to unstructured sources.”
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Figure 4: What do you consider to be the main obstacles preventing your organization from maximizing the use of its data assets?

- Concern over regulatory issues relating to data usage: 44%
- Concern over data privacy restrictions: 37%
- Difficulties collecting and analyzing unstructured data: 31%
- Lack of analytics skills/capabilities: 27%
- Insufficiently mature technologies/systems: 27%
- Lack of resources/budget: 26%
- Poor quality of data in the organization: 24%
- Insufficient support from senior executives: 18%
- Overcoming internal data siloes: 16%
- Other: 0%
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5. Making the leap: how to get there

What, then, does the road map look like for financial services companies as they journey toward greater maturity in data and analytics? How do these businesses extract more value from their data, generate greater insight, and boost performance and competitiveness in broader and bolder ways?

The examples set by the leaders in this research provide some of the answers to those questions, particularly for the laggards struggling to catch up. But even those financial services businesses currently leading the way in data and analytics have plenty of work to do before their decision-making processes become entirely data-driven. Three areas in particular will be crucial.

5.1 Investment

It is clear that investment in data and analytics must continue, but it is not only technological capability that should be the priority for spending. People and process will also require their share of resources – and investments will need to be made across the enterprise, rather than in only a handful of more obvious areas.

One important issue for many companies will be how to make the shift to growth-oriented and revenue-enhancing initiatives while still ensuring compliance with the rising regulatory burden covering data.
Figure 5: How do you expect your organizational budgets relating to each of the following to change over the next two years?

<table>
<thead>
<tr>
<th></th>
<th>Increase significantly (at least 20%)</th>
<th>Increase somewhat (up to 20%)</th>
<th>Decrease somewhat (up to 20%)</th>
<th>Decrease significantly (at least 20%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ensuring data privacy</td>
<td>21%</td>
<td>55%</td>
<td>22%</td>
<td>1%</td>
</tr>
<tr>
<td>Data governance and oversight</td>
<td>15%</td>
<td>51%</td>
<td>29%</td>
<td>3%</td>
</tr>
<tr>
<td>Data-related personnel and skills</td>
<td>11%</td>
<td>48%</td>
<td>33%</td>
<td>5%</td>
</tr>
<tr>
<td>Change management program relating to data projects</td>
<td>13%</td>
<td>51%</td>
<td>29%</td>
<td>5%</td>
</tr>
<tr>
<td>Data-related technology and systems</td>
<td>13%</td>
<td>58%</td>
<td>21%</td>
<td>5%</td>
</tr>
</tbody>
</table>

Currently, one in five financial services companies (21%) expects spending related to data privacy to increase by at least 20% over the next two years, while a further 15% say the same about spending on governance and oversight. By contrast, fewer businesses foresee such dramatic increases in data-related investment in personnel and skills (11%), change management (13%) or technology (13%).
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Figure 6: Over the past two years, which of the following business functions have been the highest priorities for investment in data? And for the next two years?
That is understandable, given the threat posed by data legislation. For example, in March
2014, the European Parliament voted the E.U.’s new data protection regime one step
closer to reality. If adopted, the proposed Data Protection Directive will impose fines of up
to €100m, or up to 5% of a firm’s annual worldwide turnover, for businesses that suffer
data breaches. Unsurprisingly, both European and larger firms are spending more on data
privacy than other companies in this research.

For many financial services companies, the regulatory burden is especially tough. The
Basel Committee on Banking Supervision (BCBS) 239 regulation, which came out of the
committee’s work on risk data aggregation and risk reporting, will require systemically
important financial institutions to comply with new standards in this area – meeting this
challenge is already a major project for many firms.

“What BCBS is saying in essence is that the board of the company needs to have a high
degree of confidence that the information it is using to make decisions is accurate and
reliable,” explains Alastair Kellock, Head of Risk Transformation at Lloyds Banking Group.
“We have been investing heavily in risk infrastructure since the financial crisis so we’ve
done some of the work, but BCBS is still a big change – we need to leverage the work done
already and fill in the gaps.”

Nevertheless, businesses that concentrate all their data investments on compliance run the
risk of missing out on opportunities that can deliver positive growth. As this report has
already noted, high-growth companies, in particular, understand the imperative – they are
investing three times more on the skills and human capital needed, as well as three times
more on change management.
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Figure 7: Does your institution have a specific individual with ultimate responsibility for the following activities? Please select one for each row.

<table>
<thead>
<tr>
<th>Activity</th>
<th>Yes</th>
<th>No, but we intend to appoint</th>
<th>No, and we have no plans to appoint</th>
</tr>
</thead>
<tbody>
<tr>
<td>Overall responsibility for data across the enterprise</td>
<td>75%</td>
<td>17%</td>
<td>7%</td>
</tr>
<tr>
<td>Data privacy</td>
<td>68%</td>
<td>27%</td>
<td>5%</td>
</tr>
<tr>
<td>Data security</td>
<td>80%</td>
<td>14%</td>
<td>6%</td>
</tr>
<tr>
<td>Data integration and management</td>
<td>65%</td>
<td>24%</td>
<td>11%</td>
</tr>
<tr>
<td>Data governance</td>
<td>62%</td>
<td>27%</td>
<td>11%</td>
</tr>
<tr>
<td>Analytics and insight</td>
<td>61%</td>
<td>27%</td>
<td>12%</td>
</tr>
</tbody>
</table>
Similarly, while risk management (20%) and finance (18%) have been the highest priorities for financial services companies making investments in data and analytics over the past two years, resources will need to be shared more broadly between functions. There are encouraging signs here. Though risk management is set to continue to dominate, with 26% of firms expecting it to continue to be the number one priority over the next two years, sales, marketing and strategic planning are all set to rise up the pecking order. High-growth companies, in particular, intend to invest heavily in data initiatives in sales and marketing.

“I've held the role of head of direct marketing for global life for a number of years, and data is the latest addition to my responsibilities,” says Alex Nakhapetian of Zurich Insurance Group. “Data is arguably the most important asset for a successful direct marketing methodology – my task is to ensure it is treated as an asset, not a constraint.”

An important target for financial services companies will be to pay more attention to measuring return on investment, so that the right projects are prioritized. At Aviva, Wendy Seago says: “My team is maybe unusual for an analytics team, but we are all about the money.” The practical result, she says, is that it is the most valuable and widespread initiatives that get the green light. “We work very closely with the business areas we support and if we can’t see a way to embed something and to get value out of it, we don’t pursue it,” she explains.

5.2 Leadership and organizational structure

Financial services companies are still trying to decide what organizational structure is most fit for purpose in order to embed data and analytics capabilities throughout the business. Some issues are more clear-cut than others – for example, 92% of those polled have already appointed a specific individual with responsibility for data across the organization or intend to, while 81% will create a board-level committee for data.

But while the importance of strong leadership in data is being confronted, potential problems remain. Most worryingly, 39% of companies currently do not have a specific individual with responsibility for analytics or insight, and almost a third of these firms have no plans to appoint anyone to this key role. Data integration and management (34%) suffers from the same difficulty.
The science of winning in financial services – competing on analytics: opportunities to unlock the power of data

One common question is whether to appoint a CDO, someone who can act as a dedicated leader to help create a more data-centric business. The CDO is already a major force in many financial services companies, driven not least by greater pressures, following the financial crisis, to ensure better data quality and transparency. CDOs have been appointed at 38% of the companies surveyed for this report, and are already far more prevalent in some sectors of the financial services industry. In some firms, CDOs are taking over from chief information officers (CIOs) as the individuals with primary responsibility for data, although almost a third (31%) still ask the CIO to lead on this.

Behind the scenes, though, this is often simply a division of focus: the CIO might remain responsible for the underlying IT infrastructure for data, say, while the CDO focuses more on the relevant data policies and governance. “Traditionally, our CIO role focused more on the cost management and service management side of IT,” says Mathias Born of Zurich Insurance. “Now, we have established a CDO role whose mandate is to define the enterprise data management strategy and to maintain and even increase the long-term value of data.”

Leadership is not the only organizational issue to contend with; the wider structure of the data and analytics function is also an ongoing debate. For example, many of the interviewees in this report stress the importance of data initiatives being driven by business leaders with a grasp of the challenges and opportunities facing their companies, rather than by technical experts from IT. Yet almost one in four firms (23%) has no plans to take responsibility for data out of IT and into the business.

In other areas, though, progress is being made. Within the next two years, nearly all companies (94%) will have at least begun creating an enterprise-wide technology platform for data. Almost as many (92%) will be taking steps to identify and address organizational data silos.
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Figure 8: Who in your organization is primarily responsible for data today?

Given the diversity of these challenges and the need to ensure that as many as possible are being confronted, it is understandable that the trend has, until now, been for centralization of the data and analytics function, particularly at larger companies, with two-thirds (67%) of firms set up in this way. Over time, however, as businesses mature, there is expected to be a modest shift toward more dispersion of the function throughout the organization.
Figure 9: Which data governance-related policies or frameworks do you already have in place?

- Data privacy policy: 69%
- Data security policy: 68%
- Policy governing the use of social media within the organization: 67%
- Policy aimed at limiting the risks of cyber threats: 65%
- Data access policies (e.g., limiting what data can be accessed by whom): 61%
- Policies relating to the collection, maintenance, usage, dissemination and archiving of data: 57%
- Policies governing the use of employees’ devices: 43%
- Data inventory policy: 41%
In certain areas, high-growth firms are particularly likely to be organized in a certain way. For example, they are more likely to have individual leaders in place, especially in analytics, and less likely to intend to leave data and analytics within IT.

At Deutsche Bank, Philipp Löffler, Business Intelligence Platform Management in Group Finance, talks in terms of a “business intelligence value chain.” “We start with the operating systems, in which the contractual data is captured and processed; then we take this data from the operating system and store it in data warehouses; out of these warehouses, which are the golden source for everything, we can use purpose-by-purpose applications that we call data marts – these extract certain data from the data warehouse and then focus on a specific area of analysis.”

Nevertheless, Löffler agrees that there is no one-size-fits-all approach to organizing for data and analytics. Depending on a company’s operating model, many differing approaches can work: “These are historically grown landscapes that are complex,” he says.
Case study: Building the platform for analytics at Vontobel Asset Management

“Our management rightly recognizes the value of data and analytics, and that is driving a reconfiguration of our business,” says Bruno Melo, Director and Head of Portfolio Risk at Vontobel Bank and Vontobel Asset Management. “We are introducing a new data system in our asset management business that will replace the three or four separate systems with which we currently operate.”

Until now, the firm had focused on ensuring that its asset management data, both internal and external, including peer analysis, was clean and robust, with relatively little analytics work conducted. “That feels a little limited, given the amount of data we receive,” Melo says. “The ambition now is to go much further – with all our systems coming together, we will be able to use our data far more intelligently to create value.”

Part of the challenge for Vontobel will be to build a more robust data warehouse within the firm’s newly created unitary platform, though the business is still thinking through reporting lines and other structures. “The point is for our data team and its analytics team to collaborate much more closely than they do today,” Melo adds.

Crucially, Vontobel sees this restructuring as a major strategic move. “Replacing these systems with one platform isn’t about saving money, though it will do so in the longer term,” he says. “It’s strategic positioning in an industry where we are competing with peers who are also investing in these capabilities, including some very big players, in order to create a solution that will give us so much more chance of generating insights and value.”
5.3 Governance

By introducing formalized governance processes that are disseminated, understood and followed throughout the business, financial services companies may, in time, be able to effectively automate some of the compliance work that currently makes such extensive demands on resources.

Structure can be a big help, says Alastair Kellock of Lloyds Bank. “If we have a structure and governance in place, embedding policy changes and achieving compliance is easier,” he argues. “If you don’t have that structure, it is difficult to implement a change like BCBS across a number of areas in a consistent way.”

That work has already begun. Within two years, 98% of companies will have a formal, enterprise-wide policy for data governance in place. Many organizations already have an extensive set of governance policies and frameworks in place – more than two-thirds have adopted policies for data privacy, data security and social media usage, for example.

That said, there is still more to do. Just 43% of companies have policies in place relating to employers who use their own devices for work, while only 41% have a data inventory policy. Moreover, not all companies are confident about their ability to enforce those policies they do have in place – just a third (37%) say their organization is highly capable of doing so.

There are also other potential governance issues to address. Only half of the companies surveyed (49%) say they regularly conduct data quality audits, just 4 in 10 (39%) regularly train staff on governance policies and procedures, and fewer than a third (29%) conduct regular risk assessments aimed at identifying potential data vulnerabilities.

As in other areas, the high-growth companies stand out as having fewer weaknesses on data governance. On enforcement of policy, for instance, 44% say they are highly capable of policing governance across the organization. They are also more likely to regularly conduct policy reviews, risk audits and other checks.

While the high-growth companies are not perfect, the progress they have already made on governance has left them with more capacity to focus on extracting greater value and insight from their data.
The science of winning in financial services – competing on analytics: opportunities to unlock the power of data

6. Conclusion: competing on analytics
Making the transition from data and analytics immaturity to a business enjoying significant competitive advantage over its rivals will require a systematic approach to improving capabilities. For now, though, too many financial services companies are still dominated by data management solutions. They have yet to embed analytics into operational decisions on an enterprise-wide basis. And their capabilities are patchy, with no consistency of approach or maturity throughout the business.

For many financial services firms, data and analytics initiatives have, until now, been driven by the risk and regulatory agendas, rather than by the potential for growth. Now is the time to switch from defense to offense.

Making that switch will require greater maturity in both data and analytics. Those that have already moved furthest on the former will find the latter easier – they will be able to depend on good quality data and to integrate internal and external data, for example. But analytics maturity spans a spectrum too, starting with descriptive and backward-looking analysis to techniques such as predictive analytics.
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Accredited by the American Economic Association
ISSN 2049-8640