

Rise of the data force

An inside perspective from senior business executives and Chief Data Officers working to place data at the heart of their organisation.



Commentary from the data force

A summary of quotes from senior business executives and CDOs involved in the research.

"The CDO is not the sole individual responsible for data within an organisation; he or she should be regarded as an enabler... Ultimately the management of data should be a corporate wide responsibility with the CDO spearheading its enablement." ³

**Chief Data Officer (CDO),
High Street Bank**

"As the world moves to cloud the role of data is becoming more prominent on the stage."

**Mike Ettling, President, HR Line
of Business, SAP**

"The role of the CDO is to use data to drive value across the business, working transversally to embed this. It's how the CDO wires data into the business to create value - I think that's the key to unlocking data and making it work."

**Steve Sacks, Chief Customer
Officer (CCO), Burberry**

"We are already monetising the value of data by creating increased revenue from increased operational efficiency." ³

CDO, High Street Bank

"The CDO role was implemented to address a lack of data ownership across the group, respond to increased regulation and provide a consistent approach to data management."

**Deputy CDO, UK Healthcare
Group**

"Initially the focus for bringing on a CDO was the lack of data ownership, this then grew out of an increase in regulation and governance, but the CDO role definitely covers creating a competitive advantage."

**CDO, Mobile Technology
Software**

"If you haven't yet made data a priority it could be the key factor that slows you down - so many organisations are too slow to react."

**Jora Gill, Chief Digital Officer,
The Economist**

"This role isn't a classic profile, they need commercial sense, they need a bit of a legal background, a bit of IT, and it needs a lot of different disciplines to in act this type of role."

**Mike Ettling, President HR Line
of Business, SAP**

"We have a mature data management strategy, however there is always scope for improvement. As we continue to work with data we are constantly finding new ways to use it." ³

CDO, High Street Bank

"Return on investment is likely to come from areas where business insight can drive better long term relationships with customers. Stronger relationships reduce operational cost, ultimately driving profit." ³

**Head of Enterprise Data
Operations, UK Energy Supplier**

"A data owner should make sure that they are involved in all the conversations on data around the business which would allow foresight of possible data issues. The more you know the better!"

**Head of EU Analytics, Online
Retailer**

"We always operate in the interest of our clients. We recognise that there's an ethical moral code of conduct and even if we could do something with client's data legally we still wouldn't."

**James Platt, Chief Executive
Officer (CEO) Aon GRIP
Solutions and Chief Analytics
Officer (CAO) Aon Risk
Solutions**



Rise of the data force

1. Data: The big opportunity	4
2. Executive Summary	5
3. The enabling power of data: Technology	6
Enterprise technology is empowering smart business decisions	6
A shift to cloud is redefining architecture ownership	6
Maintaining data cleanliness	7
Embedding data-driven processes	7
People are essential in exploiting the full potential of technology	7
4. It all starts with data: Digitalisation	8
Blurred lines: Data in a digital world	8
Monetisation of data	8
The data force supporting change management	9
Embedding a data-driven culture	10
Protect your operational back-bone	11
5. Confronting the ethical challenge: Regulation and governance	12
Governance: The move towards self-regulation	12
Regulation is an opportunity	12
Consumer awareness: Driving an ethical moral code of conduct	12
The requirement for a multi-region leader	14
6. Anatomy of the CDO	15
Key skills and reporting lines	15
Advice from senior leaders	17
The CDO in focus: Job Specification	18
7. Conclusion	19
8. References	20
9. Take the Data Quality Improvement Assessment	21

Data: The big opportunity

Gartner predicts that 25 percent of organisations will have a CDO by 2017, with that figure rising to 50 percent in heavily regulated industries such as banking and insurance.¹

Experian is committed to helping businesses and customers value each other, and data is increasingly at the forefront of enabling this. The exponential growth of data is challenging for businesses across all sectors, but is also a growing opportunity. The emerging Chief Data Officer (CDO) role is at the front line of empowering businesses to deliver strategic value from their data.

In 2014, Experian conducted an initial study entitled 'The Dawn of the CDO' to explore a comparative view of the increased pressure Chief Information Officers (CIOs) face to exploit business data, and how the emerging role of the CDO was acting as an enabler for change. From this research we gathered the views of 250 CIOs and 17 CDOs, as well as other senior data owners in the UK.

The research identified that:

- ▶ The CDO can act as an enabler for change, spearheading corporate wide responsibility for data
- ▶ The prior career path of a CDO role is very varied and where, comparatively, CIOs often have a technology background, CDOs derive from various business backgrounds to align with corporate objectives
- ▶ In order to drive a collaborative approach, data requires a dedicated focus at board level, facilitated by a CDO office to support the corporate wide delivery of processes

As the CDO role continues to accelerate, we wanted to acquire a fuller understanding of how organisations are managing the enormous amounts of data at their disposal, and how this role continues to support their ability to do this. We

wanted to build a comprehensive understanding about the motivation for appointing a CDO (or choosing not to) as well as getting an inside view on current data initiatives and looking at how success is driven, from the perspective of both CDOs and their business leaders.

By the time we conducted phase two of our research programme, the CDO role was much more established than it was when we carried out our initial study in 2014. We were able to conduct interviews with more than 40 CDOs and senior business executives from blue chip, multinationals based in Europe - made possible through our partners, Spencer Stuart.

As part of the research programme we have produced a comprehensive report based on the front line experiences of this new 'data force'. This study can act as a roadmap for other businesses considering the implementation of this role and the wider issues surrounding the management and deployment of their data assets.

Through the interview process we have also created an exclusive exchange forum and community network of C-level data leaders that meet regularly to discuss the role of data in their organisations. As this network continues to grow we invite data leaders to join, simply email: dataquality@experian.com.

Executive Summary

It is reassuring to find that many of our initial conclusions from the 'Dawn of the CDO' research (2014), about the emergence and significance of this new group of leading data professionals, have been confirmed.

There is a real momentum in the number of companies considering the appointment of a CDO. Gartner predicts that this number will rise to 25% by 2017 and to as much as 50% in heavily regulated industries.¹ We have found that CDOs are being recruited from a variety of backgrounds to fulfil these newly created roles. What seems to be critical to a CDO's success is the combination of change management and communication skills, tied in with the ability to identify a progressive roadmap that influences not only short term improvement in data quality, but also enables evolution and disruption of business models.

The rapid adoption of cloud computing is accelerating standardisation of infrastructure and software packages, introducing, as a result, more 'rigidity' in the way information and data are captured and processed. This in itself is a significant contributor to improvement of data hygiene, a fundamental prerequisite to data quality strategy. The second effect of adoption of cloud computing is that standardisation removes the need for customisation - and the time and budget traditionally spent on those activities is now focused on the outcome - the data.

As much as these developments have mobilised corporate-wide accessibility, during large technology implementations, data leaders are in charge of significant change programmes and need to structure their organisation accordingly. Their response has often meant that a CDO has been appointed, at board level, together with an overhaul of various communication structures involving

data partners, data stewards and other data professionals. In another related consequence of the adoption of cloud computing, there has been a clear shift of the Chief Architect role from organisations to technology vendors.

Given the increasing momentum and variety of opportunities, it is not surprising to see a convergence of activities around digital services and data. Mature organisations are already taking advantage of this convergence, which has a direct impact on the monetisation of their initiatives, and in some cases are undertaking a complete rethink of their business model to accommodate this.

When looking at how data impacts their business model, most executives would agree on the following: There should be no change to the way businesses manage operational data, this is too critical (changing this introduces too much risk); refine the way we exploit analytical data (the main contribution of CDOs for now) and investigate the power and use of social data.

Although social data, and to an extent names data, is a source of significant insight for a consumer-led business model, it is not yet typically an integral part of an organisation's data strategy.

This type of data is being handled with an unquestionably high level of integrity amongst the people we have talked to. We found that ethics and self-regulation take precedence over any monetisation potential, regardless of the type of compliance in place. There are some interesting developments in this area, some of the decisions being made by CDOs to address the ethical issues include the appointment of a Chief Ethical Officer, the establishment of bodies like Data Ethic Councils and Consumer Working Groups.

There is no doubt that the way organisations perceive data is maturing rapidly, with most boardrooms now recognising that data is important. What's now needed is a boardroom 'champion' to turn the management of data into strategic 'business as usual' activity.

CDOs have an exciting role to play to shape the future of their organisation, and, whilst cloud computing enables a degree of standardisation, the multitude of aspects that need to be considered makes the appointment of a "Data Tsar", in some form or another, absolutely essential.

I would like to thank Spencer Stuart who have helped us reach out to senior business executives in their network, and in particular Emanuela Aureli, who has led this programme in conjunction with the Experian team. Thank you, as well, to all participants. We hope that this research programme will generate useful discussion and connect people with a passion for data.

On behalf of the Experian team who put great pride and effort in building this report, we wish you an informative and enjoyable read.



Boris Huard
Managing Director
Experian Data Quality
UK&I

“As the world moves to cloud, the role of data is becoming more prominent on the stage.”

Mike Ettling
President, HR Line of Business, SAP

The enabling power of data: Technology

Businesses are increasingly switching to cloud based solutions, of which the vendors are controlling the architecture. This is freeing up vital resource for businesses to focus on data migration and change management necessary to evolve in a rapidly digitalising world.

Enterprise technology is empowering smart business decisions

We are just 15 years into the new century, but technology has continued to develop at a breath-taking rate. The challenge for businesses is to not only keep up with the pace of this change, but to try and make the most of the growing number of opportunities on offer.

“It’s expected that the digital universe will grow from 3.2 zettabytes today to 40 zettabytes in only six years.”²

“When we look at the data volumes coming at us, it’s mind-blowing,” said Hortonworks CEO Rob Bearden in his keynote address at Hadoop Summit 2014 in San Jose, California.

“The data volume in the enterprise is going to grow 50x year-over-year between now and 2020. I think the

most important thing to recognise is that 85% of that data is coming from net-new data sources.”²

In order to fully harness these opportunities, businesses need to put technology in the hands of someone who, whilst having an appreciation of technology, is also able to exploit data that is relevant for business users and aligned to corporate objectives.

Across the business leaders we spoke to, there was a clear message that technology and people must be highly interlinked. They felt that you can’t get maximum value from one without the other. Technology is a great enabler and can accelerate performance when deployed at the right point of business impact. Often referred to as amplified intelligence, the notion that advanced analytics specifically can help amplify our intelligence for more effective decision making, was in the mindset of all CDOs.

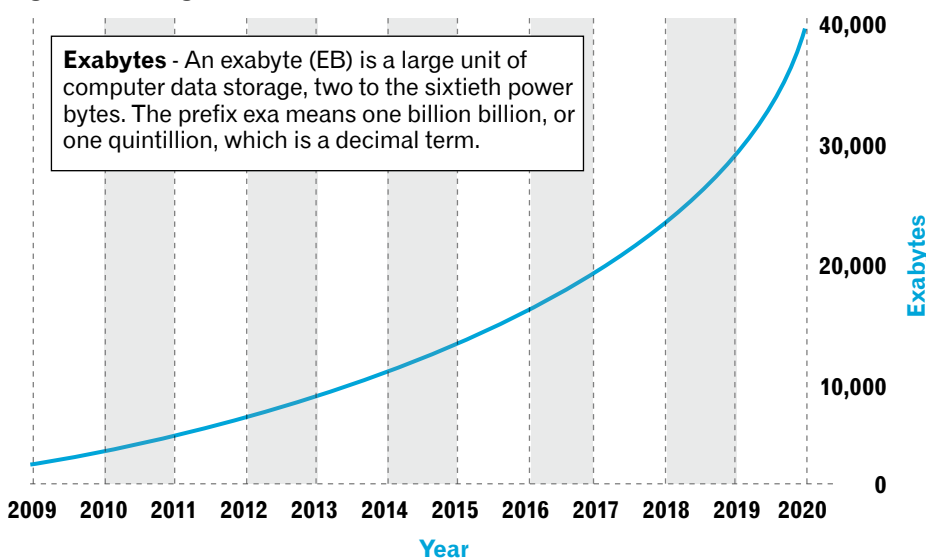
A shift to cloud is redefining architecture ownership

As technology has evolved, so too has the way in which businesses can host their data. Historically, the adoption of on-premise solutions was the main choice for businesses as they focused on the customisation of solutions. However, whilst on-premise solutions offer this flexibility, business leaders cited that they increasingly found they were wasting valuable time and resource on the ongoing maintenance of these approaches. With this realisation, businesses are switching to popular cloud hosted solutions.

The major difference with this approach is that vendors are defining this space, which frees up resource and vital time for data leaders to focus on the data migration and change management necessary as a result of this rapid digitalisation.

“The traditional deployment model for on-premise software is expected to significantly shrink from 34% today to 18% by 2017.”⁴
Gartner

Figure 1. The digital universe



“CIOs believe the responsibility of the CDO is to influence corporate strategy, define data management strategy and translate this into tactics and to be the guardian of data quality within the organisation.”³

Dawn of the CDO, Experian

Maintaining data cleanliness

As businesses adopt cloud technology and have more time to focus on data migration and change management, more often than not the surprise is that the data they hold isn't very accurate.

“If you haven't yet made data a priority it could be the key factor that slows you down - so many organisations are too slow to react.” Jora Gill, Chief Digital Officer, The Economist

Maintaining the standards of the data input into the system is essential, without this level of accuracy the information delivered will lack reliability or credibility. As technology evolves and businesses adopt various solutions, the role of the CDO will become a necessity to maintain data and importantly, regulate standards across their organisation.

Embedding data-driven processes

In order to reap the reward of amplified intelligence, organisations can no longer take a siloed view of their data management. Analytics need to be available across organisations and particularly at key decision points. According to Davide Cervellin, Head of EU Analytics, eBay who reflects the general CDO sentiment, [“There is no division where you can't add value by using data.”](#)³

It was unanimously agreed that businesses saw the value of a holistic approach to data management.

John Finch, CIO, Bank of England explains, [“We appreciate that the Bank is made up of many divisions, but the “One Bank” strategy recognises the value that my team can bring to the organisation by taking a more centralised and joined-up approach to data collection, management, examination and exposure to multiple data sources.”](#)

The requirement for a CIO was driven by this shift in strategy and out of this conversation drove the requirement for a CDO. The Bank of England have embedded technology and infrastructure to enable a centralised view of data to ensure regulatory compliance, but also to empower employees with smart analytics that support essential commercial and economic decisions.

Data can no longer just be in the hand of specialists. Businesses are adopting smart technologies that are simple, easy to use and offer visualisation tools to empower

business users to make smarter decisions. A number of businesses we spoke to were adopting self-service technologies to make this a reality. Self-service technology supports a shift from previous reactive approaches, relying heavily on historical and aggregated information, to proactive processes that focus on real-time analytics.

“I would advise that your tools are fit for purpose – by fit for purpose I mean that the tools used for data management have enterprise class capabilities.”³ Head of Enterprise Data Operations, UK Energy Supplier

People are essential in exploiting the full potential of technology

Whilst technology strengthens business collaboration, the coordination and implementation of technology requires a leader. Businesses increasingly look to CIOs to implement technology and information architecture, whereas the CDO, whilst working closely with the CIO, is responsible for suggesting the most appropriate solution to achieve business objectives.

The CDO should stimulate this change driven from demand within the business, supporting a corporate wide, joined-up approach. With this division of responsibility and an increasing trend to vendor controlled solutions, it's not surprising that 94% of CDOs and business leaders cited “strong technical and architectural skills” as an unnecessary skill for this role.

It all starts with data: Digitalisation

Businesses are increasingly changing their operating models in response to digital empowerment and the exponential growth of data.

This has driven a requirement for a leader of data, but also someone to guide the business through this change – evangelising data and supporting a data-driven culture.

Blurred lines: Data in a digital world

The pace of technological change remains relentless, and so does burgeoning consumer expectations. In an ‘always-on’ and highly connected world, smart businesses accept that many of their traditional operational methods prevent agility and that they must adapt. Fast paced technology advances are blurring the lines between digital and data and a senior data leader has a significant role in exploiting this value to drive competitive advantage.

In all the organisations we spoke with, growing digital empowerment is driving innovation and differentiation through their own operating model. Utilised effectively – and rapidly – the sheer volume of data is creating opportunities for businesses to extract value and find new business models and revenue streams.

According to Gartner, digital business success will require organisations to take bold actions; including inventing new business models and changing the way they function.⁵ For many business leaders, this is the main motivating requirement for a CDO - an overarching senior data owner who will utilise their data to embrace the possibilities.

Ole Obermann, Executive Vice President, Digital Partner Development and Sales, Sony Music Entertainment commented, “In recent years Sony Music has adopted new business models in response to a shift in consumer preference and the digitalisation of the industry. This shift to an on-demand market has generated an influx of data that Sony uses to make more intelligent decisions that benefit the consumer and strengthen our market offering.”

Monetisation of data

Realising the financial value locked away in an enterprise’s data is high on the C-suite agenda, and executives want CDOs to develop methods to monetise data and make it marketable. In purely digital businesses, this underpins their entire business model and digitalisation is about understanding the importance of data in advance, building the right kind of systems and architectures, and creating processes so that data can be turned into a competitive advantage.

“Data that improves a customer experience and develops long term relationships will have a positive impact on sales, ultimately improving the financial position of the business. We are already monetising the value of data by creating increased revenue from increased operational efficiency.”³ CDO, High Street Bank

In more traditional businesses that are responding to digital advancement, monetisation of data needs to leverage existing data and systems to meet business goals. The business leaders we spoke with described their top four business priorities (not surprisingly) as – sales growth, innovation, improved efficiency and customer satisfaction; with data being a driving component alongside people and technology. But turning data into insight that can be

“Twenty percent of large organisations’ CEOs have already involved a data officer in leading their organisation’s digital innovation.”¹

Gartner

consumed throughout the business via relevant forms of analytics, business intelligence, predictive models and reporting, is a critical step to reaching these goals. A further step is empowering stakeholders to tap into this information to drive a better outcome and make it part of the culture.

“The CDO drives added value by innovatively combining data sets. But it’s not just the data itself or the analysis, but it’s the mind-set and skills of someone who can think about both the customer and product data at the same time and how this can translate into tangible value,” adds James Platt, CEO Aon GRIP Solutions and CAO Aon Risk Solutions.

The data force supporting change management

Businesses require the CDO office to take an over-arching view of data management and to drive alignment and standardisation across the organisation. They are responsible for breaking down silos that cost businesses thousands in wasted resource allocation and duplicated work. They act as a change agent to inspire the business to utilise information as an asset to create opportunities. James Platt at Aon, explained the importance of adopting simple processes, **“Businesses need to adopt agile methodologies – they should work closely with the business in order to provide a bespoke way of interpreting data that matches a variety of needs. But, most importantly avoid a business case mentality; business case mentalities kill innovation. Have simple, authority lead processes for sign off.”**

Equally, business leaders know they must fully embrace the possibilities presented to them by data and analytics platforms, and that successful digitalisation is the ability of the organisation (and responsibility of the CDO office) to collect and process all the required data. Then crucially they must inject this information into business processes at the right time and ultimately weave it into the fabric of the organisation.

“The role of the CDO is to use data to drive value across the business, working transversally to embed this. It’s how the CDO wires data into the business to create value - I think that’s the key to unlocking data and making it work.” Steve Sacks, CCO, Burberry

Dependent on the maturity of a business’ adoption of a data-driven culture, the role of communication will vary. Regardless, it is a skill that requires refining and adapting so the intended audience can gain clarity and drive value from what is being communicated.

The CDO needs to discuss data at a business strategy level, aligned to business objectives, but portray initiatives or challenges in a simplistic, less technical manner to ensure that the C-suite understand the issues and/or support the initiatives.

“There is a requirement for someone who can translate the necessity and importance of data, why it matters and how it will allow us to grow. It needs to be someone who can communicate this and ‘market’ the data.” Ole Obermann, Executive Vice President, Digital Partner Development and Sales, Sony Music Entertainment

On the flip side, the CDO will have a working day to day relationship with the CDO office who require a highly technical and analytical leader.

One CDO described this as, **“having to wear lots of different hats and regularly change his language.”**

Where central data teams support enterprise businesses, data councils, divisional data partners or data stewards are usually adopted. A push from a C-level executive is perceived to be less effective, but supporting and sponsoring such a team or individual, is essential. The data councils' or a data partners' responsibilities are to highlight ideas and requirements from around the business and connect them together. Supporting a joined up and aligned data force that can then discuss, scale appropriately and cascade effectively through communication or behavioural change.

Embedding a data-driven culture

In News UK, Andy Day, Business Intelligence Director, embarked on a journey to embed customer insight into the business to deliver a data-driven view of readership to build on the insights that the editorial teams have generated through years of experience and solid 'gut feel'.

With his team, Andy wanted to make data highly available so that it became 'second nature' for the editors to use, and in turn, improve product quality and drive innovation. They put digital dashboards outside editors offices to show performance, for example, which articles are most engaging and demographics of who is reading what. Andy refers to this as "democratising data" – making it highly available and highly visible, to make sure their product meets the needs of their readers and customers today, through insightful data on customer preferences.

Whilst technology supports business collaboration, Andy recognises that data is about people – rather than technology, "The biggest cut through you'll get comes from people." The cultural shift required and the clarity of communication are pivotal to make the transition. The CDO office is essential in providing this support framework and on average research cited this data force was 16 people strong.

Shifting a business to a data-driven culture takes time. The first step is to focus on evangelising and communicating the importance

of data and often the role of the CDO is to lead and inspire others both at Exec level and culturally throughout the organisation. According to our research, this stage takes approximately 2-3 years. Organisations confronting this challenge are taking varied and creative approaches. One data leader in the media industry described himself as the "Chief Cheerleader of Data" – actively presenting the voice of the customer to the organisation and at the board table.

Organisations that have achieved this stage can quickly shift to value creation.

Steve Sacks, CCO, Burberry, commented, "We don't need to evangelise and communicate the importance of data anymore. Our people realise the importance of data and there is a huge drive for information from the business. We now focus on how to work with data to drive the most value."

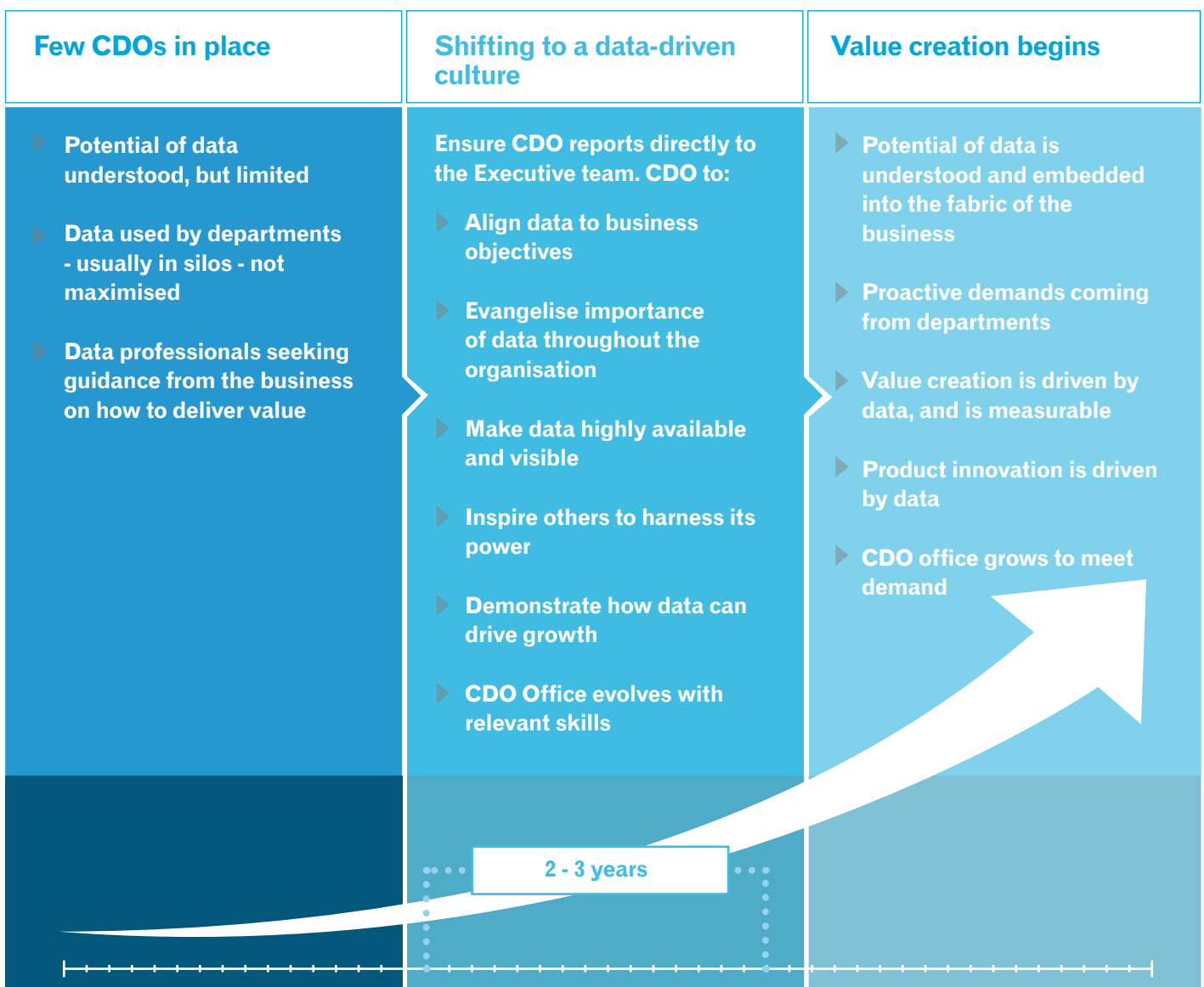
Protect your operational back-bone

Despite all the opportunity presented by managing, manipulating, combining and exposing data across the organisation to drive performance, a key message coming out of the research is that organisations must have a clear understanding of the

differences between operational data and analytical data, and that it must be treated and governed differently. Operational data must be tightly managed as it forms the back-bone of business processes. The CDO role should, however, span both and can add value from building innovative processes that combine both types of data.

James Platt, Aon, aptly describes: "Operational data needs to 100% accurate, it has to be structured, stored and managed. Whereas, analytical data has many different purposes, but it doesn't need to be completely accurate as long as you are able to understand what it is able to do and interpret it for business value."

Figure 2. A journey to create data value



Confronting the ethical challenge: Regulation and governance

Senior executives concluded that operational data must be tightly managed, whereas analytical data requires a less thorough approach, but relatively new on the agenda is social data. This untapped resource is throwing up questions about how it should be ethically used.

Governance: The move towards self-regulation

Whilst creating opportunities, managing data also comes with increased responsibility, particularly for financial services industries. Following the credit crisis, regulation and governance has taken an increased significance. If a breach occurs, organisations run the risk of untold reputational and financial damage and a number of CDO roles have grown as a response to regulation in this sector.

Organisations see the importance of data governance and it's no longer something that is just driven by authorities, but is becoming an essential part of business operations.

One senior data owner from a transport organisation explained that they have 30,000 employees who work on site on a day-to-day basis making repairs, but all the time they are there, there is a potential risk to them. Therefore, from a safety point of view, the less time they are on site the better it is. Holding accurate data, that the business trusts, can ensure that they don't have people working who don't need to be there - removing risk to their safety, in addition to the obvious cost savings from improved efficiency.

Regulation is an opportunity

Interviews concluded that businesses don't view regulation as a barrier, but rather an opportunity that is driving a shift in processes. Compliance is motivating the requirement to manage the way data is handled, and in turn is driving the conversation at a board level, and for many large organisations this has often already resulted in the appointment of a CDO.

“Compliance and regulation are driving the requirement to manage data.” John Finch, CIO, Bank of England

Businesses see regulation as an opportunity to review processes and realign objectives so that they can stand out from competition and identify themselves as reliable brands that handle consumer data responsibly. Whilst benefiting from an external consumer view businesses are also able to drive internal value from accurate business intelligence.

Consumer awareness: Driving an ethical moral code of conduct

Financial services aren't alone with regulatory challenges. Interviews cited that even unregulated consumer businesses were faced with similar issues and they addressed the presence of an underlying 'ethical moral code of conduct'.

“Even in industries that aren't regulated, governance will change and already there is an element of 'moral duty' to put governance processes in place.” said one CDO in Media Services.

This 'ethical moral code of conduct' has been driven by a shift in consumer perception as individuals are increasingly aware of the data businesses hold about them. As businesses become more customer centric this code will play more of a significant role in their operational standards. Similarly according to IBMs: “CEO insights from the global C-suite” study, CEOs cited their biggest challenge as understanding how to use social media.⁶ This new opportunity throws up ethical queries and an ethical code of conduct will be necessary to avoid any financial or brand repercussions.

Steve Sacks at Burberry explained that, **“Currently, it's unclear how the issue of regulation will play out in non-regulated markets; perhaps people are going to get used to**

their digital lives being more public, but I believe there will be a backlash here, and that there should be. The potential damage of this far exceeds any possible benefit.”

Steve refers to this as a ‘ethical moral duty’ and states, “Our guiding principle in this space is that we would only ever use data in a way our customers would feel comfortable with.”

Steve and his team at Burberry are actively working to communicate this across the business and have set up a ‘Data Privacy Group’. This group has a large legal representation and includes employees from across the organisation to support the communication of this at a divisional level.

Similarly, James Platt from Aon echoed Steve’s views on ethical data handling; “We always operate in the interest of our clients. We recognise that there’s an ethical moral code of conduct and even if we could legally do something with client’s data we still wouldn’t. Whether we own the data or not is almost irrelevant, it’s in the interest of our clients that we operate, and I have to continually be able to prove that.”

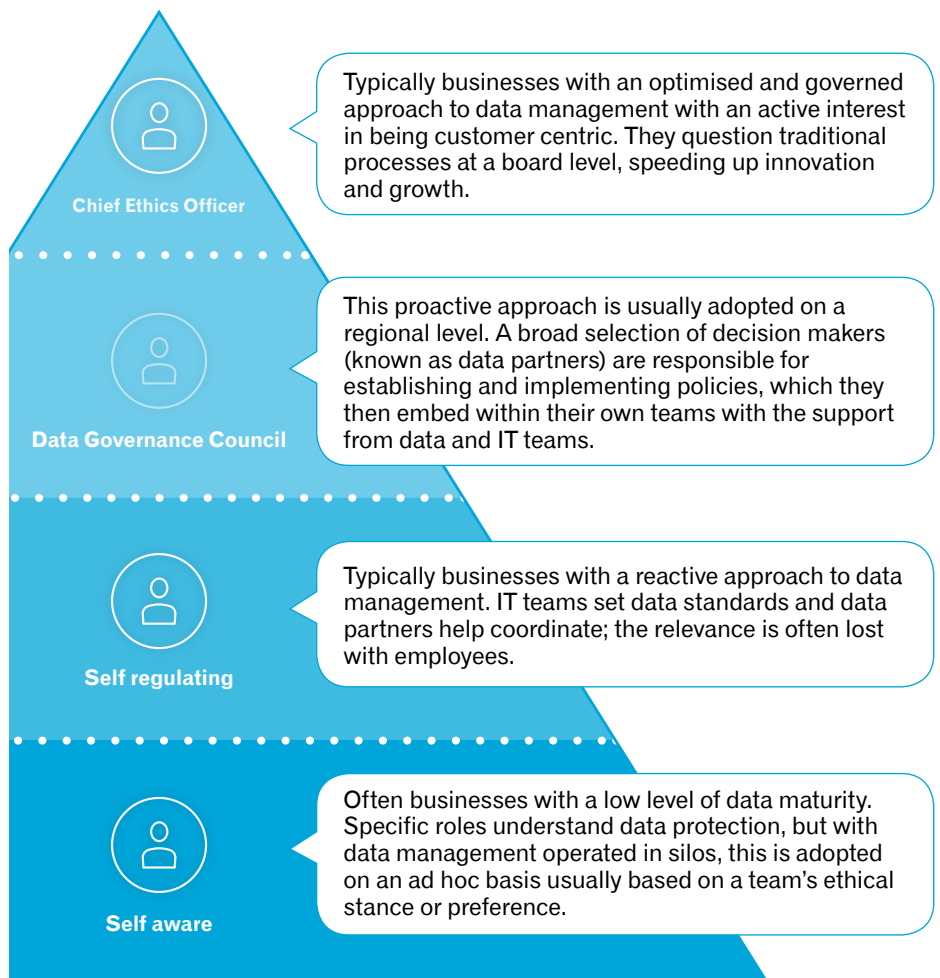
Although there are currently no financial implications, the associated brand repercussions are motivating non-regulated businesses to not only target more effectively, but also put measures in place to govern and securely manage the data they hold.

Research showed that there was a tiered ranking to the approaches

non-regulated organisations were taking to address ethical regulation; with larger organisations implementing the role of a ‘Chief Ethics Officer’ or a ‘Data Governance Council’, and smaller organisations executing their own self-regulation policies. See Figure 3.

One CDO from a media services organisation referred to a need to be ‘transparent’ with consumers about the data they hold and also their clients. In response to this they have recently employed a Chief Ethics Officer to support the management of data governance, driving additional

Figure 3. Addressing ethical regulation by organisation size



internal value, and also externally managing this transparency with clients.

The potential implications for both regulated and unregulated businesses has meant that the senior data owner is no longer a convenience, but an essential business requisite.

The requirement for a multi-region leader

Larger organisations operating across a multitude of regions will also have to monitor and adapt regulatory priorities regionally. A number of businesses we spoke to adopt an overarching 'customer-centric' approach to support regional disparities, focusing on putting the consumer at the heart of everything they do. These governing variances drive the requirement for an all-encompassing data owner who can take a global view of regulation and policy.

With a shift in consumer preference, and the development of an 'ethical moral code of conduct' the CDO role is no longer just for the financial services. The requirement for a senior data owner spans all industries and with increasing regulation and consumer awareness, businesses need to proactively adopt the CDO role to set the agenda for their data policy.

Anatomy of the CDO

The CDO role is tasked with a wide brief, two key priorities were: data governance, be that regulatory or ethical policy, and driving alignment with business. Whilst juggling this they are also expected to be change agents, innovators and evangelists of data.

Through our study, we have learned that CDOs and their counterparts are being tasked with a wide brief. They are being asked to be innovators and communicators, driving value and change at all levels of the organisation. This 'data force' has a growing influence, but we've found that companies have incorporated the strategic use of data into their businesses at varying speed.

Key skills

For those considering the role of a CDO, an outline job specification follows. Using insight from the 40 Chief Data Officers and senior business executives we spoke to, we've summarised their views on the essential skills required and which areas of responsibility should be driven from the CDO office.

92% of CIOs are calling for an expert, a Chief Data Officer role within their organisation, who can effectively define the organisation's data strategy (45%) and be a guardian of data quality (40%).³ Dawn of the CDO, Experian

The overwhelming priority focuses on their ability to implement a data governance strategy – be it in a regulated or non-regulated industry. 38% of CIOs cited increased regulation as a key reason for wanting a CDO.³

"I would advise that a data owner in any organisation puts a robust data governance structure in place from which everything can flow. This will help to drive commercial value and ensure that the organisation is fully compliant."³ comments Nina Barakzai, Group Head of Data Protection and Privacy, Sky.

The CDO needs to be skilled to make strategic decisions and have the organisational and political ability to drive major cross functional programs.

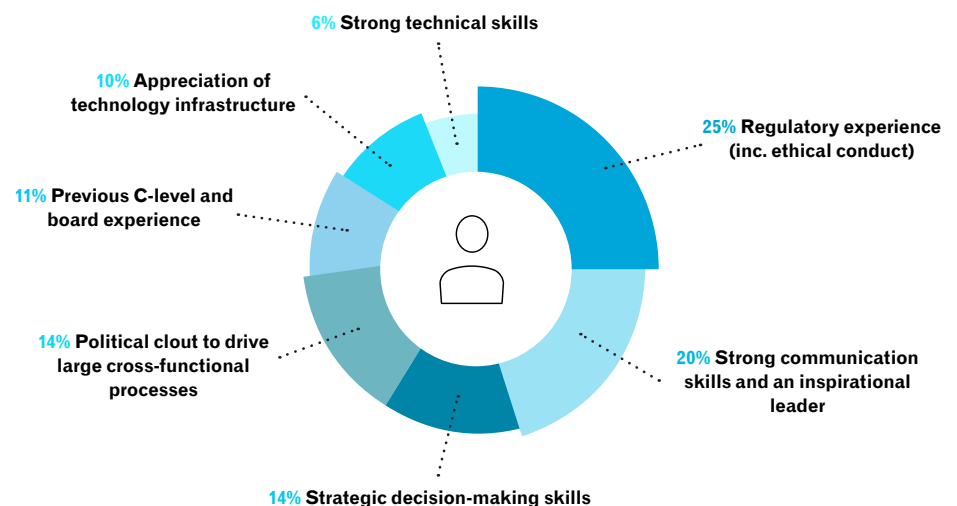
Lt Col Michael Servaes, CDO, Ministry of Defence describes this as having, **"the clout within the organisation to drive the required cultural and business change needed to ensure the adoption of a data-driven approach to information."**

To be an inspirational leader with previous C-level experience was also high on the wish list.

The areas of lowest priority were the requirement of technical skills and architecture (6%). Which is not surprising as businesses look to the CIO and CTO to implement technology and architecture, and as increasingly vendors control this space. However, whilst technical skills aren't a priority, a CDO should have an appreciation of technology to make suggestions to the CIO based on business requirements and aligned to strategy.

"The CDO needs to be technically aware to avoid relying on others to understand the architecture that is being delivered. This helps the CDO to have more strategic conversations." Hany Choueiri, CDO, Bank of England

Figure 4. Key skills for the CDO role



"This role isn't a classic profile. You need a lot of different disciplines to act this type of role"

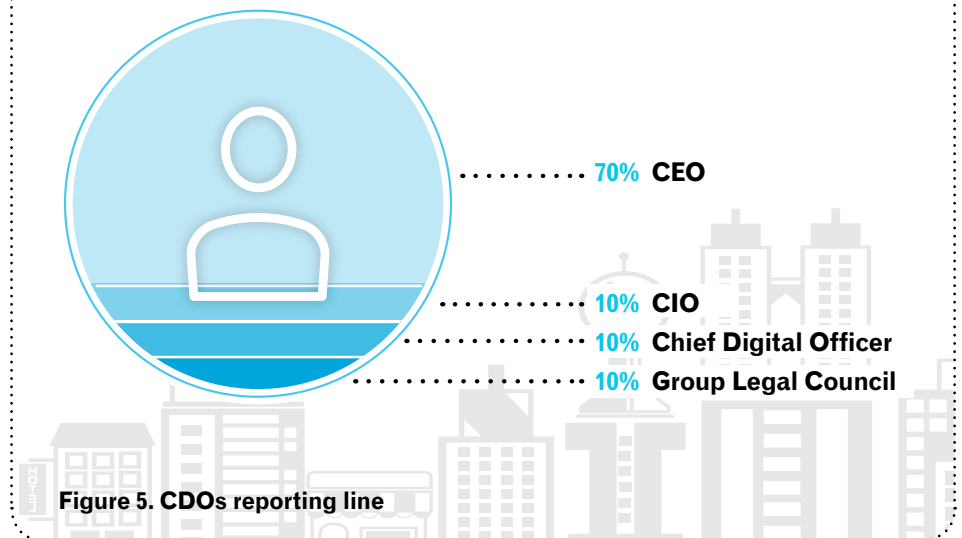
Mike Ettling
President, HR Line of Business
SAP

“The CDO role must sit within the business and not from IT. The CDO role is around governance, monitoring, data processes, data lifecycle and sourcing rather than IT and this reflects how it should be structured.”³

Vincent Benita
CDO, BNP Paribas

This role needs to be business-driven to create value and 70% of organisations were establishing this by reporting directly to the CEO and therefore aligning with business strategy. One CDO in a Television Broadcasting company described this as “My role aligns to the business because it’s all about getting business benefit from data.” Research showed that CDOs are being recruited from a variety of industry backgrounds and not necessarily being employed for their knowledge of a particular industry, but for their individual skills. Caroline Carruthers, Programme Director Informance Governance and Enterprise Content Management at Network Rail said “The way we handle data across industries should be the same. At least 80% of what the CDOs do is exactly the same which means we should be able to learn from each other irrelevant of industry.”

CDOs report to...





When recruiting a CDO: “Over skill the role”

“Jump into the water now. Find the smart guys, the guys who know how to think and architecture stuff and put them in the role. Over scope the role in terms of seniority, experience and capability and then get the role going, and let them figure it out.”

Mike Ettling, President, HR Line of Business, SAP

“If you try to predefine the role, depending where you are in your evolution, it’s going to take too long and you’re going to go out and search for people who don’t exist.”

CDO, Television Broadcasting

“This role isn’t a classic profile, people need a bit of IT, they need commercial sense, they need a bit of a legal background, and it needs a lot of different disciplines to in act this type of role.”

Mike Ettling, President, HR Line of Business, SAP

Nurture your data force: “Alongside your CDO, nurture data skilled individuals from bottom up”

“Find a way to recruit graduates, develop them and, in doing so, augment the CDO capability within the organisation. Provide clear career paths for people working in data to pursue.”

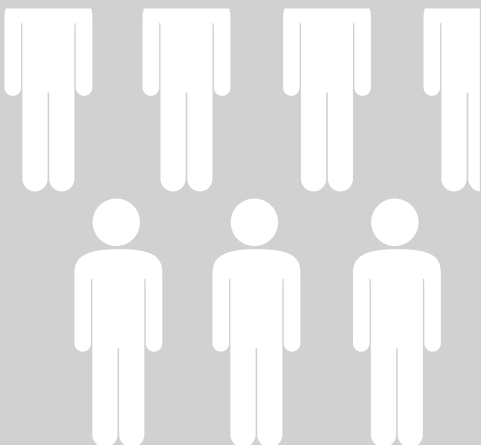
John Finch, CIO, Bank of England

“We currently have two student interns. We provide them with commercially interesting problems and a unique data set, and they in turn have the opportunity to use cutting edge data science techniques in a ‘real world’ situation. There are huge benefits from collaboration between academia and the commercial world - it’s a great opportunity to drive innovation in a way that makes a real impact.”

Dr Orlando Machado, Chief Data Scientist, MoneySuperMarket

“Recruit a number of outstanding PHDs who do all the analytics around customer data and then use this data to drive value.”

Steve Sacks, CCO, Burberry



MAJOR RESPONSIBILITIES

- > Establish a data strategy in alignment with the overall company strategy.
- > Develop a roadmap to create new data and analytics solutions that drive measurable competitive advantage.
- > Determine the investments in people and technology necessary to achieve these objectives.
- > Recruit, motivate, develop and retain a high-performance data and analytics team that meets future business needs.
- > **Ensure** data quality and security across the organisation including external data sources.
- > Define and implement policies for the governance and management of data including data capture, storage, security, integration, analysis and reporting.
- > Identify new opportunities and sources of data to drive business innovation.

CRITICAL COMPETENCIES FOR SUCCESS

- > Strong balance of strategic, analytical and business skills with a high level of intellectual agility and capacity for original thought.
- > Able to process the constant flow of new data and judge its potential value to the business.
- > Well versed in strategic transformation, collaborating across an enterprise and with the courage to make changes where appropriate.
- > Able to educate the business on the benefits and value that a clear data management plan can bring.
- > Able to assess the value and potential benefits of new technology architectures.
- > Strong results orientation; prioritising and managing projects and resources effectively.
- > Strong management skills, including the ability to work effectively across functional teams.

IDEAL EXPERIENCE

- > Substantial experience in planning and executing data management strategies and designing data governance policies/standards.
- > Depth in advanced qualitative and quantitative data mining with success in designing and implementing complex predictive modeling and other pattern detection methods.
- > Track record of quickly and proficiently understanding and absorbing new information in order to create innovative solutions. Well-versed in the technical tools to adopt and support business objectives.
- > A postgraduate degree in an analytical field (mathematics, economics, statistics, computer science, operations research, etc.).

OTHER PERSONAL CHARACTERISTICS

- > Strong leadership and influencing skills; inspires commitment from others to achieve organisational goals.
- > Able to communicate clearly and effectively with technical and non-technical colleagues and other stakeholders.
- > Collaborative, passionate and focused on outcomes.

“The role of the CDO is an exciting one. It is evolving fast and varies according to the nature and requirements of the organisation. In one type of organisation compliance and regulation may lie behind the creation of the role, whereas in another the CDO is there as a response to business model disruption and the need to drive innovation.”

Emanuela Aureli, Consultant, Technology, Media & Telecommunications Practice, Spencer Stuart

Getting on top of the data is now a central theme for anyone who is serious about driving positive interaction with their audience.

Conclusion

Organisations are dealing with the data deluge in various different ways, but are in agreement about the key issues which need to be addressed.

What has emerged from this phase of the programme is that organisations are dealing with the data deluge in various different ways. However, conversely, there is also widespread agreement about some of the key issues which need addressing.

For example, the commercial value of data is now apparently not something which anyone would argue about, and although opinions vary as to who should lead the strategic use of that data, all those who we spoke to agree that a coherent data strategy is a crucial part of any successful business plan.

It's also clear that any organisation will benefit from a trusted person to manage the data and own it ethically. Moreover, data management must be centred around the business goals and not data drivers. Digitalisation is prompting innovation and encouraging experimentation.

Whilst the exponential growth of data is seen as a growing challenge, businesses are increasingly aware of its potential to power commercial value. Dedicated data owners are empowering businesses with valuable insight to stimulate internal efficiencies and external customer engagement that can, ultimately, generate capital.

Equally, what emerges from the findings is that there is a general appreciation that evolving data regulation is something which will require serious thought moving forward. For example, all those we spoke with have already taken steps to tackle the moral issues surrounding data ownership and personal privacy, by introducing what are effectively self-regulatory measures.

It's been encouraging to learn that these big businesses are only too aware of the fact that this explosion of data throws up certain ethical dilemmas, and that they are all taking steps to make sure they are addressing this important issue before they are prompted to do so by the regulators, albeit in different ways.

Good governance is a key theme coming out of this study. Many of those interviewed see international data regulation as an opportunity to make positive changes to their organisation. What is also clear is that any regional differences, in terms of both law and public perceptions about ownership of large volumes of data, will need to be addressed.

In addition, everyone we spoke to agreed that placing data at the heart of your organisation's culture takes both time and effort. The interviewees revealed different approaches to this journey, but all agreed that moving towards a situation where data-driven processes ran right through the heart of the business, has to be the ultimate goal.

What comes up time and time again here is that it is people, the consumers themselves, who are driving change. Technology is allowing people to connect with brands and businesses in ever more sophisticated and intuitive ways, and organisations recognise that they are under increasing pressure and scrutiny as a result.

Getting on top of the data that underpins this 'new world order' is now a central theme for anyone who is serious about driving positive engagement and interaction with their audience. The question is not 'shall

we do something about this?' but more 'how shall we do something that will make a real difference?'

As we have seen, there are different approaches to addressing this question. However, there is no doubt that everyone we spoke with is all too aware of the exciting opportunity that this data deluge presents, CDOs have a pivotal role to play to shape the future of their organisations.

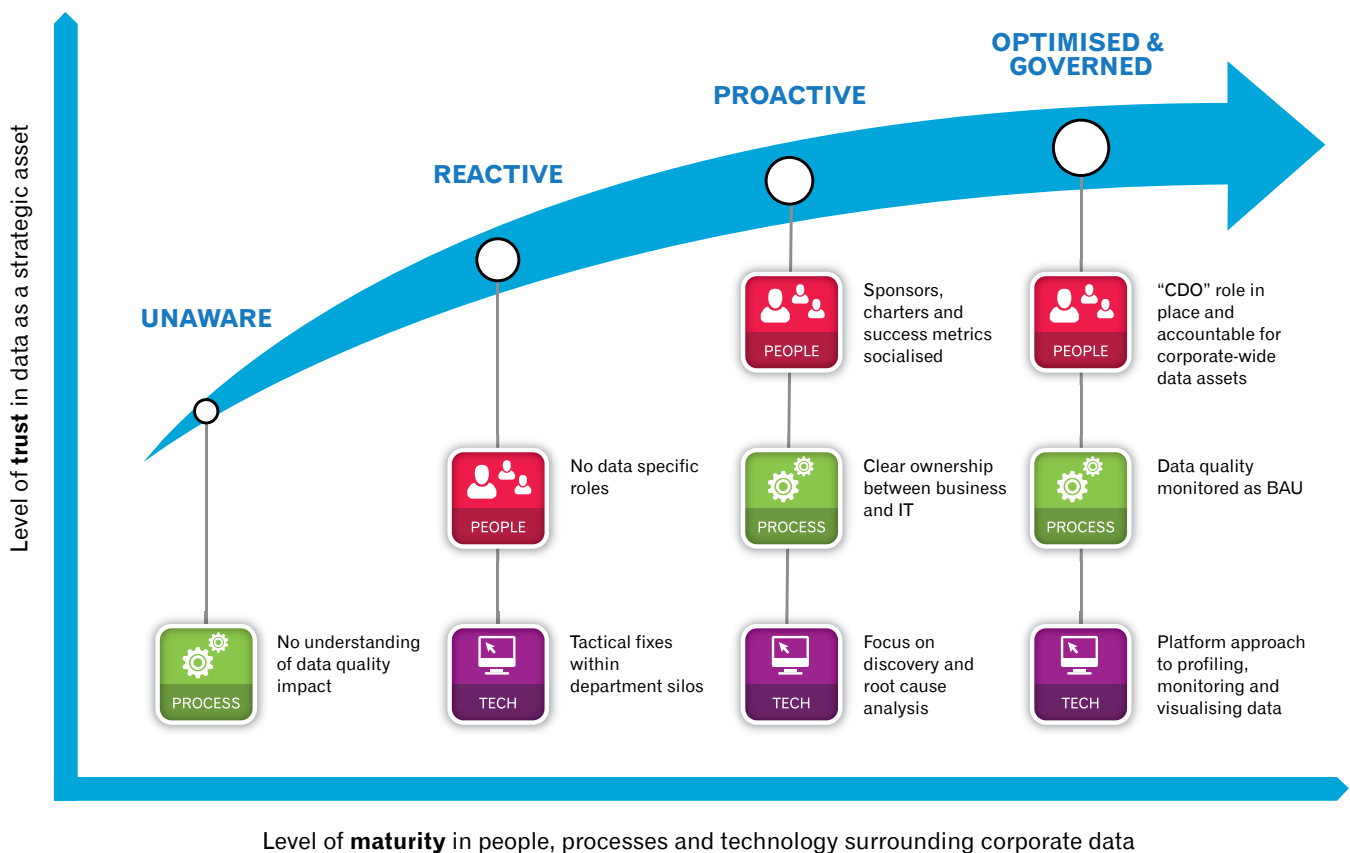
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Commentary from the data force

A summary of quotes from senior business executives and CDOs involved in the research.

“Data that improves a customer experience and develops long term relationships will have a positive impact on sales, ultimately improving the financial position of the business.”³

CDO, High Street Bank

“The CDO should be accountable for overall data management within an organisation, but teams that utilise data to derive insight to share their strategies should take ownership of the data... The CDO should help provide a framework and support for these individuals.”³

Matthew Keylock, CDO, Dunhumby

“The CDO needs to be technically aware to avoid relying on others to understand the architecture that is being delivered. This helps the CDO to have more strategic conversations.”

Hany Choueiri, CDO, Bank of England

“We have a mature data management strategy, however there is always scope for improvement.”³

CDO, Financial Services

“The CDO role is essential to enhance efficiency from inaccurate data across the group.”

Deputy CDO, Healthcare

“I would advise that a data owner in any organisation puts a robust data governance structure in place from which everything else can flow.”³

Nina Barakzai, Group Head of Data Protection and Privacy, Sky

“Implementing an integrated approach to the structure of data will help coordinate a unified data layer that will power the business to use data more effectively and exploit its full value.”³

CDO, Public Sector

“Even in industries that aren't regulated, governance will change and already there is an element of 'moral duty' to put governance processes in place.”

CDO, Media Services

“My role aligns to the business because it's all about getting business benefit from the data.”

CDO, Television Broadcasting

“Regardless of where the CDO role is placed, there biggest challenge is going to be being able to hold different conversations across a very broad range of stakeholders.”

Hany Choueiri, CDO, Bank of England

“There is no division where you can't add value by using data.”³

Davide Cervellin, Head of EU Analytics, eBay

“The CDO role must sit within the business and not from IT. The CDO role is more around data governance, monitoring, data processes, data lifecycle and data sourcing rather than IT and this reflects how it should be structured.”

Vincent Benita, CDO, BNP Paribas

“The CDO must have the clout within the organisation to drive the required cultural and business change needed to ensure the adoption of a data-driven approach to information.”

Lt Col Michael Servaes, CDO, Ministry of Defence

Experian Data Quality

George West House,
2-3 Clapham Common Northside,
London, SW4 0QL.

T 0800 197 7920 | E dataquality@experian.com | W www.edq.com/uk



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