



Putting analytics to work

Ten imperatives for successfully
developing an analytics capability



OC&C
Strategy consultants

uncommon sense

COMPANIES ARE SPENDING HEAVILY ON ADVANCED ANALYTICS

Total spend on advanced analytics 2017 (UK vs US)



Businesses in the UK are spending £12bn a year on advanced analytics. In the US, this figure is a mighty £58bn (\$75bn) a year.

IT SEEMS TO BE WORKING...

% of organisations that have far outperformed industry peers, by level of investment in advanced analytics in the past 12 months



52% of companies that spend more than £10 million annually on advanced analytics are outperforming their competitors.

AND COMPANIES ARE PLANNING TO SPEND EVEN MORE IN THE FUTURE

Total spend on advanced analytics, UK vs US, 2017 - 2020



— 2017
— 2020

Analytics is hot

Ten imperatives for successfully developing an analytics capability.

Big Data and Advanced Analytics have been 'hot' topics for some time now. It has become clear that the most successful companies spend more on advanced analytics and, as a result, outperform their peers.

Furthermore, this spending is expected to accelerate in the years ahead, because of greater proliferation of data, greater computing power, and the need to find ever more competitive advantage.

What is less well known is what it takes to make advanced analytics successful. There are many examples where it appears to have 'bounced off' companies, with only c. 20% of companies reporting significantly positive commercial impact, despite great promise. Analytics therefore requires the right conditions to be successful. This report sets out those ten imperatives for success.

% RESPONDENTS WHO SEE ADVANCED ANALYTICS AS HAVING A SUBSTANTIAL POSITIVE IMPACT

By Sector



SO, WHAT DOES IT TAKE TO BUILD A SUCCESSFUL ANALYTICS CAPABILITY?

To expect quick results from limited investment is pure fantasy. Attempts to make a thousand flowers bloom with pockets of sub-scale analytics teams in different business functions often mean that these fledging analytics teams wither and die. Most things that are worthwhile require hard work. Building a successful analytics capability is no different.

In this ground-breaking research, OC&C has identified ten imperatives for successful analytics. We surveyed 300+ C-suite executives across the US and UK about the drivers of a successful analytics capability. We followed this up with 50 deep-dive interviews with a range of executives, from CEOs and CMOs (as the consumers of analytics), Chief Analytics and Data Officers and other senior analytics leaders, to software vendors and business school professors. Throughout this report we draw on the quantitative results of the C-suite survey and use quotes from the deep dive interviews to illustrate the front line views of what it really takes.

We find ten clear determinants of success in building successful analytics capabilities that should be part of every CEO's analytics blueprint. Our research shows that these imperatives are universal, i.e. they transcend industries, are valid regardless of company size and they apply across different geographies. But first, let's take a look at the big picture.

To best describe the imperatives, we have split these determinants of success into three broad groups:



a) **Foundational** imperatives, which can broadly be described as 'table stakes' for building a successful analytics capability. Without them, attempts to build capabilities and leverage insights within a company are likely to fail. These are: **senior sponsorship, commitment, and a relentless focus on business goals**. Our interviews and experience highlight many unsuccessful cases where one or more of the three crucial ingredients were missing, yielding false starts and wasted money and effort.

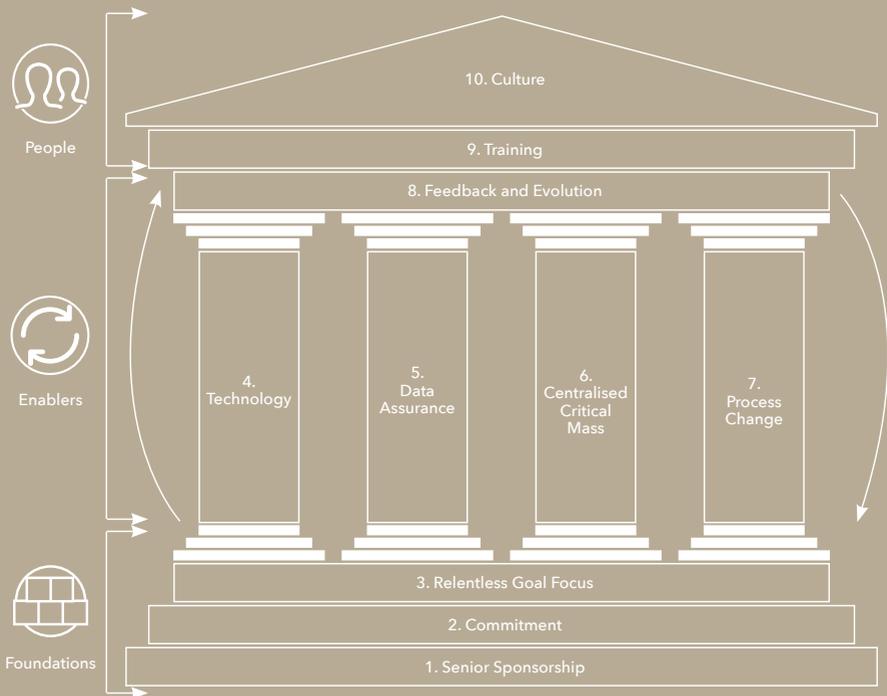


b) **Enabler** imperatives, important pillars that are necessary to facilitate successful implementation of analytics. They include a combination of technical components such as **technology and data we can be confident in**; and organisational structure elements such as **centralised critical mass for an analytics team, process alignment, and continuous feedback and evolution** of the analytics capability.



c) **People** imperatives, which ultimately enable analytics to be regularly used and accepted. These include **training** (upskilling) of both the providers and consumers of analytics in the organisation, as well as fostering a **culture** that embraces analytics, and embraces a demonstrable improvement in data-driven decision making, e.g. beginning all meetings with a data/analytics presentation.

So, what does it take to build a successful analytics capability?





Foundational imperatives

1. Senior sponsorship

The message that came across loud and clear from the interviews is: without demonstrable senior sponsorship, your analytics effort will fail. As a CEO, this is, of course, in your hands.

“High-level sponsorship is critical to success.”

Senior sponsorship can help drive the other conditions for success which we will talk about later, namely process change, the right organisational design and operating model, training, and most of all, culture.

“Important issues: forcing the required process, effective organisation design, an efficient operating model and changes to the process where necessary.”

“Commitment by senior leadership to an adequately resourced rollout plan, including for example funding of training.”

“Set expectations and be a role model, e.g. CEOs should begin meetings with a data-rich presentation, in which they demonstrate using analytics in making important decisions.”

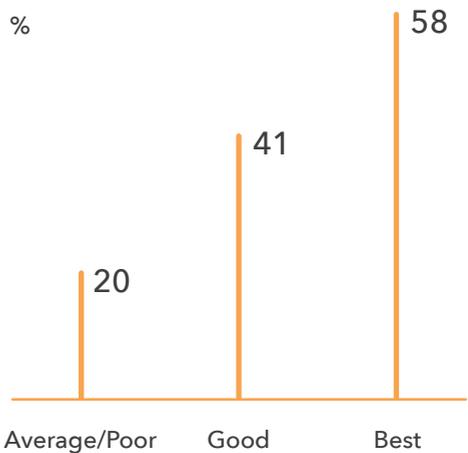


If you want analytics to be successful, appoint the right team to be change makers within the business, and keep them close.

“If you want an analytics capability to succeed, create a central team with senior support. Appoint a Chief Data Analytics Officer who reports to the CEO, leading a team close to the centre of power in the organisation. This is how you get analytics to actually achieve impact.”

% OF ORGANISATIONS WHICH AGREE THAT SENIOR LEADERS SUPPORT PROGRESS IN ANALYTICS

By business performance level





Senior sponsorship is
the key determinant of
building a successful
analytics capability

2. Commitment

Success requires patience and ongoing engagement rather than only a one off investment for setting up a team.

At the start, there may not be much visible progress, so it's important to stick with it. For CEOs embarking on this journey, the key issue is commitment.

We know what happens where there is a lack of commitment across the organisation.

"Critical mass and commitment is important; otherwise you will see numerous sub-scale activities that almost get traction but ultimately fizzle out."

"Consider the broad picture, be ambitious. Not sporadic individual bits of work. Unambitious individual efforts will fail to get traction in the business."

"Failure happens when the analytics effort adds up to disjointed ad-hoc activities."

"A lack of ambition leads to insufficient resourcing and failure."

And we can contrast this failure with successes where there is commitment.

"Commitment to a journey that will mean investment ahead of return; commitment to changing the processes and culture of the organisation; commitment to being open to the prevailing orthodoxies and sacred cows being challenged by the new gods of data and analytics."

"Big ambition, a flag that people in the organisation can rally to."

"Commitment to action – decision making based on analytics creates an environment in which analytics can be successful."

"Analytics needs to be embedded into business as usual, it should be holistic in terms of integration with other business initiatives, and so to achieve this analytics must have senior commitment."

This level of commitment also requires patience.

"It is about staying the distance and being committed over a period of time and at scale. Proof of concepts and pilot projects simply don't get enough traction in the organisation to move the needle."



3. Relentless focus on business goals

The success of analytics is driven by focusing on where you can deliver transformational value. The CEO should look at the value chain of the business to identify the major decisions that analytics can support.

“Create a functional map of the business processes or the organisation which shows where analytics can add the greatest value to a decision. How great is the risk if that decision turns out to be wrong? What is the burden of proof that this decision requires? Has judgement in the past proven to be the wrong way to make these decisions?”

Don't let your analytics capability be a hammer looking for a nail.

“Focus on the business problem, not the analytics or tools.”

“Do not fall into the trap of a hammer looking for a nail. We are all very excited about techniques such as Artificial Intelligence and machine learning, but take a step back and ask what the best way to answer the needs of the business actually is. Generally this is a decision support question.”



Enabler imperatives

4. Technology

Technology is an important enabler of successful analytics in two different ways:

As a trigger for the analytics journey.

"Technology was both a trigger ('we've invested in a data warehouse, so now I need to realise the benefits') and an enabler of analytics."

As a way to embed analytics into the organisation and make sure it stays there.

"Technology tools embed analytics into the normal business-as-usual process of the firm."

"Automate data and analytics processes as much as possible. Automation of individual tasks frees up valuable resources to focus on strategic analytics"

"Technology makes analytics sticky to the organisation."

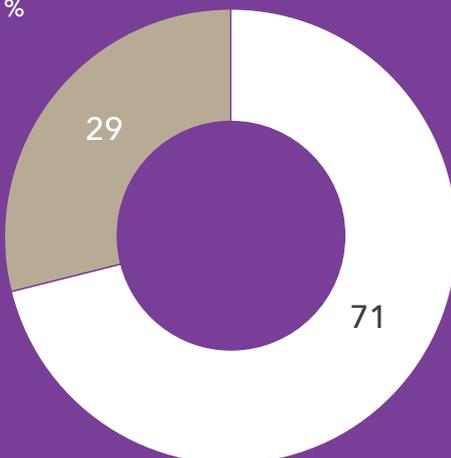
"In some ways automated analytics processes represent a sort of actualisation for analytics, ensuring that the business is running on the basis of analytics, for example with automated decision making and real-time pricing."

"Choose your use cases for analytics on the basis of what you can automate with technology and build into everyday business, not chasing the theoretical biggest prize."

TRIGGER FOR INVESTMENTS IN ADVANCED ANALYTICS

Respondents

%



- Technology implementation
- Other trigger (M&A, etc)

5. Data assurance

Analytics must be built on a verified foundation of data you can trust.

“A single version of the truth is an essential building block for analytics capability.”

“Although you might think it would be better to start with use cases in the business that get traction and demonstrate value creation based on analytics, what we actually saw was that it was vital to first build a solid foundation of assured data.”

Collect the right data, not all data!

“Collect the right data for the decisions you are going to suggest with analytics, but do not boil the ocean; data lake solutions can lead to problems such as multiple measures (e.g. different definitions of net margin encountered at many retailers) and selecting from a narrow range of data to find something that supports a pet theory.”

6. Centralised critical mass

The interviews revealed many sorry tales of sub-scale analytics faltering, versus the success of centralised teams. There were a number of reasons given for the success of a centralised analytics capability. These are important lessons for CEOs when building a successful analytics capability.

Critical mass is key.

“Critical mass is key to creating impactful analytics capabilities!”

“A centralised hub for analytics makes it possible to achieve critical mass, leads to better resourcing of varying needs, and allows a team to learn and grow from working together. These benefits appear to outweigh the expected benefits from co-locating analytics with ‘internal customers’ or e.g. a marketing team, sales team, etc.”

A distributed capability is a weakness.

“A distributed analytics capability can lose critical mass, suffer from peaks and troughs in demand and lack visibility.”

Joined-up thinking versus the danger of separate approaches to analytics.

“There is a danger of specific areas (e.g. pricing, marketing effectiveness, CRM) developing their own analytics teams and losing the opportunity for joined-up thinking. It’s better to benefit from the collective wisdom of addressing these topics together in a centralised team – rather than disjointed, fractured efforts addressing one perspective at a time.”

“Locating a pricing analytics capability within a pricing team can lead to silo-based thinking. It’s better to locate it together with other functions for a big picture perspective.” **Aim to win the war for talent.**

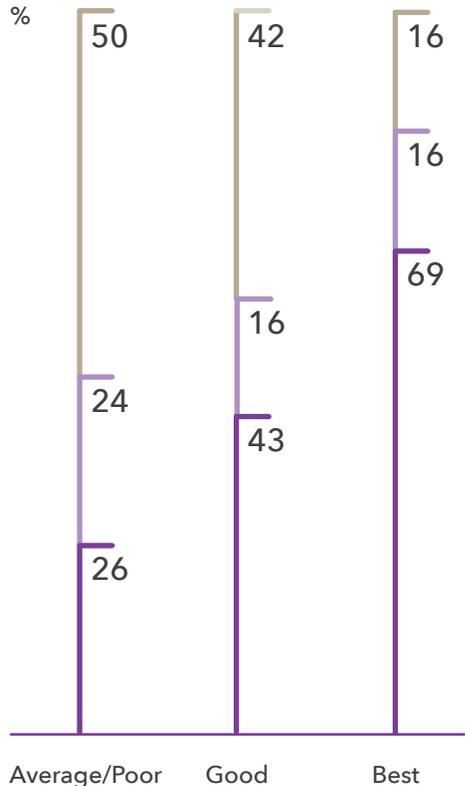
“A centralised hub can generally help attract the best talent – it’s a more appealing talent proposition than embedding a focused solution in a business function.”

And there are further benefits of being at the centre.

“Central teams are closer to power. Analytics can inform more significant decisions when it’s closer to the seat of power. That’s likely to make it more successful.”

ANALYTICS TEAM STRUCTURE BY BUSINESS PERFORMANCE LEVEL

Respondents



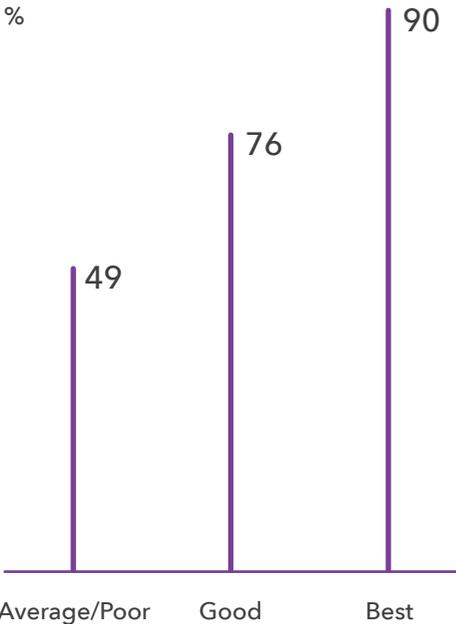
Embedded in functional teams or business units

Mixture of centrally located and embedded

All capabilities centrally located

% OF ORGANISATIONS THAT HAVE SIGNIFICANTLY CHANGED PROCESSES TO FACILITATE ADVANCED ANALYTICS

By performance level



7. Process change

For analytics to be successful, it's important that the rest of the organisation is willing to change their processes to make the most of the analytics input.

"Investing in analytics without changing the processes at the organisation to take advantage of those inputs is a complete waste of money."

"Embed analytics in a whole ecosystem, e.g. involve ad agency partners."

Understanding and mapping of company's processes to identify the transformational pivot points where analytics can make a difference enables successful deployment.

“Think about the KPIs of the business. These define the value chain in the organisation and show where analytics can have the most impact in turbo-charging that value chain.”

“Create clear objectives for the kind of decisions you want analytics to support. If you look at decisions and then prioritise them, this becomes a map for the changes and analytics can make a difference.”

There is an opportunity for the CEO to use both carrot and stick.

“Incentivise people in the organisation to make data-informed decisions.”

“Change processes so that decisions (e.g. on pricing) can only be authorised if they are supported by data and analytics.”

8. Feedback and evolution

Our interviewees emphasised that a successful analytics capability needs to be agile and flexible, but it must also evolve over time. This evolution needs to happen in a disciplined and formal manner.

“Design the analytics capability with the formal processes of internal customer needs in mind: the decisions that you will be supporting. Equally, the capability should respond and evolve according to a formal feedback process.”

“Openness to growth and evolution.”

“Establish a formal process for the evolution of the analytics capability, not an ad-hoc ‘try this’ or ‘try that’ approach.”



People imperatives

9. Training

Analytics success happens only by training both the providers and consumers of analytics.

“Train both the analysts about what the business needs and the business about how to use the analysis.”

“You need to break down any ‘us and them’ culture and create multidisciplinary teams of business executive and analysts working closely together; our training helps make this happen.”

“A successful analytics capability only flourishes when there is a collaborative culture, open communication and mutual respect between the analytics team and the business. It’s a two-way street. It’s not just that the business culture needs to become more data-informed.

Equally, the analytics team need to work on their softer skills and learn to get better at communicating to the business.”

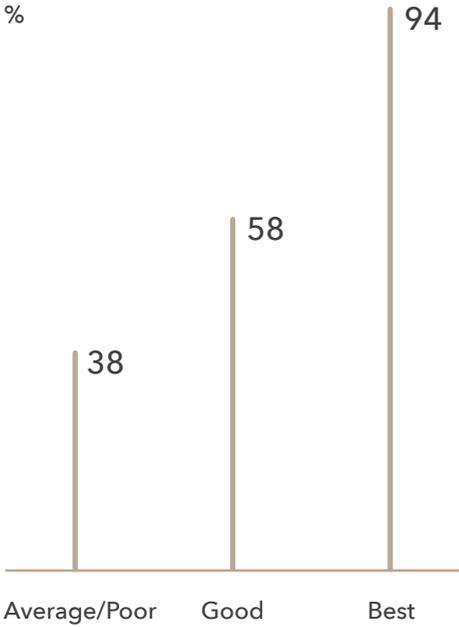
Despite the recent proliferation of self-service analytics tools, our research suggests that companies believe that it’s better to have a specialised pool of people well integrated into the firm who are focused on answering key questions rather than equipping the ‘masses’ with self-service analytics tools.

Furthermore, despite media reports about a worldwide ‘drought’ of data science analysts and the ‘war for talent’, our research indicates that the real challenge is different. It is not about finding data scientists with coding and stats skills, of which there are many. Rather, it is about finding people who can interpret commercial challenges and structure a technical approach accordingly.



% OF ORGANISATIONS WHERE THERE IS A GOOD UNDERSTANDING OF ANALYTICS

By business performance level



10. Culture

For analytics to be successful you have to build the right culture. Every interviewee came back to this critical success factor at the end of their interviews. The question of cultural change is relevant not just for the wider business but for the analytics teams themselves. Ultimately it's up to senior leaders to set the tone and mould the culture of the business.

“Create a data-informed culture.”

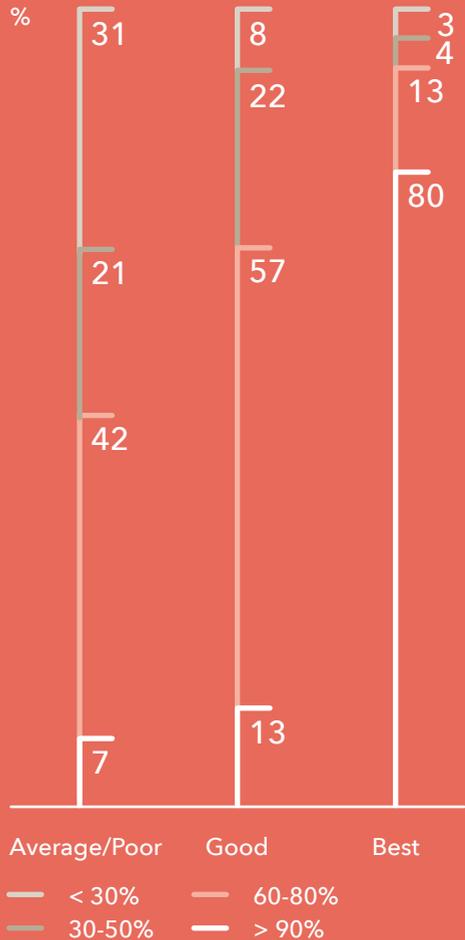
“Challenge pet theories, myths and sacred cows; encourage discovery and trust.”

“Culture change is important for the analysts too - our internal customers have very short attention spans; you need to be able to cut to the chase of the key insight and the resulting action.”

“Analytics teams need to learn that complexity kills.”

PROPORTION OF MEETINGS THAT INCLUDE ANALYTICS/DATA ELEMENTS

By business performance level



Conclusion

Advanced analytics is clearly here to stay. It drives significant competitive advantage to the best performers across virtually every aspect of their value chain – there isn't a top performer in any industry that does not have advanced analytics.

The research shows adopters of advanced analytics have higher sales and higher profits.

Although simple on the surface, with only ten imperatives for developing a successful analytics capability (see above), this topic proves to be more challenging in practice, as every organisation has a specific set of circumstances. Our research has identified many examples of false starts and failures, with many millions of investment producing no return. Across industries investments in analytics will increase in the near to medium future. This is likely to further increase the gap between top and poor performers.

CEOs growing and/or building their organisations' analytics capabilities should be asking the following questions:

- How can I improve the analytics capability given what I have?
- Which of the 10 imperatives should I focus on and in what order?
- Which aspects can I accelerate with external support?



10 imperatives for successful
development of Analytics
capability

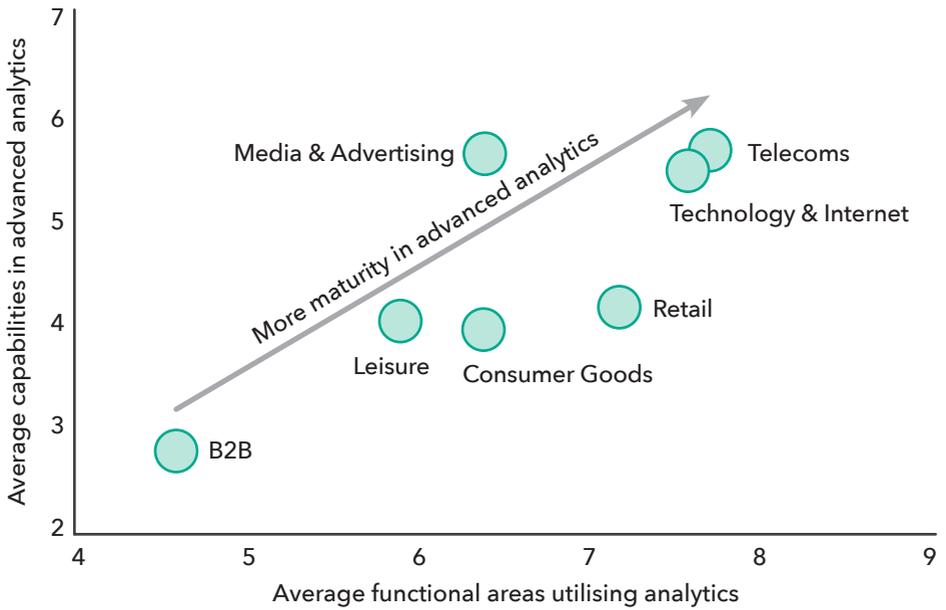
Sector focus



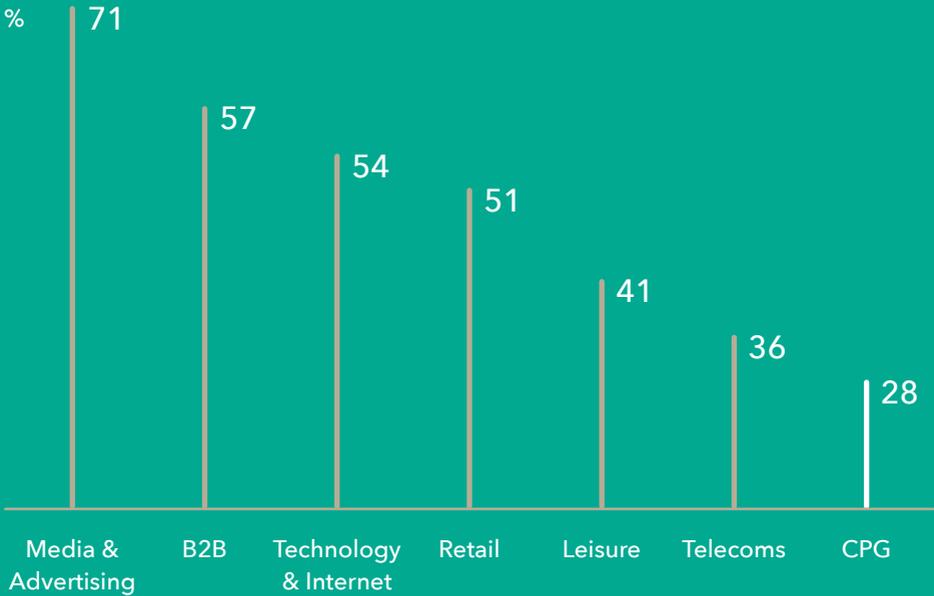
Although the ten universal determinants hold across industry sectors, there are differences that stem from the sector-specific background, such as availability of data, centralisation of companies, and the maturity of analytics adoption. The leading sector is Telecoms, Media & Technology, which benefits from a significant volume of customer data and analytics capabilities spanning multiple functional areas. This is in contrast with Leisure companies, which tend to have relatively less advanced analytics capabilities and mostly focused on a few specific functional areas.

MATURITY IN ANALYTICS CAPABILITY BY SECTOR

Average capabilities in analytics, average functional areas in which analytics are applied



% OF ORGANISATIONS WHICH HAVE ALL ANALYTICS CAPABILITIES CENTRALLY LOCATED



CONSUMER PACKAGED GOODS

Consumer Packaged Goods (CPG) companies are typically multi-nationals with a vast array of products, brands, categories and sales channels. The organisational structure of these businesses is often more complicated than in other industries, with a data landscape that is often similarly disjointed.

As a result, it is not surprising that a key challenge when applying advanced analytics within CPG relates to the structure of the analytics capability for separate business units. In many cases, this may require a restructuring of reporting lines and movement of people, which may be a challenge. Our interviews highlight that a successful analytics capability can be built in CPG, but it does require a high degree of senior sponsorship and drive from the centre to be successful.



RETAIL

With the rapid growth of E-commerce, the Retail sector is becoming more and more digitised. As a result, more data of a richer quality is becoming available and an increasing number of businesses are embracing analytics.

However, this means that there is a disconnect between the online pure-plays, retailers with a direct to consumer mind-set who have grown up with analytics in their DNA, and the more traditional bricks-and-mortar players, who often still find that an ingrained culture of 'intuition-led' decision making is a barrier to progress.

There are certainly lessons that offline players can learn from E-commerce giants such as Amazon. One example is, instead of drowning in operational analytics, to automate those processes that do not require intervention to create the breathing space required for analytics teams to focus on answering the most important questions.

Only 26% retail respondents said advanced analytics was having a substantial positive impact, thus there is a considerable opportunity to improve.



B2B SERVICES

B2B services sectors have the least developed analytics functions but the most to gain: we saw the lowest penetration of advanced analytics of all of the sectors we have researched but the highest impact where advanced analytics had been implemented.

Learning from other industries may hold the key to success here - B2B players today are least likely to have developed analytics from grassroots (<30% of companies compared to over 60% in other sectors) and often the senior leadership does not directly support building an analytics capability.

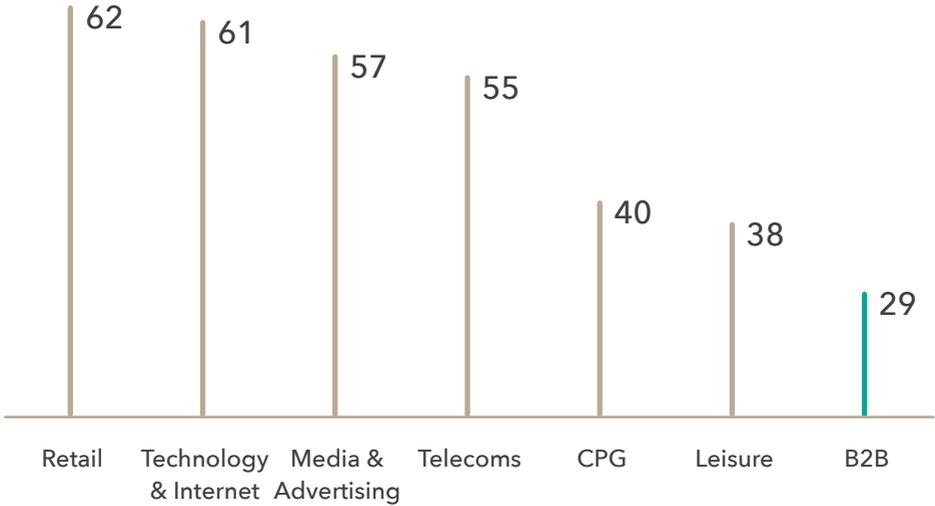
Many B2B businesses also suffer from poor data capture, with data distributed across a wide variety of disjointed systems. So much so, that it can be a challenge to produce even simple metrics that are uniformly reported across the company.

Building the analytics capability in these cases requires going back to basics (more than in any other sector); it's essential to ensure that there is genuine senior sponsorship and to create a trusted data source.

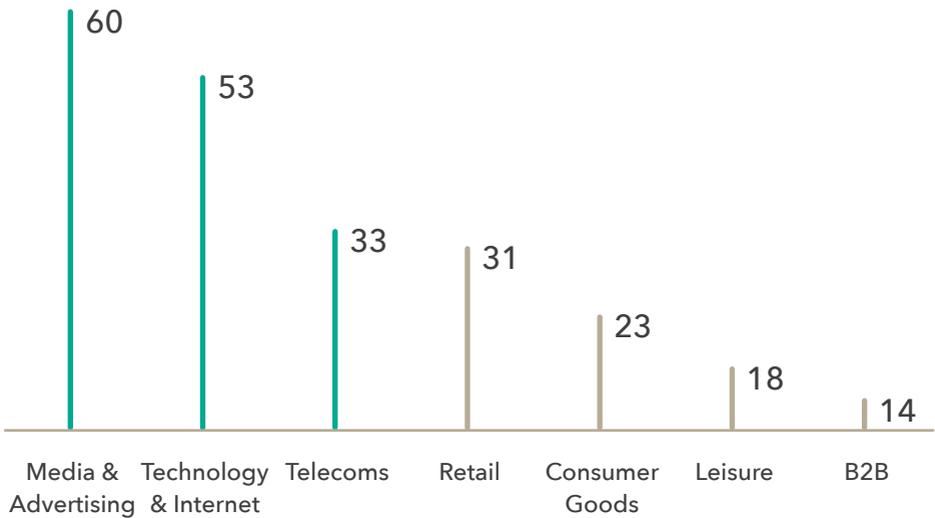
TELECOMS, MEDIA & TECHNOLOGY

TMT organisations tend to have a significant amount of data about their customers (e.g. subscriber data). They have a huge potential for great analytics and a lot is already happening; but on the flipside, bigger data brings bigger challenges in data management and data assurance. These issues are compounded by impending restrictions and regulations e.g. General Data Protection Regulation (GDPR) on how data can be collected, stored and used. GDPR will affect all businesses that use EU customer data in some way, but our research suggests that TMT businesses expect they will be more severely affected than other industries, with 49% on average saying some advanced analytics will be stopped or future plans halted as a result of the regulations. It is imperative that organisations take immediate steps to achieve compliance. Now may be a good time to seek advice to check readiness and secure a path towards further progress.

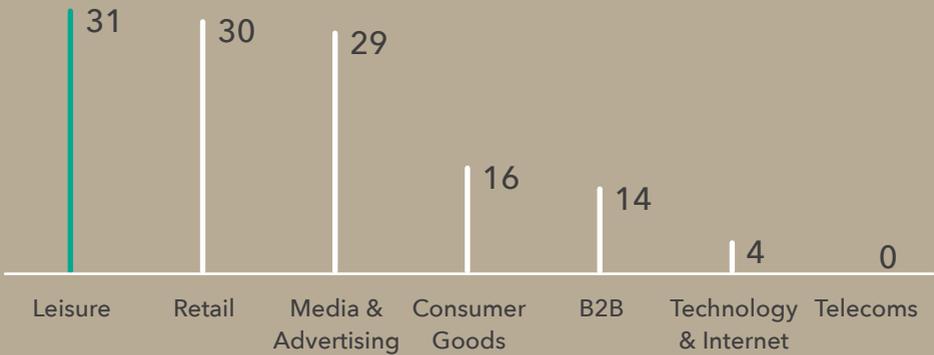
% ORGANISATIONS WHERE ANALYTICS DEVELOPED FROM GRASSROOTS



% OF UK ORGANISATIONS WHERE ANALYTICS CAPABILITIES WILL BE HINDERED BY GDPR



% OF ORGANISATIONS WHERE PROGRESS IN ADVANCED ANALYTICS IS LIMITED BY COMPANY CULTURE



LEISURE

Like Retail, Leisure is a sector which has seen a massive increase in recent years in both the volume and quality of customer data at its disposal. Although the sector has high potential, the degree of adoption of analytics within Leisure varies massively. Some sub-sectors of the industry require analytics to run on a day-to-day basis (e.g. automatic pricing algorithms in hotels). However, in many other areas where this is not the case (such as traditional gyms and restaurants) advanced analytics have mostly been ignored.

Our research suggests that businesses operating in the Leisure sector are more reluctant to make the culture shift needed to facilitate advanced analytics. More organisations than in any other sector (31%) say company culture is holding back progress. If the CEOs of these organisations were to make a conscious effort to force through this culture shift, then perhaps Leisure could move towards the forefront of implementing advanced analytics.

PRIVATE EQUITY

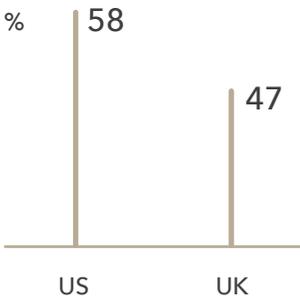
Private Equity businesses we spoke to had clear points of view about analytics. Given the broad range of sectors they invest in, they are often the guardians and nurturers of growth and thus it is no surprise that they are highly supportive of advanced analytics.

They look at the analytics capabilities of the businesses they invest in and consider it as one of the investment criteria. Furthermore they actively encourage their portfolio businesses to invest in their analytics capabilities.

Interestingly, the majority of PE houses are sceptical about building their own in-house capability, although a few have commenced early forays. Most PE houses surveyed feel they do not have a sufficient flow of projects to build a deep internal expertise. Furthermore, an on-going internal team's support risks over-reliance on the capability and a potential commercial concern at time of a sale. Instead, they generally prefer to seek external analytics expertise to solve specific problems.



% UPTAKE OF ADVANCED ANALYTICS, BY COUNTRY



AVERAGE FUNCTIONAL AREAS PER COMPANY UTILISING ADVANCED ANALYTICS



THE UK IS BEHIND THE US IN TERMS OF INVESTMENT AND CAPABILITIES BUT IS IN A STRONG POSITION TO MAKE UP GROUND

US companies are ahead of their UK counterparts in the uptake of advanced analytics. Furthermore, they have invested in their analytics capabilities across a broader range of functional areas. The UK's deficit in analytics maturity may be due to a lack of investment, as UK companies have invested on average 10% less than US counterparts over the last three years.

However, the future investment picture looks similar in both countries, with the UK potentially set to catch up. Approximately 60% of companies across both the UK and US are planning to more than double their investment in analytics over the next three years.

Surprises

WHAT WERE WE SURPRISED BY THAT WAS MISSING IN THE INTERVIEWS?

- 1) The war for talent. A shortage of analysts was not identified as a topic in the deep dive interviews
- 2) Self-service was not a theme, as there was a universal desire to have an analytics function instead
- 3) Open Banking APIs were surprisingly not mentioned and GDPR was mentioned less than expected - only in Telecoms, Media & Technology
- 4) Artificial Intelligence and Robotic Process Automation were hardly mentioned, despite the tremendous hype. However, Machine Learning is now very much part of the mainstream
- 5) The skepticism around "pilot projects" and "proof of concepts" was a notable surprise



FAQs



1. HOW DO I START BUILDING AN ANALYTICS CAPABILITY?

This is the wrong question. Think about how to sustain a long-term plan, not simply how to get started. We have seen successful adoption of analytics requires CEO sponsorship, sustained commitment and scale, and having a capability of sufficient critical mass to affect change in the business. Trepidacious steps, like pilot projects and proofs of concept are likely to fail.

2. HOW DO I ORGANISE MY ANALYTICS FUNCTION?

Operational analytics is best automated (embedded in technology) as much as possible rather than run manually. More strategic analytics should be centralised so that different functional areas are addressed together e.g. a pricing analytics capability should be split into 'operational' and 'strategic'. Strategic pricing topics should then be addressed holistically alongside other functions in a central analytics team.

3. CAN I DO IT WITHOUT ANY TECHNOLOGY CHANGE?

Although technology is often a trigger and a facilitator for beginning and embedding analytics, you can start by focusing on solving key business problems. Suitable technology will, unfortunately, be required in due course to facilitate automation.

4. CAN WE DO ANALYTICS BEFORE WE CLEAN UP ALL OUR DATA?

Yes, analytics point solutions to specific problems can be pursued. Nevertheless, ensuring that data is trusted is very important, as unreliable data will scupper further rollout and not be accepted by the business. We found repeatedly in the research that the adoption of analytics requires trust, and therefore that the analytics is built on a strong foundation of assured data.

5. WHAT KIND OF TALENT DO I NEED TO HIRE?

We have seen in the interviews the need to hire analysts who are relentlessly focused on the business outcomes, not on the tools they are using. You need talent with strong communication skills who can champion and evangelise about analytics success in the organisation.

OFFICES

Belo Horizonte

Hong Kong

Istanbul

London

Munich

New York

Paris

São Paulo

Shanghai

Warsaw

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