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Data Monetization

A Practical Approach to Successfully Navigating Big Data

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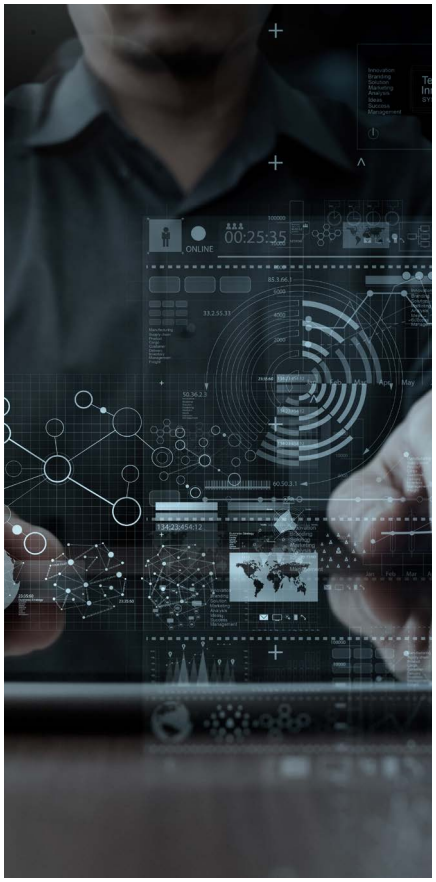


EXECUTIVE SUMMARY

Navigating the cost of producing actionable insights in the pursuit of big data monetization

Banks' margins continue to be squeezed from multiple angles – whether it is tighter yield spreads, fewer arbitrage opportunities or persistent regulatory capital costs. At the same time, customer expectations are growing exponentially as they demand better, faster and more personalized services.

In our recent insights publication on 'Financial Services Retooling', we explored how banks have accelerated the process of unpicking their value chains to unearth new opportunities to unlock incremental value. One common aspect across all value chain components is data, which has become one of financial institutions' biggest and most valuable assets. They are increasingly looking for new ways to monetize their vast data inventories to deliver greater business value and enhance the customer experience.

While data's high intrinsic value is well known, what is notable is the continued advances in technology that have reduced the barriers to entry inherent in the storage and analysis of enormous volumes and varieties of data sets. However, access to big data and a big data toolkit does not guarantee instant success in data monetization. This will ultimately come from identifying and acting upon the value-generating insights that data can provide, measured against the cost of producing actionable insights.

Banks are at varying degrees of maturity in the pursuit to become data-centric organizations. Along different stages of this journey, banks will inevitably explore data monetization initiatives. However, this will require careful navigation and calibration to ensure a positive and sustainable business case for these efforts.

Themes in data monetization

Themes in data monetization

Once perceived as a 'nice to have' element amongst banks, there is a growing understanding that capitalizing on Big Data is essential to how a bank can gain a competitive edge in today's market.

In the following sections, we present the key themes driving the evolution of data monetization and the key considerations that banks should take into account on their Big Data journey.

1 | Decreasing barriers to entry

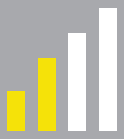
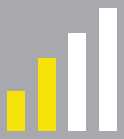
Barriers to adopting big data technology continue to fall

Some of the foundational Big Data technologies are maturing, bringing greater reliability, convenience and lower costs. In fact, research from Gartner indicates that 92% of organizations surveyed believe that their data management needs supporting analytics and reporting remain unmet, with the majority of them demanding new data and data types. Wikibon forecasts the big data market to top $84 billion in 2026, representing a 17% compound annual growth

(CAGR) across a forecast period of 10 years.

Increasingly, the trend we have observed is that regardless of the size of the organization, many are turning to Big Data to increase the value of their services to the consumers.

According to a research from International Data Corporation (IDC), worldwide revenues for big data and business analytics will grow to more than $203 billion in 2020. Furthermore, commercial purchases of related hardware, software, and services are expected to maintain a CAGR of 9.2% through 2020 when revenues will be more than $43 billion.

	Development Maturity	Price trend	Insights
Data Storage			• Price wars between cloud storage companies such as Amazon, IBM, Microsoft (on average 14% cuts in 2016, with expected further cuts) has driven down costs • Research by OECD measured that average cost per gigabyte of consumer Hard Disk Drives face an average decline of almost 40% a year. This is projected to drop further with new generation storage technologies such as solid-state drives. • Scaling up innovative technologies (e.g. SAP's acquisition of Altiscale) can also drive further cost reductions
Data Collection			• Means of data collection continue to evolve and development potential remains positive as firms experiment with different ways of collecting data points • Improvements in algorithms and heuristic methods, along with the availability of open source software and cloud computing has drastically reduced the costs for data collection
Data Analytics			• Gartner estimates that worldwide business intelligence and analytics stand at $18.3 billion in 2017, with expected growth at 7.6% CAGR to $22.8B by 2020, highlighting huge development potential • Increasing focus and growth potential on predictive and proactive analytics, moving away from descriptive and diagnostic analytics • Real experts and data scientists are still far and few and in high demand, impacting cost
Data Security			• Increased focus on maintaining and protecting data integrity from attacks such as WannaCry represents huge development potential • Increasing reliance on and maturity of cloud environment as a security target • Limited number of experts, hence cost of deployment will be on the higher end • Gartner estimates that the average selling price for firewalls is expected to increase by at least another 2 or 3 percent by the end of 2018

2 | Regulation

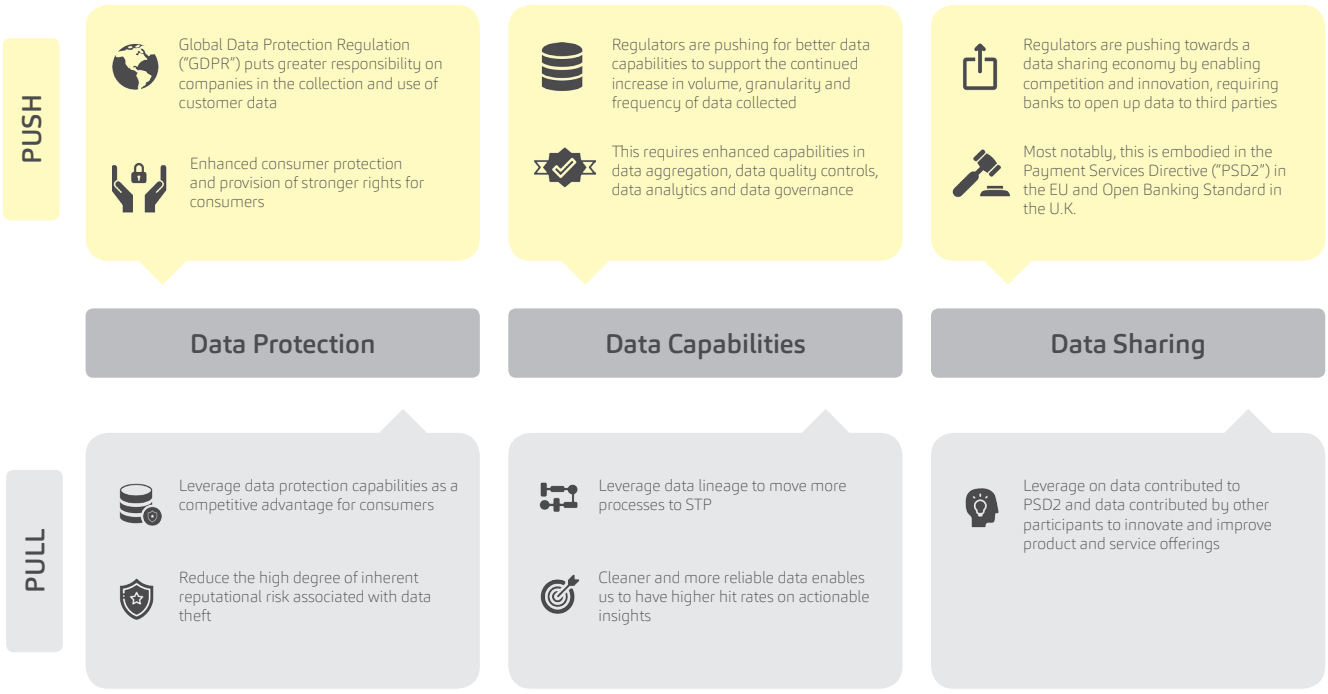
Regulation is both a push and pull factor, so look at where it can add value to your organization

Regulation is both a push and pull factor, and should be looked at objectively to see where it can add value to an organization, rather than being solely a reactive process. Nearly all new legislation we have seen since the global financial crisis has had either a direct or indirect impact on how data should be collected, stored and used by banks. This is logical, as data-driven issues were a central, but often overlooked trigger in the lead up to and during the financial crisis (e.g. the mispricing of complex securities, failed business intelligence, difficulties in calculating aggregate risk exposures).

We see three key evolving trends within the regulatory framework surrounding data:

1. Data Protection
2. Data Capabilities
3. Data Sharing

While regulation is without a doubt a strong 'push' factor driving banks' data agendas, we also see a slew of 'pull' factors emerging from these efforts. Banks should be looking at ways of creating incremental value from non-negotiable data efforts being forced upon them by regulators. Increasingly, we see financial institutions taking a smart approach to regulation by asking themselves how they can turn regulatory-driven sunk cost into an opportunity.



3 | Evolving methods

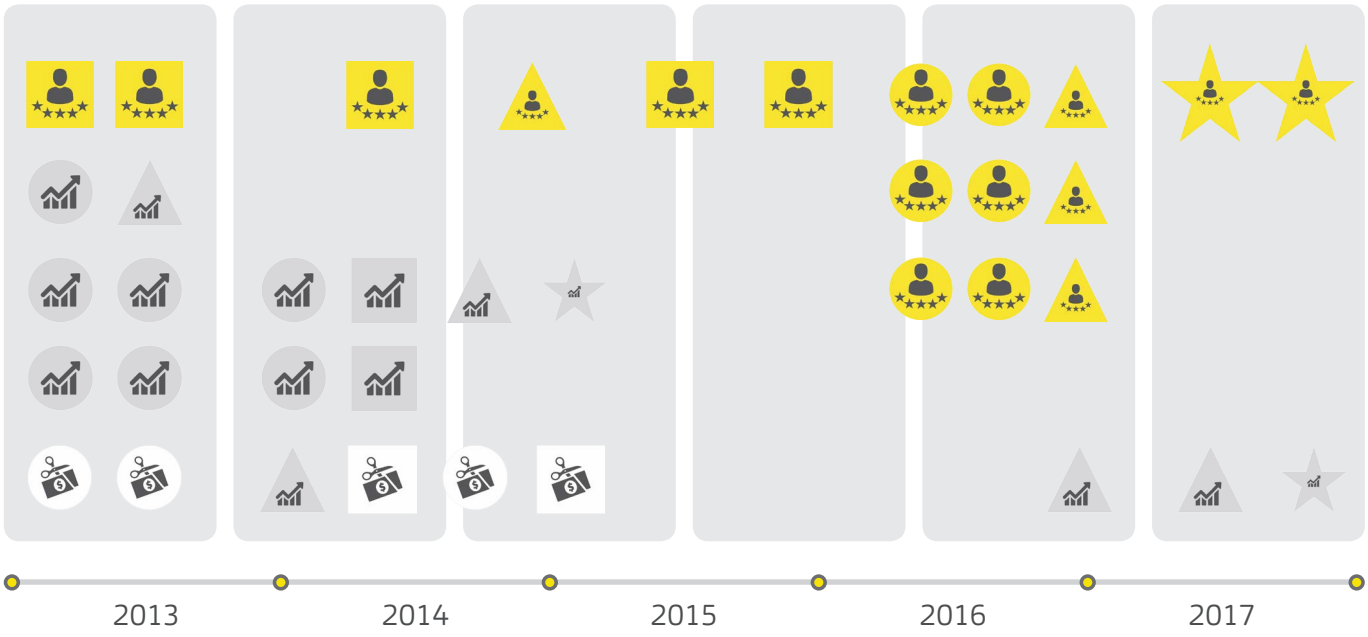
Data monetization methods are evolving, with more advanced techniques and increasing focus on customer experience

There has been a steady evolution in how data is being monetized by financial institutions. The initial focus of data analytics has been more inward-looking (cost and revenue-driven) including data-driven process optimization; identification of cross-sell and upsell opportunities; internal decision making (e.g. through data visualization dashboards); and other cost reduction and revenue enhancement insights.

Banks are increasingly taking a customer-centric approach to data monetization, including the customization of products and services (e.g. 'next best action' tools), geo-targeted advertising, customer journey mapping and self-service analytics.

Alongside this, the sophistication of data monetization techniques is increasing, moving from basic descriptive and diagnostic analytics to more advanced predictive and proactive techniques.

We have collected and analyzed 45 banking data monetization case studies and found a trend that analytics approaches were shifting towards predictive and proactive – and also clearly away from cost/revenue-driven efforts to focus on enhancing the customer experience.



4 | Changing customer value drivers

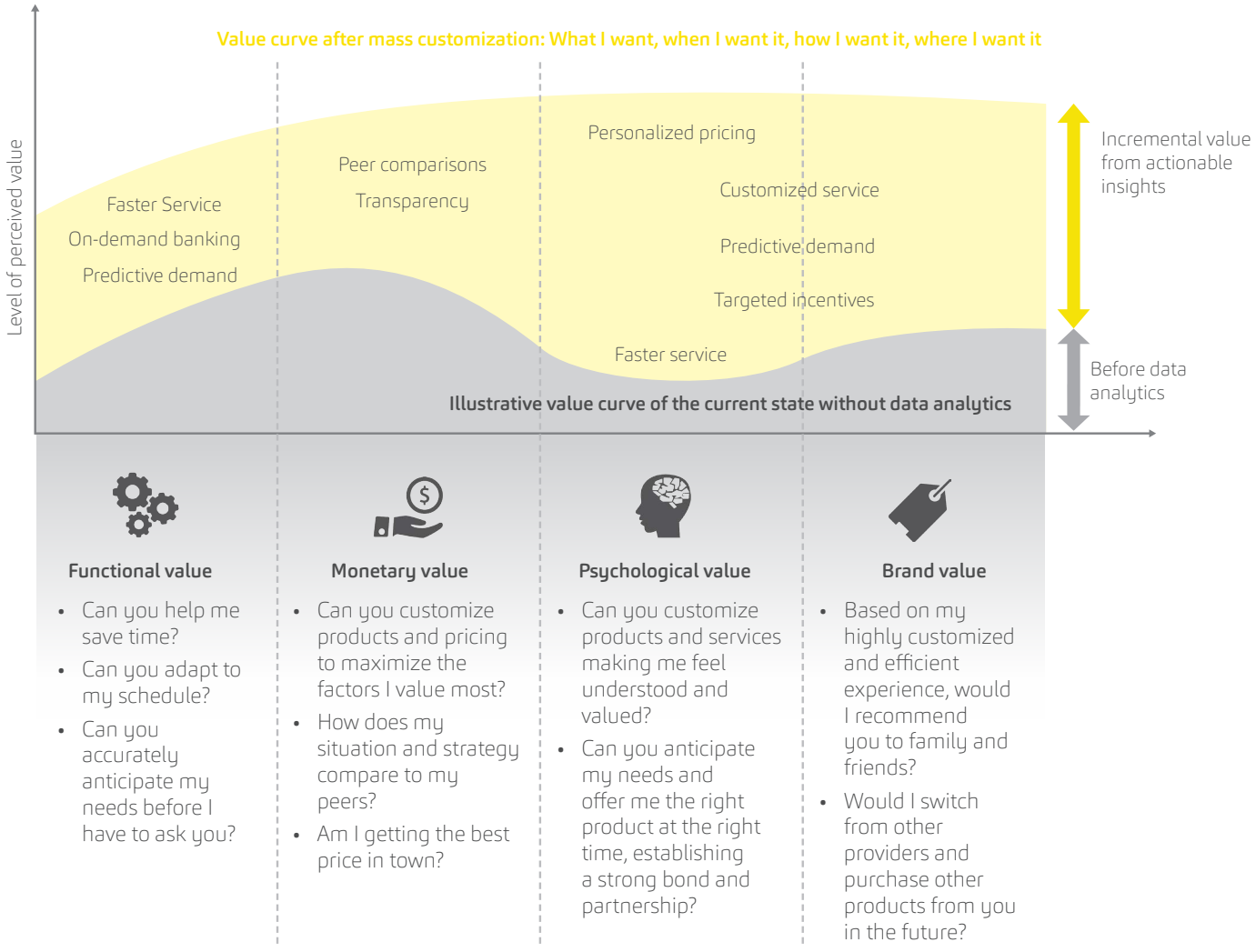
Data analytics as an opportunity to create incremental value for customers to catch up with heightened expectations

Customer expectations and behavior towards their banking partners has been shifting dramatically. Any banking customer survey since the financial crisis confirms that trust in banks has eroded significantly. At the same time, the digital revolution and the continuing pace of innovation is driving up customer expectations across industries as they demand higher quality and more tailored services, at greater convenience and lower price points.

The banking operating environment has also become increasingly challenging. This is driven by product commoditization, the entrance of non-traditional competitors, the increasing flexibility of consumers to switch banking providers, the regulatory environment and the overarching continued operating cost pressures.

Data analytics can increase customers' perceived value of banks' products and services with the application of actionable insights, thereby aligning to their increased expectations and reducing price sensitivity through an enhanced and differentiated customer experience.

We have identified four key value drivers which can elevate customer' perceived value by applying relevant actionable insights gleaned from data analytics.



Key considerations for data monetization

Key considerations for data monetization

Banks should take an agile approach to data monetization. You are on a journey to transform and mature into a data-centric organization and along this journey, you should be deploying data monetization initiatives that evolve together with your maturing data capabilities.

When deciding the right steps to take into data monetization, we recommend spending time to define the following:

1. The business objectives (Start SMART)
2. The current maturity of your data organization (Know your limits)
3. Align to the cost of generating actionable insights by pursuing those objectives that maximise your chances of success (Understanding your ROI)

   Underpinning all three items, we must not forget that
4. The talent the bank utilises must be empowered and be integrated with business teams to best ensure that their findings resonate with the bank. (Unleashing and enabling Big Data Talent)

This will help you to define the best way forward ensuring your marginal cost of generating actionable insights is minimized.

1. Start SMART

Determine your business objectives upfront before embarking on the data monetization initiative

2. Know your limits

Assess the maturity of your data organization across key dimensions

3. Understanding your ROI

Alignment with cost of actionable insights

4. Unleashing and enabling Big Data Talent

Ensure the right talent is empowered and integrates with business to get a view of the ground

1 | Start SMART

Spend the time upfront to define your data monetization objective. Without this, data monetization initiatives are at risk of losing their focus and direction. This in turn often leads to 'boiling the ocean' and an overspend on resources leading and, subsequently, a jump in the cost of generating actionable insights.

We recommend a SMART approach:

Specific

Instead of leading with the data, lead with specific questions or problem statements that you would like to address. While this can be allowed to evolve along the analytics journey, the specific goals should be set up-front. Letting the data lead can result in the initiative becoming unwieldy, driving up the cost of generating actionable insight.

Measurable

In order to understand whether the initiative can deliver value to the organization, identify key success metrics that can be measured at regular intervals up-front.

Actionable

An insight has no value if it cannot be put into action. Think about how the results will be used and by whom. Through which channels will the insights be delivered? Is there an identified owner who can act upon the insights found?

Realistic

Your objective should be realistic. Do you have the required management buy-in? Has funding been allocated and approved for the initiative? Have resources been identified? Will the approach fit in with your existing tooling and data landscape?

Time-Bound

Data analytics initiatives can too quickly evolve into expansive exploratory projects, driving up the cost generating of actionable insights. Ensure the initiatives are time-bound, add structured touch points at key junctures to assess the status.

2 | Know your limits and capabilities

Each SMART objective should be assessed against your current organizational limits.

Knowing your limits is about understanding the maturity levels of your current data analytics organization. This is the critical link between your objective and the data itself, as it informs how you can and should proceed into data monetization to minimize the marginal cost of generating actionable insights.

Whilst there are many tried and tested Big Data Maturity Models (BDMM) which can be used, at a minimum, banks should assess maturity in the following key areas:

- Data governance
- IT infrastructure
- Data access
- Data readiness
- Manpower

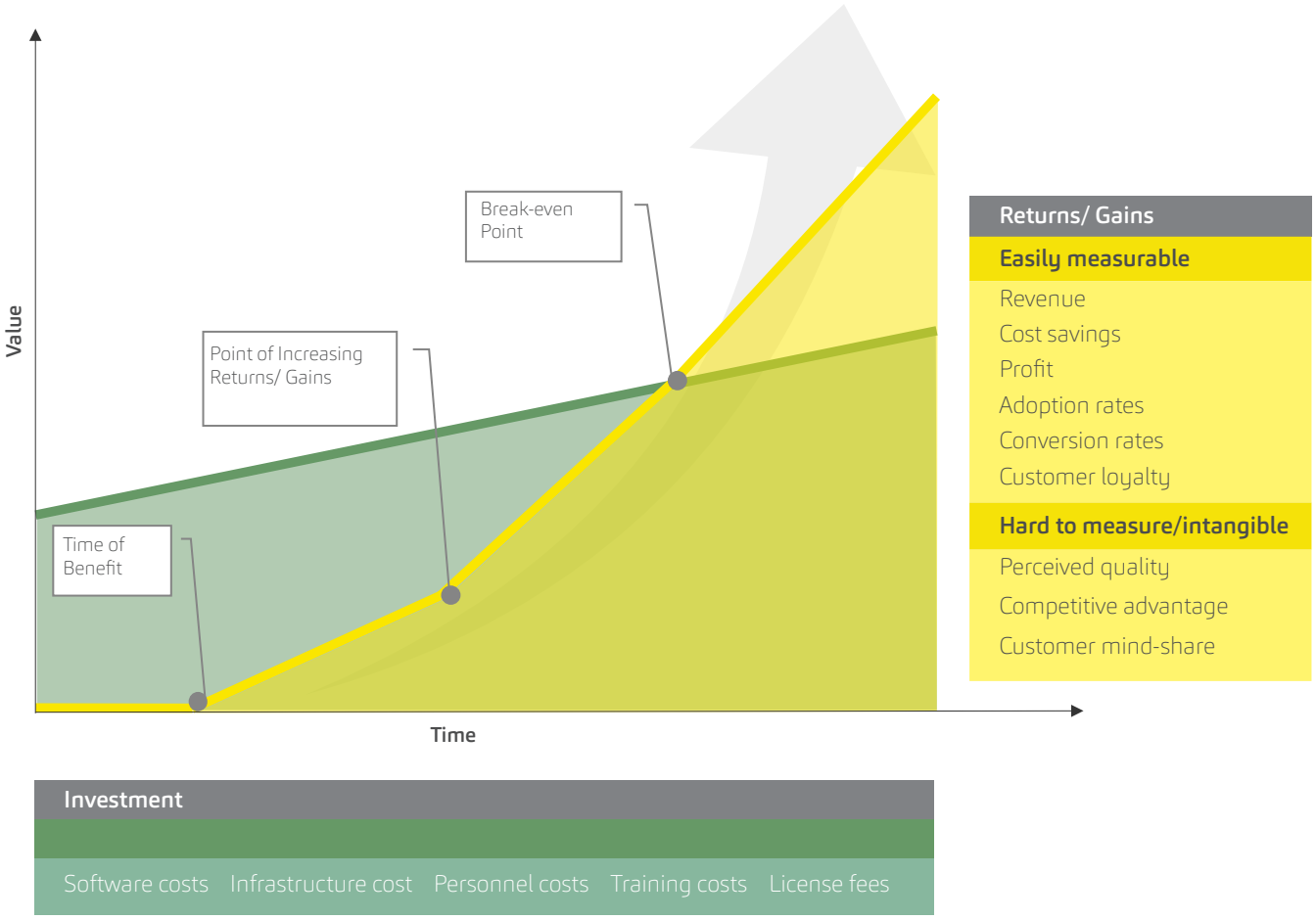
	Elementary	Developing	Advanced	Expert
Data governance	This covers the extent to which data governance is embedded across the organization. Key aspects of data governance include a clear data vision and strategy, senior management sponsorship, as well as clearly defined roles and responsibilities for big data initiatives			
IT infrastructure	This covers the maturity of big data IT infrastructure, end-user hardware and the analytics toolkit			
Data access	This covers the degree of access to sources of data (i.e. internal, external, machine-generated, sensors, business- generated) and the types of data (i.e. structured, unstructured and hybrid)			
Data readiness	This area represents an assessment of the readiness of your data for analysis. Quality at this stage should covers key aspects such as completeness of the data set, conformance to required formats and duplication			
Manpower	This covers the maturity of your data science organization in terms of resourcing, skills and capabilities, empowerment, and integration into the business			

3 | Return on Investment

After defining the data monetization objectives and determining your limits, the next logical step is to assess your expected return on investment (ROI).

Some of the potential returns can easily be measured, whereas other gains may take the form of harder to measure positive externalities. It will thus be essential to conduct a cost-benefit analysis covering both the short- and long-term to develop a comprehensive view before embarking on your data monetization strategy.

According to research by the Enterprise Strategy Group (ESG), 77% of individuals who lead their organizations' big data and analytics strategies believe positive ROI can take up to six months to materialize. It is crucial to set expectations around required investments and monetization timelines early on to avoid 'surprises' and subsequent roadblocks.



4 | Unleashing and enabling Big Data Talent

Enabling your big data talent is crucial to successful data monetization

Whilst Big Data analytics is becoming increasingly more accessible, it brings with it bigger and more complex challenges that can quickly affect the cost of generating actionable insights. When Big Data goes wrong, too often it can be attributed to errors in human judgement and decisions with unintended consequences that have been made during the analytics process.

Enabling your Big Data talent is therefore crucial to successful data monetization. Data Scientists must navigate the minefield of statistical complexity that big data brings, whilst at the same time having a solid understanding of the business and wider market context within which the results sit.

An effective data science and analytics organization requires 3 core elements:

- Getting the right talent in place (whether in hiring, using third parties or upskilling existing staff)
- Empowering data scientists with the resources, toolkit and budget to succeed
- Integrating data scientists into the organization to ensure they have an understanding of the business

Global Footprint

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