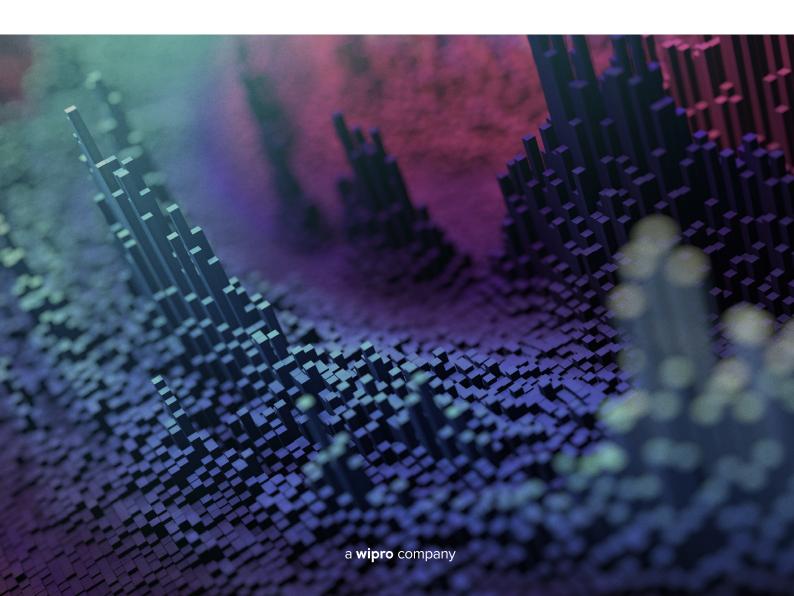
ENHANCING CUSTOMER ENGAGEMENT THROUGH A TRANSFORMATIONAL DATA CULTURE



SPEED READ

- Data-driven decision making has been proven more effective than gut-based decision-making
- Customers are increasingly looking for ways to make decisions more effectively using data
- Firms and their customers must be aware of the pitfalls of gut-based decisions and make strides to acknowledge and overcome bias
- As custodians of vast amounts of data who support customers in making some of their most important life decisions, financial institutions are well-placed to champion a data-driven society

- To promote data-driven decision-making by their customers, financial institutions must first embed a data culture within their organizations
- Organizations must improve access to data and encourage trust and comfort in using data to enable data-driven decision-making
- Building a data-driven society benefits both customers, who gain improved data literacy and make more informed decisions, and organizations — who benefit from improved customer stickiness gained from greater satisfaction

Financial services (FS) firms are custodians of vast amounts of data which is not being used to its full potential; instead, decisions are made on instinct, with trust paid to organizational know-how and experience. Moving from data-apathetic to data-driven decision-making techniques enable organizations to take a scientific approach to making decisions. Companies with a highly data-driven approach to decision-making are three times more likely to report significant improvements in their decisions¹. There is a huge opportunity for FS firms to make smarter use of their data in remaining competitive and relevant. In this article, we explore what data-driven decision-making means for organizations and customers alike by improving profitability and customer value, and the common challenges

that organizations must overcome to create an environment that maximizes the benefits of data.

A data-driven organization is one that makes decisions based on data, rather than relying on intuition (experience, instinct, and political capital). Intuitive, or gut-based, decision-making leads to overly simple and biased analysis of business problems². While most companies want to be data-driven (Figure 1), under a third say they are good at connecting analytics to action³ and we find, equate being "data-driven" to producing reports for Management rather than contextualizing and harnessing the right information to make decisions.

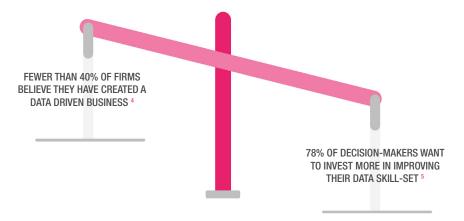


Figure 1: Change is on-the-way within organization

The move towards seeing data as an intrinsic part of decision-making requires firms to create an environment that treats data as an asset. The effective capture, management and provision of data are the backbone of a data-driven organization (Figure 2). In creating the right environment for data-driven decision-making, three factors should be considered:

- 1. Access to data
- 2. Trust in data and
- 3. Comfort in analyzing data.

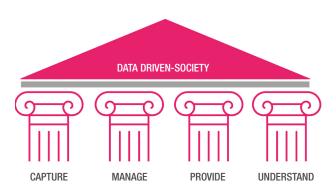


Figure 2: Data should be treated as an asset which is captured, managed and provided to colleagues and customers alike

The first ingredient in the recipe for data-driven decisionmaking is making sure stakeholder needs are understood properly. This means understanding the right questions to answer and the appropriate decisions to be made, before determining how to use data to answer those questions.

Quality data, underpinned by a robust architecture and strong guidelines around data usage, progress an organization's ability to use data effectively. Supplementing technical feasibility with an innovative and data-literate culture builds an environment which improves access, trust, and comfort in using data to answer questions.

Customers and employees alike often rely on instinct and emotion to make decisions rather than relying on facts. For customers, this apathy towards data-driven decision-making could be attributed to the ease of ignoring complexity. However, we believe firms who are well placed to supply insights have a role to play in enabling the customer to be more data-driven (Figure 3). For customers, understanding their own data needs, sourcing information, and producing insights for decision-making is time-consuming, complex, and unrealistic. When a

company fulfils customer insight needs, by virtue of strong data capabilities, they spur on greater customer demand for data – driving subsequent organizational improvements. For customer and company alike, making timely decisions powered by data requires access to and trust in, and comfort in analyzing data.

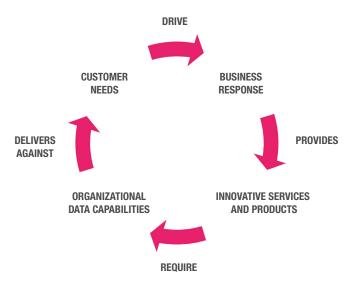


Figure 3: It is this symbiotic relationship that champions a data-driven society

This cycle brings benefits to both (i) customers who, when provided with data to empower decision making, gain improved data literacy and make more informed and better decisions, and (ii) organizations, which benefit from improved 'customer stickiness' gained from greater satisfaction.

As custodians of vast amounts of data who support their customers in making some of their most important life choices, FS firms are well-placed to champion a data-driven society. The organizational data capabilities which mature to facilitate customer decision-making also enable financial institutions to make more informed decisions within the organization.

Throughout the rest of this article, we will explore what data-driven decision-making means and how this compares to gut-based decision-making. We will also provide a recipe for data-driven decision making, with examples to bring the data-driven society to life.

BREAKING DOWN DATA-DRIVEN DECISION-MAKING



We do not 'store' experience as data, like a computer we 'story' it.

(Winter1988, p. 235)



There are two approaches to decision-making⁶; gut-based (reflexive) decision-making and the more logical, data-based (reflective) approach. Whilst a gut-based decision can feel more natural, its ease is owed to the lack of challenge from external sources.

Employing the scientific rigor of data-based decision-making, which requires intent and awareness to implement, leads to better decisions that are shielded from bias.



GUT-BASED DECISION-MAKING

Relies on "gut feeling", instincts and intuition

Subject to significant biases

Limited by past experience and knowledge (akin to our "Internal database")

Does not require data literacy

Can be overly simplistic and not well-suited to complex situations



DATA-DRIVEN DECISION-MAKING

Relies on facts

Acknowledges and minimizes bias

Limited by the availability and quality of data

Uses the human experience to validate the questions being asked, data being used and results achieved

Requires data literacy to prepare and interpret data in an appropriate manner

Can be scaled to account for any number of complexities and volume of data

Biases, moods, and emotions all weigh heavily on decisions, producing sub-optimal results⁷. Think about the last time you played the lottery — did you feel more comfortable playing again with the money you won? Maybe it felt less risky to play with winnings? Although that thought process is not rational⁸, it is easy to fall foul of.

BIAS	DESCRIPTION	GUT-BASED APPROACH	DATA-DRIVEN APPROACH
Selection Bias	Selecting data such that true randomization isn't achieved.	Including only retail customers in an analysis because they make up the majority of a product's customer base.	Selecting broad populations, being transparent to enable challenge and even analyzing correlations between data points to ensure randomness.
Survivor Bias	When people ignore the true probability of success by assuming that successes are the norm, the idea of correlation rules over the truth of coincidence ⁹	Calculating Annual Rate of Return (ARR) from your current customer list to inform decision making.	Including those customers from the previous year who are no longer active may change your view of ARR if there has been a large churn rate — this way, decisions are made using complete data.
Availability Heuristic	Ease of recall impacts how much weight a piece of information is given when making decisions.	Recalling the financial crises and assuming that the S&P 500 must have been flat in 2009 – using this to influence a decision to invest in the market in 2022.	Reviewing the data to show that the S&P 500 made double digit gains ¹⁰ in 2009. Understanding how this impacted historic returns will provide insight in what position to take in 2022.
Confirmation Bias	Focusing on information which confirms a viewpoint.	Absorbing only the good news related to a company being invested in, resulting in an unrealistic view of the health of the investment ¹¹	Reviewing challenging information from multiple sources and subject-matter-experts to gain a holistic understanding of the soundness of the investment.
Belief Bias	The tendency to support an argument based on the believability of its conclusion rather than by assessing the method of achieving the outcome.	Accepting a conclusion rather than questioning the method or motives behind the decision, for example when a salesperson concludes that a house on-sale is perfect for the buyer - given the buyers desire to buy — it is easy to accept the conclusion on face value.	Stay logical and make sure to take a scientific approach to decision making by weighing up the different variables. Training people to weigh up the evidence and creating alternative arguments for or against conclusions will help defend against Belief Bias ¹²
Normalcy Bias	The refusal to plan for, or react to, a disaster which has never happened before.	Assuming interest rates cannot go negative in some countries is a perfect example of not planning for an event that hasn't happened before.	Presenting global events and historical data will help decision makers accept that a risk can occur. Decision makers should be willing to make changes to counter adverse effects or quit the option altogether ¹³

ASKING THE RIGHT QUESTION...

Making data-driven decisions does not mean ignoring the person behind the data; individuals still need to ask the right questions and should maintain an awareness of and remedy unconscious bias, such as personal experience, while doing so.

Asking the right question can be the difference between finding out the answer to your problem and finding out the answer to your question — they may not be the same thing.

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If I were given one hour to save the planet, I would spend 59 minutes defining the problem and one minute resolving it.

Albert Einstein

ASKING THE RIGHT QUESTION...A THOUGHT EXPERIMENT

Empowering business leaders with a better understanding of their issues helps leaders ask right questions and supports the production of meaningful insights. Asking a different question of the same data will always produce different results (Figure 4).

Asking the right question... A thought experiment

- Problem: A general insurer has low customer retention rates.
- Question A: What complaints are customers making?
- Question B: Are customer retention and claims success related?

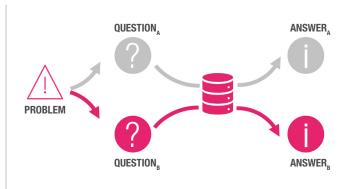


Figure.4 - Asking a different question of the same data will always produce different results

Are there other, more correlated questions that could be asked of data to provide a clear picture of why customers leave? The "five whys" technique is a commonly applied method to reach the root of the issue (Figure 5).

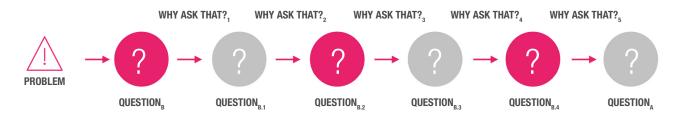


Figure.5 – How to find the right question to ask

TOWARDS DATA-DRIVEN DECISION-MAKING

94 percent of people recognize that using data to make decisions helps them perform their job better¹⁴, yet only around half of decisions are made using data¹⁵. Explicitly leaving data out of the decision-making process is often a result of being uncomfortable using data, mistrusting data sources and being under an illusion of understanding the data at hand.

Providing readily available and trustworthy data to data-literate individuals supports the move from outright rejection and apathy towards the active inclusion of data in decision-making.



Data Rejection

Data is actively rejected as part of the decisionmaking process - which is based purely on gut instincts

Data Is an afterthought at best. Data is left to 'datapeople' and regulatory requirements - ۷

Data Apathy

Data may be used sparingly to inform some decisions - this is more by chance than by design

Little thought Is given to data capture, management or usage

Data is increasingly used to inform some decisions. This is done selectively (particularly where it may support an existing gut decision)

Data Acknowledgement

Increased focus Is placed on data capture, management and usage

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Data-Driven

Data is used to drive decision-making (even when it doesn't support an existing gut feeling)

Data is managed as an asset, and its value is promoted extensively. Where certain data is not yet held, plans are In place to capture and store it

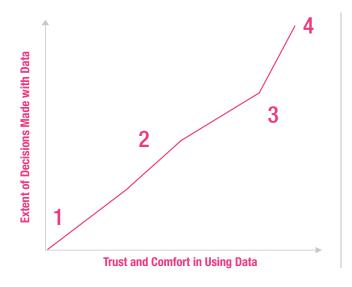


DATA-DRIVEN DECISION-MAKING Trust in data's comprehensiveness and quality is supported by a transparent and proactive approach to data management and sound data architecture principles. Providing access to trusted data encourages the cultural shift towards the daily use of data and supports data skill development through practice. Improving individual comfort through teaching how data should be specified, prepared, and analyzed promotes a culture which actively uses data for decision-making.



The ability to comprehend and communicate a common data language is a vital skill. Data literacy has become a key component for organizations and is the ability to read, analyze, utilize, and communicate data.

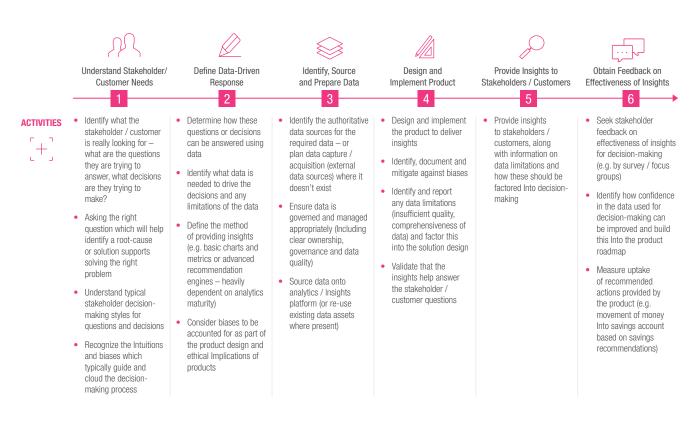
Z.Khaled, The Key to Unlocking a Data-Driven Organization, 2021



A data-driven organization is founded on a resilient architecture, controlled data pipelines and privacy & ethics by design. Data management should be actively embedded, and scalability enabled through the use of reusable data assets for analytics. Active measures should be continuously taken to improve employee and customer data literacy.

A RECIPE FOR DATA-DRIVEN DECISION-MAKING

Data-driven decision-making is the process of translating needs into questions, which are then assessed to produce insights and decisions that are underpinned by trusted data. This can be boiled down into a recipe to service both customers and internal business stakeholders.



DIFFERENTIATORS

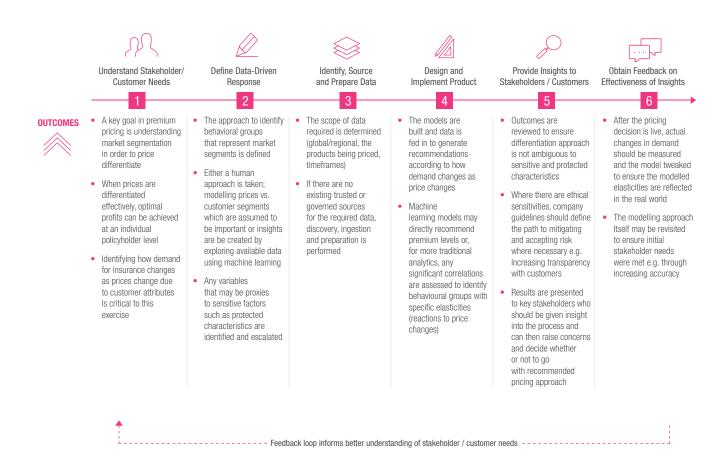


- Feedback loop informs better understanding of stakeholder / customer needs and continuously Improves the product and ability to make data-driven decisions



ENABLING DATA-DRIVEN DECISION-MAKING INSIDE THE ORGANIZATION — INSURANCE PREMIUM PRICING USE CASE

This universal recipe can be used across the organization to produce insights and decisions which are underpinned by trusted data. For example, determining the best premium pricing for insurance customers based on an understanding of how different types of customers react to different prices can be a data-driven decision.



ENABLING DATA-DRIVEN DECISION-MAKING FOR CUSTOMERS - CUSTOMER SAVINGS USE CASE

Retail banking customers are increasingly looking to save more in the easiest way possible. Many large banks now provide detailed insights into spending to help track month-on-month trends and facilitate customer savings. More advanced organizations have even automated the savings decision for customers, whilst maintaining a reasonable level and feeling of customer control. Data-driven insights help to train and educate the customer in making better savings decisions, which in turn drives customer data demands as they gain access, trust, and increased comfort in using data - promoting a data-driven society. The recipe can be used to facilitate data-driven decision-making for customers.





Customer Needs





Define Data-Driven Response



Identify, Source and Prepare Data



Design and Implement Product



Provide Insights to Stakeholders / Customers



Obtain Feedback on Effectiveness of Insights



- A key focus of the general public is "How can I better save money?
- Customers need a way to make their saving process as easy as possible, particularly when they have money spread across different bank accounts, often with some in debit and some in credit. 41% of households simultaneously hold high-interest credit card debt and low-interest monetary assets1
- Internal Data literacy and an innovation culture drive the translation of customer needs into a response
- A response to the as simple as a product of average savings per month, or as complex as automated movement of money from current accounts into savings accounts based on spending behavior and saving
- decisions) should be heavily considered

- savings question can be showing the breakdown aggressiveness
- The privacy and ethics considerations of the response (particularly when recommending or making automated

- The ability to provide these insights relies on high-quality customer transactions and savings data, potentially spread across multiple FS providers
- This data IS brought together into a robust data platform to enable analysis, e.g. using Open Banking APIs to source data from multiple FS providers
- The data platform enables Insight generation at scale

- The product is designed to make the decisioning process as easy as possible
- Recommender engines. alongside visual breakdowns of savings patterns and behaviours are determined to be the best means to drive savings decisionmaking
- Products are designed and implemented using the most appropriate methods, with bias reduction baked into the design and testing process
- A user validation strategy is defined to determine the untake of recommendations

- The insights are made available via a mobile and web application
- Users can customize their saving aggressiveness based on simple rules, abstracting the complex logic behind the scenes without compromising user control building trust In the recommendations to drive decisions
- Saving patterns, forecasts and recommendations are provided. Users can easily action savings recommendations at the touch of a button

Feedback is sourced. includina

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- To what extent are customers saving based on the recommendations provided by the product?
- Are there other considerations which customers are making which are not currently accounted for in the product? Do additional data points need to be captured and analyzed?
- Are the recommendations easy to understand - can customers see how they are being arrived at - I.e. are they explainable?

Feedback loop informs better understanding of stakeholder / customer needs and continuously Improves the product and ability to make data-driven decisions

CONCLUSION

The unique, companion-style relationship dynamic FS firms often have with their clients has long placed them in a trusted position to enable customer growth and security. Financial institutions have an opportunity to take a step towards actively supporting client decisions through providing data-driven insights. Achieving this step change is becoming part of any FS organization's core offering and is a natural outcome of those firm's access to large data sets.

Meeting expectations of data and insight provision — whether for internal or customer decision-making — will be a cyclical investment which requires focus on operations, technologies, culture, and ethics. Once a decision maker's expectations are met, expectations will be further increased. When managed with a long-term, customer-centric outlook, this cycle produces sustainable innovation.

Look out for our upcoming articles on how organizations can champion a data-driven society, and read our insights on how data literacy can unlock a data-driven organization.

Capco has extensive experience in enabling organizations — and their customers — to become more data-driven. Speak to us today to explore how we can support you on your journey.

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