

Data and  
Innovation



# Intelligent decisions

Using advanced analytics to drive better customer outcomes

---



### Why big data is the oil that drives machine learning

Approximately 90% of the world's data was created within the past two years. By 2020, the same amount of data again, will be created every minute.

It's well understood that more data brings more opportunity. But to realise its potential, it's necessary to be able to extract the relevant insights. Before data can be used, it needs to be interpreted and understood.

That's where analytics comes in. Technology has advanced just as quickly as our data universe has expanded, and today's analytics can make better sense of data – at scale, at speed – and far more accurately than any human.

Right now, it's clear business can only quickly win a competitive advantage and drive their growth, if you can get ahead of the pack and differentiate yourself from the rest.



## Contents

Introduction.....	4
Understanding the impact of decisions .....	6
Creating meaning from the start.....	7
Laying the foundations for intelligent decisions.....	11
Managing efficiency in decisions .....	13
Managing business rules .....	15
Meeting and protecting people and their expectations in a multi-channel world .....	16
Conclusion.....	19
About intelligent decisions .....	21

## Introduction

Simultaneous advances in data, analytics and technology present a significant opportunity to make more intelligent decisions – at scale and at speed.

The right decisions can help to protect and enable people at different stages of their lives. Advances such as AI, today, offer a more intelligent interpretation of data, giving you new and powerful insights that enable you to make the most appropriate decisions for every person, across every channel. This is particularly pertinent when at least a third (28%) of businesses aren't confident in their ability to deliver a friction-free experience. In addition, we have seen the concern over being able to access customer insight to inform decisions double in a year (in 2017 this was 39%, however today it's at 72%).

People have come to expect personalised, fast, easy access to products and services, while businesses are looking to increase efficiency, reduce risks and innovate. Making better, faster decisions is essential to addressing these competing pressures and intelligent decisioning – combining data, analytics and technology – is the key. It has the power to transform a world where decision making is a source of friction for the customer, to one where data and insights enable smooth, automated and excellent customer journeys.



As it stands, many businesses see decision making as a means of aiding process. However, today it is about data, not process – for example, decisions can be made more accurately and more effectively – enhancing processing if the data is understood.



Today, data allows decisions to be automated across channels. For example, a person could send a text, or chat to Alexa, and be instantly notified whether a type of credit would be available to them and on what terms. They could be guided on how to boost their credit file, or pre-qualified for a mortgage while browsing properties for sale. They could see a car, take a photo of it, and get an instant insurance quote and finance plan.

The opportunities brought through the most effective use of data are endless and transformative.

It's important to realise however how we are still in an emerging market. As processes become more advanced, demands and expectations will grow. This is the same for consumers and businesses, as today journeys can be slicker, access to services can be more inclusive, yet businesses can be more efficient in how such decisions and channels are created.

In this paper, we explore in more detail what intelligent decisions are and how they can transform organisations in a customer-first environment.



## Understanding the impact of decisions

### Let's start with the basics: what is a decision?

We make decisions every day, both personally and professionally, and many of these will have lasting impact. Fundamentally, decisions enable or protect a choice; they decide if a customer can book that luxury holiday, or buy a new car or home. They determine whether customers should be paying more or less, have access at all to a product, and whether someone is genuine or not.

Not only do these decisions have significant customer impact, but people will also remember the experience your decision enabled. Imagine if someone was struggling and you were the one to help and guide them before it becomes a serious issue, or if you could offer a better mortgage or loan rate without them asking for it. The value of that transaction, and the trust the customer places in you, moves to a whole new level. In addition, your risks and exposures are minimised.

The impact a good decision can have, and the value it creates, are enormous. Which is why it's so important to get it right.



Thankfully, data-driven decisions allow us to evaluate credit and fraud risks before they become liabilities.





## Creating meaning from the start

Growth is fuelled by acquiring the right customers – those with who you can build valuable, lasting relationships. That means for most, the onus is on originations.

An automated decision-management platform, with integrated analytics, uses the power of data to better identify and evaluate potential customers and make instant decisions. From customer identification for targeted marketing to enhanced prequalification, it adds value from the very first moment.

## Making positive decisions for the future

The best originations decisions don't just take a person's current situation into account; they look forward too. By integrating economic forecasts and factors, you're able to enhance your understanding of any future change to an individual's circumstances. Team this with an understanding of an applicant's behavioural trends identified through data, and you can better evaluate their future willingness and capacity to make the repayments. Further still, having the ability to integrate the product marketplace into the analysis, will ensure you truly are able to offer the right product, to the right person, at the right time. This common phrase can become a reality.



Using a combination of predictive analytics and business strategy rules, you can make a more accurate assessment of whether someone is eligible for credit. You can ensure products are both suitable and affordable; that each offer and decision is suitable not just for a segmented profile, but at an individual level. You can personalise the entire journey



## Friction-free onboarding

For many reasons, most applications still take a long time to complete and create friction early on for customers. For example, in mortgages, the amount of details often required within an application cause significant frustrations for the customer. They are however, masked largely by the 'proximity to purchase'. The applicant wants to buy the property and therefore will complete the journey as there is an emotive end goal in mind. Similar requirements for lengthy customer input exist elsewhere too and are not limited to mortgages.

Asking customers to manually input these details is causing frustration and also exposing customers as these details are vulnerable to fraud as cyber-criminals continue to expose identities through online channels. The experience doesn't have to be that onerous. Often, the required data points are already available to businesses to prepopulate them – the difficulty lies in bringing them into the decision flow to negate such friction. This level of automation is being realised by the majority of decision makers (80%), who intend on automating more and using sophisticated techniques to support customer onboarding which is a positive development.



In mortgages, pre-population and automated validation of income and suitability, as well as customer identity authentication, allow a mortgage to be offered in minutes, removing the need for the customer to manually input details and relieving friction. This principle can be extended across all services.





## New data brings new confidence

Bank account transactional data, brought through open banking, can verify a customer's income and outgoings to a much more sophisticated level, especially if you have the added ability to aggregate and categorise this insight effectively. This approach can remove the need for people to provide paper copies of their bank statements.

Forms can be prepopulated with accurate information, improving the customer's experience and reducing inputting errors. But it also gives you greater confidence, since you're no longer relying on the customer to provide accurate information. Anything you already know about that customer – such as a history of financial behaviours, including any missed payments – will come to light at the point of application.



### **The right decisions protect a choice, and a person**

The way a person makes their application tells you more about them. Is their IP address different to usual? Are data fields being filled in too quickly, potentially indicating fraudulent bot activity, or too slowly, potentially indicating social engineering? Are they toggling across screens? Are there other behavioural insights that can be indicative of fraud?



This information can be immensely powerful as it can help you make the right decision based on the genuineness of an applicant, at the same point of worthiness for the product.

Recent analysis of fraud trends revealed last year more people were giving false information to get credit for mortgages. But, is this with an intent to defraud the application, or is it a genuine applicant not knowing the details required? With the ability to combine data points you can minimise risk - and help your customers.

### **Customer management**

While much focus is put on originations, the ongoing management of a customer is critical for retention. In highly competitive market places – where growth may come from increased market share rather than rising demand – effective customer management is critical in driving satisfaction and loyalty, and ultimately growth.



The new world of intelligent decisions is now making it possible to provide significant customer benefits in many areas. You can help a customer before they know they need help, and be there in their moment of need. This is particularly relevant to today's customers, since, according to our research, most don't want physical financial advice, but advice integrated into their offers, of which can be enabled through personalisation.

With an intelligent, data-driven decision platform, you can continually assess your customers' suitability for products and respond to their individual needs. You can understand a person's likelihood to revolve on a credit card, buy or leave; optimise credit limits in real time; and manage capital adequacy rules necessary for compliance, plus much more.

## Laying the foundations for intelligent decisions

When data is understood, by connecting it, and then by being able to identify helpful trends and patterns from within it, there lies the opportunity for next-generation automation. Once you have the correct foundations in place – namely high-quality data, sophisticated analytics and the requisite computing power – you can do more than automate processes. You can continually glean new insights from data to inform, and perform, the next best action for everyone.

Technology today provides the ability to use data-driven insight to create exceptional experiences for your customers. But while this is exciting, the appropriateness of the decision depends on the quality and accuracy of the data that informs it. Research suggests many consumers believe up to 30% of their customer data is incorrect. No matter how advanced the rules, analytics or technology in place, a decision based on inaccurate or incomplete information won't ever provide a valuable or reliable outcome.

Any enhancements to decision-making processes should go hand in hand with a robust data-management strategy to establish a foundation of good quality data. This includes bringing data together to create a 'universal customer view', by combining analytics with underlying database technologies and data enrichment to develop a deeper, more meaningful understanding of your customers, their needs and their motivations.

Once established, this view must be continually maintained, updated and enhanced to ensure each decision remains intelligent – and it can be helpful for nearly every business as this single identifier is proving to be one of the biggest challenges across all businesses according to our research.

## Managing efficiency in decisions

In a highly competitive market, and one that's seen the cost to serve customers increase, improving efficiency is critical. This year around half of businesses admit they're under pressure as the cost of acquisition and cost to serve customers continues to rise, while at the same time, around half say customer retention, fraud and bad debt are also proving challenging. As such there is a widespread desire to make decisions more efficiently.

Customer experience and automation are key areas of interest for nearly every business. Faster onboarding – achieved through predictive analytics to offer the most appropriate products, plus early identification of key lifestyle changes – is one way to win a competitive advantage.

However, many organisations are still challenged by siloed thinking. Rather than widespread automation, we're seeing a mixture of manual and automated decision making, resulting in equally mixed customer messages and approaches. For automation to deliver the required levels of personalisation, accuracy and speed, it needs to be used throughout.



Around a third (35%) of businesses surveyed have already implemented automation to support decision making in customer onboarding, with many more planning to implement in the next 12 months.



The right technology can remove the need for manual intervention completely. Advanced technology today has the sophistication to extract deeper insight from data and deploy the outputs of that quickly, accurately and at scale. More importantly, it can deliver a radically improved customer journey that's more accurate, and more inclusive than ever before, across all channels.

We can access hundreds of affordability variables to help enhance decision-making indicators. As well as being able to better assess affordability, we can consider future scenarios and understand the levels of comfort a person has in their affordability. In other words, the level of credit they could withstand. In addition, we can now understand and optimise the lifetime value of a customer and identify wealth and vulnerability segments.

The other ongoing challenge is in the scenario where historic credit data is limited. Today, these 'thin files' can be automated like all others – this is achieved through being able to add new data into the decision flow, to then understand and interpret it. Today we see millions consumers with limited credit data, this and a rising number of SMEs too, as we see the volumes of new businesses grow. Both groups can today be included and assessed appropriately – giving everyone access to the right decision based on their circumstances and needs.



Economic conditions continue to put pressure on margins, meaning cost productivity and unlocking new value is once again top of the agenda. Intelligent data-driven processes, including robotic automation and machine learning, will be critical to making this happen.



## Managing business rules

At a time when personalisation and value are critical, rules are becoming ever more complex, and firms often have thousands of business rules in each department. Without software that can cope with that, managing these rules can be extremely hard, as well as open to human error. While a manual approach can lead to more questions and more rules. There's an opportunity whereby a decision need never be manually underwritten or reviewed again.

Managing business rules, especially against constraints, can be complicated. One customer could receive free delivery or an automatic hotel room upgrade; others could receive a special rate as a reward for loyalty. At the same time, people's personal preferences need to be considered. This is especially pertinent for the GDPR.

Further still, as we transition through today's open-data environment, we must constantly consider what people want in exchange for the use of their data. You need to therefore be able to manage millions of different needs at every step, which adds further complexity if you are not able to store and then manage consent and preferences.

The rules that govern this personalisation, as well as your business policies and constraints, need to be embedded into a system that determines the appropriate actions for each customer. This level of automation frees people from routine decisions, gives the customer a much more efficient experience, and allows objective testing of decision-making processes.

## Rules vs. automation

Whether you use manual or automated processes, the downside is that rules can fast become out of date if you're not able to consider external change and additional policy rules that align with your business objectives. A flexible rules engine – which can take the current and future environment into account, but also allow the flexibility for you to test new scenarios and change within your portfolio and rules – is a beneficial approach.

Business rules are necessary and useful where you need to use them, and have a clear framework for how to apply logic. By introducing AI into your automation process, you also have the benefit of self-learning – updating without manual intervention. Today's technology is not only able to solve problems it is asked to, but also identify issues that were previously unidentifiable.

## Meeting and protecting people and their expectations in a multi-channel world

While today's customer predominantly prefers online channels, there's still a large proportion of people who don't have internet access or choose to not use it as a means of engaging. They shouldn't receive any lesser experience.

The quick, easy and personalised application process they'd experience online should be replicated for all, whether they're applying using an app, over the phone, in a branch, using a virtual assistant or, for retail transactions, at the point of sale. That means the same decision management needs to be used simultaneously across channels, and all frontline staff need access to the same sophisticated technology.

A core system that allows a customer to access all their information on all their accounts in a single channel will, of course, be helpful. A universal view of all a customer's history and information will be critical. Today your customers who are financially vulnerable can be given access to self-serve tools to help them manage, but also understand all of their accounts in a single place. This approach is proven to benefit the customer by bringing more value into the relationship, offering the lasting benefit for retention. In addition it is helpful for collections rates too. Such help with managing accounts is a highly regarded benefit of all customer age groups today – and can be possible with the right technology and data.



## Connecting data and innovation

As we all realise, mobile devices, open data, big data, the internet of things, social media and cloud technologies are changing day-to-day experiences for everyone, from casual shoppers to business customers. These technologies – commonly referred to as digital technologies – have created an entirely new set of opportunities and challenges for businesses, across multiple sectors and teams.

Notably, marketing, fraud, identity authentication, affordability, customer management are all areas that can be enhanced by using new data and insights from these digital technologies. Intelligent decision platforms must therefore be able to integrate these, handle the exponentially growing data volumes they are creating, and utilise the valuable insights.

For a while, we've heard that fintech's will disrupt more traditional players. But traditional market players are diversifying and also looking to disrupt non-core markets; disruption is coming from many areas. Today, telecoms companies are applying for banking licences; banks are offering services from insurance through to retail incentives and more. We need to be aware of all aspects of disruption, and consider all markets influencing such change – but also have the ability to understand your benchmark in the marketplace so to compete and innovate with knowledge.

The best innovation led strategy will be able to connect different data sources, including non-traditional and alternative data, to create new propositions through the advent of new knowledge.

Innovation needs to be harnessed, and to do this technology must connect new thinking, new data and new capabilities, including fintech solutions. This way you can be sure it's robust enough to be sustainable. It must be able to adapt and scale, while maintaining speed, accuracy and intelligence.

**Experimentation and innovation will continue to be critical to the digital customer journey**

Analytics will help you to not only understand data, but also identify new trends and opportunities. Today, you can receive alerts identifying the chance to upsell, cross-sell or offer better protection, or better-suited products and services. You can see bias in the data and revise accordingly. You can automate these signals without the need to manually review, or run segment-based rules, but with the assurance that your business rules and policies are being adhered to. You can scale innovation through the knowledge that, not only are your decisions highly sophisticated, but your decision strategy is constantly updating and evolving as it receives new learning.

You can move from a place where analytics is a single task to a strategy that is analytical and therefore powerful as you grow and develop.



## Conclusion

While data is vital, it's of little value in isolation. It's the context of the data, the knowledge that can be gleaned from it and acted upon, that is essential.

To succeed in a hyper competitive modern market, you need to make the best decisions and provide the best customer experience. New data, decision-making techniques and platforms are transforming how businesses engage with their customers so that decision points are no longer a point of customer friction, but a point of value and differentiation.

With potential to generate such value, you should actively assess the opportunities to improve your decision-making processes. New capabilities mean that, thousands of times each day, businesses are identifying and resolving issues they weren't even aware of previously. In this context you should be asking: what decision needs improving? What insight is required to achieve this? What data will help achieve this, and what analytics are necessary to conclude this? Finally, will my technology allow me to deploy and automate this intelligence quickly?

Further to this, a decision-management strategy should connect marketing, fraud, risk, operations and experience – essentially the entire business. It should be scalable and enable consistent, accurate, effective decisions, in real time. In turn, this will make your operations far more efficient from a cost and risk perspective, but also your customer satisfaction optimal.



The future is about making intelligent – therefore valuable – decisions. Decisions that are quick, smart and personal.

Every action should count, be individual and relevant. Every decision should be a learning experience to improve the next best action. Every architecture should allow for future growth of expectations or needs.



The most intelligent decisions not only need to be relevant but informed. To be informed they need to be able to interpret and understand the data – this includes the ability to bring in new data by aggregating it. Data that is helpful in the decision-making process. For some people this will mean bringing in non-traditional data, for others it may mean the introduction of non-traditional data through the likes of psychometric analysis.

The bottom line is you need to be able to connect any data needed to ensure the best decision is made. But from here, the ability to categorise and understand it, and then the ability to direct this insight through the decision process to make the best decision and outcome.

In addition, to thrive in a highly competitive marketplace, you need to be able to understand new opportunities, test new scenarios, and make changes to your strategies, knowing from your learnings that the difference will be beneficial. You need the ability to connect APIs, create rules and process your insight through to the end customer in real time. All of this needs to be in a single process and strategy.

Cloud-based and open-source technology can support new thinking and help you innovate at speed and achieve the opportunities explored in this paper.

As we embrace these new opportunities, however, we need to be sensitive to people's wishes for privacy and be transparent about the ways in which their data is used. The need for consent must be factored into every decision – and you need the ability to store this and respond based on the parameters within the permissions.

Decisions today can be intelligent. To achieve this, you need the right data, most sophisticated analytics and best technological power.

## About intelligent decisions

Today, is fuelled with data. It is digital, it is variable and it is fast. New data, for example bank account data, can offer insight that until now hasn't been fully understood or explored. Today's universal access to data needs aggregating in real-time and understanding. It needs exploring. It needs deploying. Today data can be better integrated and be more inclusive. It can be used to achieve more accuracy, fast. Advanced analytics can help this. Decision management can deploy this. The opportunities from this framework are huge. We are on the cusp of a true evolution and we can revolutionise decision making for the better. We can make intelligent decisions – today.

### How Experian can help:

We understand data. We can integrate and understand new data. We can aggregate data, in 'real-time'. Decisions can be made in a split second and with more accuracy. Our capabilities around advanced analytics offer the opportunity to invent new processes, new techniques and new outcomes. Better outcomes. We can offer the ability to deploy a process that combines data (aggregating and categorising), that understands data (through advanced analytics) and technologically that automates data – fast. We can help you to make the most intelligent decisions that are appropriate and inclusive – that are fast and that are accurate and insightful.



The market is rife with those who specialise in data, or analytics, or decision software. Experian is in a unique position: we specialise in all these areas.



### About the research:

Research contained within this paper was a commissioned study conducted by Forrester Consulting on behalf of Experian. The research was completed in August 2018 and consists of C-level respondents from across Europe, the Middle East, Russia, and South Africa. The study focused on traditional brick-and-mortar organizations in the financial services, retail, and telecommunications industries. Respondents were responsible for, or had a significant role in, the decision-making process for enterprise risk, analytics, customer data management, fraud management, and customer data management.



Denmark  
Lyngbyvej 2  
2100 Copenhagen  
[www.experian.dk](http://www.experian.dk)

France  
Tour Ariane  
5 place de la Pyramide - La Défense 9  
92088 Paris La Défense Cedex  
[www.experian.fr](http://www.experian.fr)

Germany  
Speditionstr. 21  
40221 Düsseldorf  
[www.experian.de](http://www.experian.de)

Italy  
Piazza dell'Indipendenza, 11/b  
00185 Roma  
[www.experian.it](http://www.experian.it)

Netherlands  
Grote Marktstraat 49  
2511 BH, Den Haag  
Postbus 13128, 2501 EC, Den Haag  
[www.experian.nl](http://www.experian.nl)

Norway  
Karenlyst Allè 8B, 0278 Oslo  
Postboks 5275, Majorstuen  
0303 Oslo  
[www.experian.no](http://www.experian.no)

Russia  
5, bldg. 19, Nizhny Susalny lane  
105064 Moscow  
[www.experian.ru.com](http://www.experian.ru.com)

South Africa  
Ballyoaks Office park  
35 Ballyclare Drive  
2191 Bryanston, Sandton  
[www.experian.co.za](http://www.experian.co.za)

Spain  
Calle Príncipe de Vergara, 132  
28002 Madrid  
[www.experian.es](http://www.experian.es)

Turkey  
River Plaza  
Buyukdere Cad. Bahar Sok.  
No: 13 Kat: 8 Levent  
34394 Istanbul  
[www.experian.com.tr](http://www.experian.com.tr)

United Arab Emirates  
Dubai Islamic Bank Building 01  
Office 102, First Floor  
Dubai Internet City  
[www.experian.ae](http://www.experian.ae)