SMART DECISION?

Know every decision is born from game-changing analytics and AI.

Discover the transformations your clients can create with a single decisioning capability.

Start reading >

Enjoy certainty. SAS® Intelligent Decisioning.

accenture   §sas

WELCOME TO THE TRANSFORMATIONAL POSSIBILITIES OF INTELLIGENT DECISIONING

It's said that each human makes 35,000 decisions a day.[1] Imagine how many are made across your client's organisations every moment of the day on the production line, in the contact centre, at the network control centre, in warehouses, in finance and beyond. Yet decision-making is beset with uncertainty and risk: there's a plethora of data to take into account and learning from decision outcomes is difficult to do quickly and at scale, especially in the era of real-time interactions.

Now imagine what could be achieved when a central AI decision-making brain is automating, augmenting and orchestrating decision-making across the organisation. Poor decisions will be a thing of the past as real-time learning is made possible and therefore continuous optimisation of decisions both at speed and scale.

In fact, with a unified decisioning brain, suddenly departments can see the customer as a whole – and understand the organisation-wide decisions

and implications involved in profitably serving each one the way they desire. The possibilities are almost infinite: decisioning transformation is where market disruption, process optimisation and hyper cost efficiencies spring from. In doing so, they generate huge new potential for your organisation to deliver business transformation, process re-engineering, change management projects right here, right now.

With SAS, a whole new way to automate and augment decisions is right at your fingertips. This eBook demonstrates the transformational capabilities of a single decisioning 'brain' across a range of industries and how we achieve it rapidly in the cloud.

EACH HUMAN MAKES 35,000 DECISIONS A DAY.[1]

1. https://www.psychologytoday.com/gb/blog/stretching-theory/201809/how-many-decisions-do-we-make-each-day

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To help you get straight to the information and stories that mean the most to you, we've made this eBook interactive. Simply click on your chosen topics and navigate through chapters. Dive in and enjoy!

RETAIL

BRILLIANT DECISION?

Automate decision-making to improve customer experience and drive profitability in a rapidly changing world.

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THE RETAIL IMPERATIVE

As you know, to deliver on the expectations of sophisticated, empowered consumers, retailers need to be able to make thousands of decisions in real time, finely balancing innovative customer service with their commercial imperatives. However, consumers are impatient. In the era of Amazon Prime, they demand instant gratification, where next-day delivery is not seen as a logistical miracle but a basic necessity.

WHAT MUST RETAILERS DO?

Find ways to make their operating model more profitable through a combination of operational efficiency and supply chain optimisation.

WHAT ARE THE DECISIONING CHALLENGES RETAILERS FACE?
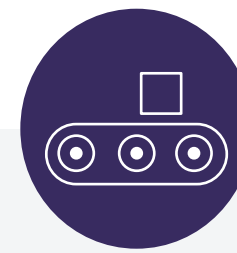
MERCHANDISING

What products are likely to sell best with each customer segment?

—

What is the optimal product mix for each of our stores?

—

How can we accurately forecast demand at the SKU level?

SUPPLY CHAIN

What are the current inventory levels in each store and warehouse?

—

What are the lead times for sourcing each product from our suppliers?

—

How can we handle the complexities of different styles/sizes/colours, or perishable products?

MARKETING

Which products should we focus on in our campaigns for each customer segment?

—

How can we design, resource and execute our marketing plans efficiently?

—

How can we analyse and optimise our marketing spend?

SALES

What offers should we make to each individual customer?

—

When should we start marking down our products, and by how much?

—

What should we optimise for: revenue, profitability or clearing inventory?

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OUR WORK WITH THE VERY GROUP

THE VERY GROUP

Formerly known as Shop Direct, The Very Group has transformed itself from a traditional catalogue sales business into one of the UK's leading pure-play digital retailers, with annual sales of more than £1.9 billion. Its multi-category retail brands, which include Very and Littlewoods, serve over four million customers with a huge range of products, from apparel and beauty products to homeware and electricals – as well as offering innovative financial services.

To drive digital transformation, the Group has worked with SAS to embed intelligent decisioning into key areas of its operations. For example, a large percentage of The Very Group customers purchase items on credit, so credit risk management is a major focal point for the business. In the past, the company used traditional sources of credit risk data, such as credit bureau data, and ran an overnight process to model the risk and identify potential cases of credit fraud. However, in some cases, the results came too late to prevent fraudulent orders from being shipped.

Today, intelligent decisioning enables the Group to analyse real-time event streams of data about each customer's behaviour as they browse the Very or Littlewoods websites. This data is combined with other risk information and fed into the risk models on an hourly basis. As a result, the Group can flag up suspicious customers quickly, and either block transactions or reject applications for credit before any damage is done.

> **"** If one of your security guards sees a customer acting suspiciously in your store, you'd expect them to keep an eye on that customer. SAS is helping The Very Group take the same approach online-leveraging customer behaviour in real-time, to help stop fraud before it happens. **"**
>
> **Janice Newell, Principal Technology Specialist, SAS**

The success of intelligent decisioning in this credit risk use case is now spurring the Group to consider how the same techniques could be used in other areas. For example, the ability to capture and analyse browsing behaviour in real-time could also help the company make specific personalised offers to each customer, based on which items they have been browsing and how long they have spent on each product page.

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WHAT CAN INTELLIGENT DECISIONING DO FOR YOUR RETAIL CLIENTS?

Intelligent decisioning is the strategy of embedding analytics into business processes to automate decision-making where possible, and provide insight for decision support in cases where human intervention is required.

It can help you to help your clients address the major challenges that stand in the way of long-term growth and financial sustainability.

- Improve customer engagement and experience by analysing customer data at each touchpoint throughout the customer journey and providing personalised offers.

- Improve supply chain management by surfacing information about current inventory at stores and warehouses and the capacity of the logistics network.

- Improve commercial decision-making by capturing streams of customer and supply chain data that can feed into more accurate demand forecasting.

As a result, intelligent decisioning can combine with other types of analytics such as forecasting to help different roles within the organisation make smarter decisions in their day-to-day work.

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GOVERNMENT

TRANSFORMATIONAL DECISION?

Know your decisions will drive operational efficiency, support fairness, and improve citizen outcomes.

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GETTING GOVERNMENT IN GOOD DECISIONING SHAPE

Our common experiences tell us that as the sheer volume, complexity and velocity of decisions grow, the UK Government must seek more effective and efficient means to improve the throughput, accuracy, fairness and speed of decisioning. The key is an approach that augments human decision-making and helps to build trust in automated decisions while assuring each department enjoys optimal outcomes. One that uses data and analytics to drive fast, accurate decision-making.

WHAT DOES IT MEAN TO BE INTELLIGENT WITH DECISIONING?

Intelligent decisioning is by far the most effective way of evolving into a truly insight-driven organisation. Most government departments have a rich ecosystem of applications and systems that hold all kinds of citizen information and data. We can help you to incorporate AI-driven decisioning into your government clients' existing business processes, helping to overcome the barriers to digital transformation, and to innovate service delivery, drive efficiency and help build a better Britain for the future.

One of the major benefits of intelligent decisioning is that it enables organisations to integrate real-time insights into their systems of action – for example, their web and mobile apps and their customer service systems.

This helps to reduce the delay between identifying an opportunity or risk and acting on it – enabling more responsive services that put citizens at the heart of operations.

> **If the UK Government is to take the next step to be smart, data-driven, and digitally transformed - AI and machine learning deployed into decisioning at all levels is the most direct path to that goal.**
>
> **Simon Overton, Director of Public Sector - SAS UK & Ireland**

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CUSTOMER STORIES: AUGMENT DECISIONS, DRIVE VALUE

THE SCOPE FOR TRANSFORMING DECISION-MAKING ACROSS GOVERNMENT IS IMMENSE

Whether we're talking about automating decisions in real-time or augmenting many operational and management decisions, the possibilities are almost endless, which in turn will deliver incredible ROI. Here is a taster of what we have made possible today – and how we could help your clients too.

PRIORITISE INVESTIGATIONS FOR THE NATIONAL ECONOMIC CRIME CENTRE

Economic crime has a major impact on British citizens, UK industry and financial services in particular. With our support, the organisation could identify and prioritise the most appropriate type of investigations, whether criminal, civil or regulatory, which is important for ensuring maximum impact. How? By performing risk scoring automated alerting, and triage management of the investigation process through to conclusion.

ACCELERATE TIME-TO-DECISION AT THE HOME OFFICE

A small team manages thousands of active cases at any one time – such as immigration enforcement and sham marriages. Using intelligent decisioning and a central rules repository, teams can collaborate, develop and deploy automated governed rules to drive decisions that would deliver an efficiency saving of some 1500% per rule change. What's more, intelligent decisioning can scale to meet expanding requirements and integrate with other intelligent systems through APIs.

RAPID BED MANAGEMENT IN RESPONSE TO COVID-19 FOR THE NHS

The COVID-19 pandemic created intense pressure on the NHS to ensure hospital beds were available for fast-growing numbers of infected patients. Analytics helps to provide reliable and timely insight to support effective primary case preparedness and planning, so that stakeholders can maximise resources to ensure availability of hospital beds where they are most urgently needed.

REDUCE REOFFENDING RATES AT THE MINISTRY OF JUSTICE

The department's ambition is to reduce reoffending rates by getting to the heart of why someone has committed a crime. Using data from a range of categories such as age, gender, offending history, intelligent decisioning can gather behavioural insights that help to evaluate the likelihood of reoffending.

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WHAT COULD A SINGLE DECISIONING BRAIN ACHIEVE FOR YOUR CLIENTS?

A central intelligent decisioning capability is materially different from the analytics that government departments have deployed in the past. It can ingest many different types of data from disparate sources on every aspect of operations – connecting online with offline transactions – and analyse all this data in near real-time.

Intelligent decisioning is 'always on'. It is continuously looking for new trends and patterns in citizen data and, with minimal human assistance, automatically spots patterns, trends, risks and anomalies etc. This effectively increases the number of decisions made, with fewer staff left drowning in data. As the technology evolves, opportunities to incorporate AI and machine learning into other areas of your department's core operations abound too.

For instance, voice and facial recognition capabilities could be used to protect against fraud, especially when demand for services, such as citizen welfare, health and wellbeing intensifies, reducing the capacity for manual identity checks.

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BANKING

FEARLESS DECISION?

Evolve decision-making to sustain profitability and differentiation in banking.

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PERSONALISED BANKING IS BETTER BANKING

It's well documented that financial services providers, old and new, are jostling for the same prize: the high lifetime value that results from loyal, satisfied customers. The most successful banks of the future will be those who can see their customers as individuals, appreciate their unique journeys and make decisions accordingly – across all associated business functions.

Once banks recognise the value of AI and machine learning in unlocking their data, they must find a way to bring their operational structure in line with their vision of a customer-centric future. Intelligent decisioning is by far the most effective way of evolving into a truly insight-driven organisation.

It can become the unified brain of a successful organisation. One of the major benefits of intelligent decisioning is that it enables banks to integrate real-time insights into their systems of action – enabling more responsive services that put customer experience at the heart of operations.

The tough questions AI-driven decisioning can help banks answer

MARKETING	RISK	FRAUD	CUSTOMERS	PRODUCT
" How can we ensure that our customers receive the perfect mix of communications and offers at the right time, every time? "	" How can we implement optimised risk: reward decisioning to deliver the best possible outcome for customers and company alike? "	" How can we keep the bank and customers safe from transactional and complex fraud, while delivering a smooth, fast customer experience? "	" Can I trust my bank to have all the information it needs to make decisions and to treat me fairly and transparently along the way? "	" How can we get our new products to market quicker and fine tune our upsell and retention strategies in flight? "

CUSTOMER STORY: COMMERZBANK

Eager to secure its position as one of the leading banks in Germany, Commerzbank set out to enhance the way it markets products and services to customers by creating a centralised solution that enables the bank to make more relevant product promotions and tailor the customer experience.

Using SAS, Commerzbank aggregated and analysed customer data to gain fresh insights that would help the bank better understand customer behaviour. Unlike typical big data analysis projects, Commerzbank decided to bring qualitative and ethnographic data into the mix to provide greater context to customer transactional information, helping the bank understand the personal and emotional factors that influence its customers' behaviour.

Now, customers who opt into Commerzbank's personalised marketing programme will receive recommendations for products and services via the bank's online portal, instead of being bombarded with generic advertising. As the bank continues to roll out this project to different divisions, it expects to see an improvement in customer satisfaction as well as a boost in the uptake of personalised offers.

COMMERZBANK

> **We design all our products, processes and services with our customers in mind. In the future, we will be able to offer our customers targeted recommendations for products that they actually need.**

Michael Mandel, Member of the Board for Private and Business Clients – Commerzbank

> **Big data analytics is certainly one of the key technologies of the digital age. Ultimately, the data collected helps us understand how customers behave and what an optimal customer experience looks like.**

Anja Stolz, Chief Marketing Officer – Commerzbank

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WHAT WOULD BETTER DECISIONS MEAN FOR YOUR CLIENTS?

Intelligent decisioning allows banks to analyse all the data they possess including live data streams for immediate context on customer behaviour, allowing real-time decisions to be made that positively impact the customer journey. Our solution encompasses these AI-driven capabilities, helping banks adapt rapidly to changing market conditions and to provide personalised, fast and high-quality services that customers expect as standard.

Improve relevancy – of offers and customer communications. Make intelligent, real-time decisions regarding customer applications.

Speed up time-to-market – by enabling risk models to become more predictive through AI and machine learning. This streamlines processes, meaning the right customers get approved for loans faster.

Maximise economic outcomes, minimise defaults – by assessing credit more accurately and reducing exposure to high-risk customers.

Improve targeting – lend more efficiently and profitably to a wider range of customers by replacing crude targeting and re-examining previously poorly identified customers.

Reduce credit losses significantly – by using machine learning and AI to make risk models more predictive.

Gain an early indication of risk – by identifying borrower stress or inability to repay through ongoing automation of credit profiles.

Give customers the right credit offer – by combining decision logic with intelligent analytics.

Boost employee satisfaction – by reassigning staff to more creative, rewarding roles which add greater value to the business.

Cut costs – by automating time-consuming, manual credit decisioning tasks.

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TELECOMMUNICATIONS

MAKING THE RIGHT DECISION?

Automate intelligent decision-making to solve sales challenges, build smarter and faster networks, improve customer service and protect revenues.

TELCO'S DECISIONING CONUNDRUM

We believe that the industry's future sustainability requires a different approach to both day-to-day and strategic decision-making, based on accurate analysis of real-time data to assess credit risk, improve customer experiences, and enable smarter, more resilient network management.

To meet and exceed customer expectations and mitigate the risks of bad debt, our joint telecommunications clients need to be able to respond in real-time to a wide range of customer interactions and operational events.

By capturing, processing and analysing high-volume, high-velocity streams of real-time data, telecommunications companies can support highly nuanced, intelligent decision-making—automating routine processes and providing insight to help human experts from all business areas make the right calls. As a result, intelligent decisioning can combine with other types of analytics such as forecasting to help different roles within the organisation make smarter decisions in their day-to-day work.

WHAT CAN INTELLIGENT DECISIONING DO FOR YOUR CLIENTS?

- Improve customer engagement and the customer experience by analysing customer data at each touchpoint on the journey and providing personalised offers.

- Improve commercial decision-making by monitoring credit risk, detecting and preventing fraud, helping to support vulnerable customers and minimise bad debts.

- Improve network management by tracking network events, helping to predict and resolve faults before they impact customers.

> **Telecommunications companies can use technology to improve decision-making at every stage in the customer journey—from analysing customer value, credit and fraud risk to smarter marketing and network analytics.**

Matthieu Joosten, Global Communications Industry Leader, SAS

CUSTOMER STORY: TELENOR NORWAY

As Norway's number-one supplier of telecommunications and data services, Telenor puts its customers at the centre of everything it does. The company sees personalisation as a key tool in its ability to offer relevant services to clients and adapt its products to their needs.

Since 2010, Telenor has been sending personalised SMS messages to its customers, and its approach to personalisation has grown ever more sophisticated. Today, 40% of all sales interactions are personalised, and 95% of customer interactions take place via digital channels. Working with SAS, Telenor has built Automated Sales Tips (AST), an intelligent decisioning solution that has enabled the company to send over 50 million personalised next best offers to its customer in 12 months. This correlates with a period where Telenor has seen 40% to 50% growth in personalised upselling.

Telenor has also established a platform for advanced analytics and predictive modelling based on SAS Viya, which it is now using to systematise and automate its activities based on contextual triggers. This is helping the company deliver more efficient and seamless customer journeys, with next best offers implemented across all touchpoints and channels.

> **It is about meeting the customer with the right message, at the right time, in the preferred channel. To reach this level of personalization, everything we do and don't do needs to be based on insight.**
>
> **Liv Elise Saue Tøftum, Director of Analytics and Customer Lifecycle Management, Telenor Norway**

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SAS + ACCENTURE: INTELLIGENT DECISIONING

It's clear to see that organisations of all kinds are required to make highly nuanced decisions about their customers, operations and strategies every minute of the day.
The better the data, the better the decision, but only if it can be analysed rapidly, and the insights embedded into essential decisioning processes across the organisation.

The days of point solutions are gone. What today's banks, retailers, telcos and government departments need is a single, intelligent decisioning brain that will help them make accurate decisions at scale, quickly 'in the moment' using AI and machine learning to automate manual processes, augment human decision-making and provide rapid learning from outcomes.

At SAS, we offer Accenture and your customers exactly that. An intelligent cloud-based decisioning capability that uses business rules with sophisticated analytics.

Together, we can help your clients to safely experiment, scale, and roll out use cases – especially those requiring hyper automation – across their organisations to provide significant financial and business value.

By changing the way decisions are made we can jointly uncover important and valuable business opportunities all the way from digital transformation to change management – and in SAS you have an expert partner, one that is demonstrably at the forefront of innovating AI and analytics.

ENJOY CERTAINTY.
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