

QUALCO

THE DEBT

# PORTFOLIO BLUEPRINT

How to improve recovery rates through data-driven decisions, better segmentation, and enhanced analytics

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Collections and recoveries can be optimised to achieve reduced NPL rates thanks to enhanced analytics and better informed decision-making.

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# FOREWORD

“In an ideal world, all your business decision-making could be done by machine”

As modern practitioners in the debt portfolio management space, we tend to forget about the long history of our field.

Just recently, I received a thorough account of a friend's academic research on the collapse of an 18th century bank – an event that, quite aside from its importance in the history of the global banking system, was also striking as an early example of debt portfolio rehabilitation.

Using the technology and best practices of the time – thick ledgers and polite, handwritten letters – winding up that portfolio took over 50 years, making the final recovery rate of 100% largely meaningless.

The evolutionary process that took us from the ad hoc, manual processes of those heroic times to today's largely automated, technology-supported best practices is now mostly forgotten, and rightly so.

The hard-gained wisdom of all these years is now encoded in normative frameworks, incorporating the flexibility, adaptability and system support necessary to track the ongoing evolution of our operations – essentially providing tools to automate our day-to-day actions and decision making.

However, debt portfolio management is increasingly not about day-to-day operations. The drive to respond faster while minimising long-term risk – in the face of an increasingly liquid debt marketplace, quickly changing macroeconomic landscape and an ever-more-complex regulatory framework – has led to the need for a wide range of decision-aiding analytics.

Every new portfolio, every new operational challenge, every new process or regulatory requirement drives demand for ever more diverse analytics deliverables – be they reports, predictive models, or prescriptive policy proposals. Every day, our data is consumed by highly skilled professionals who use arcane tools to perform their magic and reveal the truths that are hidden within.

The scientific capabilities afforded by these unsung heroes are certainly impressive. How about the processes involved, though? Do we feel we have achieved the same level of operational excellence in our analytics as in our actual operations?

This increasingly important analytics side of our business is ripe for formalisation and industrialisation. The ad hoc demands we make of our analysts exhibit a balance between variability and repeatability that can now be recorded in an “analytics blueprint”.

Processes and systems can be built around this blueprint, turning everyday one-off analyses into an automated, ongoing production line and inextricably embedding them into our operations.

Quite aside from the usual advantages inherent in automating a process – faster response, economies of scale, more consistent quality, transparency and better monitoring – achieving the industrialisation of analytics has the potential to deliver a further qualitative change: by extricating our analysts from day-to-day data management and manual processing tasks we can refocus their considerable abilities on ensuring that analytics add value to our business.

Analytics are not an end in themselves; they only add value when they can make us wiser. In the best case, they do so by explaining the world: by “storytelling” – revealing and quantifying the causal processes that drive our portfolios' behaviour.

An end-to-end analytics framework enables analysts to tell true stories by providing them with the necessary facts and models, and lets the business incorporate the teachings of these stories in its operations.

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**Panayis Fourniotis**  
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# SPEED READ: DATA-DRIVEN DECISIONS TO IMPROVE RECOVERY RATES



There is increased pressure from regulators for financial service organisations to cut their NPLs and, as a result, the market for European debt is booming. Whether banks are looking to get NPLs off their books or buyers of debt are looking to maximise the return on their investment, there is an increased urgency to improve recovery rates.

The advent of big data and the computing power to analyse it opens up new possibilities for companies involved in debt recovery to tailor their actions towards individual customers rather than treating everyone in the same way.

Analytics can help your business to achieve the outcomes you want, but most companies are not currently using it to its full potential.

Combining big data, machine learning and “productised analytics” can help companies to transform the debt collection process.

Technology can be implemented to bring data-driven decision to the business that allows prediction of factors such as contactability, restructuring success rates, recovery rates, complaints and fraud, as well as predictive evaluation of more fine-grained proposed actions.



# THE PATH TO AUTOMATION FOR BETTER DECISION-MAKING

“TWO THIRDS OF PEOPLE HAVE, AT ONE TIME OR ANOTHER, MISSED A PAYMENT AND HAD REASON TO EXPERIENCE DEBT RECOVERY PROCEDURES”

We live in a world of big data but it is a world that is still young and unformed. The data is, for the most part, just sitting there and businesses have not yet learnt to mine it, create new materials out of it and put it to good use.

But that is now changing as the amount of computing power available to us increases daily. The debt recovery market is a sector that can benefit from this brave new world of big data but it has yet to fully exploit its possibilities.

so need to understand individual customers and why they are in debt, and respond in the right way to ensure they get their money back. Taking a one size fits all approach to debt recovery is neither desirable nor likely to be effective.

Research reveals that the popular image of customers is far too simplistic and in many ways inaccurate. [Research](#) for Bristol university in the UK shows that “two thirds of people have, at one time or another, missed a payment and had reason to experience debt recovery procedures”.

Research from the [Financial Conduct Authority](#) (FCA) in the UK shows that more people are in debt because they have forgotten to make a payment than because they are unable to pay. Equally, higher income households are just as susceptible to living above their means or forgetting to pay as poorer ones, so you need a more sophisticated approach than one based solely on income. To come up with the right solution to ensure payment by each customer requires detailed customer profiling.

Customers have many different reasons for getting into debt and many different responses both to the fact that they owe money and the efforts to recover the debt. Those looking to do



Retailers are seen as most likely to get this right, while energy companies, local authorities and credit card companies have a poor reputation for their approach to recovering debts.

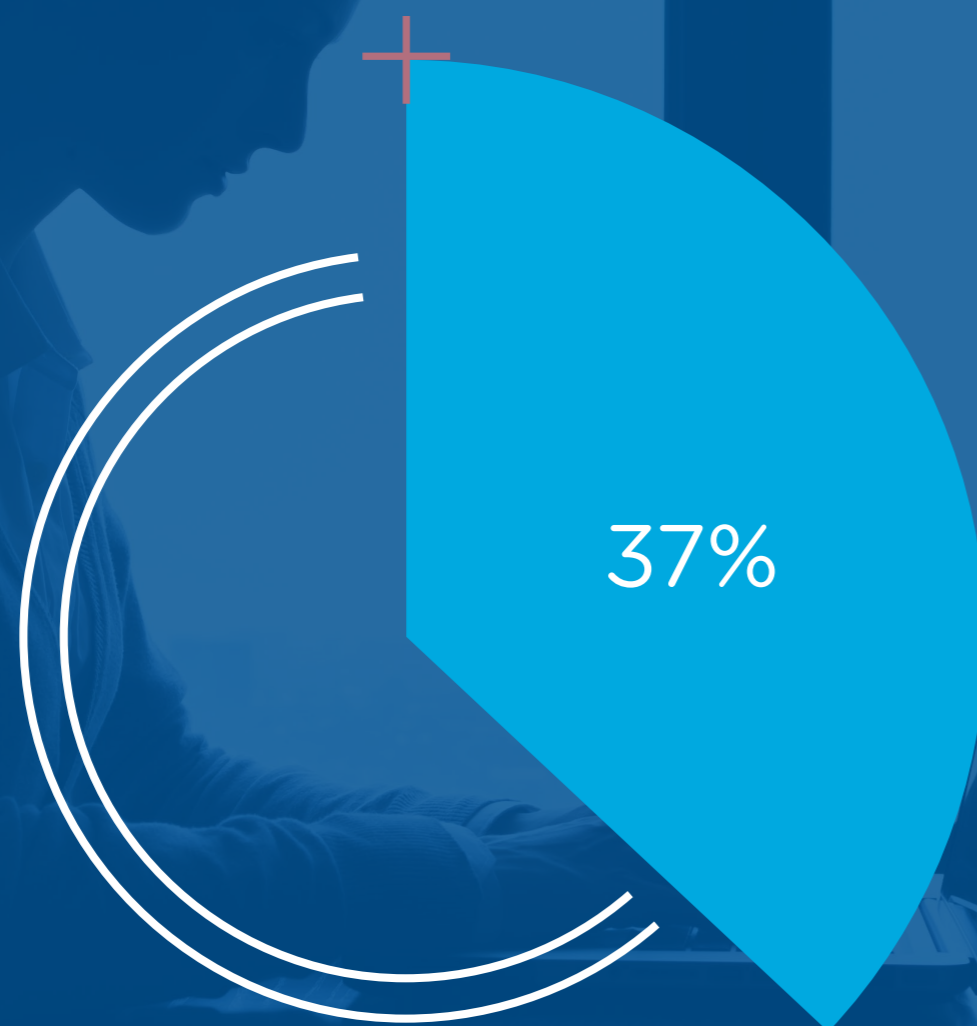
Using analytics to build up an accurate picture of your customers and how they will react to different approaches to recovering debt can have a significant impact on your bottom line. Some customers, if they feel they are being unfairly treated, will switch provider and tell others of their grievances. Knowing how to treat them from the start can save a great deal of time and money in the long run.

To be able to treat customers as individuals, you need to have the information at your fingertips. Lenders always had a lot of data about their customers, they just didn't have the processing power to make sense of it. Increasingly, today, they do.

By automating a lot of day-to-day decision-making, technology can help you to manage the increasing complexity of your business, to plan further ahead and free up the time to allow you to make more nuanced decisions about issues such as the best way to treat your clients fairly.



USING ANALYTICS TO BUILD UP AN ACCURATE PICTURE OF YOUR CUSTOMERS AND HOW THEY WILL REACT TO DIFFERENT APPROACHES TO RECOVERING DEBT CAN HAVE A SIGNIFICANT IMPACT ON YOUR BOTTOM LINE.



Britain accounted for 37% of completed loan portfolio transactions in 2015, says KPMG.

## IMPROVING COLLECTION AND RECOVERY RATES THROUGH DATA-DRIVEN DECISIONS AND ENHANCED ANALYTICS

The market for [European debt is booming](#). According to KPMG, there were more than €104 billion of deals across 30 European countries in 2015, with the UK, Ireland, Italy and Spain being particularly busy markets. Britain accounted for 37% of completed loan portfolio transactions in 2015, says KPMG.

**T**he outlook is strong as well, driven in part by regulators' desire to see the amount of non-performing loans (NPLs) reduced, which is so strong that it is driving many of the strategic decisions of European banks.

Debt portfolio managers face a number of challenges in identifying the right way to:

- + Get NPLs off their books.
- + Improve the quality of their portfolios.
- + Reduce risk exposure.
- + Improve and streamline overall collection and recovery operations.



+ AS THE AMOUNT OF OUTSTANDING DEBT GROWS, MORE SOPHISTICATED TOOLS ARE NEEDED TO HELP INCREASE RECOVERY RATES.



Bank CEOs, for example, are worried about issues such as poor performance monitoring and reporting, reputational challenges and a low rate of recoveries. Their finance and risk departments struggle with the ever-growing burden of regulation but also with how to quantify the impact of these rules on the company.

Meanwhile, buyers of debt and those tasked with collecting it seek to improve collection rates in a highly-segmented and fast-moving market where enough information is not always available. But many institutions lack the tools to do so effectively.

As the amount of outstanding debt grows, more sophisticated tools are needed to help increase recovery rates. Analytics is a key component in the toolkit, enabling you to identify customer characteristics, minimise uncertainty and manage complexity.



# HOW TO USE ANALYTICS TO MAKE BETTER BUSINESS DECISIONS

Technology exists that allows for an end-to-end predictive analytics workflow to deal with large volumes of data (e.g. monthly snapshots of millions of accounts over many years) using distributed, “big data” technologies. It can be used for banking, receivables or insurance portfolios.

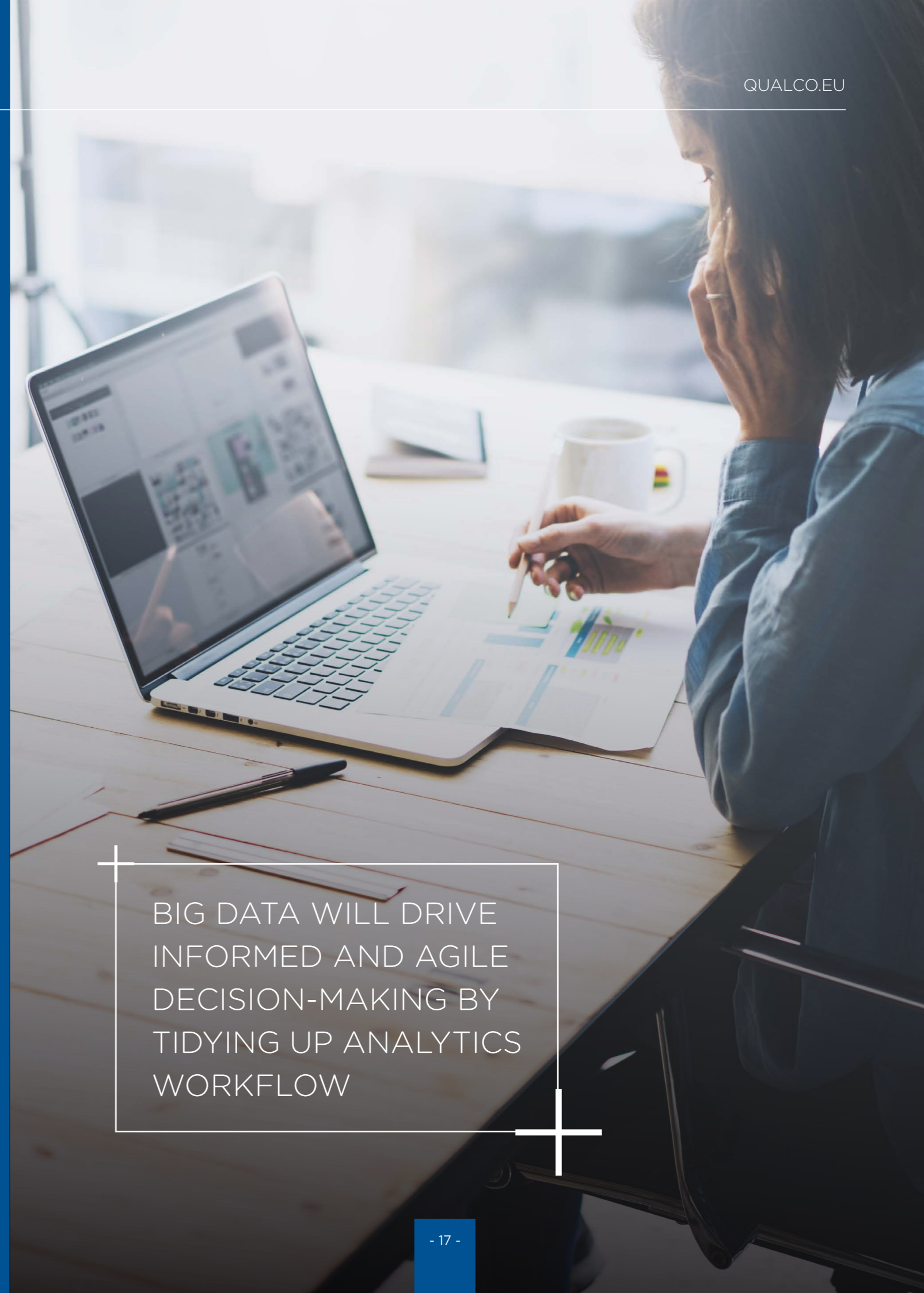
Once a model has been built, it can be applied to any slice of the portfolio to produce predictions that will help to inform your decisions.

Big data will drive informed and agile decision-making by tidying up analytics workflows, identifying the best predictive models for the task and feeding strategic predictions into daily operational processes.

Organisations should look at what data is available, decide what predictions you need to make and then build a model to develop these predictions from the data.

By automating the whole analytics workflow using data infrastructures and techniques, along with machine learning, organisations can process and automatically structure large volumes of raw data and provide an intelligent view of it.

Take, for example, significant segments of the population that are underbanked due to their past behaviour generating uncertainty about their ability to repay loans. Organisations may be able to lend to people that they would have avoided in the past because there is large amount of data available and analytics products to understand it.



BIG DATA WILL DRIVE INFORMED AND AGILE DECISION-MAKING BY TIDYING UP ANALYTICS WORKFLOW





# BIG DATA SAVES BIG MONEY



**A data engine** can collect and store data, ensuring that it conforms to client requirements. It can also “sanity check” data against business rules the user may wish or have to impose.



**A model generator** can build predictive analytics models based on large-scale machine learning. It can deal with a wide variety of portfolio modelling challenges, achieving peak performance with little or no human input.



**An optimisation engine** can create models of the long-term responses of different segments of a portfolio to different actions and identifies the best course of action to ensure the portfolio performs in the best way possible.



# POTENTIAL USE CASES FOR DATA AND ANALYTIC TECHNOLOGY:



**Ranking customers by probability of response.** Models predicting the probability of extracting a payment or reaching an arrangement with a customer can help shape your approach to different individuals in a portfolio, or minimise the cost of ultimately unsuccessful treatment attempts.



**Risk-based customer monitoring.** For customers with whom you've reached an arrangement, we can build models to estimate how likely they are to default, so you can take proactive measures.



**Recovery rate prediction.** Whether a customer is currently honouring a repayment arrangement or not, it is important to be able to project a recovery rate, both as part of deciding what action to take and to help with portfolio valuation.



**Deciding whether to keep action in-house or outsource it.** A model predicting which will work best for each segment can help maximise recoveries and allocate resources more efficiently.



**Deciding when to call.** A model predicting the best time of day to call a customer (in terms of simply reaching them, or convincing them to accept an arrangement) can make your call centre more efficient and effective.



**Prioritising files for skip tracing** Identifying files with missing contact information that is likely to be recovered through skip tracing efforts, helping to stop you wasting time and money on unsuccessful skip tracing attempts.



**Evaluating** how effective additional data sources such as credit bureaus and other data enrichment agencies are and whether they are worth spending money on.



**Compliance and fraud prediction.** In jurisdictions where customer complaints or fraud are a significant drain on resources, models can predict how likely they are to occur, so that you can decide how best to treat them (or whether to even try).



+ THE SUCCESS OF VARIOUS TECHNIQUES MAY VARY, BUT IF YOU HAVE AN INEXPENSIVE “OPERATIONALISED” ANALYTICS INFRASTRUCTURE, YOU CAN TRY DIFFERENT THINGS WITHOUT WORRYING ABOUT COST. +

There are already some areas where this works well, such as credit scoring, calculating probable rates of default and recovery. In other areas, such as predicting the likelihood of finding clients you haven't been in contact with for a while, and the probability of reaching payment arrangements, the industry is less confident because it hasn't been done before.

The success of various techniques may vary, but if you have an inexpensive “operationalised” analytics infrastructure, you can try different things without worrying about cost. You can take advantage of the models that work while discarding those that don't. This not only allows you to stumble across new ideas, it can also challenge preconceptions that have not been tested because the data was not previously available.





# A FLEXIBLE AND SEAMLESS APPROACH TO DATA ANALYSIS

Ideally, the process of feeding the data into an analytics tool, making predictions and improving operations will happen seamlessly, but every company is different in terms of the data they have and how they treat it, so any “productised” analytics tool needs to be flexible enough to adapt to the unique circumstances of each business.

Nonetheless, different customers have certain patterns in common and advanced analytics products allow you to deal with them in the same way. It is not necessarily about age, gender or income group, or even behaving in the same way.

Instead, analytics allows you to identify people whose behaviour is driven by similar stimuli, enabling you to segment your portfolio in a straightforward manner while still treating customers as individuals. This approach has the potential to minimise complexity and cost, without resorting to treating your portfolio as a single entity.



EVERY COMPANY IS DIFFERENT IN TERMS OF THE DATA THEY HAVE AND HOW THEY TREAT IT



# INTELLIGENT PREDICTIONS TO INFORM YOUR DECISIONS



The debt management sector is booming, but it could be doing even better. The industry uses a lot of technology but it is not making the most of it and so it is failing to maximise returns.



As the amount of data available to us increases along with the computer power to analyse it, the discipline of analytics needs to be “productised” to cut costs, standardise procedures, ensure quality control and free up analysts to do more productive work.



Good analytics programmes can help you understand your customers and how they are likely to react to your efforts to collect debts, allowing you to tailor your response to different people in the most effective way.



Get it wrong and you not only reduce your returns, you can cause some serious ill-will as well, which can spill over into your dealings with other customers. But if you get it right, customers are more likely to stay loyal and indeed to pay on time.



In an increasingly complex world, more sophisticated analytics tools that harness the capabilities of big data, machine learning and portfolio models can help your business make better decisions by codifying best practices, standardising, generalising and automating your analytical processes even if you are dealing with large datasets.



These tools will make your business more efficient, cut costs, increase your understanding of your portfolio and enable you to target your resources to where they are most needed.

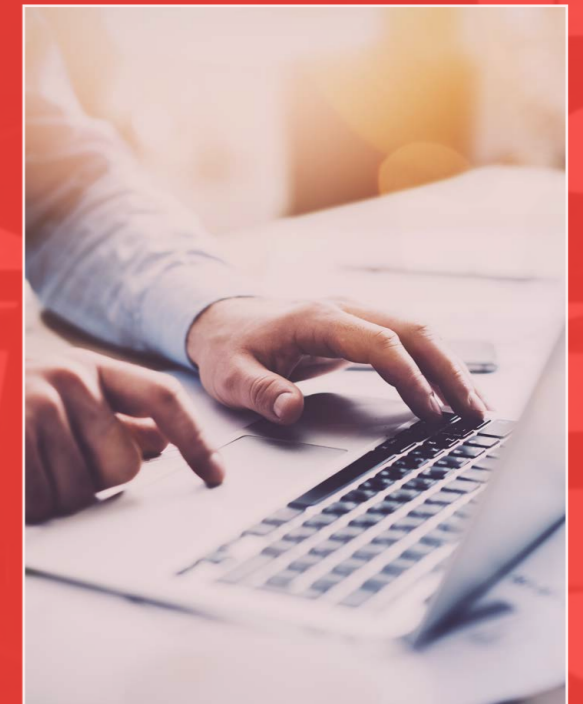


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