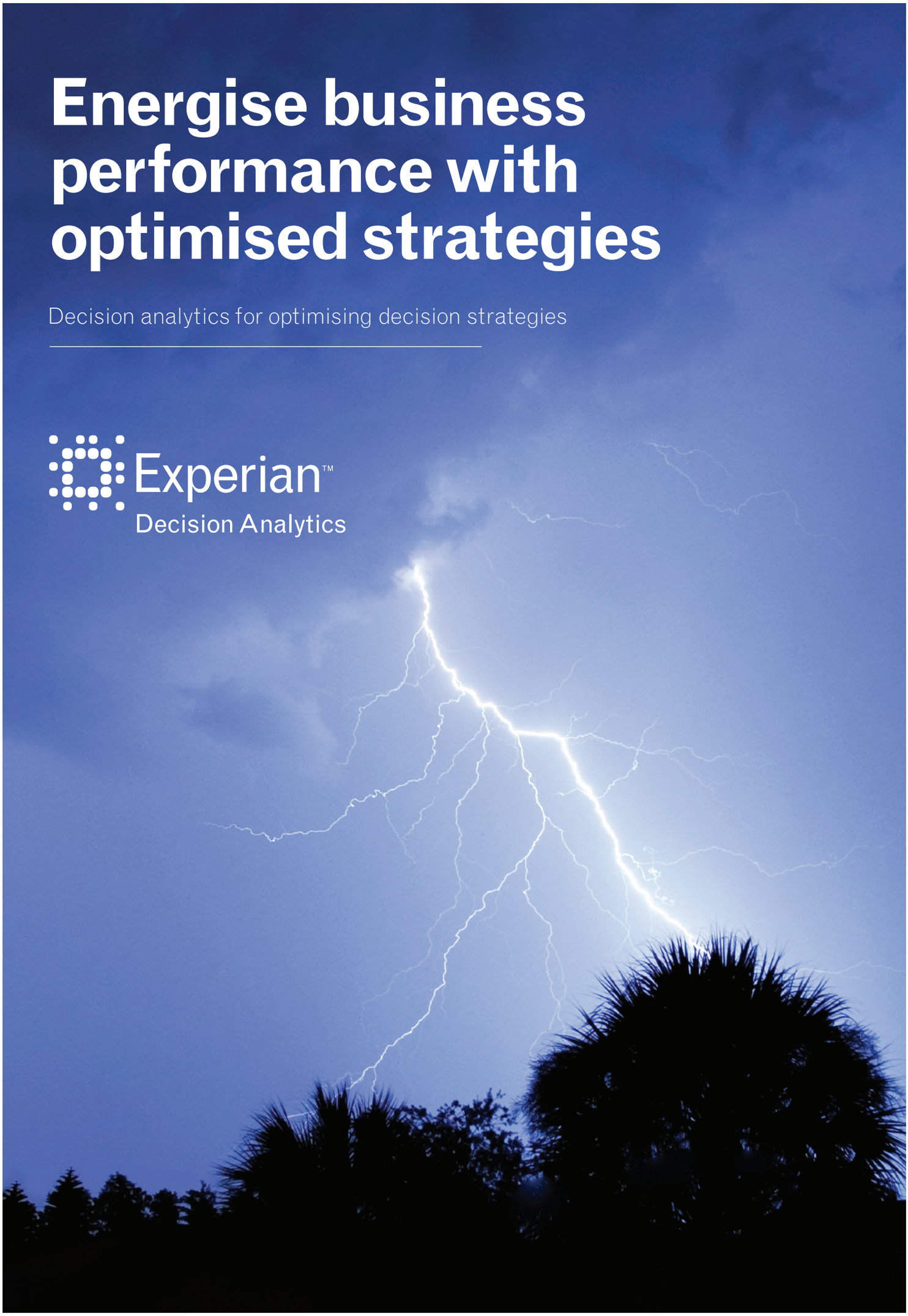
Energise business performance with optimised strategies

Decision analytics for optimising decision strategies

Experian™
Decision Analytics



Optimising decision strategies

Many organisations have now developed excellent databases, with predictive models deployed through efficient decisioning software. Most also have the capability to rapidly produce detailed reports that help management to monitor targets. But even those that regularly refine and implement challenger strategy trees cannot be sure what opportunities are being missed or how far they are away from the optimal solution.

That's because in reality, unless the outcome of every possible decision is known, how can an organisation be sure the best strategy has been implemented?

More importantly, how much is the decision costing, in terms of lost potential profit and opportunity? Optimisation offers a simple solution to this previously highly complex challenge. The benefits of optimisation are significant and well documented, but some organisations face challenges in deploying traditional optimisation.

To tackle this challenge Experian has developed a proposition that can not only assess how much opportunity is being missed, but can design an optimised strategy tree for seamless and rapid deployment into existing tree-based decisioning systems.

It uses proprietary mathematical algorithms to design an optimised decision strategy tree. Deployment of optimised solutions using trees removes many implementation obstacles faced by organisations, and opens up a wealth of opportunity to deploy optimisation across the business.

It's no longer 'Can we optimise?' but 'We can optimise!'

Imagine connecting strategic business goals with each and every decision...

Often one of the key restrictions to implementing optimisation is that it is not physically possible within a tree-based decision system to make decisions individually tailored to each and every customer.

Experian has developed Decision Strategy Optimisation to help the business analyst create an optimal strategy tree to fit within Strategy Management or the functionality of other existing strategy tree based decisioning tools. The tool that enables this is Strategy Tree Optimisation.

It enables a business analyst to formulate what the business wants to optimise, within the global portfolio or customer-level constraints, and the solution to make the best decisions.

Decision Strategy Optimisation comprises four key stages in the tree optimisation process:

- **Define:** The key elements of the optimisation problem are defined and assessed.
- **Optimise**: Optimised decision strategy trees are developed through "what-if?" scenario simulation within the Strategy Tree Optimisation software.
- **Deploy**: The best tree is chosen for deployment in the existing strategy tree based decisioning software, with zero infrastructural impact.
- **Maintain:** Monitoring and performance maintenance through regular reviews, and expanding the system to other decision points.

Why optimise decision strategies?

- Maximise the impact of decision strategies – align decisions with business goals and practices, enabling decision strategies to be set that achieve business targets
- Rapid time to value – new trees exported for rapid implementation, no infrastructure changes required, and benefits realised quicker
- Get more from existing resources with seamless integration with the existing decision engine.

Business Areas

- Origination – increase profitability by taking on the optimal set of customers to fit within operational and business constraints
- Pricing – maximise customer value and RARORAC by choosing the right terms, limits and price across the credit spectrum
- Customer management and line management – increase the value of the existing portfolio through optimal management strategies
- Collections and recoveries – maximise the impact of current resource capability by optimising decision trees

The optimisation process

1. Define the goals, parameters and constraints

Optimisation problems have a number of key constituent parts.

- The business goal (maximise profit, minimise bad debt, minimise exposure etc), which is the objective. function to be maximised (or minimised) which is driven by:
- Decision options (the actions that can be taken e.g. accept / reject, different price points or limits, collection action)
- Customer data (demographic, bureau, account level, predictive models, etc)

The optimisation challenge is to choose the right decision option for each customer to maximise the objective function. Normally with a multitude of customers, data and decision options, this would be a complex enough task.

However this task is made more complex by the eligibility criteria that define whether a customer can receive a decision option or not, and the business constraints (e.g. total bad debt budget or total portfolio exposure or underwriting capacity).

The Strategy Tree Optimisation software makes this task simpler, by assessing the impact upon the business goal for all customers, for all eligible decision options and then optimising to ensure no constraints are broken.

2. Optimise

Once the optimisation problem has been formulated by the user, the Strategy Tree Optimisation tool is used to create an optimised tree. The user can choose to interactively design the tree, or allow the software to assist in developing branches and nodes.

With interactive tree building, the user splits nodes by the addition of sub conditions of existing nodes, using operational data attributes that are available to the existing strategy tree based decisioning tool.

This allows the user to reflect existing business knowledge and experience in the optimised tree. Users can build a portfolio of scenarios with different goals, constraints and assumptions to compare and contrast them to develop the optimal tree for the business.

The reporting functionality is versatile and driven by the user configurable KPIs, and user configurable reports, which can be output in a number of formats.

Highly sophisticated trees can be designed, with a number of user configurable parameters that ensure an optimised tree is created to fit within the existing decisioning software, hence it can be implemented without any integration effort required.

Scalability and flexibility are assured, as trees can be designed using both analytical and operational data, yet deployed using just the operational data.

Trees can be exported in multiple formats, including PMML, to make the next stage (deployment) and results realisation rapid and seamless.

3. Deploy

Optimised strategies are easily implemented, because the tree is developed in the analytical environment and designed to fit in the existing operational environment.

The tree can be implemented into the operation tree-based decisioning engine by the business user through the existing tree configuration process.

4. Monitor

Regular review and maintenance of strategies are important steps to ensure the optimised decision strategies are performing according to expectations and to continuously improve inputs to the decision strategy design process.

Decision Strategy Optimisation incorporates best practice consulting to ensure key performance indicators for the optimised strategies are tracked, reviewed and evaluated on a regular basis.

For example, the initial deployment should be validated immediately and the results reviewed after the first cycle (e.g. 1 month).

Subsequent reviews should analyse trend reports after each cycle and, for example, each quarter.

The components

Experian has developed optimisation that will help to achieve the best performance from the existing decisioning process.

Consultancy
Consulting is at the heart of every Decision Analytics delivery by Experian. Consultants work with clients at every stage of the project, firstly to fully understand the business and strategic direction, and then to help design and implement systems and processes that deliver objectives.

Following implementation, Experian consultants work with clients through a structured and regular review programme to continually evolve and enhance strategies so that organisations continue to gain maximum value as their needs change and the business grows.

Experian creates a partnership with clients to deliver a solution that addresses their business challenges for today, and in the future. Bringing a fresh approach and independent viewpoint to every business, it delivers practical solutions that deliver measurable results.

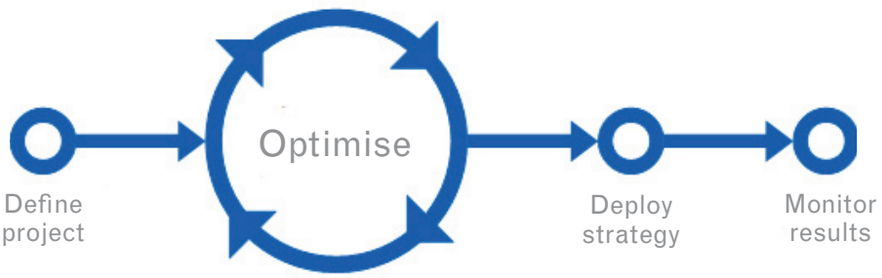
Optimisation technology
Strategy Tree Optimisation is a highly configurable optimisation tool with an intuitive graphical user interface that allows business managers and analysts to rapidly analyse, simulate and produce optimised trees in a graphical environment.

New optimised trees are easily created allowing users to adjust to changes in resources or modified plans.

When tree deployment is not a pre-requisite, Experian can also provide technology to optimise at the individual level, which can be used to determine the best action at each and every decision point, for each and every customer or account.

Analytical Support
Experian uses world-class analytical capabilities to support client analysis and model development processes. This enables the analytical data to be augmented for the optimisation process and assists in developing better data and models to improve the optimisation solutions.

Decisioning technology
The speed of deployment of Strategy Tree Optimisation can be increased by the connectivity of the advanced decisioning technology of Strategy Management.



Experian helps organisations rapidly deploy newly optimised strategy trees within the existing business with no integration effort.

To help clients obtain the most from Decision Strategy Optimisation, Experian can assist in building the initial optimised strategy tree ready for deployment.

Following data sourcing, a new optimised strategy tree can be developed and implemented into a client's existing decisioning infrastructure, for example as a challenger strategy, within days.

Experian provides additional support, as required, to ensure success both initially and ongoing including technical support for software implementation, training and on-going technical assistance.

About Decision Analytics from Experian

Decision Analytics is the international division of Experian specialising in providing credit risk and fraud management consulting services and products.

For more than 30 years, it has developed its best practice analytical, consulting and product capabilities to support organisations to manage and optimise risk; prevent, detect and reduce fraud; meet regulatory obligations; and gain operational efficiencies throughout the customer relationship.

With clients in more than 60 countries and offices in more than 30, the Decision Analytics division of Experian delivers experience and expertise developed from working with national and international organisations around the world across a wide range of industries and business size.

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