

# Raising performance with dynamic decisioning strategies

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Top-performing companies, regardless of their unique market objectives, business policies and customer segments, are increasingly driven by dynamic decisioning strategies. The importance of being able to consistently make the right customer decisions — and change those decisions in response to dynamic market conditions, new product requirements and the organizational quest for higher performance — is becoming widely recognized. It's key to achieving more profitable, lasting customer relationships with less cost and risk.

Why, then, are many credit-granting organizations still making some customer decisions based on static strategies that no longer fully reflect current business conditions? Why is time to market often longer than it should be? Why aren't performance gains higher?

Until now, the process of modifying and improving decision strategies has impeded companies from changing

their strategies and acting more quickly — largely because of three factors:

- The difficulty of obtaining performance data that quickly and directly points to what needs to be changed
- The additional time and costs to use analytics experts to update strategies or adapt them to new product lines and markets
- Challenges with the operational deployment of strategies that require IT support, also adding time and cost

Experian® is helping to eliminate these impediments and delays by bringing strategy design and strategy execution onto Experian's unified Flexion™ platform. It comes with a common design environment to support all Customer Life Cycle decisioning. It also includes Assisted Strategy Design<sup>1</sup>, a powerful capability that enables a wide range of users to harness the power of data and analytics to make better decisions faster.

<sup>1</sup>Assisted Strategy Design is patent-pending.

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# Assisted Strategy Design — facilitating the drive for excellence

With the Assisted Strategy Design capability in the Flexion platform, companies gain market agility improvement by putting strategy design and modification into the hands of their business users. Analytics experts are able to explore new areas and develop advanced

techniques that can be leveraged for even more measurable improvements in less time. Meanwhile, IT can shift resources from deploying strategies to improving the underlying decisioning services available to operational systems.



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Here's how Assisted Strategy Design enables business users:

- **Operational strategy performance data** — Available for review and analysis inside the design environment in a format that maps directly to the specified strategy, making it easy to see what's working and what could be improved.
- **Control over performance monitoring** — Includes specifying key performance indicators (KPIs), focusing on parts of strategies by selectively turning monitoring on or off and dynamically evaluating the likely impact of changes on the business.
- **Performance-based strategy improvement** — Users can employ analytics to automatically “grow” a better decision tree from any point in the strategy — simply selecting a performance dimension for improvement. Users also can work interactively, with analytics suggesting the “next best split.”
- **Analytics-assisted treatment assignment** — Based on the strategy objective and segmentation, built-in analytics identify the best treatment, from a range of user-defined possible actions, to assign to each segment.
- **Analytics-assisted incorporation of new data sources** — Users can drag and drop population characteristics from new data sources into their analysis. Predictive strengths are displayed, enabling users to properly select and assess them relative to other decision factors.
- **KPI projections for validating strategies and assessing the impact of strategy changes** — By flowing sample data through decision trees, users also can preview the results of applying strategies to customer segments.

- **Rapid, low-risk test-and-learn cycles** — Users simply copy a strategy currently in production, improve it and validate it with the help of the built-in analytics. They then seamlessly promote it back into production through the controlled studio processes. They also can designate a strategy as a Challenger for Champion/Challenger testing and control the percentage of the population to which it will be applied.
- **Rapid, low-risk repurposing of strategies for new products and markets** — Users copy and modify a strategy already in production, or they can customize a strategy template incorporating Experian knowledge and industry best practices for particular types of credit risk decisioning.

Whether a project is needed to drive continuous improvement, support business unit expansion or guide the launch of a new product, Assisted Strategy Design improves both the process and the result. It enables superior strategies to be developed and deployed in shorter time frames with less expense and lower exposure to credit and operational risk.

#### **A focused start and the means to make rapid progress**

Today's economic, regulatory and competitive realities demand quick action. Organizations can no longer afford the time for trial-and-error methods of updating and improving decision strategies.

Instead, they need decisioning processes that allow them to quickly focus their strategy development and refinement efforts in order to deliver the highest business advantage.

The following section discusses five ways companies can use Assisted Strategy Design to meet these challenges:

- Update and improve strategies using performance monitoring
- Increase decisioning insight by leveraging new data sources
- Build new strategies without starting from scratch
- Deploy better Challengers in faster test-and-learn cycles
- Stay on the course to excellence

#### **Update and improve strategies using performance monitoring**

Within the Flexion platform, performance monitoring is integrated into a graphical strategy design environment, so users can see exactly how well strategies are performing in production. They can focus on a segment where KPIs are not meeting expectations. Gaps between expectations and results may point to opportunities for improvement. They also may be early signs of changing customer behaviors, market conditions or economic trends, helping companies recognize and respond to these developments sooner.

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To drive improvements and adapt to change, you don't have to be an analytics expert. When the user clicks on an underperforming segment, the analytics built into Assisted Strategy Design suggest ways to improve it, such as splitting on a more predictive characteristic. For example, at a node where risk score is being used for the split, the analytics may suggest that splitting further on income would be more predictive — and will even suggest the best segments (see Figure 1).

In addition, users can rebuild the decision tree interactively from a revised split, with the analytics suggesting the “next best split” at each subsequent node based on the relative predictive strengths of all available population characteristics in the data. Alternatively, they can let the analytics grow the tree from the new split automatically.

They also can fluidly switch between these methods, generating some trees automatically while handcrafting others by dragging and dropping new characteristics, calculations or scores into the strategy from the shared content gallery, with the analytics always assisting by providing information about their predictive power.

With Flexion, performance monitoring can encompass not only the types of data typically available in offline reporting (accept/decline, credit limit, etc.), but also metrics in the form of KPIs set up by users (referral rates, total exposure, estimated profit, etc.). It can include details about the strategy as it is executed for each individual decision (scores and calculated variables invoked at a particular node, Champion/Challenger test groups, etc.). Such information, which has traditionally been lost in the operations “ether,” is essential for fast, focused strategy assessment. For example, it enables users to drill down into a

particular segment to examine why it might be associated with a higher-than-average bad rate or a lower-than-expected profit.

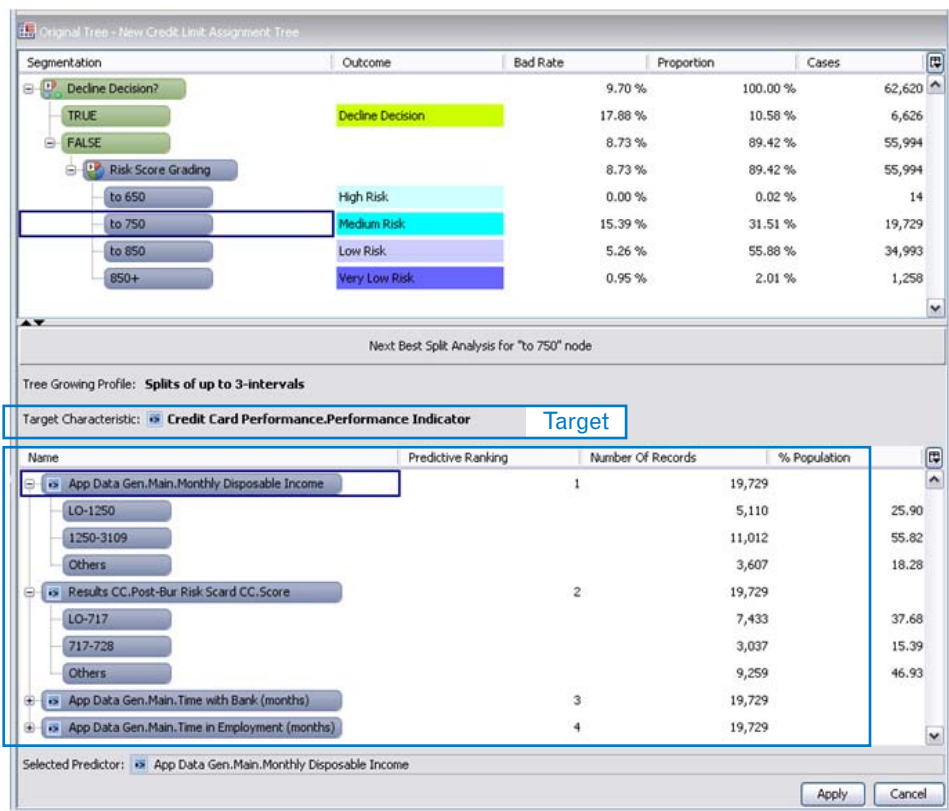
The Flexion platform is the first to reliably capture this strategy performance data and bring it back into the design environment. This complete feedback loop makes constantly refreshed performance monitoring data available for analysis in a form that facilitates learning and improvement.

It also puts control of performance monitoring in the hands of business users. Instead of having to turn to IT to get monitoring set up or changed on host systems, users simply activate

monitoring for selected strategy areas with a single mouse click. They also can rapidly change monitoring as needed if new population characteristics, calculations, steps and KPIs are added to strategies during subsequent refinement cycles.

### Increase decisioning insight by adding new data sources

New data sources and data-aggregating services as well as packaged data characteristics and components become available every year. The ability to easily plug these new resources into existing strategies means low implementation costs and fast realization of benefits.



**Figure 1:** Use “next best split” to determine which predictors split out best in terms of the chosen target, from the list of candidate predictors chosen by the user. Assess the proposed splits and apply the best split to the tree.

Alternatively, grow the tree automatically from a selected node, by allowing tree growing algorithms to segment the population using multiple candidate predictors.

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Still, just because new characteristics are available doesn't mean they will add value in decisioning. In fact, one of the most important aspects of effective strategy design is selecting, from the wealth of data available, which characteristics are most valuable for segmentation. Assisted Strategy Design helps users make wise selections by analyzing the predictive strength of all characteristics in the data sources being used and listing them in rank order.

### **Build new strategies without starting from scratch**

Some of these templates are focused on specific life cycle decisioning areas (originations, customer retention, delinquency management, etc.) or industry requirements (utility industry template for identity authentication, credit card industry template for initial credit line assignment, etc.). Templates include not only segmentation schemes, but also a starter set of applied treatments, KPIs and report styles.

When a decisioning strategy is needed for a new product or market, users don't need to face a blank slate. They can copy and modify their organization's existing strategies, or they can start with a customizable strategy template infused with Experian expertise and industry best practices (see figures 2a and 2b).

Assisted Strategy Design uses industry-standard CHAID (Chi-squared Automatic Interaction Detector) and CART (Classification and Regression Tree) methods with Experian enhancements to work best with the types of data used in strategy design.

To modify existing strategies or customize templates, users can regenerate trees and build out new segments using the automated "grow" method. It selects the most predictive characteristics for the user-defined outcome and generates the decision tree mathematically. Without having to understand the complexities of the formulas, business users harness their power.

Strategies also can be built out interactively. Node by node, the analytics suggest the "next best split." Users don't have to follow the suggestion, however, because Assisted Strategy Design displays a list of all the available characteristics in the data, along with their predictive strength. Having this information at hand helps users balance the need for strong predictive power with organizational requirements and preferences.

To adapt an existing strategy to a new population, users can flow sample data for this targeted population through the strategy, subsequently employing the

analytics, interactively or automatically, to change the strategy in ways that better fit that population.

In this manner, companies can jump-start new product and service launches by deploying a base line strategy quickly and then rapidly refining it in cycles using performance monitoring data.

With the flexibility of the Flexion platform's Assisted Strategy Design, users can mix their methods, fluidly moving between automated and interactive.

Users also may mix different target outcomes for subtrees, which are different segments within the overall strategy.

For higher credit risk populations, for example, the desired outcome might be to reduce losses; consequently, that subtree might be split based on characteristics such as delinquency status.

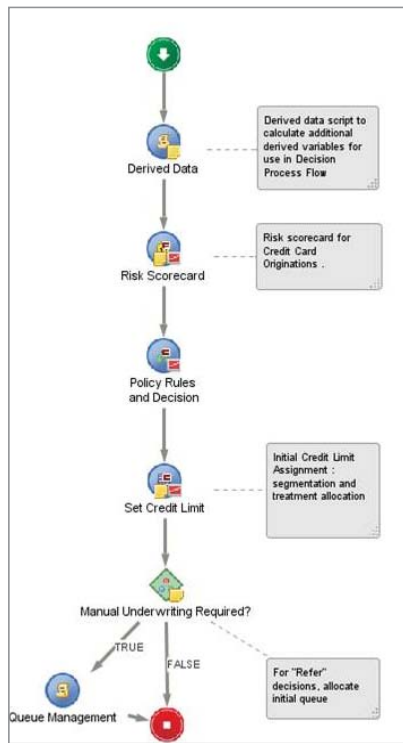
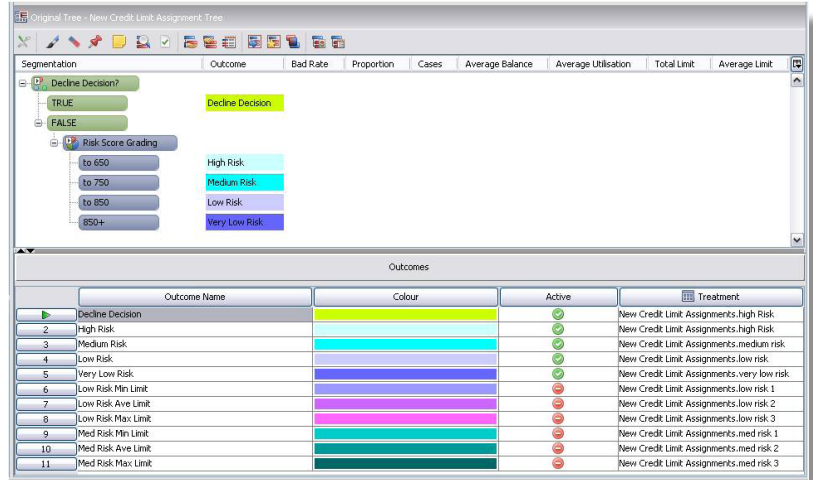
For lower risk segments, the desired outcome might be to increase profitability; thus, that subtree might be split based on characteristics such as account utilization.

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**Figure 2a:** Strategy design template infused with Experian expertise. Includes segmentation, treatments and underlying calculations, KPIs, data model.



**Figure 2b:** Templates are available at all levels — from data models, segmentation rules, policy and compliance rules, treatment tables, through to overall Decision Flow designs — tailored for specific Customer Life Cycle stage and/or vertical market requirements.

No matter how segmentation is accomplished, it's easy for users to assign treatments and assess the results using template or custom KPIs. Users may define KPIs based on any of the characteristics within the analysis data set. These might include number of cases, percentage of customer base, bad rate, average balance, current limit utilization, total exposure and estimated profit. Such measures also may serve as input to a business case for deployment of a new strategy, shortening the time involved in gaining approval to proceed.

### Deploy better Challengers in faster test-and-learn cycles

By making even small changes to required outcomes, segment definitions or assigned treatments, users can produce big improvements in strategy effectiveness. Assisted Strategy Design makes it possible to rapidly create numerous alternative scenarios and compare the resulting KPIs side-by-side. Exploring a range of possibilities in this manner helps to identify the decision factors likely to have the biggest impact on performance.

It even helps users without analytics expertise create high-performing candidates for in-production Champion/Challenger testing.

Users can promote a strategy to Challenger status with a single click. Moving a simple slider control, they also can indicate the percentage of the production population that should receive this Challenger treatment. A Challenger becomes a branch of the existing strategy (Champion). If more than one Challenger is tested at a time, each will have its own branch. As the population flows through the decision tree, the percentages specified by the user are directed down the Challenger branches, creating random samples that receive the alternative treatments.

The majority of the population continues to flow through the main branch, receiving the current Champion strategy treatment.

### Stay on the course to excellence

Regular review and validation of strategies is fundamental to achieving and sustaining high levels of performance. Assisted Strategy Design's continuous performance monitoring makes it easier than ever before to implement this type of systematic review. Even so, it may not be easy for organizations focused on urgent priorities to carve out time for this crucial activity. Flexion users benefit from access to Experian consulting and its cutting-edge techniques for maximizing the impact of decision strategies in driving organizational excellence over time.

### Conclusion — an open door to higher performance

Today, it's not enough to gather massive volumes of data. Success in almost every industry depends on the ability to make better use of data over time by continually improving and adapting strategies through an agile decisioning process.

Experian's Flexion platform eliminates the gaps and obstacles between strategy design and execution that have slowed decisioning improvements and adaptability to change.

Assisted Strategy Design, a core Flexion capability, puts powerful data and segmentation analytics — as well as direct control over strategy deployment, performance monitoring and test-and-learn cycles — into the hands of business users. The door to dynamic decisioning — and the prospects it brings for reaching new heights of organizational performance — is now wide open.

## Move forward into more dynamic decisioning with the company you've long trusted for credit risk expertise

For more than 30 years, Experian Decision Analytics has been managing and enriching customer data to help organizations like yours make better credit risk decisions. Our powerful decisioning products and services combine data intelligence, analytics, software, reporting and consulting to turn insights into actions that improve business performance. With clients in more than 90 countries, and local offices in more than half of these, our expertise in analytics, software and best practices is market-proven and thoroughly global with local impact.

To find out how Experian Decision Analytics can help your organization drive more value from business decisions, contact 1 888 414 1120 or visit [www.experian.com/flexion](http://www.experian.com/flexion).

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