
Why use Ventana Models?

Ventana Models Deliver;

- **Intelligence amid mixed signals** by combining human expertise and corporate data to determine the true signal.
- **Focus amid distractions** by using cumulative knowledge to highlight new leverage.
- **Consensus amid multiple views** by integrating knowledge and reconciling differences.
- **Understanding amid complexity** by tracking the interactions of causes, effects, and side effects.
- **Confidence amid uncertainty** by showing the odds and the best ways to influence them.
- **Longevity amid volatility** by capturing insight in tools that improve as experience deepens.

What Ventana Models Do

Ventana® models improve performance by helping organisations make smarter choices. They leverage the collective intelligence of an organisation's people and experience to determine which choices are most likely to improve performance, and why. By converting mountains of information into clear, compelling stories rooted firmly in both data and experience, they help decision makers to understand the best path forward, and to communicate that path to the organisation.

How is this possible? The outcomes of an organisation's actions are determined by predictable reactions and by unpredictable influences. Ventana models help decision-makers to manage both.

Predictable Reactions

Organisations are deeply familiar with scores of predictable, cause-and-effect phenomena in their businesses, many of which are obvious: Growing the customer base raises demand for service. Hiring more people raises payroll expenses. Diverting resources to one area removes resources from another. A customer who buys a product may not need another one until the first one wears out. Each of these is straightforward, but two difficulties arise when trying to consider all such effects at once. First, there are too many of them. The human brain juggles only so much at one time, raising the possibility of overlooking one or another of these effects. Second, when multiple factors are interacting to influence results, it is easy to believe that the root driver of performance is one thing when in fact it is another.

Ventana models help humans manage this complexity. Ventana models track multiple, interacting influences with ease, and Ventana techniques triangulate among data, expert knowledge and causal models to detect logical gaps and conflicts. Ventana tools move organisations from initial questions and hypotheses to clear, winning choices.

Unpredictable Influences

Organisations must cope with an unpredictable environment. Economic, competitive, regulatory, natural, and other factors buffet plans and affect results. Ventana models calculate the effects of these influences across their full range of possible values, not just the historically experienced range. This addresses two important problems. First, history may not be predictive of future conditions. Second, humans tend to underestimate risk. Ventana models also account for interactions among uncertain influences, rather than assuming risks are uncorrelated. This often greatly affects results, and is crucial for early detection of brittle or vulnerable business structures.

In addition to unpredictable external effects, all quantitative conclusions formed from models and data contain some inherent uncertainty. This is because both models and data can be incomplete or inaccurate. Ventana triangulation techniques avoid single-source bias and sift for corroborated, reliable estimates, reducing this analytical uncertainty to a minimum. The effects of data noise and model approximations are reported in the model output, and indicate the value of further information.

The resulting set of possible futures is often very different from current planning. By considering the correct range of potential outcomes, clients can evaluate their risk in advance, to design strategies that exploit the odds and defend against shocks. In the end, people, not models, are responsible for decisions. But people with good models make better decisions than people without good models. In fact, that is the definition of a good model: one that helps people and organisations succeed.

Why Ventana Models Work

Smart choices come from solid understanding and clear communication of which actions will improve performance and why. Four qualities of Ventana® models combine to yield better performance through smart choices:

- **Alignment:** Ventana models are focused on client choices and client performance. Inputs include all the organisation's options for action, and the outputs describe outcomes by the organisation's measures of success. The models are built through a responsive, flexible process to align the model with the organisation's decision needs.
- **Reliability:** Ventana models are industrial-strength and robust, to help clients consistently choose actions that maximise the odds of success -- even in conditions never before encountered.
- **Persuasiveness:** Ventana models inspire confidence through demonstrable consistency with expert knowledge; through output that supports compelling, data-supported stories about what will happen and why; through realistic,

easily visualised internal mechanics; and through an inclusive development process that earns the trust of the organisation.

- **Organisational Fit:** Ventana models fit the way the organisation's people spend their time and make decisions, relate to the way they think about their business, and inspire them to use the model to its full advantage.

Building Ventana Models

Ventana® models are usually built through a process of rapid evolution with client participation. Improvements in modelling technology now allow major model enhancement and testing in hours to days, so the client can see and critique progress frequently and regularly.

Rapid evolution with frequent client feedback brings important project benefits:

- The client can regularly inspect inputs, outputs, and detail granularity of the model to ensure relevance to the target decisions.
- The client can contribute knowledge toward ongoing tests of the model framework, improving reliability.
- Client participation in the model evolution develops familiarity and expertise, which are the basis of model credibility.
- As client personnel become familiar with possible uses for the model, they can direct choices of data management, interface, and business process for best fit.

Project Elements

Five elements work together to keep the delivered model up to date and connected to ongoing decisions:

- **Knowledge** - a documented and tested collection of client expertise on how each factor will affect other factors
- **Data** - a reviewed collection of historical data, and a system to manage ongoing data to connect to the model
- **Model** - the system of equations used to calculate the outcomes associated with decision options
- **Business Process** - The job descriptions, schedules, and assigned responsibilities by which the model gets used to inform decisions
- **Interface & Training** - The system connecting the model to human users or to automated decision systems, and any required training

Using Ventana Models

A Ventana® model remains vital and valuable over the long term by maintaining strong connections to the organisation. Ventana provides clients with a variety of options for keeping the model current with knowledge and data, making the model easy and familiar to users, and supporting users' choices of actions to increase performance.

Connecting users to better performance (business process)

Clients have developed a wide variety of means to support smarter decisions with models. Some common arrangements include:

- Executive strategy application: Executives examine their options using a decision support tool on their own personal computers, using an intuitive interface requiring little training time, and automated data management supported by an analyst.
- Model expert: Decision makers communicate regularly with an expert model user who generates, interprets, and explains model results.
- Outsourcing: A consultant uses model and reports results and implications to the executive team.
- Embedded algorithm: A Ventana model is used to develop and test decision rules for automated decisions, for example, logistics rules for re-ordering, stocking levels, part transfers, and the like. These embedded algorithms may be updated using a strategic model, for example, a model of the overall supply chain system.

Drawing on past experience, Ventana helps clients define the business process best suited to their own needs and culture.

Produced by Ventana Systems UK, Ltd

Head Office

41 Western Way
Salisbury
Wiltshire
SP2 9DR
United Kingdom

T +44 (0)1722 505 763
F +44 (0) 70 9202 4736

Northern Office

12 James Street
Oxton
Merseyside
CH43 5RD
United Kingdom

T +44 (0) 151 513 9779