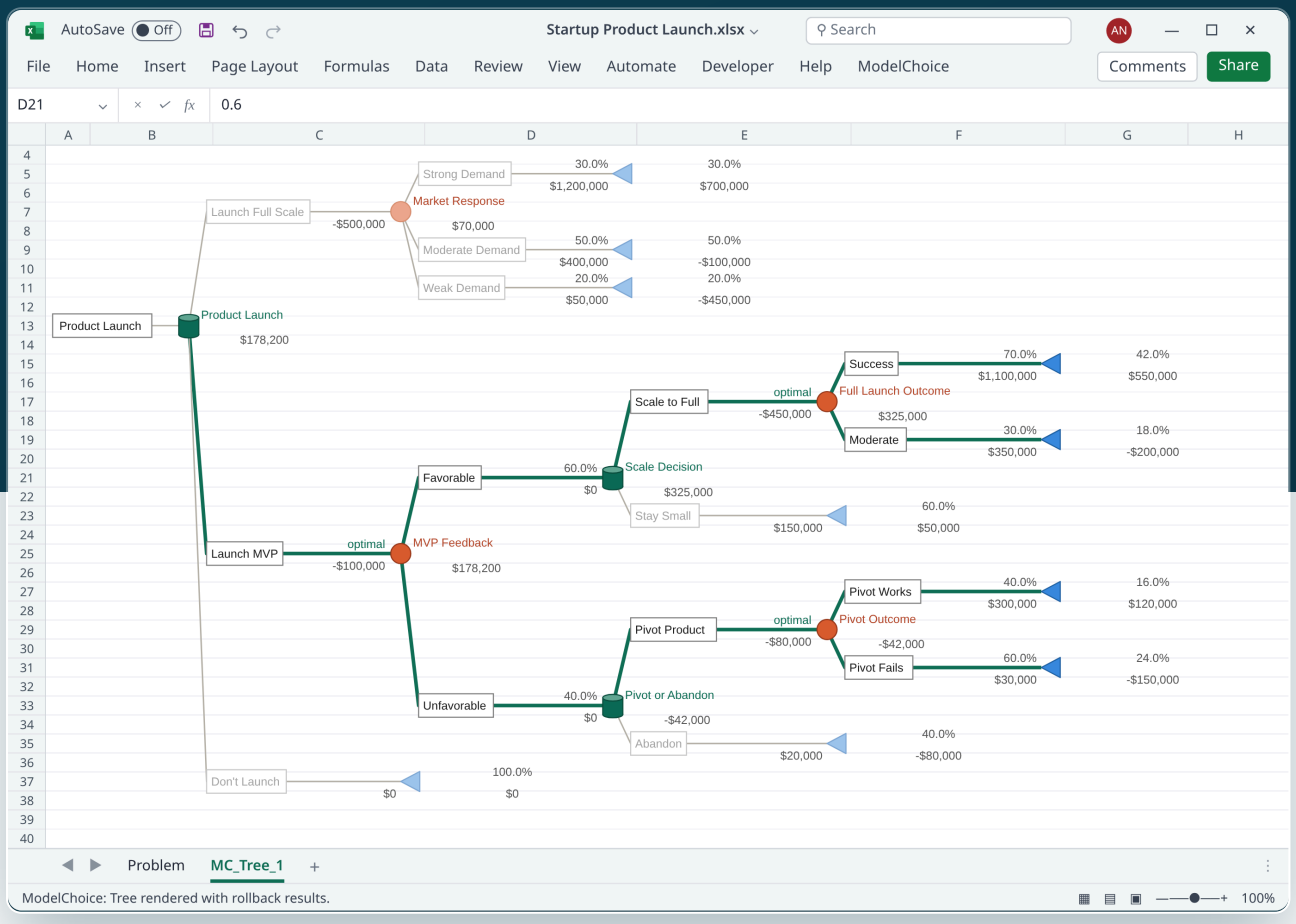
ModelChoice
Decision tree software for Excel

PRODUCT BROCHURE

Decision trees that solve themselves, inside Excel

Draw the decision on an Excel worksheet, with every probability and payoff in a cell. ModelChoice finds the best choice, shows the risk behind each option, and tells you what would change the answer.



A product launch decision in Excel, solved by ModelChoice: launch a minimum viable product first, with an expected value of $178,200.

59
example models to start from

7
languages in the ribbon, dialogs and help

1 click
to import a PrecisionTree model

15 days
free trial of the full product

vose
Putting numbers around risk

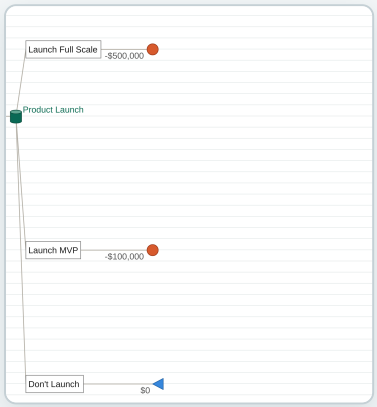
vosesoftware.com/Risk-In-Excel/ModelChoice.php

WHY MODELCHOICE

One number leaves out the choices

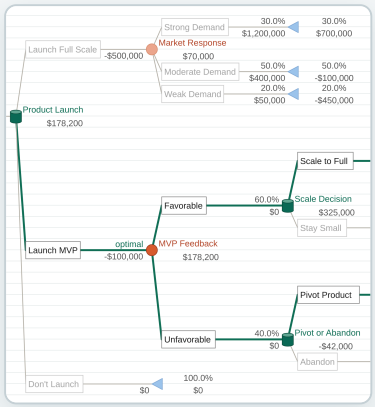
A spreadsheet NPV gives one number for one scenario. Real decisions have choices along the way: test first or go ahead, scale up or stop once the first results are in. A decision tree lays out the choices, the events that could follow with their probabilities, and the later decisions you would take once you know more, so it captures the value of being able to change course.

1 Draw the decision in Excel



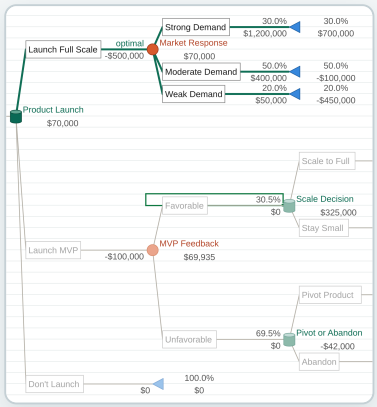
Three ways to launch a new product: at full scale for **$500,000**, as a minimum viable product (MVP) for **$100,000**, or not at all. Then add what could happen after each one.

2 ModelChoice finds the best choice



The MVP is worth **$178,200**, against **$70,000** for a full-scale launch, because you scale up only if early feedback is good. It still carries a **42%** chance of a loss.

3 And shows what would change it



If the chance of favourable feedback falls below **30.5%**, a full-scale launch becomes the better choice. That is the estimate to firm up before you commit.

From ModelChoice's Startup Product Launch example, one of the 59 that come with it. A 42% chance of a loss doesn't mean don't launch: it means the board knows the odds, and what would change the answer, before it commits.

What ModelChoice gives you

The best choice, and what it is worth

The expected value of every node and the optimal path, worked out again the moment an input changes. There is no Run button.

Every outcome, not just the average

Risk profiles show every possible payoff of each option and how likely it is, so options are compared on their downside too.

What would change the answer

Sensitivity charts rank the estimates that move the result, and Break the Decision finds the value at which each one flips it.

What information is worth

The value of perfect and imperfect information shows whether a study, pilot or survey is worth its cost before you commission it.

One page for the board

The Decision Brief puts the recommendation, its robustness, the drivers, the nearest threats and a plain-English summary on one page.

Your own Excel workbook

The tree is drawn on the worksheet from cells you can link to your model, and saved with the workbook. Colleagues without ModelChoice can still open it.

HOW IT WORKS

From a whiteboard sketch to a working model

ModelChoice is an add-in for Microsoft Excel, not a separate application, so a tree lives next to the data that feeds it. You draw the decision you would sketch on a whiteboard, and ModelChoice turns it into a model that solves itself.

1

Draw the choices

Put the options on the worksheet as a decision, each branch with its cost, in the Node Editor or from the menu on any node.

2

Add what could happen

Chance nodes with probabilities and payoffs, and the decisions you would take once you know more. Every number sits in a cell.

3

Solve

ModelChoice rolls the tree back from right to left and marks the best strategy and its expected value, again on every change.

4

Test and brief

See the risk of each option, what would change the answer and what information is worth, then brief the board on one page.

Which question are you asking?

A SPREADSHEET NPV

One number for one scenario

It leaves out the value of being able to change course, such as scaling up only after a small launch goes well.

A DECISION TREE, WITH MODELCHOICE

Which way should we go?

Best when there are choices to make along the way: test first or go ahead, continue or stop after a result.

A MONTE CARLO SIMULATION, WITH MODELRISK

How wide is the range of outcomes?

Such as the spread of a project's cost. When a decision needs both, ModelChoice runs a ModelRisk simulation through the tree.

Where teams use ModelChoice

Wherever a big decision has options, uncertain outcomes and choices along the way. Each industry page on vosesoftware.com (menu: Industries) works through a decision like these with a free example model.

Capital projects and construction

Which option should we build?

Compare the options with their risks before the business case is fixed.

Oil and gas

Drill now, shoot 3D seismic first, or farm out?

Compare the ways to explore the block on the same inputs.

Power, renewables and utilities

Solar, wind, or solar with storage?

Three projects for one site, each with its own permitting, resource and policy risks.

Mining and metals

Explore in full, in phases, or sell the rights?

Pay for information before committing.

Manufacturing

Dual source, stay offshore, or make it ourselves?

A consumer electronics maker weighs its sourcing after recent global disruptions.

Insurance and reinsurance

Enter cyber nationwide, in three states, or through an MGA?

Where one ransomware event can wipe out years of profit.

Corporate finance and investment

Full buyout, management rollover, or a minority stake?

A fund weighs three ways into a mid-market manufacturer.

Pharma and life sciences

Run Phase II, find a partner, or shelve?

Weigh the efficacy trial against partnering before the money is committed.

FEATURES

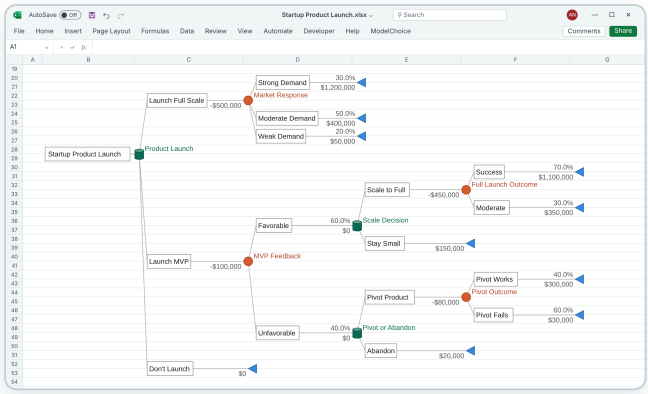
Build the tree, see every outcome

BUILD ON THE WORKSHEET

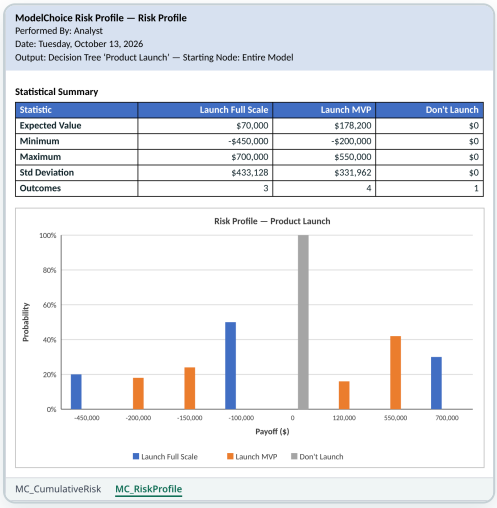
Draw the tree in Excel, and it solves as you type

ModelChoice places decision, chance and outcome nodes on the sheet as Excel shapes, and every probability and payoff is a real cell, so you can link it to your financial model or an assumptions sheet. Change any input and the tree is solved again straight away by backward induction.

- Add choices, outcomes and payoffs in the Node Editor, or click any node for the actions that fit it
- Build Control Panel lifts every probability and payoff into one labelled input block, linked to the tree
- Saved and shared with the workbook; colleagues without ModelChoice can still open it



The example tree as it is drawn: three ways to launch, the market's response, and the decisions after the MVP. Every value is in a cell.



The Risk Profile report for the example: Launch MVP has a 42% chance of a loss; a full-scale launch loses money 70% of the time.

SEE EVERY OUTCOME

What could actually happen under each option?

Most spreadsheet decisions are made on the average alone. The Risk Profile report shows every possible payoff for each option and how likely it is, with the expected value, the worst and best case and the standard deviation side by side. The Cumulative Risk Profile gives the same picture as percentiles.

- Compare options on their downside, not just their average
- Each report is a new sheet with its own table and Excel chart, ready for a board paper

FIND WHAT MATTERS

Which estimates actually move the answer?

One-way sensitivity analysis varies each input across a range and shows how the expected value of every option responds, and ModelChoice marks the point where the best choice changes. Spend your time on the few estimates that change the decision.

- Tornado and spider charts, with a results table of every input's swing
- Two-way sensitivity maps the best option across the two highest-impact inputs

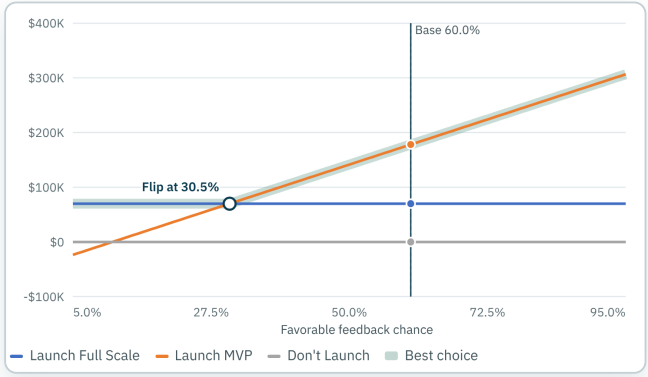


Illustration from the example: the expected value of each first choice as the chance of favourable feedback moves. Below 30.5%, launching at full scale is the better choice.

FEATURES

How sure, and what information is worth

BREAK THE DECISION

How far can each estimate move before the answer changes?

Break the Decision finds, for every input, the exact value at which the best strategy flips to another one. A robustness score from 0 to 100 sums up how fragile the recommendation is, and a Monte Carlo test estimates how often it would be wrong.

- Every input ranked by how close it is to flipping the decision, with the strategy it flips to
- Force to Outcome works the other way round: what would have to be true for a strategy you name to come out best

ModelChoice — Break the Decision — Robustness
Performed By: Analyst
Date: Tuesday, October 13, 2026
Model: 'Product Launch'

SECTION B: SINGLE-PARAMETER VULNERABILITY MAP

Parameter	Baseline	Threshold	Change	Flips To	Risk
Strong Demand (probability)	0.300	0.420	+40.1%	Launch Full Scale	MEDIUM
Pivot Works (probability)	0.400	0.259	-35.2%	Abandon (was Pivot Product)	MEDIUM
Pivot Fails (probability)	0.600	0.741	+23.5%	Abandon (was Pivot Product)	MEDIUM
Weak Demand (probability)	0.200	0.034	-83.2%	Launch Full Scale	MEDIUM
Launch Full Scale (value)	-$500,000	-$391,800	-21.6%	Launch Full Scale	MEDIUM
Success (value)	$1,100,000	$842,381	-23.4%	Launch Full Scale	MEDIUM
Success (probability)	0.700	0.460	-34.3%	Launch Full Scale	MEDIUM
Moderate (probability)	0.300	0.540	+80.1%	Launch Full Scale	MEDIUM
Strong Demand (value)	$1,200,000	$1,560,667	+30.1%	Launch Full Scale	LOW
Favorable (probability)	0.600	0.305	-49.1%	Launch Full Scale	LOW
Unfavorable (probability)	0.400	0.695	+73.7%	Launch Full Scale	LOW
Pivot Works (value)	$300,000	$205,000	-31.7%	Abandon (was Pivot Product)	LOW
Moderate Demand (probability)	0.500	0.182	-63.6%	Launch Full Scale	LOW
Scale to Full (value)	-$450,000	-$630,333	+40.1%	Launch Full Scale	LOW
Pivot Product (value)	-$80,000	-$118,000	+47.5%	Abandon (was Pivot Product)	LOW

MC_RB_Verdict | MC_RB_Vulnerability | MC_RB_Boundary | MC_RB_Threats | MC_RB_Recommendations

ROBUSTNESS SCORE

20 / 100

CRITICAL

Launch MVP is the best choice today, but its lead is small: if the chance of strong demand rises from 30% to 42%, a full-scale launch becomes better.

ModelChoice — Value of Information Analysis
Performed By: Analyst
Date: Tuesday, October 13, 2026
Test: 'Market survey' — Target: 'Market Response' — Model: 'Product Launch'

Key Values

Metric	Value
Prior EV	178,200.00
EVPI (upper bound)	156,540.00
EVII (test value)	44,663.00
Test Cost	25,000.00
Net Value (EVII − Cost)	19,663.00

WORTHWHILE — test value (44,663) exceeds cost (25,000)

If Survey positive: Launch Full Scale (EV = 261,682). If Survey negative: Launch MVP (EV = 178,200).

Signal Details

Signal	P(Signal)	P(Strong Demand | Signal)	P(Moderate Demand | Signal)	P(Weak Demand | Signal)	Best Decision	Optimal EV
Survey positive	0.5350	0.4766	0.4673	0.0561	Launch Full Scale	261,682.24
Survey negative	0.4650	0.0968	0.5376	0.3656	Launch MVP	178,200.00

Likelihood Matrix P(Signal | State)

State \ Signal	Survey positive	Survey negative
Strong Demand	0.8500	0.1500
Moderate Demand	0.5000	0.5000
Weak Demand	0.1500	0.8500

In the example, a $25,000 market survey that comes back positive 85% of the time when demand would be strong is worth $44,663: $19,663 more than it costs.

PRICE INFORMATION

Is a study, pilot or survey worth paying for?

The expected value of perfect information (EVPI) is the most any study could be worth: what knowing the outcome before you decide would add. The expected value of imperfect information (EVII) is what a real test of known accuracy adds. ModelChoice works out both from the tree.

- The report revises the tree's probabilities for each test result and shows the best decision after each one
- The verdict sets the test's value against its cost, so the go or no-go is on one line

SIMULATE WITH MODELRISK

What if an outcome is a range, not three branches?

Some uncertainties are better described by a continuous distribution than by a few branches: a price, demand, a duration, an interest rate. With ModelRisk, Vose's Monte Carlo add-in, you can put a distribution into any payoff or probability in the tree and simulate it thousands of times.

- Type a distribution into a cell, or apply one to a range of nodes in the Distribution Editor
- Node functions such as `MC_NodeValue` can be simulation outputs

D6 =VosePERT(900000, 1200000, 1600000)

Expected Value Tracking
A fast estimate of the best strategy and its expected value.

Sampled Paths
Each iteration follows one path through the tree, for the full spread of outcomes.

Perfect Information Bounds
The EVPI under continuous uncertainty.

Illustration: a ModelRisk distribution in a payoff cell of the example, and the three ways to simulate a tree.

FEATURES

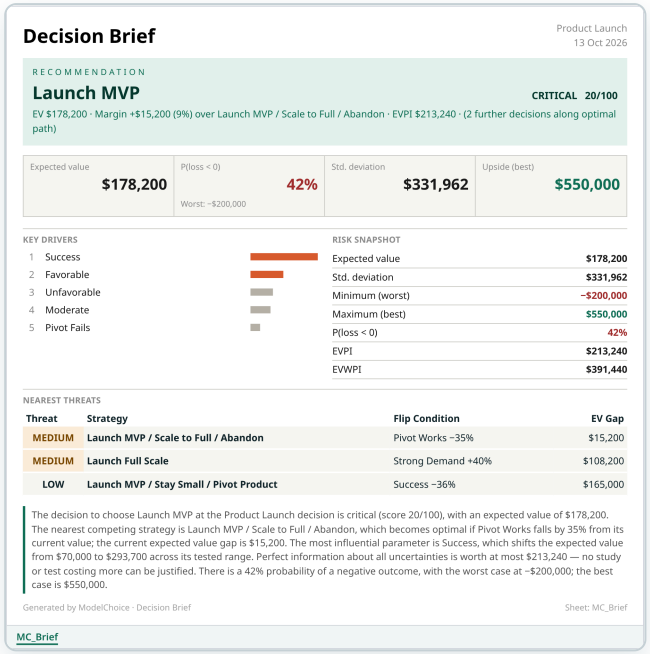
Brief the board, and weigh more than money

BRIEF THE BOARD

Explain the decision on one page

The Decision Brief puts the analysis on one page: the recommendation and how robust it is, the expected value, the chance of a loss, the estimates that drive the result, the nearest threats and a plain-English summary. It is rebuilt in seconds when an input changes, and Export Brief to PDF writes it as a single page.

- Policy Suggestion ranks every strategy by expected value, with its gap to the best, for when the room has a favourite
- Policy Tree shows only the chosen path, for a clean slide
- Strategy Table lists every strategy with its full decision path and expected value, for audit



Decision Brief

Product Launch
13 Oct 2026

RECOMMENDATION

Launch MVP — CRITICAL 20/100

EV $178,200 · Margin +$15,200 (9%) over Launch MVP / Scale to Full / Abandon · EVPI $213,240 · (2 further decisions along optimal path)

Expected value	P(loss < 0)	Std. deviation	Upside (best)
$178,200	42%	$331,962	$550,000
	Worst: −$200,000		

KEY DRIVERS

1 Success
2 Favorable
3 Unfavorable
4 Moderate
5 Pivot Fails

RISK SNAPSHOT

Expected value	$178,200
Std. deviation	$331,962
Minimum (worst)	−$200,000
Maximum (best)	$550,000
P(loss < 0)	42%
EVPI	$213,240
EVWPI	$391,440

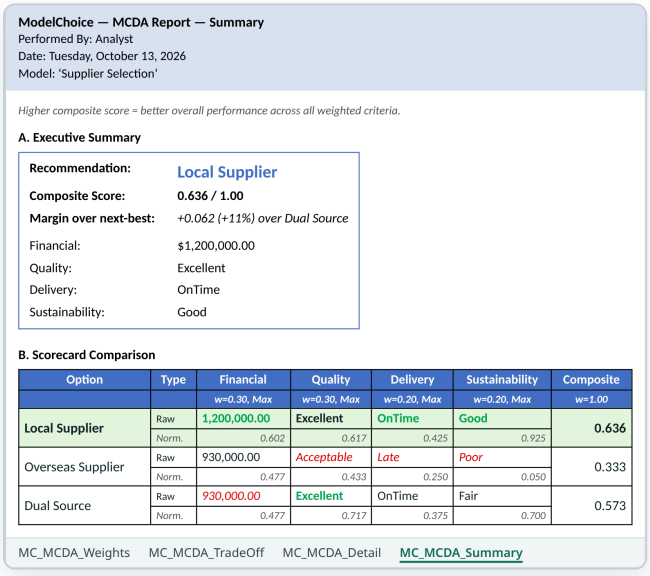
NEAREST THREATS

Threat	Strategy	Flip Condition	EV Gap
MEDIUM	Launch MVP / Scale to Full / Abandon	Pivot Works −35%	$15,200
MEDIUM	Launch Full Scale	Strong Demand +40%	$108,200
LOW	Launch MVP / Stay Small / Pivot Product	Success −36%	$165,000

The decision to choose Launch MVP at the Product Launch decision is critical (score 20/100), with an expected value of $178,200. The nearest competing strategy is Launch MVP / Scale to Full / Abandon, which becomes optimal if Pivot Works falls by 35% from its current value; the current expected value gap is $15,200. The most influential parameter is Success, which shifts the expected value from $70,000 to $293,700 across its tested range. Perfect information about all uncertainties is worth at most $213,240 — no study or test costing more can be justified. There is a 42% probability of a negative outcome, with the worst case at −$200,000; the best case is $550,000.

Generated by ModelChoice · Decision Brief — Sheet: MC_Brief

MC_Brief



ModelChoice — MCDA Report — Summary
Performed By: Analyst
Date: Tuesday, October 13, 2026
Model: 'Supplier Selection'

Higher composite score = better overall performance across all weighted criteria.

A. Executive Summary

Recommendation:	**Local Supplier**
Composite Score:	**0.636 / 1.00**
Margin over next-best:	*+0.062 (+11%) over Dual Source*
Financial:	$1,200,000.00
Quality:	Excellent
Delivery:	OnTime
Sustainability:	Good

B. Scorecard Comparison

Option	Type	Financial	Quality	Delivery	Sustainability	Composite
		w=0.30, Max	*w=0.30, Max*	*w=0.20, Max*	*w=0.20, Max*	*w=1.00*
Local Supplier	Raw	1,200,000.00	Excellent	OnTime	Good	**0.636**
	Norm.	*0.602*	*0.617*	*0.425*	*0.925*	
Overseas Supplier	Raw	930,000.00	*Acceptable*	*Late*	*Poor*	0.333
	Norm.	*0.477*	*0.433*	*0.250*	*0.050*	
Dual Source	Raw	*930,000.00*	Excellent	OnTime	Fair	0.573
	Norm.	*0.477*	*0.717*	*0.375*	*0.700*	

MC_MCDA_Weights MC_MCDA_TradeOff MC_MCDA_Detail MC_MCDA_Summary

The MCDA report of ModelChoice's Supplier Selection example: with these weights the local supplier scores best, 0.062 ahead of dual sourcing.

WEIGH MORE THAN MONEY

When the decision is not only about money

Multi-criteria decision analysis (MCDA) scores each outcome on criteria such as quality, delivery, safety or sustainability as well as the financial payoff. You give each criterion a weight and a scale of named options, and ModelChoice works out a composite score at every outcome and rolls the tree back on it.

- Enter weights directly, or derive them with AHP from pairwise comparisons, with a consistency ratio that flags contradictory answers
- Weighted sum, weighted geometric mean or WASPAS, depending on whether a strong score should make up for a weak one
- Exponential, logarithmic, square-root and linear utility functions, for certainty equivalents and risk premiums

Switch to it

The Import command converts a copy of a PrecisionTree workbook (.xls or .xlsx) into a native ModelChoice tree. The original is left untouched.

Automate it

Headless commands for the main analyses, callable from Python, .NET or VBA. Save any tree, with its settings, as JSON, and read any node's value, decision or probability with worksheet functions.

Work with AI assistants

The open modelchoice-mcp server lets assistants such as Claude build and edit trees, import PrecisionTree models and run ModelChoice reports through conversation.

Check and share it

Key values are named ranges, every formula can be inspected, and sheet protection locks a finished model. Ribbon, dialogs and help come in seven languages.

FULL FEATURE LIST

Everything in ModelChoice

Everything here is included in every ModelChoice licence: one edition, with no premium tier to upgrade to. Monte Carlo simulation through the tree also needs ModelRisk. The trial is the full product, with all 59 example models, free for 15 days: scan the trial code on the back page.

AREA	WHAT'S INCLUDED
Tree building	Decision, chance and outcome nodes drawn as Excel shapes on the worksheet; probabilities and payoffs in real cells you can link anywhere; Node Editor; a menu on every node; copy, paste, append and replace subtrees; undo and redo; Build Control Panel.
Rollback	Backward induction on every change; optimal path highlighted; expected value at every node; trees that maximise value or minimise cost.
Risk profiles	Every payoff and its probability for each strategy, with summary statistics; cumulative view with percentiles.
Sensitivity	One-way analysis with tornado and spider charts and the points where the best choice changes; two-way analysis of the two highest-impact inputs.
Robustness	Break the Decision: the flip value of every input, a 0 to 100 robustness score, nearest threats, a Monte Carlo test of the recommendation, and recommendations.
Force to Outcome	Finds the single- and multi-input changes that would make a strategy you name come out best, or hit a target value or cost.
Strategies	Policy Suggestion ranks every strategy by expected value with its gap to the best; Policy Tree shows the chosen path only; Strategy Table lists every strategy for audit.
Value of information	EVPI for all uncertainties; EVII for a test of known accuracy, with the revised probabilities, the best decision after each result and the value net of the test's cost.
Decision Brief	One page: recommendation, robustness score, key numbers, drivers, nearest threats and a plain-English summary; Export Brief to PDF.
Multi-criteria	Weighted financial and non-financial criteria on named scales; AHP weights with a consistency ratio; weighted sum, weighted geometric mean or WASPAS.
Attitude to risk	Exponential, logarithmic, square-root and linear utility functions; certainty equivalents and risk premiums.
Monte Carlo	ModelRisk distributions in any payoff or probability; Expected Value Tracking, Sampled Paths and Perfect Information Bounds. Needs ModelRisk.
Import and export	One-click PrecisionTree import (.xls, .xlsx); JSON export and import of complete trees.
Automation	Headless commands for Python, .NET and VBA; worksheet functions for node values, decisions and probabilities; the open modelchoice-mcp server for AI assistants.
Auditability	Named ranges for key values, inspectable formulas, sheet protection.
Languages and examples	English, German, Spanish, French, Japanese, Portuguese and Russian; 59 example models; in-product help.

GET STARTED

Try ModelChoice on your own decision

Draw a tree with your own numbers and see its risk profile, robustness score and Decision Brief. Registering for the trial asks for no payment details.

Download the free trial

The full product and all 59 examples, free for 15 days.

Scan the code, or go to **vosesoftware.com**, Free trials.

Book a live demo

Online, prepared by a consultant around a decision like yours.

Scan the code, or write to **info@vosesoftware.com**

One edition, every feature

ModelChoice is sold as an annual licence: a desktop licence per user, or a network licence per concurrent seat, in one edition with every feature in this brochure. Volume discounts lower the price. See current prices at **vosesoftware.com/pricing.php**.

About Vose Software

Vose Software is based in Gent, Belgium. It began as a risk analysis consultancy, and its methods build on *Risk Analysis: A Quantitative Guide*, the textbook by the late David Vose, its co-founder. Alongside ModelChoice, Vose makes ModelRisk for Monte Carlo simulation in Excel, Tamara for project cost and schedule risk, and Pelican for risk registers and enterprise risk management.

59 EXAMPLE MODELS COME WITH MODELCHOICE, INCLUDING

Startup Product Launch · Clinical Trial Go-No-Go · Offshore Drilling Campaign · M&A Acquisition Decision · Wind Farm Portfolio · Mining Feasibility Study · Supplier Selection (MCDA) · Data Center Build · Insurance Product Launch · Cybersecurity Investment · Hospital Equipment Decision · Airline New Route · and 47 more

System requirements

WINDOWS
Windows 10 or 11, 64-bit

EXCEL
Excel 2016, 2019, 2021 or Microsoft 365, 32-bit or 64-bit

ALSO NEEDED
.NET 9 Desktop Runtime (setup adds it if missing)

MONTE CARLO
ModelRisk, for simulation through the tree

ModelChoice does not run on Mac OS or Parallels, but can be run on an Intel-based Mac using Boot Camp. Full details: **vosesoftware.com/System-Requirements.php**

vose
Putting numbers around risk

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October 2026. Features as described on vosesoftware.com at the time of writing. PrecisionTree is a trademark of Lumivero; Excel and Microsoft 365 are trademarks of Microsoft.