JX Lab Research Prioritizer

VaultX Research Investment Portfolio Case Study

12 competing requests

$297K submitted demand

2,295h requested capacity

-> $138K / 1,060h

maximum planned allocation after evidence reuse, scope modification, sequencing and contingency

Q4 2026 planning cycle - Product & UX IMPACT configuration v1.0

CASE BACKGROUND

The VaultX challenge

A 70-year vault-building security company was trying to modernize its growth model without weakening the institutional trust that built the business.

WHAT VAULTX WAS TRYING TO ACCOMPLISH

01 Turn the redesigned website into a viable acquisition and commercial channel.

02 Establish a scalable direct-to-consumer business for first-time private buyers.

03 Protect the institutional core while modernizing the customer experience.

04 Test whether VaultX could credibly expand into digital-security services.

THE RESEARCH OPERATING PROBLEM

Research demand was arriving from Product, Sales, Marketing, CX, Strategy, Security and executive leadership. The three-person research function could not responsibly execute every request.

The job was not to rank stakeholder requests by enthusiasm. It was to decide which research investments deserved funding, which questions should be narrowed, which evidence could be reused, and what should wait.

COMPETING REQUESTS
12 FY27 planning

SUBMITTED DEMAND
$297K external cost

REQUESTED EFFORT
2,295h researcher time

AVAILABLE
$150K / 1,200h Q4 constraints

The submitted portfolio exceeded budget by $147K and capacity by 1,095 hours before any evidence reuse, scope modification or sequencing.

CASE BACKGROUND

What JX inherited

VaultX was not starting from zero. It had accumulated years of research, analytics, sales intelligence, customer feedback, support data and technical assessments, but the evidence was fragmented and uneven.

HISTORICAL ARTIFACTS	RESEARCH REQUESTS	RESEARCH TEAM	PLANNING WINDOW
18 2022-2026	12 current decisions	3 core contributors	12 weeks Q4 2026

THE EVIDENCE BACKLOG INCLUDED

Research & Design

Buyer journey interviews, quote-form usability, two ecommerce prototype rounds, post-purchase interviews.

Commercial & Marketing

Win/loss review, brand tracking, D2C concept survey, competitive experience benchmark, market landscape.

Behavioral & Service

Institutional web analytics, support-ticket themes, ecommerce funnel analysis, customer satisfaction.

Strategy & Engineering

Digital-asset discovery, secure-cloud concept testing, FY27 product and technology feasibility.

JX first had to determine what the evidence actually answered before deciding whether new research was justified.

EXECUTIVE DECISION

Fund the decisions that can change the business. Do not fund the entire backlog.

JX converts the FY27 request backlog into a research investment portfolio - not a ranked list.

SUBMITTED DEMAND	MAXIMUM PLANNED	TRUE CONTINGENCY	AVOIDED BASELINE SPEND
$297K 2,295h	$138K 1,060h incl. reserve	$12K 140h unallocated	$159K vs. all submitted

RECOMMENDED PORTFOLIO

6 committed studies
1 stage-gated reserve
1 conditional opportunity

Plus 3 deferrals and 1 decision to use existing evidence.

THE EXECUTIVE CALL

Protect D2C execution and institutional acquisition. Advance digital-security discovery in stages. Preserve headroom instead of spending to the limit.

The plan remains inside both constraints under a 5% portfolio overrun.

Decision basis: 18 historical evidence artifacts - 18-variable IMPACT scoring - rule-based recommendations - portfolio stress test.

HOW TO READ THIS REPORT

This PDF separates the question, the score, the action and the resource commitment.

That separation matters: a high-value question can still need a narrower method, a dependency gate, or no new research at all.

1

EVIDENCE STATE

What do we already know about the current decision?

2

IMPACT SCORE

How attractive is new research investment on a 0-100 scale?

3

RECOMMENDATION

What should happen to the submitted request: proceed, modify, reuse evidence, defer, or not recommend?

4

PORTFOLIO STATE

What resource commitment follows after dependencies and constraints: committed, reserved, conditional, or unallocated?

READING RULE

Do not read close IMPACT scores as a precise league table. The score is one layer of the decision record; evidence quality, method fit, timing, dependencies and resource state remain visible throughout.

DECISION CONTEXT

VaultX is modernizing a trusted 70-year vault-building business without abandoning its institutional core.

The portfolio must support near-term digital execution while testing new growth opportunities responsibly.

COMPANY	ANNUAL REVENUE	RESEARCH TEAM	Q4 CAPACITY	Q4 BUDGET
~850 employees	~$375M fictional scenario	3 core contributors	1,200h authorized	$150K authorized

01

Grow digital revenue

Turn the redesigned website into a viable acquisition and commercial channel.

02

Establish the D2C business

Help first-time private buyers discover, evaluate and purchase confidently.

03

Protect the institutional core

Modernize without damaging trust, relationships or premium service.

04

Validate digital-security expansion

Find a credible opportunity before major product/engineering investment.

05

Improve research investment decisions

Reduce duplication, fragmented evidence and stakeholder-driven prioritization.

Planning period: Q4 2026, a 12-week window before FY27 roadmap and annual planning decisions.

DECISION MODEL

The score measures research-investment attractiveness. The recommendation decides what to do.

JX Research Prioritizer keeps evidence, score, confidence, recommendation and portfolio status separate.

I 20%	**M** 25%	**P** 15%	**A** 15%	**C** 10%	**T** 15%
Information Gap	Material Impact	Priority & Urgency	Actionability	Capacity & Cost	Trust & Rigor

EVIDENCE -> JUDGMENT -> SCORE

18 artifacts are mapped to each decision. Then 18 constituent variables are scored 1-5 against anchored rubrics. Six dimension scores are calculated and weighted into a deterministic 0-100 IMPACT score.

SCORE -> GATES -> PORTFOLIO

Rule-based gates translate attractiveness into PROCEED, MODIFY, USE EXISTING EVIDENCE, DEFER or NOT RECOMMENDED. Portfolio optimization then adds dependencies, resource states and contingency.

No hidden AI adjustment. Executive sponsorship and artificial deadlines do not override the rubric.

EVIDENCE LANDSCAPE

VaultX already had evidence. The problem was knowing what it actually answered.

JX searched the historical library before scoring Information Gap, then classified the current decision - not the document count.

HISTORICAL ARTIFACTS
18 requests across research, analytics, sales, CX & engineering

PARTIALLY KNOWN
8 requests with useful but incomplete evidence

UNKNOWN
2 R08 AI advisor - R11 public sector

KNOWN
1 R04 post-purchase handoff

OUTDATED
1 Research request 05

WHAT THE RESEARCH PRIORITIZER REVEALED

R04 Recent purchaser, support and satisfaction evidence already converges on handoff failures. New primary research adds little.

R08 Evidence proves buyers need help - but provides no direct evidence that AI is the right assistance model.

R12 Pricing friction is visible across qualitative and behavioral sources, but FY27 pricing architecture remains unresolved.

THE EVIDENCE RULE

Known does not mean "unimportant."

Unknown does not mean "research now."

The relevant question is whether existing evidence answers the current decision.

Evidence-state distribution: 8 Partially Known - 2 Unknown - 1 Known - 1 Outdated - 0 primarily Contradictory.

12-REQUEST DECISION MAP

A defensible portfolio needs more than a priority rank.

Scores are shown for context; final actions reflect evidence, scope, timing, method, dependencies and feasibility.

ID	REQUEST	IMPACT	ACTION	EVIDENCE	STRESS-TESTED ALLOCATION
R12	D2C pricing + packaging	75.4	PROCEED	Partially Known	$38K / 275h
R06	Digital-security opportunity	73.3	MODIFY	Partially Known	$24K / 170h
R07	Secure-recovery trust	72.9	MODIFY	Partially Known	$22K / 160h reserve
R02	Quote redesign validation	67.5	PROCEED	Partially Known	$9K / 85h
R03	Installation readiness	66.3	MODIFY	Partially Known	$20K / 150h
R08	AI / assistance model	65.9	MODIFY	Unknown	Conditional / $0
R01	Mobile abandonment	65.0	PROCEED	Partially Known	$18K / 150h
R10	Installed-product record	60.8	PROCEED	Partially Known	$7K / 70h
R05	Institutional brand refresh	59.6	DEFER	Outdated	$0
R11	Public-sector buyer needs	56.7	DEFER	Unknown	$0
R09	Premium personalization	50.4	DEFER	Partially Known	$0
R04	Post-purchase handoff	44.2	USE EXISTING	Known	$0

Close scores are not treated as statistically meaningful rank differences; recommendation logic and portfolio relationships remain visible.

PORTFOLIO ALLOCATION

Commit $116K. Reserve $22K. Keep $12K genuinely unallocated.

The final plan protects execution while retaining the ability to respond to uncertainty.

COMMITTED

$116K / 900h

R12 - R06 - R02 - R03 - R01 - R10

RESERVED

$22K / 160h

R07 stage-gated after R06

UNALLOCATED

$12K / 140h

true contingency

IF R06 DOES NOT CLEAR THE DIGITAL-SECURITY GATE

Release the R07 reserve. VaultX then has $34K and 300 hours available for reprioritization rather than automatically spending against an invalidated dependency.

Maximum planned allocation = $138K / 1,060h. Resource state is part of the decision - not an afterthought.

WHY IMPACT SCORE DOES NOT EQUAL RECOMMENDATION

Four comparisons show why a score-only backlog would make the wrong calls.

IMPACT measures attractiveness; recommendation gates preserve scope, method, evidence reuse and timing.

75.4 -> PROCEED

R12 Pricing + packaging

Commercially consequential, decision-ready and sufficiently defined.

73.3 -> MODIFY

R06 Digital security

High-value question, but WTP is premature before a concrete proposition exists.

67.5 -> PROCEED

R02 Quote redesign

Below 70, yet narrow, imminent, inexpensive and highly actionable.

66.3 -> MODIFY

R03 Installation readiness

Similar score, but submitted scope mixes behavioral research with technical feasibility.

60.8 -> PROCEED

R10 Installed-product record

Known problem; narrow residual implementation question still merits a $7K/70h pilot study.

59.6 -> DEFER

R05 Brand refresh

Evidence is outdated, but the decision is not urgent enough for this quarter.

44.2 -> USE EVIDENCE

R04 Post-purchase

Low score reflects an already-answered question - not an unimportant customer problem.

ARCHITECTURE CHECK

The model resists executive bias, cheap-study bias, ignorance bias and duplicate-research bias.

PRIORITY CLUSTER - D2C EXECUTION

Three investments address established friction at different points in the buying journey.

Together they support revenue, purchase confidence and operational readiness without duplicating the same question.

R12 **75.4**

PROCEED

Pricing + packaging

Decide starting-price presentation, bundles, installation treatment and deposit/commitment structure.

$38K / 275h

R01 **65.0**

PROCEED

Mobile abandonment

Recruit actual recent abandoners to explain production leakage that analytics can locate but not explain.

$18K / 150h

R03 **66.3**

MODIFY

Installation readiness

Narrow to the digital pre-check boundary; leave structural feasibility rules to Engineering/Installation.

$20K / 150h

Combined baseline investment: $76K / 575h - spans conversion, pricing and installation readiness rather than repeating generic D2C discovery.

PRIORITY CLUSTER - DIGITAL SECURITY

Sequence commercial viability before committing to downstream trust research.

The portfolio preserves optionality without paying for both questions as if they were independent.

R06

COMMIT - MODIFY

Opportunity definition first

$24K / 170h

->

R07

RESERVE - MODIFY

Trust requirements only if R06 clears

$22K / 160h protected

->

R08

CONDITIONAL

Assistance model - not 'AI validation'

$0 baseline

WHY THIS MATTERS

R06 asks whether there is a viable opportunity for VaultX to expand into digital security. R07 asks what amount of trust a secure recovery service would require if VaultX advances. Funding both simultaneously would ignore that dependency. If R06 fails, release R07 and reconsider R08, R05 or emerging work with current evidence.

WHAT NOT TO FUND NOW

Four 'no new baseline spend' decisions preserve money without discarding useful questions.

JX distinguishes evidence reuse from deferral so leadership knows whether the issue is already answered or simply mistimed.

R04 USE EXISTING EVIDENCE

Post-purchase handoff

$22K / 180h submitted

Recent purchaser, support and satisfaction evidence already identifies the major failures. Synthesize and act.

R05 DEFER

Institutional brand refresh

$27K / 170h submitted

Dedicated brand evidence is outdated, but the longitudinal decision is not urgent enough for Q4.

R09 DEFER

Premium personalization

$24K / 190h submitted

Desirability exists, but higher-priority D2C decisions should be resolved first.

R11 DEFER

Public-sector buyer needs

$29K / 230h submitted

The evidence gap is real; the near-term decision and dependency are not. Unknown does not equal urgent.

Avoided baseline spend across these four requests: $102K / 770h as submitted.

PASS 07 - PORTFOLIO STRESS TEST

A portfolio should survive uncertainty, not merely fit on paper.

Before recommendations become final, JX tests the proposed portfolio against resource overruns, dependency failure and loss of decision-making headroom.

PROVISIONAL PORTFOLIO

$146K / 1,140h

97.3% budget | 95% capacity

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THE PORTFOLIO IS TESTED

01	**Baseline fit**	Does the portfolio fit authorized budget and capacity?
02	**Cost + capacity overrun**	What happens at +5% and +10%?
03	**Dependency failure**	What if upstream evidence invalidates downstream work?
04	**Contingency**	Is enough headroom preserved for uncertainty or emerging work?

>

STRESS-TESTED PLAN

$138K / 1,060h

$12K / 140h genuinely unallocated

WHY THE TEST MATTERS

The provisional plan breaks the budget under a 5% overrun. The revised portfolio remains inside both constraints at +5%, while preserving real contingency.

Before: +5% -> $153.3K / 1,197h +10% -> $160.6K / 1,254h

Final: +5% -> $144.9K / 1,113h +10% hours -> 1,166h; budget only $1.8K over

WHAT THE STRESS TEST CHANGED

01 **Stage-gate R07 behind R06**

Protect downstream trust research until commercial viability clears.

02 **Move R08 into the conditional queue**

Do not consume baseline funding before the assistance model is justified.

03 **Separate resource states**

Distinguish Committed, Reserved and truly Unallocated budget and capacity.

PASS 07 OF 08

Stress testing does not rewrite the IMPACT score. It tests whether the portfolio configuration remains defensible under uncertainty.

The six dimensions, 18 variables, Product & UX weights, deterministic formula and recommendation taxonomy remain unchanged.

DECISION GOVERNANCE

Approve the portfolio as a set of commitments, gates and conditions - not a static list.

The next decisions are operational: start, gate, release and revisit.

NOW	**Start R12, R06, R02, R03, R01 and R10**	Six committed initiatives consume $116K / 900h.
GATE	**Hold R07 until R06 defines a viable proposition/use case**	Protect $22K / 160h; release it if the dependency fails.
ACT	**Use existing evidence for R04**	Synthesize purchaser, support and satisfaction evidence; move into intervention.
REVISIT	**Keep R08 conditional; defer R05, R09 and R11**	Re-score when prerequisites, timing or strategic context materially change.

Re-score when evidence, scope, timing, capacity or strategic objectives materially change. Preserve the original decision record and any human override.

UNDER THE HOOD

Every recommendation passes through eight decision layers.

The Prioritizer does not rank requests once and call the result a portfolio. Each request is progressively tested before a recommendation becomes a resource commitment.

01 EVIDENCE MAPPING

What evidence already exists?

Map historical artifacts to the current decision.

02 EVIDENCE-STATE CHECK

What is actually known?

Classify Known, Partially Known, Unknown, Contradictory or Outdated.

03 CONSTITUENT SCORING

How does the request perform?

Score 18 variables from 1-5 against anchored criteria.

04 IMPACT CALCULATION

How attractive is new research?

Weight six dimensions into a deterministic 0-100 IMPACT score.

05 RECOMMENDATION GATES

What should happen?

Test evidence reuse, scope, method, timing and decision readiness.

06 PORTFOLIO OPTIMIZATION

Can the decisions coexist?

Resolve dependencies, sequencing, budget, capacity and resource states.

07 PORTFOLIO STRESS TEST

Does the plan survive uncertainty?

Test overruns, dependency failure and contingency.

08 HUMAN DECISION RECORD

What is leadership approving?

Preserve the recommendation, reasoning and any human override.

THE DECISION LOGIC

Evidence can change the score. Gates can change the action. Portfolio constraints can change the commitment. Stress testing can change the sequence. Human judgment remains visible throughout.

METHOD NOTES & SAMPLE STATUS

This is a fictional scenario built to demonstrate JX Lab's decision architecture, not an industry benchmark.

Client work would use the organization's real evidence, constraints, scoring configuration and decision owners.

RESOURCE ESTIMATES

Cost and researcher-hour estimates are planning assumptions for the VaultX scenario. They vary by method, sample, recruitment difficulty, specialist expertise and operational demand; they are not universal market rates.

EVIDENCE BEFORE SCORING

Historical evidence is mapped to the current decision before Information Gap is scored. Document volume alone does not determine whether a question is Known, Partially Known, Unknown, Contradictory or Outdated.

RUBRIC-ANCHORED SCORING

All 18 constituent variables are scored 1-5 against anchored criteria before the weighted 0-100 IMPACT score is calculated. Scores are absolute to the rubric, not percentile ranks across the backlog.

RECOMMENDATION GATES

The outward-facing actions are PROCEED, MODIFY, USE EXISTING EVIDENCE, DEFER and NOT RECOMMENDED. A high score does not automatically mean proceed, and a low score does not mean the underlying problem lacks importance.

HUMAN DECISION RECORD

The model is designed to support accountable judgment. Any override should remain visible alongside the original evidence, score, recommendation and portfolio state.

APPENDIX A

Original FY27 research request backlog

This is the pre-JX Research Prioritizer intake view: stakeholder request, decision deadline and submitted resource estimate. No IMPACT scores, evidence states or recommendation labels had been applied.

ID	ORIGINAL REQUEST	REQUESTING STAKEHOLDER	DEADLINE	COST	HOURS
R01	Mobile shopper drop-off	VP, Digital Commerce	Nov 20	$18K	150h
R02	Institutional quote redesign validation	Director, Institutional Sales	Oct 30	$9K	85h
R03	Consumer installation readiness	VP, Consumer Product	Dec 11	$34K	260h
R04	Another post-purchase handoff study	SVP, Customer Experience	Nov 6	$22K	180h
R05	Institutional brand perception refresh	Chief Marketing Officer	Jan 15	$27K	170h
R06	Digital-security segmentation + WTP	Chief Strategy Officer	Dec 18	$42K	300h
R07	Secure-recovery trust requirements	VP, Information Security	Dec 4	$31K	240h
R08	AI vault advisor for product selection	Chief Executive Officer	Oct 23	$16K	145h
R09	Premium personalization opportunity	VP, Brand & Merchandising	Jan 29	$24K	190h
R10	Installed-product record pilot	Director, Customer Support	Nov 13	$7K	70h
R11	Public-sector buyer needs assessment	VP, Business Development	Feb 12	$29K	230h

If every request were executed as submitted: $297,000 and 2,295 researcher hours.

APPENDIX B

Historical evidence library

The 18-artifact library intentionally spans teams, methods and dates. JX assesses relevance to the current decision rather than treating document count as evidence strength.

01	**Institutional Vault Buyer Journey Study**	Research + Sales	Interviews - 14 institutional buyers	Mar 2023
02	**Enterprise Client Win/Loss Review**	Sales Strategy	Win/loss + CRM - 22 opportunities	Sep 2024
03	**Institutional Website Analytics Snapshot**	Marketing	Web analytics - institutional traffic	Jan-Jun 2025
04	**Quote Request Form Usability Study**	Product Design	Moderated usability - 8 prospects	Jul 2025
05	**Existing Customer Satisfaction Survey**	Customer Experience	Survey - 426 institutional customers	Nov 2024
06	**Service & Support Ticket Theme Analysis**	Customer Support	Thematic analysis - 1,180 tickets	Feb 2025
07	**Consumer Vault Buyer Interviews**	Marketing Research	Interviews - 12 affluent individuals	May 2024
08	**High-Net-Worth Consumer Concept Survey**	Marketing	Survey - 312 affluent consumers	Oct 2024
09	**D2C Competitive Experience Benchmark**			Mar 2025
10	**VaultX Brand Perception Study**	External Vendor	Brand survey + interviews	Aug 2022
11	**Consumer Ecommerce Prototype Test - Round 1**	Product Design	Moderated test - 7 prospects	Aug 2025
12	**Ecommerce Prototype Test - Round 2**	Product Design	Unmoderated + interviews - 24 prospects	Nov 2025
13	**Abandoned Cart & Funnel Analysis**	Digital Commerce	Behavioral analytics - website visitors	Q1 2026
14	**Post-Purchase Consumer Interviews**	Lead Researcher	Interviews - 15 D2C purchasers	Apr 2026
15	**Digital Security Market Landscape**	Strategy	Secondary market research	Jun 2024
16	**Digital Asset Security Customer Discovery**	Lead Researcher	Interviews - 18 business + 8 affluent	Feb 2026
17	**Secure Cloud Storage Concept Test**	Product + Strategy	Survey/message test - 405 respondents	May 2026
18	**FY27 Product & Technology Feasibility Review**			Jul 2026

The library spans 2022-2026 and mixes qualitative, quantitative, behavioral, secondary and internal technical evidence.