

OPERATING CASE STUDY / CUSTOMER EXPERIENCE & LOGISTICS

Operating Performance & Customer Outcomes

Reconcile the policy, population and reporting clock before crediting the operation

An anonymized operating case on explaining divergent loss and concession measures, correcting a volume-weighted recovery plan, and separating accounting identities from causal evidence.

PROJECT CONTEXT / OUTCOME TRANSLATION, EXECUTIVE REPORTING & PERFORMANCE DECISIONS

BLUF / BOTTOM LINE UP FRONT

A balanced bridge is not causal proof.
Test the action on mature customer outcomes.

ANALYTICAL FINDING

A component can have a negative regression slope against its own total because the remainder moves differently. Policy subtraction and a closed accounting bridge do not establish which operating action created value.

CONTRIBUTION IN THE SOURCE RECORD

Framed executive questions, reconciled competing measures and documented reporting corrections. Personal contribution remains provisional pending original artifacts.

EVIDENCE STATUS

Original artifacts were not recovered locally. Analytical deliverables are recorded; operating implementation and financial benefit are not established.

BLUF: analytical inference. Source contribution: historical record. Client and internal identities anonymized.

STRUCTURED ABSTRACT

Separate a reconciled score from a demonstrated customer benefit

[AI] This case changes the question from whether a favorable operating metric “translated” into concessions to whether a defined action improved a mature customer outcome on the same population. A closed accounting bridge is useful evidence; it is not the missing causal comparison.

Abstract element	Decision narrative
Context [HR]	An operating-loss improvement appeared inconsistent with concession performance. Policy changes, different populations and reporting clocks complicated the interpretation. The supplied register records executive questions, directed analysis, corrected calculations and leadership-ready documents.
Objective [PD]	Identify what the evidence can establish about operational contribution; distinguish customer outcomes from policy-mediated financial events; design a feasible test of a concrete operating action.
Approach [RC/AI]	Reconcile source versions, rate bases, policy adjustments and reporting windows; audit part-whole regression; distinguish a weighted target identity from a forecast; formalize the Customer-Value Reconciliation Contract.
Findings [AI]	A component can have a negative regression coefficient against its own total without a negative causal effect. A policy subtraction can balance without identifying a common-policy outcome. Different posting delays can reverse the apparent direction of a real customer improvement.
Decision value [PD]	Assign a common-cohort reconciliation before adopting a new leading metric or committing savings. Test a specific escalation package with fixed customer remedies, full-manifest outcomes and a separately powered displacement safeguard.
Implications [PD]	Data owners authenticate population and clocks; policy owners specify entitlement rules; Operations owns the intervention; Finance verifies avoidable resources. Analytical authorship does not establish execution, approval or financial impact.

THE COO DECISION

[PD] Fund a bounded measurement reconciliation and intervention test. Keep operational controls in place while unresolved policy, population and maturity questions are answered; a weak association with a financial score is not a reason to abandon the underlying customer problem.

Basis: supplied project register S1 [HR]; new CVRC analysis [AI/PD]. [RC] denotes recalculated evidence or explicit constructed examples. No historical causal effect or saving is established.

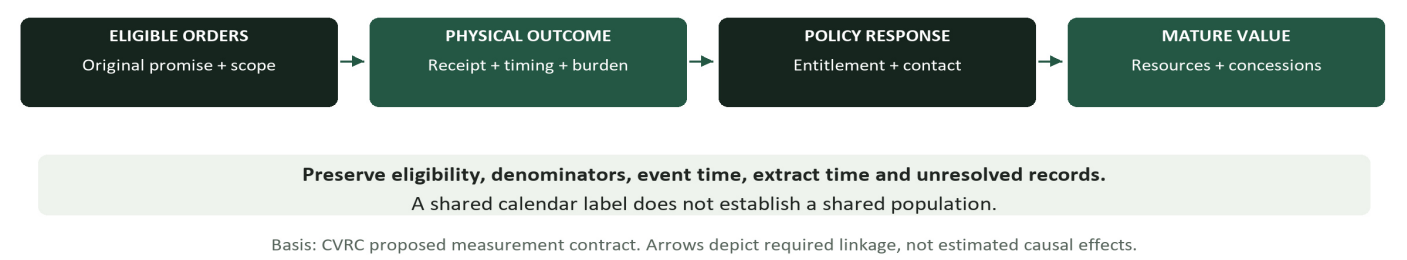
EXHIBIT 1 / MEASUREMENT CONTRACT

Different populations and clocks can make compatible results look contradictory

[HR] The source compared operating units, defect rates, customer concessions and policy-adjusted measures across multiple periods. Later analysis also changed the original near-flat framing. [AI] Before asking why one measure failed to move another, determine whether they describe the same eligible orders and observation horizon.

ONE ORIGINAL COHORT / DISTINCT EVENTS / ONE MATURE HORIZON

Proposed Customer-Value Reconciliation Contract / authenticate every transition before estimating value



Contract field [PD]	Decision it protects
Original eligible population	Freeze order, service promise, business line, node type and assignment domain. A dispatched denominator, shipped denominator and selected station panel are not interchangeable. Preserve unlinked and unresolved orders.
Event and reporting time	Link the original promise, physical event, customer contact, policy decision and financial posting. Retain extract date and late-arriving corrections. A weekly label does not define a common cohort.
Outcome and entitlement	Distinguish nonreceipt, late receipt, customer burden, compensation and resource cost. A remedy-policy change can alter the financial measure without the same change in physical service.
Source version and authority	Retain the initial question and later contradictory findings. Authenticate the target and the document actually used for the decision. A draft header naming an approver is not approval.

INDEXING PRESERVES PRIVACY, NOT VALIDITY

[AI] Setting each series to 100 does not reconcile an incompatible denominator, selected population or observation window. A confidential rate can be rendered safely and still measure the wrong construct.

Basis: S1 population, timing and version conflicts [HR]; CVRC common-cohort requirements [PD]. Diagram is a proposed evidence contract, not a completed data linkage.

EXHIBIT 2 / PART-WHOLE INFERENCE

A negative component coefficient can arise inside a positive accounting identity

[AI] Regressing a total on one of its components answers an association question. Because the remainder can move in the opposite direction, even the sign of the regression coefficient need not describe the effect of changing that component while holding the remainder fixed.

A TOTAL CAN FALL AS ONE OF ITS OWN COMPONENTS RISES

Wholly hypothetical exact construction / $T = B + O$ in all four rows / no historical values

COMPONENT B	REMAINDER O	TOTAL T
9	20.5	29.5
9	22.5	31.5
11	17.5	28.5
11	19.5	30.5

Regression slope = -0.5 / Adding 1 to B with O fixed adds 1 to T

Basis: independent exact arithmetic proof. The controlled identity is not an estimated operating-action effect.

[RC] In the wholly hypothetical four-row construction, total T equals component B plus remainder O in every row. Ordinary least squares gives a slope of -0.5 for T on B. Yet an intervention that adds one to B and leaves O fixed adds exactly one to T. Both statements are true because they answer different questions.

[AI] Algebra gives $\beta = 1 + \text{Cov}(B,O) / \text{Var}(B)$. The negative coefficient in this example is generated by offsetting variation in O. A common linear within-group transformation preserves the identity; adding fixed effects does not by itself remove the part-whole problem.

Permissible conclusion	Unsupported extension
Descriptive covariance [AI]	A component covaries with the residual categories under the observed mix. This does not rank interventions by their causal value.
Accounting reconciliation [RC]	Category changes can sum exactly to the total. Closure proves arithmetic completeness on that scope, not why the categories changed.
Intervention comparison [PD]	Assign a concrete operating action and measure all affected outcomes. A metric value or regression coefficient is not an action package.

Basis: exact four-row counterexample, independently executable in the private annex [RC/AI]. All displayed numbers are constructed and unrelated to historical internal metrics.

EXHIBIT 3 / POLICY RECONCILIATION

Subtracting a policy allowance does not identify a common-policy counterfactual

[HR] The source described a fixed policy adjustment, but its reported adjusted endpoints imply different deductions. Another version reverses the favorable interpretation of an endpoint comparison. [AI] Preserve these as source conflicts; silently repairing the arithmetic would manufacture agreement.

THE SAME OBSERVED BACKOUT CAN HIDE DIFFERENT POLICY EFFECTS

Wholly hypothetical two-world proof / observed total = 100; new-channel amount = 20; mechanical backout = 80

WORLD A / NO SUBSTITUTION
Old-policy outcome = 80
Incremental policy addition = 20

WORLD B / CHANNEL SUBSTITUTION
Old-policy outcome = 95
Incremental policy addition = 5

Identical reported subtraction / different common-policy counterfactual

Basis: exact constructed nonidentification proof. Neither world is asserted to describe the historical policy.

[AI] Observed concessions reflect physical failures, customer contact, eligibility rules, take-up, financial coding and timing. Subtracting a policy estimate identifies a common-policy outcome only when the estimate represents the relevant incremental policy effect for that same cohort and horizon. A nominal allowance is not that evidence.

Reconciliation branch [PD]	What it can establish
Use stated endpoints	Recalculate their signed relative change, document the implied deductions and retain their population definitions. Do not label the result a causal operational improvement.
Apply the stated common deduction	Recalculate both periods under the stated arithmetic rule. Treat the changed endpoint as an analytical sensitivity, not a corrected historical observation.
Use another source version	Retain its endpoint order, sign, timing and metric family. Test whether the same operational decision remains justified under each version.
Estimate actual policy impact	Recover order-level entitlement and posting histories; define a policy contrast and its identification assumptions. A fixed adjustment cannot substitute for this counterfactual.

CONCLUSION THAT SURVIVES THE SOURCE BRANCHES

[AI] The record supports a reconciliation problem and analytical work addressing it. It does not establish the incremental customer benefit of an operating intervention under a common policy.

Basis: S1 inconsistent policy deductions, endpoint directions and metric families [HR]; documented arithmetic branches [RC]; policy identification distinction [AI]. Raw versions remain private.

EXHIBIT 4 / MATURITY AND TIMING

An early financial increase can coexist with fewer mature customer failures

[RC] The prospective model constructs a fixed-policy example: the action reduces total promise breaches by 25%, while the early concession count rises by about 8.1%. Different capture delays for priority and ordinary orders explain the reversal. These are hypothetical design results, not project outcomes.

EARLY ACCOUNTING AND MATURE CUSTOMER OUTCOMES CAN DIVERGE

Wholly hypothetical fixed-policy model / each endpoint indexed to its own usual-process baseline = 100



Basis: CVRC prospective model. Priority and ordinary failures have different early capture; no policy change.

[AI] A policy can remain unchanged while reporting maturity changes the apparent story. If the action shifts the composition of failures toward a group whose claims arrive faster, the early financial total can increase even when the same original cohort ultimately experiences fewer failures. Mature outcomes and early accounting events must remain separate endpoints.

[HR] Historical source analyses used different periods and clock bases, including a later counter-analysis associated with a neighboring project. [AI] A short post-period relative to a median delay does not alone prove that the observed increase is a lower bound. Coverage, age distribution, event incidence and denominators can differ on both sides.

Clock check [PD]	Required evidence
Same-order maturity	Follow each original eligible order to a fixed outcome horizon and quantify unresolved status. Do not equate a calendar reporting window with complete follow-up.
Delay-distribution stability	Estimate capture by failure group, policy version and period. Report right truncation and changing composition rather than applying a single average lag to every category.
Information available then	Retain the version available at the decision time and the revised mature result. A later reconstruction cannot establish what an earlier operating rule knew.

Basis: CVRC finite prospective model [RC/PD], fixed hypothetical entitlement conversion and delay kernel. S1 clock conflicts [HR]. No simulated percentage is a historical result.

EXHIBIT 5 / VOLUME-WEIGHTED PLANNING

The remaining-period target is more demanding than the annual gap

[AI] A full-year defect-rate target is a volume-weighted identity. Subtracting the annual target from the current rate understates the remaining-period requirement whenever part of the annual volume has already occurred above target. A technology launch also earns only the volume-weighted contribution available after release.

THE REMAINING REQUIREMENT DEPENDS ON VOLUME ALREADY REALIZED

Wholly hypothetical index scenarios / year-to-date rate A = 100; full-year goal G = 90

30% OF VOLUME ELAPSED Remaining target = 85.7 Required reduction = 14.3	50% OF VOLUME ELAPSED Remaining target = 80 Required reduction = 20.0	70% OF VOLUME ELAPSED Remaining target = 66.7 Required reduction = 33.3
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$R = (G - wA) / (1 - w)$ / Launch contributions use eligible post-release volume

Basis: weighted-rate accounting identity. Scenario points are not time observations or validated forecasts.

[RC] Let A be the observed year-to-date rate, G the full-year target, and w the realized share of full-year eligible volume. The required remaining rate is $R = (G - wA) / (1 - w)$. In the invented index example A = 100 and G = 90: at w = 0.5, R = 80. The required remaining reduction is 20, not the annual gap of 10.

[RC] With the same invented rates, R is about 85.7 at w = 0.3 and 66.7 at w = 0.7. These are scenario points, not a time series or forecast. The uncertainty in remaining volume can materially change the operating commitment even before treatment effectiveness is considered.

Planning input [PD]	Release condition
Authoritative goal	Obtain the approved target, metric definition and population. The historical versions disagree on whether the stated annual goal had documentary authority.
Volume and launch timing	Use the eligible volume forecast by period and launch availability. A year-end run rate cannot be credited as a full-year effect.
Incremental operational benefit	Separate technology, policy and frontline effects, including overlap and displacement. An accounting requirement is a target; it is not evidence that an intervention can achieve it.

Basis: S1 target-gap correction and unresolved target authority [HR]; exact weighted-rate identity [RC]. Exhibit values are wholly hypothetical index scenarios.

EXHIBIT 6 / INTERVENTION PRIORITY

The largest category, fastest-growing category and best action are different choices

[HR] The source separated a large existing late-delivery category from categories contributing more to a short-period increase. It also recorded counter-moving stage indicators and an exceptional site result. [AI] Those observations can guide investigation; they cannot identify the effect of the proposed frontline action.

THREE RANKINGS / THREE DIFFERENT QUESTIONS

Proposed decision discipline / no category share or observed association is an intervention effect

LARGEST LEVEL
Where is the burden?
Common-cohort share

LARGEST CHANGE
What moved the total?
Closed change bridge

BEST ACTION
What improves service?
Causal contrast + full costs

Measure the original full manifest, including ordinary orders displaced by priority work.

Basis: CVRC intervention-priority argument. Selected outliers and short weekly changes do not identify effects.

Question	Evidence that answers it
Where is the level? [RC]	A correctly classified common-cohort category share. A cumulative Pareto share is not the share of its final category, and a carrier label does not establish controllability.
What changed? [RC]	A reconciled change bridge with a visible residual. Units and rates can move differently when exposure changes; absolute denominator checks must pass before accepting the explanation.
What action works? [PD]	A specified intervention contrast on mature outcomes, including ordinary orders displaced by priority work. Opposite weekly movements do not prove statistical independence or causal decoupling.
Where will it transport? [PD]	Effects by service promise, node type, baseline capacity and operating mechanism, with uncertainty. A selected exceptional site does not establish a network effect.

[AI] All supplied sequences remain inside their provisional arithmetic bands, but sparse endpoints and incompatible source versions prevent operating-process classification. These are non-diagnostic screens. Do not narrate the movements as demonstrated process improvement or deterioration.

ACTION BEFORE METRIC OPTIMIZATION
[PD] Test pre-promise escalation and reserve attention on the full original manifest. Separately constrain harm to ordinary orders; an improved priority score can conceal displacement elsewhere.

Basis: S1 categories, stage movements and selected site example [HR]; private reconciliation and tentative process screens [RC]; CVRC action-package design [PD]. No selected-site causal effect is claimed.

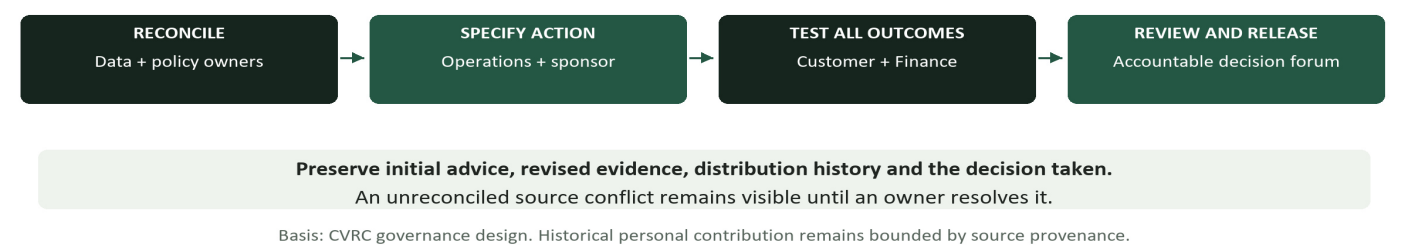
EXHIBIT 7 / CONTRIBUTION AND DECISION RIGHTS

The analytical contribution is a clearer decision boundary, not an implemented saving

[HR] The register records question framing, directed analytical work, calculation corrections, signed written responses and executive-facing documents. It also preserves unresolved joins, disputed source versions and unconfirmed follow-through. [AI] The contribution claim must remain at the level those records can support.

MAKE EVERY RELEASE AN EXPLICIT DECISION WITH AN ACCOUNTABLE OWNER

Proposed sequence / completed analysis does not imply adoption, approval or achieved financial value



Claim or next decision	Evidence grade and accountable role
Framing and reconciliation [HR/AI]	Provisional hoop support from derivative records: the described work is compatible with the claimed role, but does not exclude alternative authors or independently authenticate execution.
Authored response [HR/AI]	A recorded signed response is more probative than default document metadata. Until the original is recovered, it remains indirect authorship evidence; no doubly decisive claim is available.
Operating impact [AI]	Not established. Action owners and deadlines in a plan do not prove adoption, customer benefit or financial realization. An analysis pipeline is not a field intervention.
Release to testing [PD]	A sponsor commissions the reconciliation; data and policy owners validate the outcome contract; Operations owns execution; Finance signs the resource model. The test retains ordinary-flow harm as a separate gate.

UPDATE THE DECISION WHEN THE EVIDENCE CHANGES

[PD] Record who received the initial framing and its later correction, the decision each version supported, and unresolved conditions. Completion of a revised document does not establish that its correction reached the decision maker.

Basis: S1 recorded contribution and workflow provenance [HR]; Collier process-tracing standards [AI]. All implementation, approval and financial claims remain unproven unless separately authenticated.

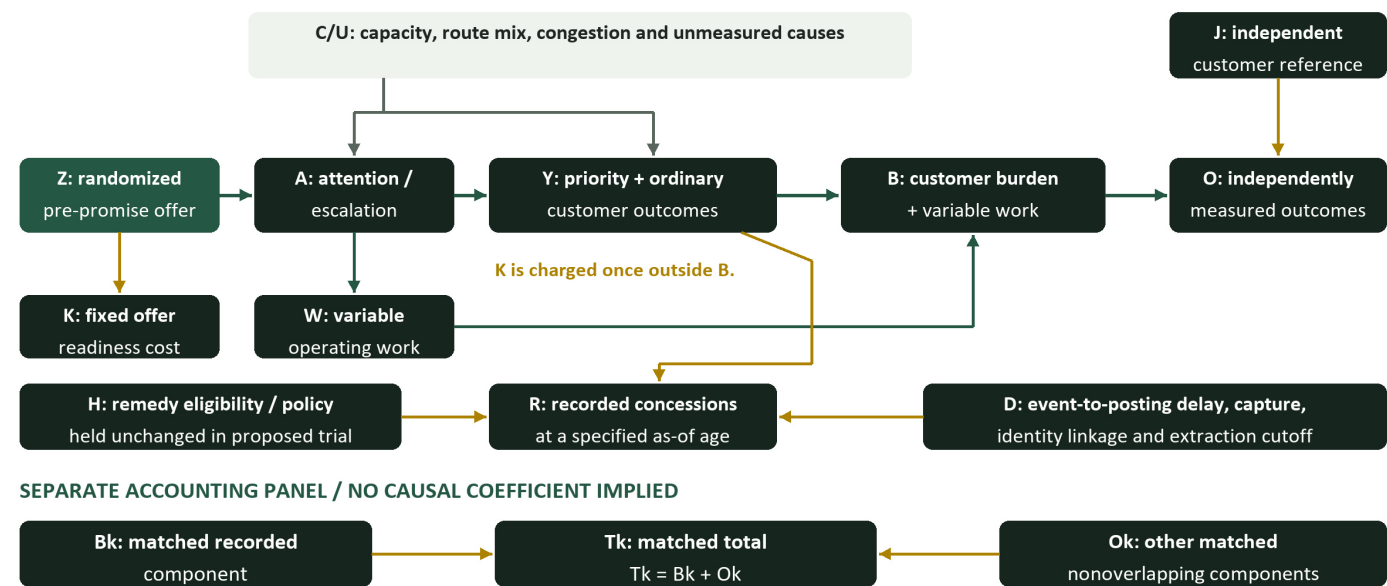
TECHNICAL ANALYSIS

Customer value needs a causal path beyond the reported total

[AI/PD] The Customer-Value Reconciliation Contract (CVRC) separates an operating action, its customer consequences and the rules that turn those consequences into recorded concessions. A reconciled total is not a treatment effect.

OPERATING ACTION / CUSTOMER OUTCOME / FINANCIAL OBSERVATION

CVRC hypotheses: reporting reconciliation and causal action evidence have distinct tests.



C/U can also affect W, H and D; no causal effect is inferred from their correlations.

Reporting paths do not change the original ITT denominator. Ledger closure is a conditional identity.

[PD] Z assigns a concrete pre-promise offer; A reallocates attention. Y retains priority and ordinary customer outcomes, including displacement. Variable work W and Y form burden B; independent reference J produces measured outcome O. Fixed incremental readiness K is charged separately. C/U includes capacity, mix, congestion and unmeasured causes; shared resources define the randomization boundary.

[AI] Recorded concessions R arise from physical outcomes Y, remedy eligibility H and event-to-posting/capture process D. These are distinct causal and measurement paths. A recorded input is not automatically a valid substitute for Y. In the proposed trial, Z leaves H unchanged; the diagram does not authorize a policy or payment change.

[RC] Within a verified additive ledger, component Bk and other components Ok determine total Tk. That lower panel is an accounting identity, not an arrow proving preventability. Its regression coefficients can reflect covariance between components. The historical register supplies no identified coefficient for the proposed action paths.

Basis: source-reported analytical question [HR]; Pearl, Prentice and VanderWeele motivate explicit intervention and endpoint distinctions [AI/PD]. Arrows are proposed mechanisms, not fitted effects.

TECHNICAL ANALYSIS

Five quantities answer five different questions

[HR/AI] The register combines loss units, concession rates, operational inputs and a planning requirement. Its useful reporting corrections do not make these interchangeable measures of customer value.

Quantity	Definition and necessary boundary
Observed accounting change	Difference in matched-period, matched-population rates; numerator identity, exposure, ownership and as-of age fixed.
Mechanical policy exclusion	Recorded total minus a specified labeled channel. It describes the retained ledger, not an old-policy outcome.
Customer-outcome ITT	Usual-minus-offer promise-breach risk among all original assigned orders, including ordinary flow.
Incremental resource value	Priced avoided customer burden minus adverse redistribution, variable work and fixed incremental cost.
Remaining-period requirement	The rate needed in remaining exposure to achieve an authenticated full-period target; an identity, not a forecast.

[HR/AI] The stated rate pair falls rather than rises, despite adverse-direction language elsewhere. The reported policy exclusions also differ across the two periods despite a common-offset description. Preserve each fork until the underlying ledger and policy version are authenticated; do not silently select the branch that best supports the thesis.

[AI] A concession-to-loss rate ratio and the corresponding unit ratio cannot disagree under an identical numerator mapping and common denominator. Disagreement is a reconciliation trigger, not evidence that policy mechanically converts more than every loss. Multiple financial events per order and differently scoped unit measures require explicit grain mapping.

[AI] Returned-item status may invalidate one terminal loss label without removing a missed promise, customer effort or an eligible remedy. The same driver, station or event code does not establish a causal prevention owner. Accountable response routing and financial booking should remain distinct from causal attribution.

[PD] Preregister the original order universe and outcome horizon. Retain missing and cancelled cases, preserve the original promise, and independently adjudicate whether the promise was fulfilled. Record refunds and contacts as separate consequences. The source supports a measurement problem and proposed actions; it does not establish their historical efficacy.

Basis: source rate/count/policy forks [HR], recomputed accounting [RC], and proposed estimands [PD]. No refund amount is treated as an automatically avoidable cost.

TECHNICAL ANALYSIS

A negative bucket coefficient can coexist with positive addition

[RC/AI] Regressing a total on one of its own components measures a covariance relationship. Fixed effects and precise standard errors do not turn that relationship into the effect of improving an operating mechanism.

Invented equally likely state	Bucket B	Other O	Total T
1	9	20.5	29.5
2	9	22.5	31.5
3	11	17.5	28.5
4	11	19.5	30.5

[RC] Let independent U and V take -1 or +1 with equal probability. Set $B = 10 + U$, $O = 20 - 1.5U + V$ and $T = B + O$. Every value is nonnegative. The observed regression slope of T on B is -0.5. Yet adding one unit to B while holding O fixed increases T by one unit in every state.

[RC] In general, $\text{beta}(T \text{ on } B) = 1 + \text{Cov}(B,O) / \text{Var}(B)$. Applying the same within-station transformation to all three variables preserves $T = B + O$ and the identity. Replicating these four states at different station intercepts therefore retains the negative slope after station fixed effects. Clustered inference changes uncertainty, not this estimand.

[AI] The +1 comparison is an accounting derivative, not a claim that a real intervention affects only B. An action could reduce both categories, transfer defects between them, or improve the target category while harming another. Those possibilities need customer-level outcomes and a treatment contrast. A statistically weak component coefficient is not evidence that preventing that component has no value.

[AI] A bucket bridge that sums exactly to the total change verifies arithmetic only after shared grain and an exhaustive, nonoverlapping partition are checked. If the residual category is defined by subtraction, zero residual is guaranteed. Kronmal explains shared-component hazards; Aitchison treats constrained component information. Neither source validates this historical partition or its causal interpretation.

Basis: new exact rational proof [RC], privately reproduced including fixed effects; primary ratio/composition literature [AI]. All table values are independent hypotheticals, not historical panel values.

TECHNICAL ANALYSIS

A policy subtraction is not an old-policy counterfactual

[RC/AI] Two worlds can produce the same current booking ledger but different effects of a new refund channel. The missing question is which payments would otherwise have occurred, not whether the channel can be subtracted.

Invented matched cohort	World A	World B
Observed concessions under new policy	100	100
Observed new-channel labels	20	20
Mechanical total after removing labels	80	80
New-channel cases otherwise refunded	0	15
Total under old policy	80	95
Incremental bookings caused by policy	20	5

[RC] Both worlds contain 80 cases refunded through the existing channel and 20 through the new channel. In A none of the latter would otherwise qualify; in B, 15 would be refunded through the existing channel. The observed ledger and its mechanical exclusion are identical. The old-policy outcome and causal policy effect differ. No historical substitution rate is estimated.

[AI] A policy label can encode timing, eligibility or channel rather than wholly incremental harm or expense. A common fixed subtraction from both years leaves their absolute difference unchanged, while changing the percentage denominator. Different offsets additionally change the absolute contrast. Neither operation holds behavior, eligibility, demand and reporting fixed by evidence alone.

[PD] Retain event identity, remedy reason, governing policy version, eligibility time, payment time, amount and reversal status. Reconcile duplicate and replacement payments at financial-event grain, and customer failures at order grain. A historical policy effect would need an identifying design and a defended counterfactual, not merely a clean exclusion query.

[AI] This does not dismiss policy as an explanation. It makes policy a competing, testable mechanism. The immediate prospective action test holds remedies unchanged. Any later policy experiment requires its own authority, welfare outcomes and guardrails; the present analysis grants neither permission nor a savings estimate.

Basis: new exact two-world potential-outcome construction [RC]; source offset conflict [HR]; Pearl’s intervention distinction [AI]. All proof values are invented.

TECHNICAL ANALYSIS

Delay distributions and exposure weights belong in the contract

[HR/AI] The register improves on one blended lag by separating categories, but a category median is still not a complete reporting model. Reweighting an unverified panel cannot make it a network counterfactual.

[PD] For a deduplicated one-booking endpoint and original event cohort t , let N_{kt} count eligible events of type k and $g_k(u | t, H)$ be the probability of booking exactly u days later under policy H , including eventual eligibility. Expected calendar-day bookings at s sum $N_{kt} \times g_k(s-t | t, H)$ across cohorts and types. Cohort maturity instead uses cumulative capture through a fixed age. Multiple-payment endpoints require an expected-count kernel instead.

[AI] Shifting every event by a median replaces a distribution with a point and can change peaks, boundaries and apparent lag. A zero-lag maximum can arise from shared date assignments or contained measures; a documented posting rule does not prove a physical mechanism delay. Charniga and colleagues distinguish truncation, censoring and changing delay mix; here the corresponding observation processes must be audited before applying a delay adjustment.

[AI] An incomplete post window alone does not make an observed increase a lower bound on a causal effect. Even a descriptive mature contrast needs a complete comparable baseline, fixed exposure and monotone accumulation. In a hypothetical equal-exposure example, observed $100 \rightarrow 110$ is compatible with mature $200 \rightarrow 120$ or $100 \rightarrow 150$ if both periods have unresolved reporting. If the baseline is known complete, that particular ambiguity disappears; causal attribution still needs a counterfactual.

[RC/PD] The annual identity is $G = vA + (1-v)R$, where v is elapsed exposure share, A the elapsed rate, G the authenticated goal and R the required remaining rate. With invented $G = 90$, $A = 100$ and $v = 0.60$, $R = 75$. Launch benefits must be weighted by affected remaining exposure and nonoverlap; a final-period rate reduction is not a full-year reduction.

[AI] Mean station-day rates and the ratio of summed counts to summed exposure have different weights. A common constant scaling preserves percentage changes; changing weights or period-specific scales may reverse them. Publishing percentages alone does not resolve the source panel's scope mismatch or authenticate the goal and forecast volumes.

Basis: source clock, weighting and window conflicts [HR]; exact accounting examples [RC]; Charniga et al. [AI/PD]. No historical maturity distribution or causal lower bound is established.

TECHNICAL ANALYSIS

Separate process evidence from selected and reconstructed variation

[HR/AI] The record contains sparse historical comparisons, version forks and planning arithmetic. These can be screened for consistency, but their sequence order does not by itself establish a stable process or an intervention response.

[PD] An eligible monitoring panel needs a fixed construct, population, exposure, source vintage and natural time order. Apply individual/moving-range limits as exploratory arithmetic only until those conditions and a sufficiently informative baseline are supported: X limits = $\text{mean} \pm 2.66 \times \text{mean moving range}$; moving-range upper limit = $3.267 \times \text{mean moving range}$. Two endpoints provide almost no process evidence.

[RC/AI] The private inventory contains 55 screens: sparse pairs except one conditional, unequally spaced three-point category sequence. Seven are engineered target paths and six are policy-restatement forks; the rest are sparse, derived or source-version comparisons. No individual or moving-range value crosses its provisional arithmetic limits. None establishes a stable operating phase. Within-limit planning shapes and two-point comparisons are not evidence of routine variation.

[RC/PD] A conditional two-count Laney calculation is retained privately, but binary uniqueness and scope are unauthenticated, the supplied denominator fails the quoted-rate contract, and there is only one moving range. There are zero eligible Laney panels. Larger counts do not cure this measurement failure. Repeated validated event/exposure pairs and informative residual history are required before operational use.

[AI] No observed worst-N treatment cohort or post-treatment panel identifies a regression-to-the-mean fraction. Selecting the worst stations, biggest week-on-week increases or the largest coefficient creates different selection mechanisms. Retain the initial ranking, compare eligible unselected units, vary the selection window and cutoff, and use independent follow-up. Do not manufacture a numerical correction from a generic literature percentage.

[PD] Prespecify moderators: priority status, route density, capacity headroom, service promise, jurisdiction and baseline reporting age. Measure treatment spillover into ordinary flow. A different network's opposite input movement is a useful challenge but not an automatic control; exchangeability, common support, parallel untreated change and exposure comparability need evidence. A single counter-signal neither validates nor refutes the entire mechanism.

Basis: source comparative structure [HR]; NIST, Laney and Barnett guide prospective checks [PD]. Exact raw/indexed source coordinates remain private; no historical special/common-cause classification is claimed.

TECHNICAL ANALYSIS

Verify the endpoint before rewarding the analytical story

[PD/AI] CVRC requires independent checks of order identity, original promise, actual fulfillment and reporting lineage. Agreement on a dashboard label cannot establish that customers experienced the intended benefit.

Audit dimension	Reference and release implication
Physical/customer outcome	Original order and promise, delivery/receipt evidence and independent exception resolution; retain nonreceipt and cancellations.
Financial occurrence	Unique payment/reversal events, eligibility and policy version; separate multiple payments from unique affected orders.
Clock and population	Event cohort, as-of cutoff, exposure, loading and posting times; distinguish right-censored from absent records.
Action fidelity and displacement	Offer, attention actually received, ordinary capacity displaced and labor; measure separately from the primary ITT.

[PD] Use blinded dual adjudication on a preregistered random core plus deliberately sampled difficult cases. A proposed 200 independent order decisions would give a worst-case approximate 95% agreement-interval half-width of 6.9 percentage points before clustering; this is a planning screen, not a kappa precision guarantee. Recompute for shared routes and policy sources, estimate category prevalence, and simulate kappa precision. Report class-specific errors, unresolved cases and agreement alongside kappa. Exception samples need design weights for population estimates.

[AI] The register supports provisional evidence of problem framing, report commissioning, numerical challenge, uncertainty disclosure and later scope correction. It also attributes an important policy reframe to another contributor and describes substantial automated analytical assistance. Repeated reports from the same inputs are not independent causal corroboration. Document metadata and production volume do not establish sole authorship or impact.

[HR/AI] No authenticated downstream action, mature treatment contrast or financial realization is established in this case. Original-source authentication, package linkage, true policy substitution, panel weighting, delay distributions, goal ownership and adoption remain limits. A sibling analysis challenges the earlier framing but cannot be imported as this project’s result. The absence of recovered follow-through does not establish that no work occurred elsewhere.

Basis: proposed measurement audit [PD]; Cohen and Collier [AI]; contribution bounded by the supplied register [HR]. Truth uncertainty remains separate from sampling precision.

TECHNICAL ANALYSIS

Test the offer on every customer whose capacity it can affect

[PD] The prospective CVRC trial evaluates a specified pre-promise escalation and reserve-attention package. It does not randomize a score, subtract a policy channel or change customer remedies.

[PD] Randomize independent route-capacity domains in parallel before dispatch. Freeze original manifests, customer promises and pretreatment priority classification. The planning design uses four fixed cohorts with equal scheduled exposure; all priority and ordinary orders remain in the denominator through diversion, cancellation, failed execution and missing reference. Shared crews or queues must belong to the same domain or enter an explicit interference design.

[PD] The primary customer contrast is usual-minus-offer promise-breach risk at original promise plus fourteen days, with late receipt, unresolved nonreceipt and cancelled unmet promises retained. Independent assessors distinguish occurrence from reporting. This horizon defines the endpoint, not ultimate financial maturity. The economic contrast prices avoided priority harm while fully charging additional ordinary harm, effort and fixed coordination costs.

[PD] Funding requires a lower confidence bound on priced avoided customer harm, including adverse displacement, above total incremental cost and a separate upper confidence bound on ordinary-flow harm below a prospectively justified noninferiority margin. A positive average does not license redistribution. The hypothetical margin and covariance in the planning model require Quality approval and pilot calibration; neither is inferred from the historical reports. Other safety, staffing and missing-reference conditions remain separately assessed.

[PD] The adjacent model pages derive exact finite outcome moments but use an explicitly assumed normal planning rule with variance bounds and finite-process calibration. Sample size targets the economically meaningful boundary as well as the proposed effect and harm gate. A favorable large-effect power result cannot replace break-even precision. If independent domains or reliable ascertainment cannot be recruited, redesign and repower; correlated extra orders do not replace independent domains.

[PD] A later staggered rollout could estimate group-time ATT against not-yet-treated domains, with no anticipation, overlap, conditional parallel trends and interference limits. Joint pretrend diagnostics and equivalence checks are informative, not proof. Mature counts, actual adoption dates and pilot covariance must support new power before any customer-value claim. That observational extension is distinct from this randomized ITT.

Basis: proposed parallel trial and separately proposed staggered extension [PD]. All model probabilities, prices, margins and powers are hypothetical; no trial has been executed.

TECHNICAL ANALYSIS

Four propositions make the reconciliation contract falsifiable

[PD/AI] CVRC is useful only if it changes what would count as a failed explanation. It connects arithmetic, reporting mechanisms and intervention evidence without allowing success at one level to substitute for another.

Proposition	Observable challenge and decision
P1: measurement equivalence	Matched identifiers, exposures, policy versions and as-of ages reproduce the claimed rate relationship. Unresolved count/rate disagreement blocks a common-baseline claim.
P2: clock adequacy	A frozen cohort-based posting model predicts held-out revisions by category and stratum within preregistered error bounds. Systematic age/mix residuals reject the proposed timing explanation.
P3: customer value	The specified offer clears cost with original-cohort customer benefit and the ordinary-flow harm gate. Favorable input movement alone cannot pass.
P4: deployable persistence	Accepted owners execute within capacity, outcomes remain mature and adverse displacement stays controlled. Repeated breaches trigger investigation or rollback under the agreed rule.

[AI] Prentice and VanderWeele make the surrogate problem concrete: an input can be associated with a customer endpoint without supporting the action’s effect on that endpoint. Here, improving the targeted flow can displace ordinary work. The proposed harm gate tests a pathway that an input score or aggregate bucket regression can conceal.

[AI] Deming’s tampering concern applies when sparse prints trigger repeated adjustments. Campbell and Goodhart explain why making the adjusted score a target can alter its relation to customer welfare. Ittner and colleagues caution that apparent measurement alignment is not proof of performance benefit. OECD composite guidance motivates explicit weights and noncompensable gates: missing customer truth cannot be offset by excellent score adherence.

[AI/PD] Tucker–Edmondson’s learning distinction supports correcting the recurrent measurement and ownership mechanism, not repeatedly explaining away the latest total. Research value should therefore be assessed separately: buy evidence that can change the action or the timing model. EVSI does not authorize customer harm, replace an approved margin or turn unobserved policy savings into cash.

[PD] Preregister material effects and failure thresholds. A nonsignificant result is not automatic falsification; a sufficiently precise exclusion of the required effect can be. The contract remains conditional until source identity, reference quality, recruitment, resources and remedy authority are demonstrated.

Basis: proposed testable framework [PD], fresh surrogate literature and substantively applied continuing methods [AI]. Historical efficacy and realized financial benefit remain unestablished.

Test execution on all original promises, including displaced work

[PD] Randomize independent route-capacity domains to a pre-promise escalation and reserve-attention package or unchanged approved practice. Priority rules use only pre-outcome information. Customer promises and remedy eligibility remain fixed; changing the KPI is not the treatment.

Element	Wholly hypothetical planning law
Original population	240 orders per domain across four externally scheduled cohorts: 60 priority and 180 ordinary. Retain refusal, cancellation, diversion and nonreceipt. Classify unmet customer promises through original promise +14 days.
Baseline heterogeneity	Equiprobable shared domain grades have priority breach risks 0.24 / 0.36 and ordinary risks 0.05 / 0.07. Orders are conditionally independent; domains share no intervention capacity.
Operating effect	The package reduces priority breach risk by 60% but adds 2 percentage points to ordinary risk through displaced attention. Overall risk falls from 12% to 9%; ordinary harm remains visible.
Policy and reference	Independently validate physical receipt and the original customer contract. Remedy and payment rules do not change. Outcome truth and day-14 ascertainment must be calibrated before field use.

THE AVERAGE CANNOT AUTHORIZE A HARMFUL TRADE

[PD] A candidate ordinary-flow noninferiority margin is +3 percentage points. Quality must approve it prospectively; it is not a demonstrated safe tolerance. Joint acceptance requires economic superiority and ordinary-flow noninferiority. Other safety and customer-wait guardrails need separate margins and power.

[PD] Whole-offer intention-to-treat over all original orders. Equal fixed exposure aligns domain and order weighting; if field volume or covariance differs, reweight and re-power.

Require enough power for both investment value and ordinary customers

[PD] Exact binomial-plus-domain-mixture moments supply variance envelopes across efficacy and displacement scenarios. Normal power and confidence coverage remain approximations. Separate finite-process simulations assess the zero, economic and harm boundaries.

Design	Domains / arm	MDE, pp	BE detection	Joint floor
Initial	48	1.75	51.6%	40.5%
Base candidate	96	1.24	80.8%	86.0%
Same size, stress	96	1.82	48.6%	46.7%
Conditional redesign	256	1.11	88.2%	97.4%

[PD] Break-even is a 1.25-percentage-point reduction in all-order customer breaches. Require 80% positive-direction detection at that effect under a two-sided 5% test. Also require an 80% joint-power floor for a one-sided 97.5% economic lower bound and a one-sided 97.5% ordinary-harm upper bound below +3 points.

[PD] Stress widens baseline grades to priority 0.20 / 0.40 and ordinary 0.04 / 0.08 without changing means. The response path varies priority prevention and displaced ordinary risk; safety-boundary variance uses the changed probability law, not a shifted mean alone.

[PD] The variance rectangle ends at the harm boundary. Beyond it, shared-uniform coupling makes ordinary breach counts nondecreasing under the fixed finite law, so the unchanged safety threshold is no easier to pass. This ordering does not establish field validity.

THE REDESIGN REMAINS A CALIBRATION-DEPENDENT SCENARIO

[PD] The evaluated redesign requires 512 independent domains and 122,880 original orders. Recruitment, spillovers, covariance and the candidate harm margin are not established by the source. A pilot must resolve them before a field commitment.

[PD] Joint floor = max(0, economic power + ordinary noninferiority power – 1). This union bound does not assume endpoint independence or certify unsized safeguards.

An early concession increase can accompany better mature service

[PD] Under the synthetic law, unchanged eligibility converts 60% of breaches into one concession event. At original-promise day 7, capture is 20% for priority events and 90% for ordinary events; day 42 is assumed complete. Early counts rise 8.11%; complete same-cohort counts fall 25%. Neither result is historical.

[PD] This is an event-cohort measurement demonstration. It does not describe a calendar-period posting flow, identify a policy effect or establish historical maturity. Late/nonreceipt and ordinary-flow harm remain in the physical evaluation regardless of when compensation is recorded.

Avoidability a	h = 0.80	h = 0.90	h = 1.00
0.60	-4.92	-2.67	-0.42
0.80	1.08	4.08	7.08
1.00	7.08	10.83	14.58

[PD] Cells are net resource-value index points; usual service burden = 100. With non-overlap h, $Net_raw = 4 \times (a \times h \times 0.045 - 0.015) - 0.05$. Price avoided priority harm only with realization shares; charge added ordinary harm and all new effort in full.

[PD] Hypothetical cost 4 per breach values service burden, not a refund. Added operating effort 0.03 and fixed setup/verification 0.02 are charged once per original order. Total cost 0.03 / 0.05 / 0.07 changes break-even to 0.75 / 1.25 / 1.75 points; re-power each case.

MISSING RECEIPT TRUTH CAN CHANGE THE INVESTMENT DECISION

[PD] Retain all original orders. With unresolved fractions $u_control$ and u_offer , the breach-benefit contrast lies between $d_observed - u_offer$ and $d_observed + u_control$. Known work remains charged. Future field value requires the mature signed outcome vector; no historical saving is estimated.

[PD] Equal capture at full maturity is an assumed kernel endpoint requiring verification. Recording and payment are secondary outcomes; their mechanical back-out is not the no-policy counterfactual.

DECISION INFORMATION / 4 OF 4

Fund the evidence that can change the next operating decision

[PD] The decision model separates an actionable execution gap, a clock/policy measurement problem and unresolved evidence. The unresolved state takes priority. Utilities are assumed planning values, separate from the operating model.

Next action	Execution gap	Measurement only	Unresolved
Bounded execution trial	12	-9	-15
Reconcile linked outcomes and clocks	3	10	-4
Hold investment; obtain evidence	0	1	7

[PD] Priors are 0.40 / 0.40 / 0.20. Prior-optimal utility is 4.40; EVPI is 5.80. A signal with accuracy q assigns each wrong label probability $(1 - q) / 2$. All 27 signal-to-action policies are evaluated.

Signal quality q	EVSI	Evidence cost	Net EVSI
0.55	0.1300	0.40	-0.2700
0.75	2.5250	1.40	1.1250
0.95	5.1450	2.80	2.3450

KEEP INFORMATION VALUE SEPARATE FROM OUTCOME VALUE

[PD] Evidence can justify reconciliation or an investment hold even without a positive operating effect. Acquisition cost is separate from a later trial. Do not add EVSI to service benefit, call it realized cash, or use it to waive remedy, safety or ownership requirements.

[PD] EVSI = expected posterior-optimal utility – prior-optimal utility. Net EVSI subtracts information cost; a positive result remains conditional on these hypothetical priors and utilities.

Reproduce the contrast before attributing the customer result

[AI] The Customer-Value Reconciliation Contract (CVRC) requires a common outcome and cohort, an explicit policy-and-clock bridge, an independent intervention contrast, and full signed resource value. A failure at any gate changes what the evidence can support.

Claim class	Meaning and replication boundary
[HR] Historical record	Actions and statements transcribed in the supplied project register. Source narratives about signed documents, code and approvals do not independently authenticate those originals. Analysis completion and intervention execution remain different propositions.
[RC] Recalculated	Source arithmetic, version branches, short-sequence process screens and exact constructed proofs. The part-whole coefficient, policy-substitution example and weighted-target identity are reproducible mathematical results, not historical treatment effects.
[AI] Analytical inference	Policy, population, maturity and remainder composition can break the inference from one metric to another. Accounting closure does not identify causal contribution. A changed category mix can reverse an early financial signal.
[PD] Proposed design	CVRC, a capacity-domain randomized action package, mature full-manifest endpoints, a separate ordinary-flow harm gate, approximate power with finite-law checks, net-resource sensitivities and decision-specific information value.

Replication sequence

[PD] Freeze the workbook and selected cells. Reconcile endpoints, signs, deductions, denominators, windows, targets and source authority. Retain every conflicting version and quantify its arithmetic consequence before selecting the claim permitted in the public narrative.

[PD] Recover original event histories and authored deliverables. Align the prospective intervention, original eligible manifest, policy version, assignment domain and fixed maturity horizon. Calibrate the customer-harm margin, dependence, attainable sample and actual incremental costs before authorizing a test.

THE INTERPRETATION THIS CASE CHANGES

[AI] Failure of a financial score to follow an operational measure does not by itself disprove the operation. A balanced adjustment does not prove it either. The decisive evidence is a defined action contrast on mature customer outcomes with displacement and full costs retained.

Raw values, source identities, local paths and exact version branches remain private. Public numerical counterexamples and prospective calculations are invented and explicitly labeled.

RESEARCH REFERENCES / CAUSAL AND MEASUREMENT FOUNDATIONS

Separate a component association from an intervention effect

Primary research informs the measurement, causal contrast and prospective design. It does not authenticate unrecovered project originals or establish a historical customer or financial effect.

Kronmal, R. A. (1993). Spurious Correlation and the Fallacy of the Ratio Standard Revisited. *Journal of the Royal Statistical Society A*, 156, 379–392. DOI 10.2307/2983064. Publisher summary. Shared components and denominators can create misleading associations. The case supplies its own exact four-row proof rather than treating the published caution as a project-specific result.

Aitchison, J. (1982). The Statistical Analysis of Compositional Data. *Journal of the Royal Statistical Society B*, 44, 139–160; discussion through 177. DOI 10.1111/j.2517-6161.1982.tb01195.x. Publisher metadata and indexed summary. Category shares are constrained by their total; closing a composition does not identify the interventions that generated it.

Prentice, R. L. (1989). Surrogate Endpoints in Clinical Trials: Definition and Operational Criteria. *Statistics in Medicine*, 8, 431–440. DOI 10.1002/sim.4780080407. Primary abstract. An intermediate measure needs a justified relationship to the endpoint of interest. The application here concerns operating indicators; no clinical result or threshold is imported.

VanderWeele, T. J. (2013). Surrogate Measures and Consistent Surrogates. *Biometrics*, 69, 561–569. DOI 10.1111/biom.12071. Primary abstract and indexed original sections. A favorable intermediate outcome can coexist with an unfavorable final outcome through other paths. The case makes ordinary-flow displacement and policy-mediated reporting explicit.

Pearl, J. (2009). Causal Inference in Statistics: An Overview. *Statistical Surveys*, 3, 96–146. DOI 10.1214/09-SS057. Full author text. Graphical assumptions distinguish observed association from intervention. The CVRC graph includes action, operational mediators, customer outcomes, policy and recording paths rather than interpreting every regression edge causally.

Charniga, K., et al. (2024). Best Practices for Estimating and Reporting Epidemiological Delay Distributions of Infectious Diseases. *PLoS Computational Biology*, 20, e1012520. DOI 10.1371/journal.pcbi.1012520. Full publisher text. Truncation, changing incidence and delay composition complicate incomplete follow-up. Only those methodological lessons are transferred.

Source access scope is recorded in the private research memo. No external study effect, financial result or clinical threshold is transferred to this operating case.

RESEARCH REFERENCES / EVALUATION AND UNCERTAINTY

Preserve selection, dependence and evidence value

Primary research informs the measurement, causal contrast and prospective design. It does not authenticate unrecovered project originals or establish a historical customer or financial effect.

NIST/SEMATECH. e-Handbook of Statistical Methods, section 6.3.2.2: Individuals Control Charts. Official method. Tentative limits require comparable, ordered observations. Two-point source sequences yield fragile limits; within-limit movements are not evidence of process improvement or deterioration.

Laney, D. B. (2002). Improved Control Charts for Attributes. *Quality Engineering*, 14(4), 531–537. Primary publisher abstract. Overdispersed attribute rates require matched count and exposure pairs. An indexed rate with an unreconciled denominator cannot support a valid dispersion estimate.

Cohen, J. (1960). A Coefficient of Agreement for Nominal Scales. *Educational and Psychological Measurement*, 20, 37–46. Primary publisher record. Use independent blind adjudication, confusion tables and stratified agreement estimates for failure taxonomy. Agreement cannot resolve a shared definition that measures the wrong customer construct.

Barnett, A. G., van der Pols, J. C., & Dobson, A. J. (2005). Regression to the Mean: What It Is and How to Deal with It. *International Journal of Epidemiology*, 34, 215–220. Primary abstract. Worst-unit selection can produce apparent recovery without treatment. Separate preselection performance from postselection outcomes and retain comparable nonfocus units.

Hudgens, M. G., & Halloran, M. E. (2008). Toward Causal Inference With Interference. *Journal of the American Statistical Association*, 103, 832–842. Primary manuscript. Shared route capacity can move failures from priority to ordinary orders. Define assignment domains around capacity dependencies and preserve the entire original manifest.

Callaway, B., & Sant’Anna, P. H. C. (2021). Difference-in-Differences with Multiple Time Periods. *Journal of Econometrics*, 225, 200–230. Author manuscript. A nonrandom staggered rollout requires group-time effects and explicit comparison populations. Calendar overlap, anticipation, shared capacity and changing policy need their own identification checks.

Strong, M., Oakley, J. E., Brennan, A., & Breeze, P. (2015). Estimating the Expected Value of Sample Information Using the Probabilistic Sensitivity Analysis Sample. *Medical Decision Making*, 35, 570–583. Author repository. Evidence has value when it changes a specified decision. Keep the illustrative reconciliation decision and its evidence-acquisition cost separate from the operating intervention value.

Source access scope is recorded in the private research memo. No external study effect, financial result or clinical threshold is transferred to this operating case.

RESEARCH REFERENCES / OPERATING LEARNING AND GOVERNANCE

Connect measurement to customer outcomes and accountable decisions

Primary research informs the measurement, causal contrast and prospective design. It does not authenticate unrecovered project originals or establish a historical customer or financial effect.

Collier, D. (2011). Understanding Process Tracing. *PS: Political Science & Politics*, 44, 823–830. Primary publication. Distinguish authorship, commissioning, analysis, approval and implementation. A recorded signature in a derivative register has a different evidentiary strength from an authenticated original or demonstrated operating action.

Tucker, A. L., & Edmondson, A. C. (2003). Why Hospitals Don't Learn from Failures. *California Management Review*, 45(2), 55–72. Author manuscript. Local corrections can fail to change the system that creates errors. A corrected metric needs an owner, transmission record and a decision consequence; document production alone does not close that loop.

The W. Edwards Deming Institute. The Funnel Experiment. Official exposition. Reactive adjustment to routine variation can amplify instability. Do not rank operating levers from isolated weekly movements or adjust targets simply because an endpoint changes.

Campbell, D. T. (1976). Assessing the Impact of Planned Social Change. Original institutional record. Consequential measures can change recording and behavior. A concession metric is affected by eligibility and reporting rules as well as physical service; independent customer outcomes must remain visible.

Goodhart, C. A. E. Problems of Monetary Management: The U.K. Experience. 1975 conference; revised volume listed as 1976 in the RBA archive. Targeting can change the relationship between a reported indicator and the intended outcome. Do not optimize a leading-input score before validating its relation to the actual action and mature customer experience.

Ittner, C. D., Larcker, D. F., & Randall, T. (2003). Performance Implications of Strategic Performance Measurement in Financial Services Firms. *Accounting, Organizations and Society*, 28, 715–741. Author manuscript. Strategic performance measurement requires a tested link between measures and decisions. An accounting bridge and a selected regression coefficient do not establish that causal link.

OECD / European Commission JRC (2008). Handbook on Constructing Composite Indicators. Official handbook. Aggregation and weights affect interpretation. Expose customer outcomes and resource components beside any total, retain the category remainder, and test sensitivity to composition rather than treating closure as causality.

Source access scope is recorded in the private research memo. No external study effect, financial result or clinical threshold is transferred to this operating case.

FINAL REFEREE REPORT / INTERNAL AGENT-ASSISTED REVIEW

Accept the reconciliation framework; keep historical impact unproven

[AI] This is author-led, agent-assisted review. It is not external peer review, client approval or a consulting-firm ranking. The disposition concerns reproducible reasoning, source interpretation and a prospective evaluation design.

Major issue	Disposition in the revised case
Part-whole and policy inference	Provided exact counterexamples: a negative component coefficient inside a positive identity, and identical observed policy backouts with different common-policy outcomes. Neither an identity nor an association establishes an action effect.
Conflicting historical versions	Preserved signed endpoint, common-deduction and alternative-source branches. Flagged inconsistent denominators and disputed target authority. No convenient version is silently designated as truth.
Time and measurement	Separated original order cohort, event time, policy response and posting maturity. A short post-window relative to a median delay does not alone establish a lower bound on the observed change.
Action and customer displacement	Specified a concrete escalation package and full original manifest. The proposed test separately constrains ordinary-flow harm; its acceptance margin is a prerequisite for authorization, not a historical approval.
Attribution and value	Graded analytical contribution separately from adoption and realized benefit. Charged incremental resources, retained overlap and separated evidence-acquisition value from operating impact.

Partner critique: can a COO act on page one?

[AI] Yes: assign a bounded reconciliation with named data, policy and operating owners, then authorize a calibrated test only after customer safeguards and economic detectability are established. Neither a more favorable metric nor a completed document releases the action automatically.

Minor issues and remaining conditions

[AI] Recover originals, authenticate goals, reconcile population and delay versions, and calibrate the proposed law. Normal-approximation planning remains conditional on finite-process diagnostics and feasible recruitment.

REVIEW DISPOSITION / PASS WITHIN STATED SCOPE

[AI] The case supports the CVRC analytical contribution and a falsifiable design. It does not certify historical savings, policy effects, operating causality or independent endorsement.

Internal evidence, methods, numerical and executive review. Final acceptance is limited to the stated source and design boundaries; no external certification is implied.