

NextWave Awards 2026

Nomination

Data Analytics and Trustworthy Experimentation

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Trustworthy Experiments Core

A reproducible framework for reliable A/B testing and causal analytics

Reliable

Controls common sources of false conclusions in experiments.

Reproducible

Uses structured workflows, simulations, and transparent analytical logic.

Applicable

Designed for product, marketing, CRM, and business analytics teams.

Project website: github.com/Niuhych/trustworthy-experiments-core

The Challenge: Business Experiments Can Mislead

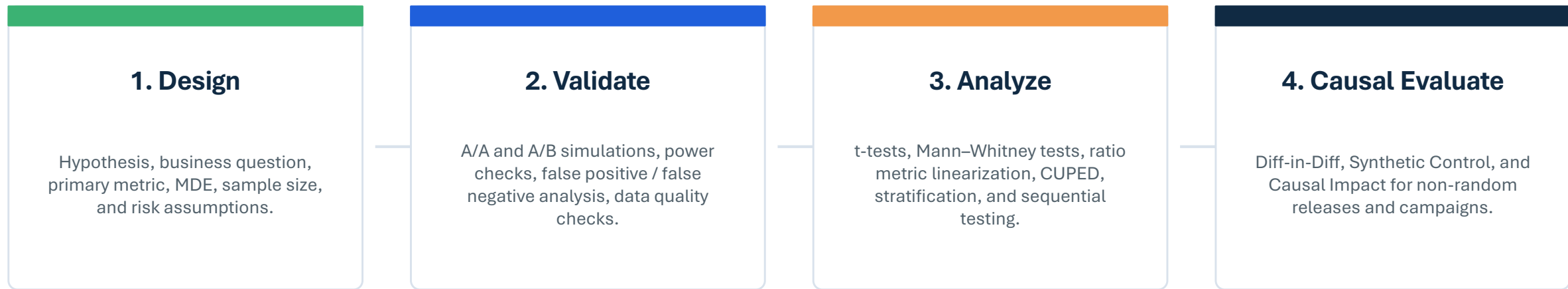
A/B tests and causal studies often influence high-value decisions, but the result is not always trustworthy.

-  **Low statistical power** Tests may miss real effects or overreact to noise when sample size is insufficient.
-  **Metric and denominator mistakes** Ratio metrics, outliers, and unstable denominators can distort conclusions.
-  **Peeking and inflated false positives** Repeatedly checking results can make random differences look significant.
-  **Non-random product releases** When randomization is impossible, simple before/after comparisons may be biased.
-  **Business pressure to decide fast** Teams need practical checks that fit real workflows, not only academic theory.

Core risk: a technically completed analysis can still lead to an incorrect product or marketing decision.

The Solution: A Practical Trust Layer for Experiments

Trustworthy Experiments Core structures reliable experimentation from design to post-release causal evaluation.



Main idea The framework helps analysts understand not only what result they obtained, but whether that result can be trusted.

Results and Practical Impact

The methodology has been applied in professional analytics work across experiments, CRM, marketing, and incentive programs.

+1.3%

monthly revenue uplift

from experiments and analytical initiatives supported by this approach

+1.7%

customer return from churn

measured in applied retention / win-back analytics work

+25%

targeted offer density

enabled by direct communication pipelines and segmentation logic

+3–4%

net profit uplift

from related customer incentive analytics frameworks

Business value

Reduces decision risk by detecting weak designs, unstable metrics, and unreliable conclusions before they affect product or marketing strategy.

Analytical value

Makes statistical testing, power analysis, variance reduction, and causal inference more reproducible and transparent.

Operational value

Provides reusable workflows that can be adapted by analytics teams instead of rebuilding experiment logic from scratch.

Note: the figures reflect applied professional outcomes supported by the methodology and related analytical frameworks.

Why It Matters and What Comes Next

The project turns rigorous statistical and causal methods into practical standards for everyday business decisions.

Contribution to the field

The project promotes a higher standard for business experimentation: reliable design, transparent validation, reproducible analysis, and responsible interpretation.

Professional materials

The framework is supported by public articles and educational materials on A/B testing, CUPED, causal impact, Diff-in-Diff, and synthetic control.

Further development

Future work may include automated experiment validation reports, governance templates, additional diagnostics, and more causal evaluation workflows.

Goal: make trustworthy experimentation accessible for analytics teams that need evidence-based product and marketing decisions.

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