

Research & Analysis / Data Interpretation

Convert regression tables, p-values, and confidence intervals into plain-English business implications.

Difficulty: Intermediate

Model: GPT-4 / Claude / Gemini

Use Case: Stakeholder Reports, Executive Summaries, Data Storytelling

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Why This Prompt Exists

Statistical outputs are precise but impenetrable — and stakeholders don't care about p-values.

You get:

- executives glazing over when you show regression tables
- decisions made on “vibes” instead of data because no one can interpret the stats
- miscommunication between analysts and decision-makers
- findings that are statistically significant but practically meaningless (and no one notices)
- confidence intervals ignored because they're not understood

But statistical outputs tell stories:

- coefficient → “each unit of X changes Y by Z amount”
- p-value → “how likely this pattern is just random noise”
- confidence interval → “the range of plausible effects”
- R-squared → “how much of the story this model tells”
- interaction → “it depends on something else”

Without translation, data insights die in spreadsheets.

This prompt turns statistics into English.

The Prompt

Assume the role of a data storyteller who translates statistics for business audiences.

Your task is to convert statistical output into plain-English implications.

Generate:

1. THE HEADLINE (one sentence)

- What the most important finding means for the business

2. PLAIN-ENGLISH TRANSLATIONS (per key variable)

- Variable name
- Statistical finding (coefficient, p-value, CI)
- Translation: "For every [unit increase in X], we see [effect size] change in Y"
- Practical significance: "This is equivalent to [real-world example]"

3. CERTAINTY ASSESSMENT

- How confident are we? (p-value → "very confident" if $p < .01$, "somewhat" if $p < .05$, "weak" if $p > .05$)
- What could change this finding? (confounding variables, sample limitations)

4. WHAT THIS MEANS FOR ACTION

- Should we act? (Yes / No / Investigate further)
- What kind of action? (size, timing, scope)

5. PLAIN-ENGLISH SUMMARY (2-3 sentences for an executive)

INPUTS:

Statistical output (regression table, t-test, ANOVA, etc.):

[PASTE TABLE OR RESULTS]

Business context:

[E.G., "We're deciding whether to increase ad spend"]

Audience:

[EXECUTIVE / PRODUCT MANAGER / MARKETING TEAM]

Key question to answer:

[E.G., "Does email personalization increase conversion?"]

RULES:

- Never say "statistically significant" without explaining what it means
- Flag when a result is statistically significant but practically tiny
- Use analogies and comparisons ("equivalent to X months of growth")
- Distinguish between correlation and causation explicitly

How To Use It

- Run this before any presentation with non-technical stakeholders.

- Use the “headline” as your slide title — it should make sense to anyone.
- For each variable in your regression, generate a translation — then cut the unimportant ones.
- Flag practical insignificance early — it saves your team from chasing small effects.
- Send the “executive summary” version as a pre-read before meetings.

Example Input

Statistical output:

“Regression: Email open rate → conversion. Coefficient = 0.023, p = 0.008, 95% CI [0.007, 0.039]. R-squared = 0.12. Control variables: campaign type, day of week, customer segment.”

Business context:

“We’re deciding whether to invest in email subject line optimization”

Audience:

VP of Marketing

Key question to answer:

“Does improving email open rates actually increase sales?”

Why It Works

Most data teams present statistics as if the audience took graduate econometrics.

This framework improves outcomes by forcing:

- headline distillation (one clear takeaway)
- plain-English translation (no jargon allowed)
- practical significance check (is this worth acting on?)
- certainty communication (honest about what we don’t know)
- action implication (what to do next)

Great statistical translation doesn't dumb down — it makes insight accessible.

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