

# Business Case & Experimentation Summary

## Email Campaign Landing Page A/B Test

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### Executive Summary

This document summarizes the outcome of an A/B test conducted to evaluate whether a newly designed landing page improves conversion rates for an email marketing campaign.

The experiment was run to support a rollout decision using data rather than assumptions. Based on the analysis, the new landing page does not show a statistically or practically meaningful improvement in conversion performance. At scale, rolling out the new page could introduce potential revenue risk. As a result, the recommendation is **not to proceed with a full rollout** and to continue testing alternative solutions.

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### Business Context

Email marketing is a key acquisition channel for the business and drives a large volume of user traffic. While user acquisition through email has remained strong, conversion rates have shown limited improvement over time.

To address this, the marketing and product teams proposed a redesigned landing page, with the expectation that improved layout and messaging would increase conversions. Before investing further resources, the business required evidence that the new design performs better than the existing one.

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### Business Problem

The core business question was:

**Should the new landing page be rolled out to all email campaign traffic?**

This decision was important because:

- Email traffic operates at scale, so small changes can have large revenue impact

- Rolling out a weaker experience could negatively affect conversions
- There is opportunity cost in committing to one design over other optimization ideas

Given these factors, a controlled experiment was necessary.

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## Experiment Approach

A randomized A/B test was used to compare the performance of the existing landing page (control) and the new landing page (treatment).

- Users were randomly assigned to one of the two variants
- Conversion rate was used as the primary metric
- Statistical testing was performed at a 5% significance level

This approach allowed for a fair and reliable comparison between the two experiences.

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## Key Findings

- **Control conversion rate:** 12.04%
- **Treatment conversion rate:** 11.88%
- **Observed difference:** -0.16 percentage points

The new landing page performed slightly worse than the existing page. The difference was not statistically significant, and confidence intervals for both variants overlapped.

The experiment was sufficiently powered to detect a 1% absolute improvement, indicating that the lack of observed lift is unlikely to be due to insufficient sample size.

Time-based analysis showed no consistent divergence between the two variants over the experiment period, suggesting stable results.

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## Business Impact

Although the observed difference is small, the scale of email traffic magnifies its impact. When extrapolated using estimated traffic and average order value, rolling out the new landing page could potentially reduce revenue.

From a business standpoint, introducing downside risk without clear evidence of improvement is not justified.

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## Final Recommendation

Based on both statistical evidence and business considerations:

**The new landing page should not be rolled out.**

The experiment does not demonstrate an improvement in conversion performance, and rolling out the new experience could negatively impact revenue at scale.

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## Next Steps

Although the result was negative, the experiment provides useful direction for future work:

- Test alternative landing page designs or messaging
- Run segmented experiments (e.g., mobile vs. desktop users)
- Clearly define minimum detectable effects before future experiments
- Continue using controlled experimentation to guide decisions

This approach helps ensure that future changes are data-driven and risk-aware.

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