A/B Testing



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QUESTIONS

- I. How can we ever be sure that the version with the best performance is not having more clicks due to just chance?
- I. How long can we expect the experiment to last?



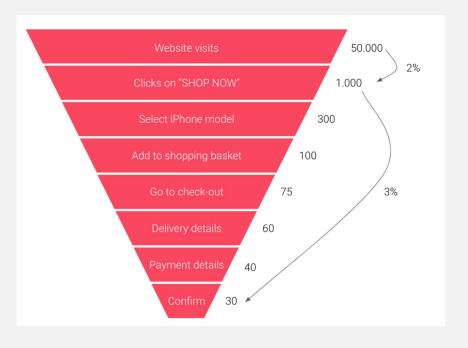
I. How can we ever be sure that the version with the best performance is not having more clicks due to just chance?

- By choosing a time period in which the business has a stable/normal situation, to exclude other influences
- By choosing different denominators we can account for changes in other areas (e.g. if we choose the overall website visits as denominator for conversion rate, then an increase of websites will be considered in the conversion rate)
- Run the experiment repeating statistical analysis until we ideally reach 99% of statistical significance

https://meet.google.c om/xna-smbk-tdh



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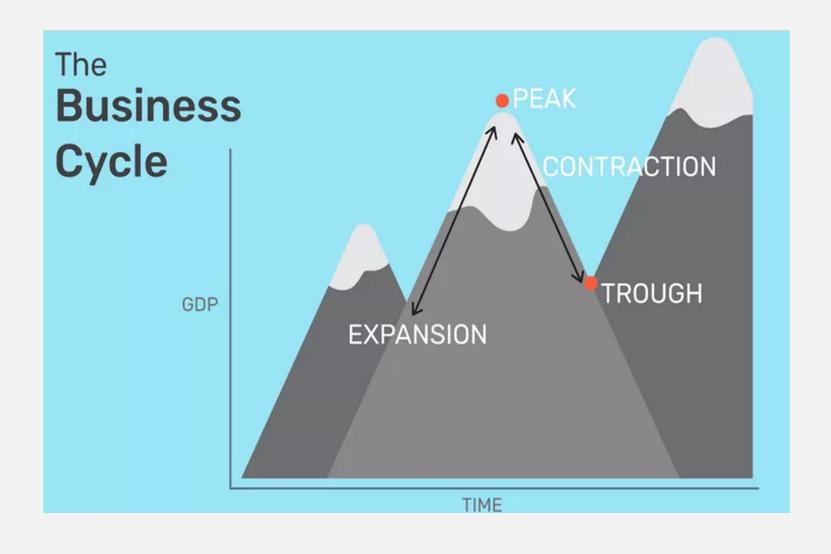
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2. How long can we expect the experiment to last?

- at least one week
- at least 100 conversions for one testing version
- 2 business cycles
- 99% statistical significance

Business cycles



Expansion - a period of growth, represented on a curve as an upward movement

Peak - the phase, when all of the expansionary indicators begin to level off

Contraction - the phase that begins after the economy peaks and ends when GDP and other indicators cease to decrease

Trough - the phase of a transition from the contraction phase to the expansion phase, the lowest point of the curve



Statistical significance

- A result is significant if it is unlikely to have occurred given the Null
 Hypothesis, if there is a strong evidence against the Null Hypothesis
- Testing hypothesis: Change of design will lead to an increase of conversion rate
- Null Hypothesis: Change will not lead to an increase of conversion rate



Thank you for your attention!