A/B Test

list of hypotheses:

1. test results might NOT valid. Check the following:
2. test was run correctly.
3. Check other metrics. The analyst should choose the right data granularity. Small granularity can be beneficial and harmful. Therefore, the subject matter expert should be consulted if the analyst fells that s/he not able to choose the right granularity. Writing additional SQL queries also helps in solving this issue.
4. Data quality: Check the quality of data collection, sorting, and utilizing.
5. Check if different statistical tests can be applied to this scenario.
6. Make evidence-based final recommendation. The recommendation could be one choice, multiple choices, or no choice (recommend for more data collection or different methodology).
7. Recommendations:
8. The metric that has been utilized to draw an insight might be incorrect or irrelevant. Contact customer service to have some idea about users and hence can ask business-relevant questions. Run the same test on other metrics and compare them with the current one.
9. The test was calculated incorrectly.
10. Chi-squared test should be considered in addition to t-test. It can be used to test the independency.
11. Review the study design. The users should be assigned to each group randomly.
12. Review the design for any possible confounder and bias.