

# M3 - CD Hypotheses

## What makes a good hypothesis?

### QRST

Q: Quantifiable

R: minimal Resources (including time)

S: Specific

T: Testable (either pass or fail)

### Method: X Y Z Hypothesis

At least X% of Y target market will do Z

### Example: UBER

One of Uber's PROBLEM hypothesis (say, P1) is that existing solutions (i.e. before Uber came to market, e.g. taxi, chauffeur-driven cars, rental cars, etc) for car-based transportation in metros/cities) had several 'pain' points (costly, time-inefficient, cumbersome, etc)

(Note there may be more problems and can be captured as P2, P3, etc).

Other hypotheses related to Solution (S1, S2, etc), Value Prop (VP1, VP2, etc), Customer segments (CS1, CS2, etc), Price (Pr1, Pr2, etc) should be done along similar lines.

1	<b>Hypothesis (H_P1)</b>	<b>We (Uber Team) believe that</b> <i>Existing road transportation solutions based on cars in metropolitan cities is <u>costly</u> and <u>time-consuming</u>".</i>  <i>Critical:</i> Low Med <b>High</b> (marked High as this is the fundamental assumption on which Uber business is built)
2	<b>Test(s)</b>	<b>To verify that</b> <i>T1. <u>Cost</u> is a barrier that prevents would-be customers from using existing solutions</i> <i>T2. <u>Cost</u> is a barrier that prevents customers from using existing solutions sparingly (i.e. they may take fewer rides)</i> <i>T3. Customers spend way more <u>time</u> getting taxi/rental-car/etc than they wish for intra-city transportation</i>  <i>Test Cost:</i> Low Med <b>High</b> <i>Data Reliability</i> Low <b>Med</b> High (Note: I have arbitrarily selected High and Med above; actual value may vary)
3	<b>Metric(s)</b>	<b>We will measure</b> <i>M1. Average <u>cost</u> per KM spent by an existing customer and what % lower would be delightful to the customer</i> <i>M2. <u>Cost</u> per km that would allow new customers to take Uber</i> <i>M3. <u>Time</u> taken to find a taxi during morning / evening peak hrs</i>  <i>Time Required:</i> Low Med <b>High</b>
4	<b>Criteria</b>	<b>We are right if</b> <i>1. our solution (Uber) can be at least 50%** less than existing solutions, on cost per km basis</i> <i>2. we can sign up 10% more people than who use taxis today if we offer cost per KM which is 50% less than current solution</i> <i>3. Uber takes 80% less time than now to get a ride for customer</i>

\* Note: For sake for this example, we have combined 2 hypotheses (cost & Time). Do not combine, separate out hypotheses.

\*\* These are just random numbers for this example (don't attach any particular significance to this)

## Example: Uber

See Page 1 for the hypotheses we wanted to test:

*Existing road transportation solutions based on cars in metropolitan cities is costly and time-consuming.*

To test the above hypotheses, we (Uber team) went out and sought current users of taxi and potential/aspiring customers (not using taxi because it is costly &/or time-inefficient). After we ran the experiments (also called test), we can summarize the findings as below and reach some decisions/conclusions.

Note: It is not necessary that we have to prove the hypotheses to be correct! The experiment should be run in an unbiased manner. You can take appropriate decision based on results of the test/experiment.

1	<b>Hypothesis (H_P1)</b>	<b>We believed that</b> <i>Existing solutions inside metropolitan cities (for passenger vehicles) transportation is <u>costly</u> and <u>time-consuming</u>.</i> <b>Critical:</b> Low Med <b>High</b>
2	<b>Observation</b>	<b>We observed that</b> <i>1. Average cost per KM is Rs 25 for existing solutions (compared to our Rs 10/KM)</i> <i>2. New users would use Uber if average cost per KM is Rs 12</i> <i>3. Time taken to call/get a taxi during morning &amp; evening peak hours was 25 minutes and 40 minutes respectively</i> <b>Data Reliability</b> Low Med High
3	<b>Learnings and Insights</b>	<b>From that we learned</b> <i>1. Uber is cost competitive for existing users (Rs 10/KM vs. Rs 25/KM)</i> <i>2. New users would very likely use Uber (willing to pay Rs 12/KM while our cost is Rs 10/KM)</i> <i>3. That we can cut the time to find taxi by &gt;60%</i> <b>Action Required:</b> Low Med High
4	<b>Decisions and Actions</b>	<b>Therefore</b> <i>1. We will continue with the app-based taxi calling service Uber and target <u>existing</u> users of taxi</i> <i>2. We will continue with app-based taxi calling service Uber and target <u>new</u> users of taxi</i> <i>3. We have a compelling differentiation on time-saving for customer and use this as a key value-proposition</i>