

Cracking the PM interview

Case Study Solution (Method 1) - Estimate the average number of Uber rides in India in a month.

Case study - Guesstimate

Estimate the average number of Uber rides in India in a month.

Case Study Solution - Estimate the rides by Uber in India in a month

To estimate the average number of Uber rides in India in a month.

1. Here is the high-level equation that will answer this question

Average Number of Rides per Month = Number of Active Users * Average Number of Rides per User per Month

2. Relevant Hypotheses:

- India's urban population is roughly 30% of its total population.
- Considering India's total population to be around 1.4 billion, the urban population would be approximately 420 million.
- Assume Uber is accessible to 40% of the people living in these urban areas.
- Not all urban population uses ride-sharing apps. Let's assume 20% of the urban population uses ride-sharing apps like Uber.
- Out of the ride-sharing app users, let's estimate that 50% prefer Uber due to its market penetration and availability.
- The average number of rides an Uber user takes in a month can vary greatly. Let's classify users into three categories: Heavy (15 rides/month), Medium (6 rides/month), and Light (2 rides/month). Assuming the distribution of these users is 20% Heavy, 30% Medium, and 50% Light.

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3. Breaking down each field above and hypothesizing/estimating it

a. CALCULATING THE NUMBER OF UBER USERS:

Urban Population = 420 million

Population who has access to Uber = $420 * 40\% = 168$ million

Percentage using ride-sharing = $20\% = 0.20$

Urban Population using ride-sharing = $168 \text{ million} * 0.20 = 33.6$ million

Percentage preferring Uber = 50%

Uber Users = $33.6 \text{ million} * 0.50 = 16.8$ million

b. CALCULATING AVERAGE RIDES PER USER PER MONTH:

Heavy Users = $15 \text{ rides/month} * 20\% = 3 \text{ rides/month}$

Medium Users = $6 \text{ rides/month} * 30\% = 1.8 \text{ rides/month}$

Light Users = $2 \text{ rides/month} * 50\% = 1 \text{ ride/month}$

Average Rides/User/Month = $(3 + 1.8 + 1) / 3 \approx 1.9 \text{ rides/month}$

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c. Putting the numbers back on the high-level equation:

Average Number of Rides per Month = Number of Active Users * Average Number of Rides per User per Month
= 16.8 million users * 1.9 rides/user/month
= Approximately 32 million rides per month

Putting it all together in the original equation:

With the hypothesized data, we estimate that Uber facilitates around 40 million rides per month in India. This rough estimation relies on several assumptions and could vary based on actual user behavior, market dynamics, and Uber's operational strategies within different cities in India.

All modules

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Thank you! 