Approaches and Example for Guesstimates

1. Demand Side Approach

> **Overview**
>
> **Approach:** Break down demand by identifying the target population, usage frequency, and average consumption.
> **When to use:** When estimating market size, revenue, or consumption patterns.
> **Examples:**
>
> - Market Size for Sanitary Pads in India.
>
> - Estimate daily metro passengers in Delhi.

Parameters to Consider

AGE	INCOME	LOCATION
GENDER	OCCUPATION	COUNTRY
LITERACY RATE	MOBILE PENETRATION	INTERNET PENETRATION

2. Supply Side Approach

> **Overview**
>
> **Approach:** Estimates market size based on the production capacity, supply constraints, or distribution reach of a business rather than customer demand.
>
> **When to use:** When there are supply constraints, including fixed production capacity, delivery lead times, regulatory restrictions, and transportation limitations.
>
> **Examples:**
>
> - Number of parcels delivered by Amazon in India in a day.
>
> - Number of limited edition sneakers resold each year.

TAM-SAM-SOM Framework

Used to understand market size and revenue potential:

- **TAM (Total Addressable Market):** Represents the maximum market opportunity.

- **SAM (Serviceable Available Market):** That portion of TAM that a company can serve based on its capabilities and demographics.

- **SOM (Serviceable Obtainable Market):** That portion of SAM that a company can capture given its current resources and competition.

3. General Frameworks

TOP DOWN APPROACH

Start with a high-level estimate and break it down into smaller components.
Example: Estimating total revenue of the coffee industry by starting with global coffee consumption and working down to per-cup pricing.

BOTTOM UP APPROACH

Start with small, measurable components and aggregate them to form a larger estimate.
Example: Estimating total number of cars in a city by calculating cars per household and multiplying by number of households.

PARETO PRINCIPLE

The 80/20 rule states that 20% of activities drive 80% of results.
Example: In a city's restaurant revenue, 80% likely comes from the top 20% of restaurants.

MECE

Mutually **E**xclusive, **C**ollectively **E**xhaustive categories to ensure completeness and prevent overlap.
Example: Estimating marketing effectiveness as: Total Impressions $\times$ Conversion Rate.

UNIT ECONOMICS

Break down the problem into individual units (e.g., per customer) and scale up.
Example: Cost of running a delivery service = Cost per delivery $\times$ Number of deliveries.

EXTRAPOLATION

Use existing data trends to project future estimates.
Formula: $Y = Y' \times (1 + r)^t$
Where Y=Estimated future value, Y'=Current value, r=Growth rate, t=Time period.
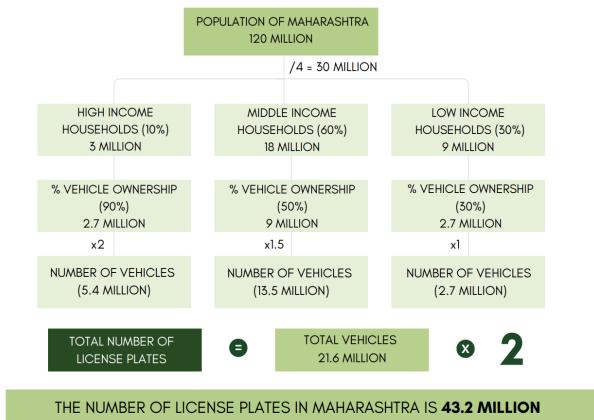
Example 1: Demand Side Guesstimate

Problem: Estimate the number of license plates in the state of Maharashtra.

Assumptions: Avg people per household = 4   # of license plates per vehicle = 2

POPULATION OF MAHARASHTRA 120 MILLION		
/4 = 30 MILLION		
HIGH INCOME HOUSEHOLDS (10%) 3 MILLION	MIDDLE INCOME HOUSEHOLDS (60%) 18 MILLION	LOW INCOME HOUSEHOLDS (30%) 9 MILLION
% VEHICLE OWNERSHIP (90%) 2.7 MILLION	% VEHICLE OWNERSHIP (50%) 9 MILLION	% VEHICLE OWNERSHIP (30%) 2.7 MILLION
x2	x1.5	x1
NUMBER OF VEHICLES (5.4 MILLION)	NUMBER OF VEHICLES (13.5 MILLION)	NUMBER OF VEHICLES (2.7 MILLION)

TOTAL NUMBER OF LICENSE PLATES **=** TOTAL VEHICLES 21.6 MILLION **⊗** 2

THE NUMBER OF LICENSE PLATES IN MAHARASHTRA IS **43.2 MILLION**

The number of license plates in Maharashtra is 43.2 Million

Example 2: Supply Side Guesstimate

Problem: Estimate daily revenue of a fast food chain in New Delhi.

Assumptions: Focus on Dine-in orders only.

```
                          ┌─────────────────────┐
                          │   TOTAL REVENUE     │
                          └─────────────────────┘
                 ┌──────────────────┴───────────────────┐
        ┌──────────────────┐              ┌──────────────────────┐
        │ AVERAGE PRICE    │              │   # OF ITEMS SOLD    │
        │      100         │              └──────────────────────┘
        └──────────────────┘        ┌───────────┼───────────┐
                          ┌──────────────┐ ┌──────────┐ ┌──────────┐
                          │  TAKEAWAY    │ │ DINE-IN  │ │ DELIVERY │
                          └──────────────┘ └──────────┘ └──────────┘
                                                │
                                    ┌──────────────────────┐
                                    │     # OF ITEMS       │
                                    │  SOLD IN DINE-IN     │
                                    └──────────────────────┘
```

# OF OPERA-TIONAL HOURS	x	CAPACITY (# OF SEATS)	x	AVERAGE OC-CUPANCY	x	# OF ITEMS PER PERSON	x	/AVG TIME SEAT IS OCCUPIED

TOTAL DAILY REVENUE