**Required Assignment 6.2: Market Potential Estimation**

**Shridhar Dhuri**

**Suggested time:** 90 minutes

**Part A: Market Potential of Diapers**

**Methodology used:**

We will use the top-down estimation method based on:

Annual births in the country.

Average diapers used per child during diaper-using years.

Average years of diaper usage distributed over the birth.

**Approach taken:**

* Find the total diapers used by a single child over 2.5 years.
* Calculate average annual diaper usage per child over 2.5 years.
* Multiply the annual number of births by the annual diaper usage per child to get the annual market potential.

**Assumptions:**

The birth rate is constant at 4 million babies per year.

Each baby uses 7,800 diapers over 2.5 years.

Usage is evenly distributed, so annual usage can be calculated by:

Annual usage = 2.5 years / 7800 diapers = 3120 diapers/child/year

**Calculation:**

Step 1: Annual diaper usage per child

7800 diapers / 2.5 years = 3120 diapers per child per year

Step 2: Multiply by the number of babies born annually

4000000 babies × 3120 diapers/child/year = 12480000000 diapers/year

**Solution:**

The total market potential for disposable diapers in the country = 12.48 billion diapers annually​

**Part B: Market Potential of Ice cream**

**Methodology used:**

We will use a top-down market sizing approach:

Start with the total population.

Exclude the populations that cannot consume ice cream (diabetics and lactose intolerant).

Use average annual consumption per person to estimate total units.

Multiply total units by average price per pint to calculate market potential in dollars.

**Approach taken:**

* Determine the eligible population (total population minus diabetics and lactose-intolerant individuals).
* Multiply the eligible population by average annual consumption per person to get the total annual units (pints).
* Multiply the total units by the average price per pint to get the total annual market value in dollars.

**Assumptions:**

All non-diabetic, non-lactose-intolerant individuals consume ice cream.

Average consumption and price per pint are consistent across all eligible individuals.

Population figures are accurate, and there is no overlap between diabetic and lactose-intolerant groups (i.e., they are distinct groups).

**Calculation:**

Total population (1999) = 273.4 million

Diabetics = 16 million

Lactose intolerant = 30 million

Average annual consumption = 46.6 pints/person

Average price per pint = $3.19

Step 1: Calculate the eligible population

Eligible population = 273.4M − 16M − 30M = 227.4M

Step 2: Calculate market potential in units (pints)

Total annual pints = 227.4M × 46.6 = 10599.84M pints

(approximately 10.6 billion pints annually)

Step 3: Calculate market potential in dollars

Total market value = 10599840000 pints × $3.19/pint = $33860452800

(approximately $33.86 billion annually)

**Solution:**

Market Potential in Units:

The estimated total annual ice cream consumption in the country = 10.6 billion pints per year

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Market Potential in Dollars:

The estimated total annual dollar value of the ice cream market = $33.86 billion per year