

MARKETING ANALYTICS: Case Study

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Name: _____

Date: _____

Case No.	Chapters	Case Title
2	2	Market Sizing

Background

You have been promoted to Vice President of Marketing for ACME CPG, Inc. ACME sells consumer packaged goods (CPG) to its customers in the United States. ACME competes against other CPG companies, such as Procter & Gamble with brands such as Tide laundry detergent and Ivory soap, as well as Unilever, with brands such as Sun laundry detergent and Dove soap.

Customers mostly know ACME CPG for its line of environmentally friendly all-purpose cleaners. ACME prides itself on its non-toxic formula, safe for homeowners along with their children and pets. ACME has diversified beyond all-purpose cleaners to include stainless steel cleaner, pet stain remover, deck & fence cleaner, concrete and driveway cleaner, car wash, barbecue grill cleaner, carpet cleaner, floor cleaner, glass cleaner, and all-purpose wipes.

ACME CPG is considering expanding its product line to include laundry detergent. The company faces stiff competition but believes it can compete because of the stellar reputation of its environmentally-friendly brand.

ACME CPG management has asked you to estimate the size of the market to assess whether it is financially worthwhile to enter the market. To conduct a thorough approach to the problem, you plan to estimate the size using several different techniques, and then aggregate the results. Specifically, you will estimate the size using multiple approaches:

- Available industry analyst reports
- Government sources, such as Census data
- Top-Down estimation methods
- Bottom-Up estimation methods

Industry Analyst Reports

You learn that industry analyst firm SymphonyIRI Group (iriworldwide.com) has estimated the total size of the US laundry detergent market:

Fact 1: Laundry detergent accounted for \$7.2 billion of sales for the 52 weeks ended Nov. 4, 2012.

Source: Branna, Tom. "Where's the Bounce?" Household and Personal Products Industry (HAPPI) website. January 21, 2013.

http://www.happi.com/issues/2013-01/view_features/wheres-the-bounce/

Government Sources

You wonder how this industry analyst estimate compares with the Industry Statistics Sampler available through the U.S. Census Bureau. You conduct an Internet search and find the North American Industry Classification System (NAICS) code information you need:

Fact 2: United States Census Bureau data for 2007 Census:

NAICS 325611: Soap and other detergent manufacturing: \$26.371 billion

NAICS 32561146 Household dry and liquid laundry detergents, heavy-duty: \$6.734 billion

Source: U.S. Census Bureau, Industry Statistics Sampler, NAICS 325611 Soap and other detergent manufacturing.

<http://www.census.gov/econ/industry/products/p325611.htm>

Top-Down Estimation Methods

Having determined the industry analyst and government data, you proceed to the next step, which is to estimate the size using top-down techniques. To perform the top-down technique, we will need to know the total “universe” of detergent-using entities in the United States (i.e., households who do laundry), how many loads of laundry they wash per year, and the average cost of detergent per load. Luckily, we are able to find all of the facts we need:

Fact 3: Number of U.S. Households (designated as “HH” in U.S. Census Bureau data) in 2010 Census: U.S. Households (HH) in 2010: 114.8 million
 Source: U.S. Census Bureau, “Current Population Reports: Projections of the Number of Households and Families in the United States: 1995 to 2010.” April 1996
<http://www.census.gov/prod/1/pop/p25-1129.pdf>

Fact 4: Average number of loads of laundry washed per year per household: 400 loads/year.
 The article mentions the impact of children on the loads of laundry washed, so we assume the figure refers to loads/year washed by households with children.
 Source: California Energy Commission, “Consumer Energy Center: Appliances: Clothes Washers.”
<http://www.consumerenergycenter.org/home/appliances/washers.html>

Fact 5: Average cost of detergent per load of laundry: \$0.23/ load
 Source: Consumer Reports, “Laundry Detergent Test: High Price Doesn’t Guarantee High Performance.” June 1, 2010.
<http://pressroom.consumerreports.org/pressroom/2010/06/yonkers-ny-consumer-reports-latest-tests-of-more-than-50-laundry-detergents-continue-to-show-that-buying-a-high-priced-l.html>

At this point, you have the data you need to estimate the market size using top-down techniques.

1. Estimate the size of the U.S. laundry detergent market using the Top-Down approach using the data given.

Approach	Results
Top-Down Approach	

Bottom-Up Estimation Methods

Next, you estimate the market size using bottom-up techniques. You research the space and learn that different types of households have different laundry-washing behaviors. Specifically, you learn that married couples (especially those with children) wash many more loads of laundry than bachelors. You examine U.S. Census data and learn that the government breaks down households into three segments: Married Couples, Male Householder, and Female Householder. You obtain the data for each segment:

Fact 6: Breakdown of U.S. Households, according to 2010 U.S. Census Bureau data:
 Married Couples: 58.4 million
 Female Householder: 35.3 million
 Male Householder: 23.8 million
 Source: U.S. Census Bureau, “America’s Families and Living Arrangements: 2010.”
<http://www.census.gov/population/www/socdemo/hh-fam/cps2010.html>

Armed with this information, you set out to estimate the market size using bottom-up techniques. In general, the bottom-up approach will sum up usage from each segment like this:

$$\begin{aligned} \text{Total Usage} &= \text{Usage from Married Couples Households (i.e. Segment 1)} \\ &+ \text{Usage from Female Householder (i.e. Segment 2)} \\ &+ \text{Usage from Male Householder (i.e. Segment 3)} \end{aligned}$$

We can express this as follows:

$$\text{Total Usage} = (\text{Married HH} * \text{\#Loads/yr}) + (\text{Female HH} * \text{\#Loads/yr}) + (\text{Male HH} * \text{Loads/yr}) * \$\text{cost/load}$$

We assume that behavior for each segment will be different. We make the assumption that married households (especially those with children) will wash more laundry than female households, who in turn will wash more laundry than male households. We will need to quantify (or estimate) the difference in behavior as we calculate the bottom-up value.

2. Estimate the size of the U.S. laundry detergent market using the Bottom-Up approach.

Approach	Results
Bottom-Up Approach	

Aggregating the Data

You decide to combine the values you estimated. In this process, if you feel particularly strongly about the accuracy of one of the methods, you can weight it higher or lower than the others. Alternatively, you can perform a simple arithmetic average.

3. Submit a final estimate by triangulating the data from the different approaches.

Triangulation	
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PEST Market Trend Analysis

You complete your analysis by conducting a PEST market trend analysis to predict the future state of the U.S. laundry detergent market, based on current market forces.

4. Conduct a PEST market trend analysis for the laundry detergent market in the United States

PEST Analysis	Results
Political	
Economic	
Social	
Technological	