Business Intelligence – How to Dissect a Market Opportunity

The American Ceramic Society
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Overview

▶ Background

▶ Definitions

▶ Standard approaches
  – Top down analysis
  – Bottom up analysis

▶ Alternative approaches
  – Basis and relational data
  – Capability driven market analysis (CDMA)

▶ Growing beyond your current space
  – Lateral thinking
  – Assumption storming
  – Bull's eye

Smart Decisions Start Here

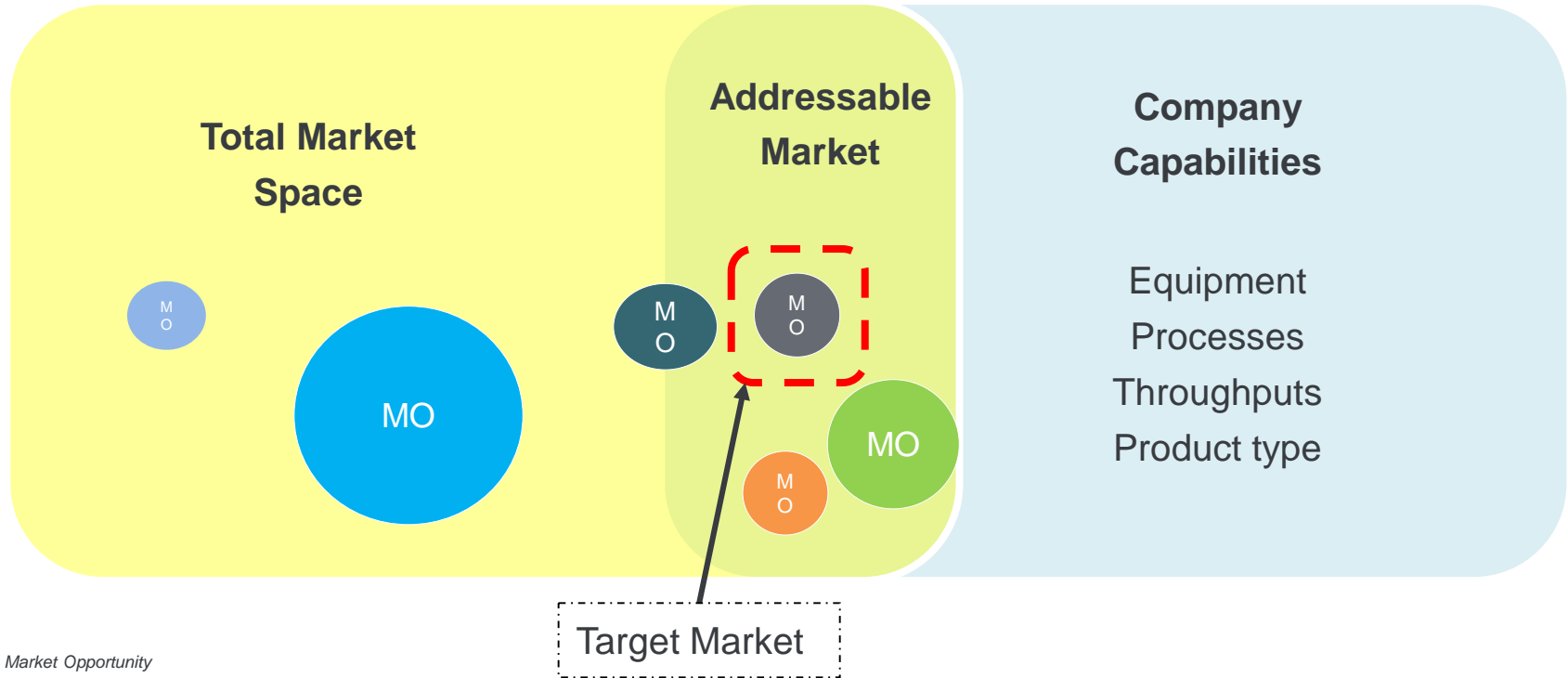Market research and analysis for your next breakthrough

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Background

Brown University

ENGINEERING AT ILLINOIS

The waterCAMPWS
The Center of Advanced Materials for the Purification of Water with Systems

FULBRIGHT
SOUTH AFRICA

National Science Foundation
WHERE DISCOVERIES BEGIN

Market Definitions

Total Market Space

Addressable Market

Company Capabilities

Equipment
Processes
Throughputs
Product type

MO

MO

MO

MO

MO

MO

Target Market

MO = Market Opportunity

Addressable Market = the revenue opportunity for a product or service

Target Market = likely buyers (usually geographic based)

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Assessing the Market: Standard Approach

▶ **Find Public Data:**

‒ The U.S. Census Bureau's Annual Survey of Manufacturers
  • https://www.census.gov/programs-surveys/asm.html

‒ US Geological Survey
  • https://minerals.usgs.gov/minerals/pubs/commodity/

‒ The Aluminum Association
  • http://www.aluminum.org/statistics

‒ Wards Auto
  • http://wardsauto.com/

‒ US Energy Information Administration
  • https://www.eia.gov/

*Market size is **NOT** published for all markets. Published data may not be available for small markets or international markets and may not sufficiently be segmented.*

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Assessing the Market: Standard Approach

▶ **Analyze Competitor Sales**

– Private Companies
  - Dun & Bradstreet / Hoovers (http://www.dnb.com/)
  - OneSource (https://custom.onesource.com/)

– Public Companies
  - NASDAQ (http://www.nasdaq.com)
  - Market Watch (http://www.marketwatch.com)

Adding up competitor sales to determine market size is not feasible in fragmented markets and relies on the collection of relatively sensitive competitive intelligence.

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Assessing the Market: Standard Approach

▶ Survey Customers

– Survey a sample of customers and extrapolate across the market

– Common tools:
  - CARAVAN® Omnibus Surveys (https://orcinternational.com/solution/caravan-omnibus-surveys/)
  - TraQline (https://stevensoncompany.com/products-services/traqline/)
  - Gerson Lehrman Group (https://glg.it/)
  - Survey Monkey (https://www.surveymonkey.com/)
  - Google Surveys (https://www.google.com/analytics/surveys)

Determining market size by surveying customers can be costly in B2B markets where customers are hard to reach and the market penetration is low.
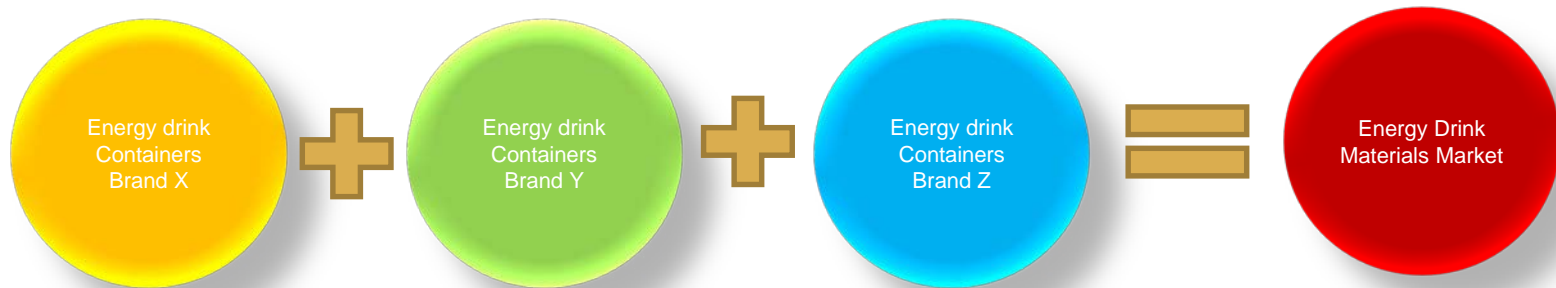
Top Down Market Analysis

▶ Determines total market space

▶ Estimate the share of the market

US Beverage Market
$31 Billion in 2019

Energy Drink
materials market
25%
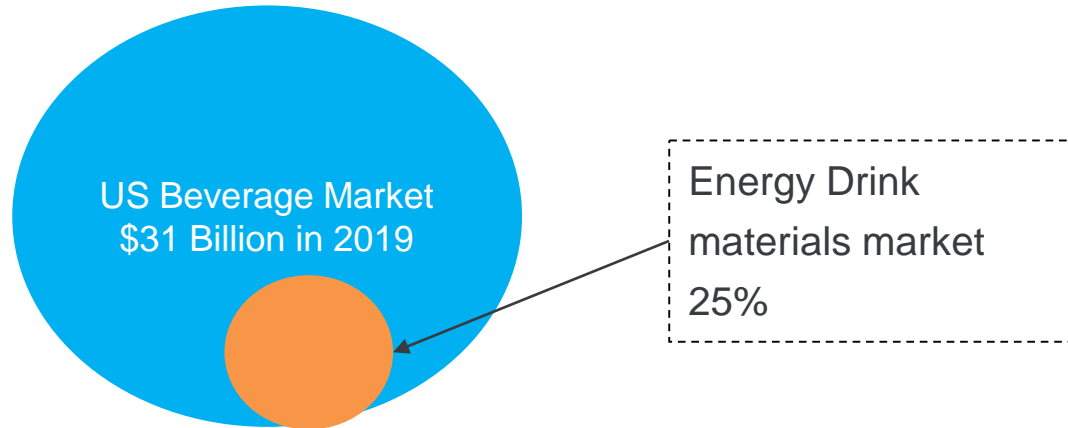
Quicker. More time efficient. Lacks detail and does not enable in-depth opportunity analysis.
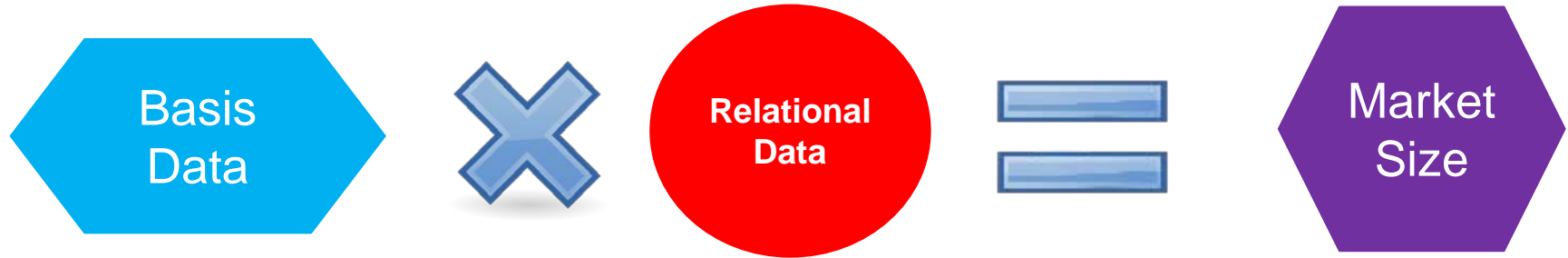
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Bottom Up Market Analysis

▶ Determines addressable/target market

▶ Identifies each variable that can total up to the addressable or target

Energy drink Containers Brand X **+** Energy drink Containers Brand Y **+** Energy drink Containers Brand Z **=** Energy Drink Materials Market
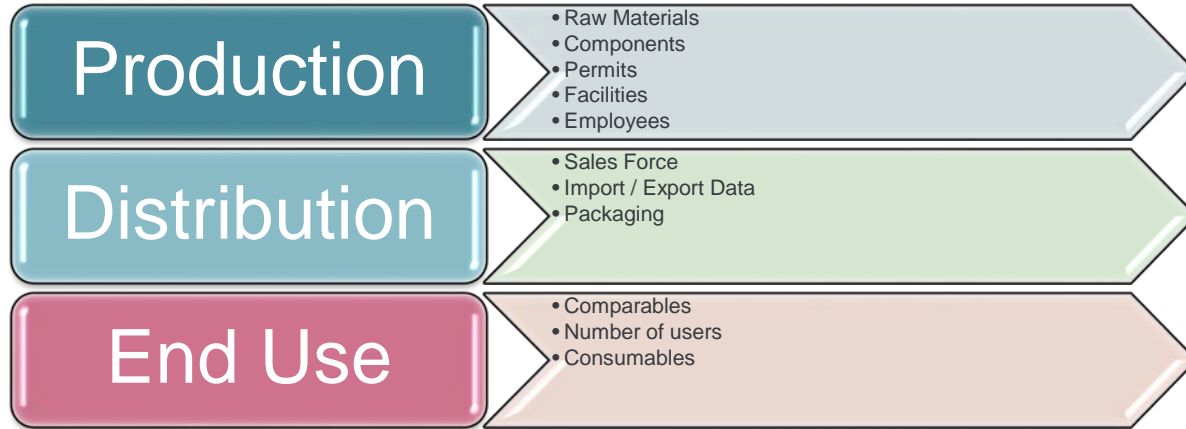
More accurate. Takes much longer. More valid since technically it will not use non-addressable revenue or units.

Basis & Relational Data Approach

Basis Data × Relational Data = Market Size

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Types of Basis Data

Types

Production	• Raw Materials • Components • Permits • Facilities • Employees
Distribution	• Sales Force • Import / Export Data • Packaging
End Use	• Comparables • Number of users • Consumables

Process

Brainstorming   Interviews   Relational Data Connections

Market Size Calculation

Basis & Relational Data Method

Basis Data		Relational Data					Market Size
Region	2010 Population	Population% b/w 18 - 44 yrs	Avg Soda Consumption (Cans per Wk)	% of Energy Consumption	No. of Wks.	Weight of Empty (lbs)	New Material Annually (tons)
Northeast	55,317,240	36.5%	2.5	25%	52	0.033	10,827
Midwest	66,927,001	36.5%	2.5	25%	52	0.033	13,100
South	114,555,744	36.5%	2.5	25%	52	0.033	22,422
West	71,945,553	36.5%	2.5	25%	52	0.033	14,082
US	**308,745,538**	**36.5%**	**2.5**	**25%**	**52**	**0.033**	**60,431**

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Growing Beyond Your Market Space

- **Lateral thinking**
  - Use reasoning not immediately obvious
  - Use random nearby objects
  - Document the opportunities!

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Growing Beyond Your Market Space

▶ **Brain Storming vs. Assumption Storming**
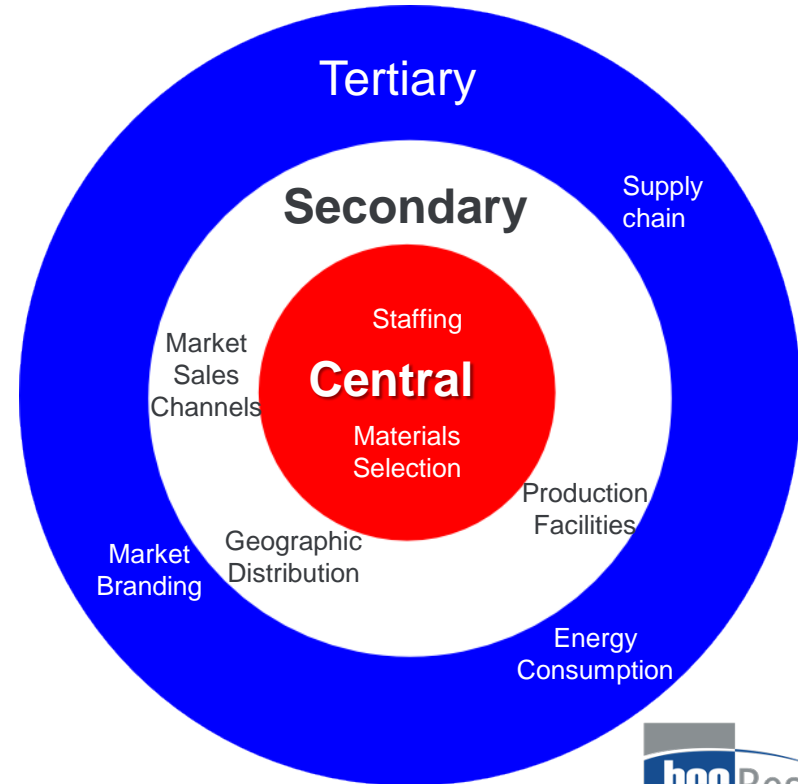
- Assumptions of the energy drink materials market?
- Attack the assumptions
- Document the new opportunities!

Growing Beyond Your Market Space

▶ **Bull's Eye**

– Capture opportunities through focused ideation

– Relate to lateral thinking and/or assumption storm

– Document opportunities!

Tertiary

Secondary

Supply chain

Staffing

Central

Market Sales Channels

Materials Selection

Production Facilities

Market Branding

Geographic Distribution

Energy Consumption

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Thank You!

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