Marketing Analytics II

Chapter 9: Distribution Analytics

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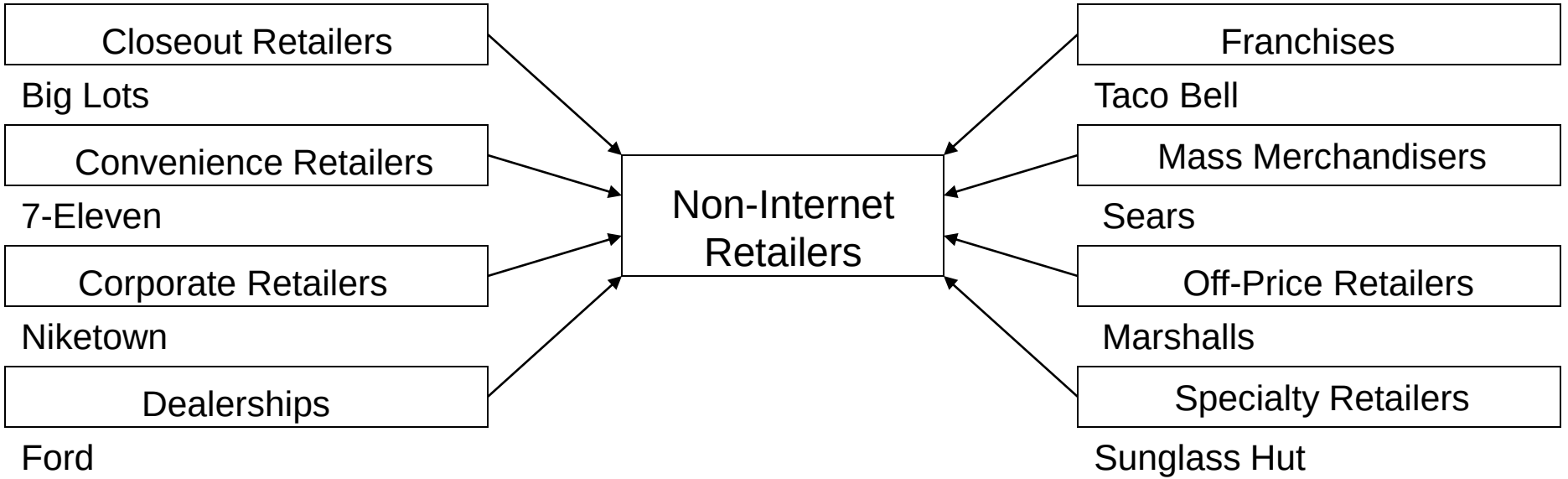
Outline/ Learning Objectives

Topic	Description
Distribution Concepts	Cover essential distribution concepts & terminology
Channel Model	Introduce proprietary channel evaluation model
Distribution Metrics	Discuss useful metrics for distribution

Distribution Channel Members



Distribution Channel Members

Retailer Type	Description	Example
Closeout	Liquidates unpopular merchandise	Big Lots
Convenience	Fast service for snack foods	7-11
Corporate	Owned by company	NikeTown
Dealership	Carries inventory for sale to consumers	Ford auto dealer
Franchise	License to run store, granted by company	Taco Bell
Mass Merchandise	Sell wide variety of goods	Sears
Off-Price	Sell discontinued items	Marshalls
Specialty	Focus on narrow product line	Sunglass Hut

Sample Retailers, Non-Internet

Distribution Channel Members

Retailer Type	Description	Example
Aggregator	Sell multiple brands of goods	Amazon.com
Corporate Site	Owned by company	Dell.com
Discount	Sell discontinued items	Overstock.com
Specialty	Focus on market niche or category	TigerDirect.com

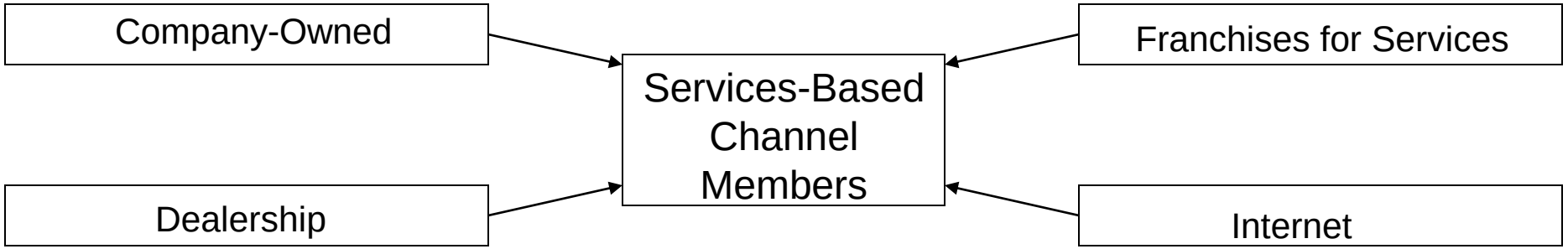
Sample Retailers, Internet-based

Distribution Channel Members

Intermediary Type	Description	Example
Distributors	Sells standard stock to businesses	Arrow
Liquidators	Sells discontinued items to businesses	GENCO
Value-added Resellers	Sells modified stock to B2B; some B2C	Tech Data
Wholesalers	Sells standard stock to retailers	Jacobs Trading

Examples of Non-Retailer Intermediaries

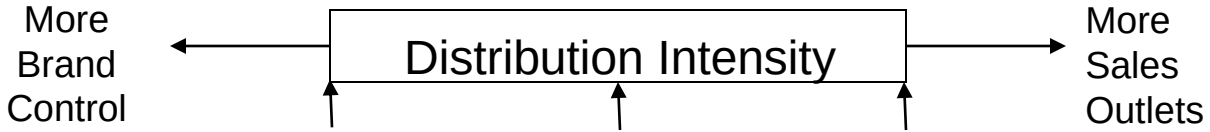
Distribution Channel Members



Service Provider Type	Description	Example
Company-owned	Company owns and manages locations	Starbucks
Dealership	Service at point of sale	Shabbona Creek RV
Franchise	Locally owned by franchisee	Roto-Rooter
Internet	Delivery of services over Internet	Go Daddy hosting

Examples of Services-based Channel Members

Distribution Intensity

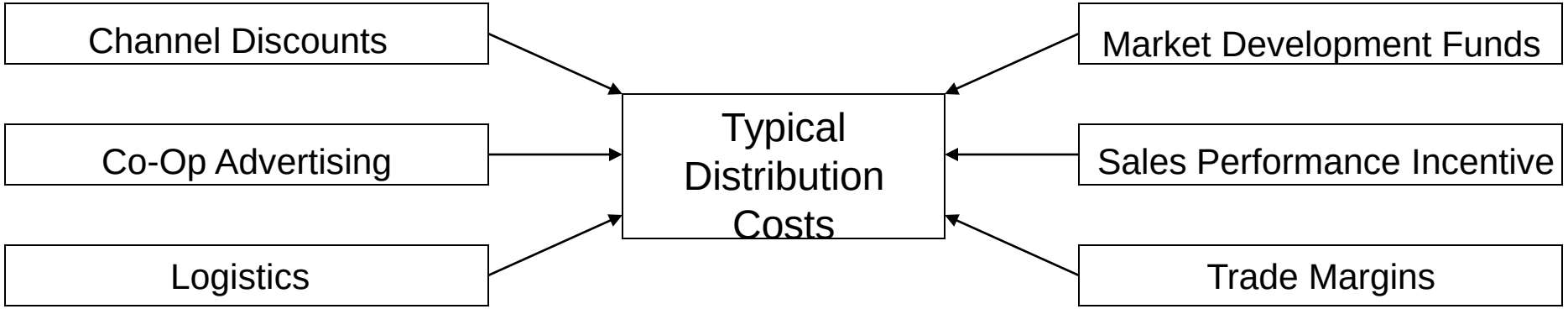


Snap-On Tools
-Exclusive through franchise
-Direct selling in tool trucks

Coach
-Coach stores
-Bloomingdales
-Macy's
-Nordstrom

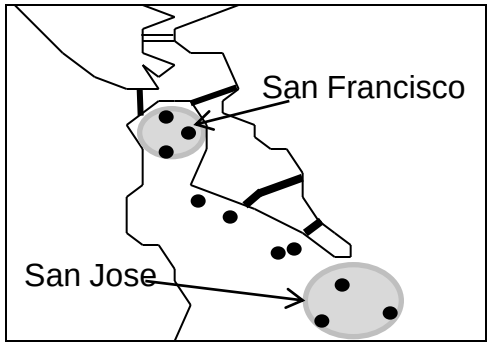
Verizon cell phones
-Verizon stores
-Apple stores
-Best Buy stores
-Costco
-Radio Shack
-Walmart
-Independents

Distribution Channel Costs



Distribution Cost Type	Description
Channel Discounts	Cost incurred when retailers sells products or services at a discount from retail price.
Co-op Advertising	Cost to co-market company products and services by sharing costs to feature brands in advertisements.
Logistics	Cost for distribution logistics, such as inventory, returns, shipping, order management, service, and others.
Market Development Funds	Cost for co-marketing products and services with distribution channel member, often part of a specific plan.
Sales Performance Incentive Funds	Cost for incentive to channel member sales team to promote specific products and services.
Trade Margins	Cost for participating in distribution channel. Typically a percentage of the retail price. Also called mark-up or commission.

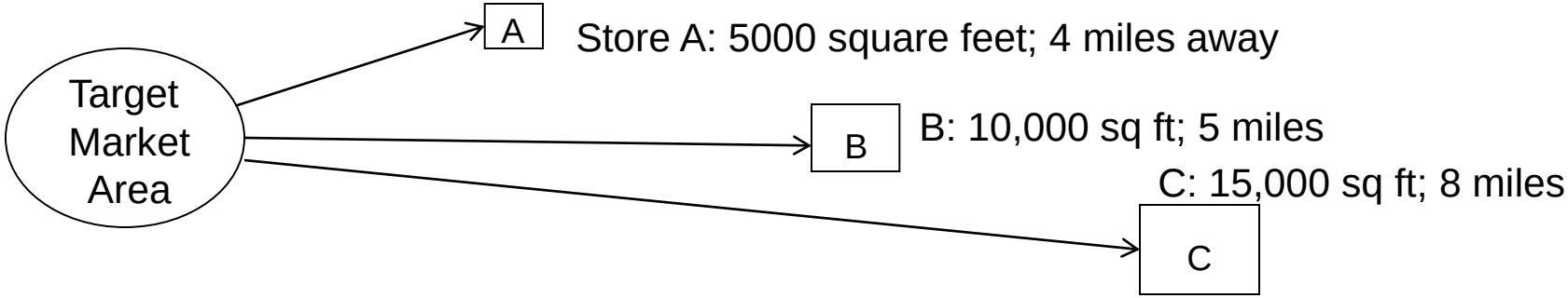
Retail Location Selection



Geographical Area Identification → Potential Site Identification → Individual Site Selection

Retail Location Selection Process	Description	Example Model
Geographic Area Identification	Identify geographic areas where individuals of target market reside	GIS; Market Sizing
Potential Site Identification	Identify set of retail locations meeting company's retail goals.	GIS; Gravity Model
Individual Site Selection	Select one location from set of retail locations identified earlier	Company-specific decision criteria

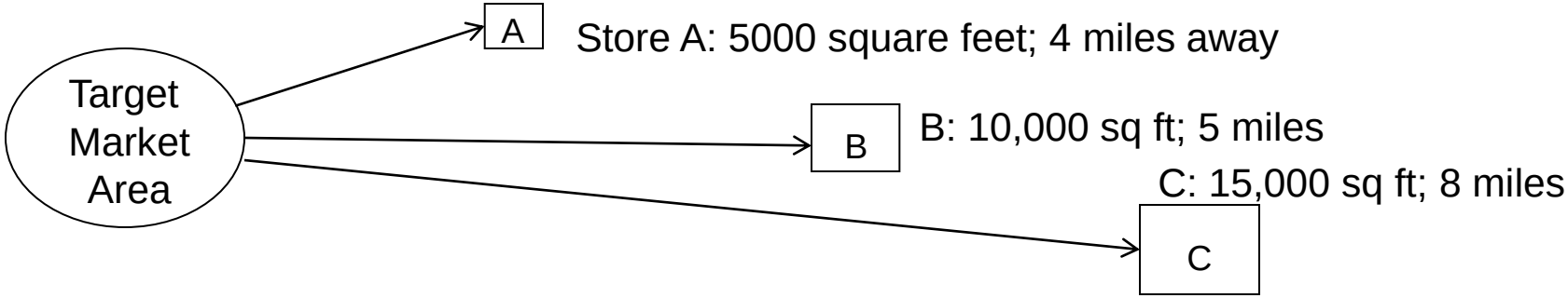
Retail Location Selection: Gravity Model



Calculates probability of shoppers being pulled to store, as if by Gravity

$$\textbf{Probability} = \frac{[\,(\text{Size})^{\alpha} / (\text{Distance})^{\beta}\,]}{\Sigma\,[\,(\text{Size})^{\alpha} / (\text{Distance})^{\beta}\,]}$$

Retail Location Selection: Gravity Model

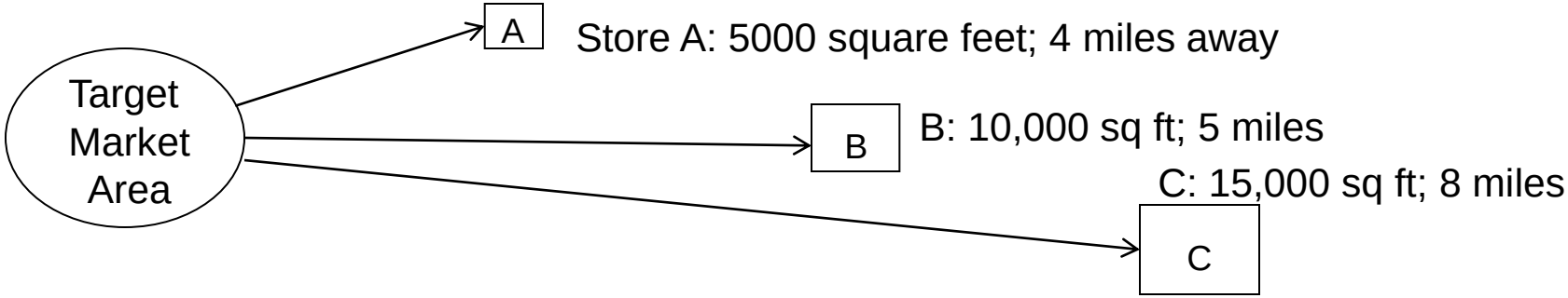


Step 1: **1. Step One**: Calculate the expression [(Size) $^{\alpha}$ / (Distance) $^{\beta}$] for each store location
Store A: [(Size)$^{\alpha}$ / (Distance) $^{\beta}$]: [(5) ^{1} / (4) ^{1}] = 1.25
Store B: [(Size) $^{\alpha}$ / (Distance) $^{\beta}$]: [(10) ^{1} / (5) ^{1}] = 2.00
Store C: [(Size) $^{\alpha}$ / (Distance) $^{\beta}$]: [(15) ^{1} / (8) ^{1}] = 1.88

2. Step Two: Sum the expression [(Size) $^{\alpha}$ / (Distance) $^{\beta}$] for each store location.

Σ [(Size) $^{\alpha}$ / (Distance) $^{\beta}$] = 1.25 + 2.0 + 1.88 = 5.13

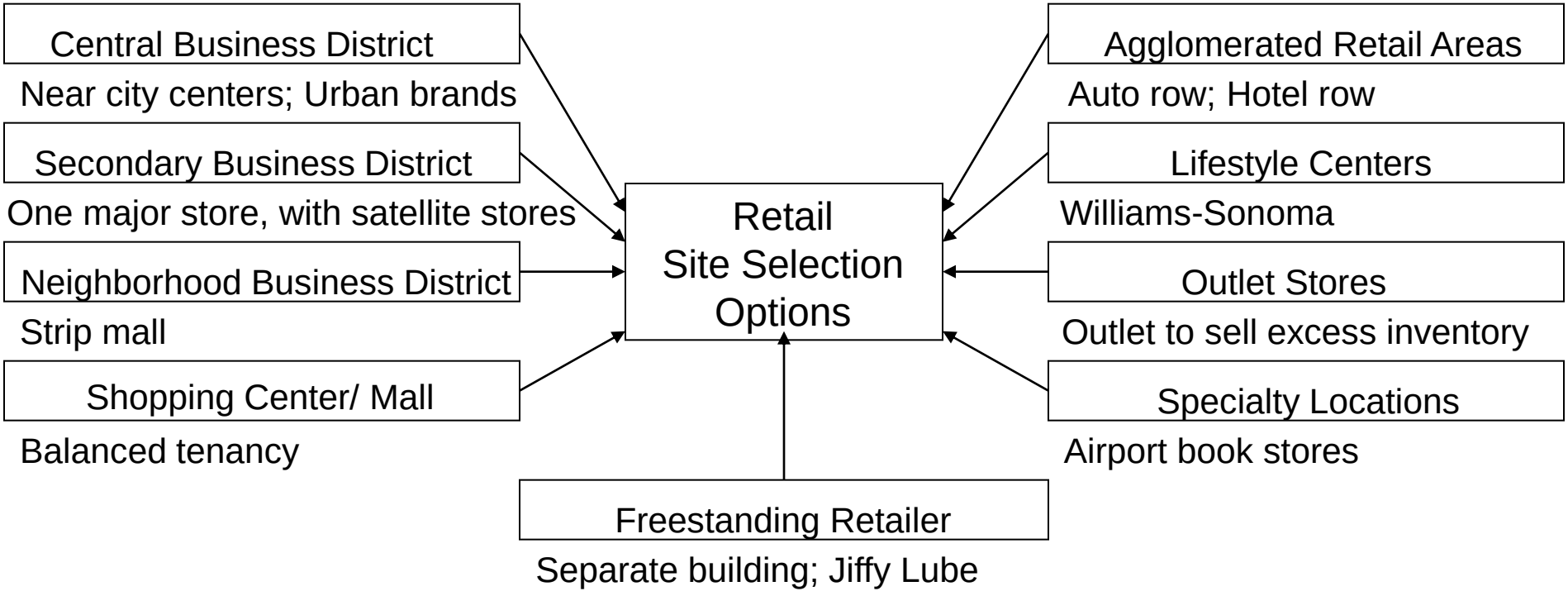
Retail Location Selection: Gravity Model



3. Step Three: Evaluate the expression $[(Size)^{\alpha} / (Distance)^{\beta}] / \Sigma [(Size)^{\alpha} / (Distance)^{\beta}]$

Store A: $[(Size)^{\alpha} / (Distance)^{\beta}] / \Sigma [(Size)^{\alpha} / (Distance)^{\beta}]$: 1.25 / 5.13 = 0.24
Store B: $[(Size)^{\alpha} / (Distance)^{\beta}] / \Sigma [(Size)^{\alpha} / (Distance)^{\beta}]$: 2.00 / 5.13 = **0.39**
Store C: $[(Size)^{\alpha} / (Distance)^{\beta}] / \Sigma [(Size)^{\alpha} / (Distance)^{\beta}]$: 1.88 / 5.13 = 0.37

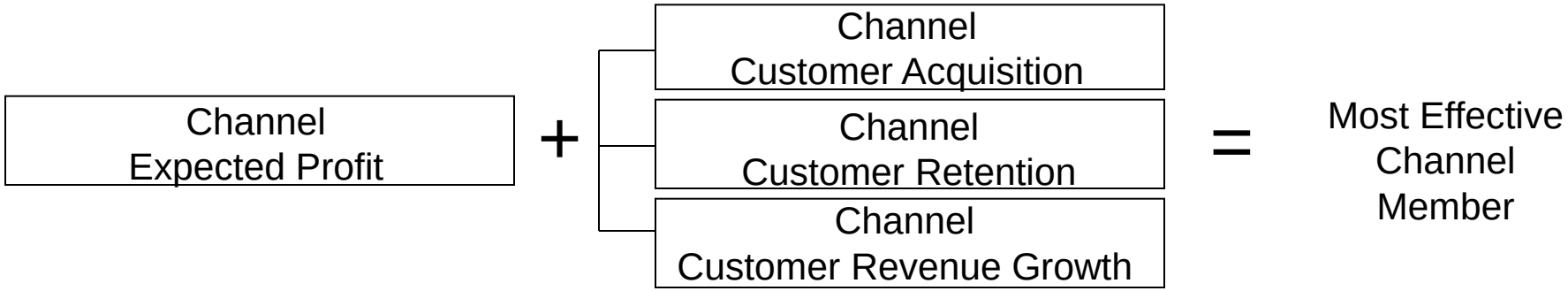
Retail Location Selection



Retail Location Selection

Retail Store Location	Description	Recommended Uses
Central Business District (CBD)	Business district near center of city with an unplanned shopping area.	Urban brands; Luxury brands; Specialty
Secondary Business District (SBD)	Business district smaller than central business district, anchored by at least one major store at a major street intersection.	Department stores; Specialty stores; Comparison shopping
Neighborhood Business District (NBD)	Business district satisfying convenience needs of neighborhood.	Grocery stores; Convenience stores
Shopping Center/ Mall	Centrally owned or managed, with balanced tenancy.	Chain stores of major brands
Freestanding Retailer	Stand-alone facilities, with no adjacent retailers to share traffic.	Destination stores; Specialty shopping
Agglomerated Retail Areas	Collections of competing brands in one category	Comparison shopping: Auto malls
Lifestyle Centers	Upscale retail locations catering to high income lifestyles	Specialty retail brands; Specialty
Outlet Stores	Clearance stores for major brands. Often located on outskirts of major metro areas.	Major consumer brands, esp. fashion
Specialty Locations	Locations other than the common types of locations mentioned above.	Kiosks; Airports; Hotels; Resorts

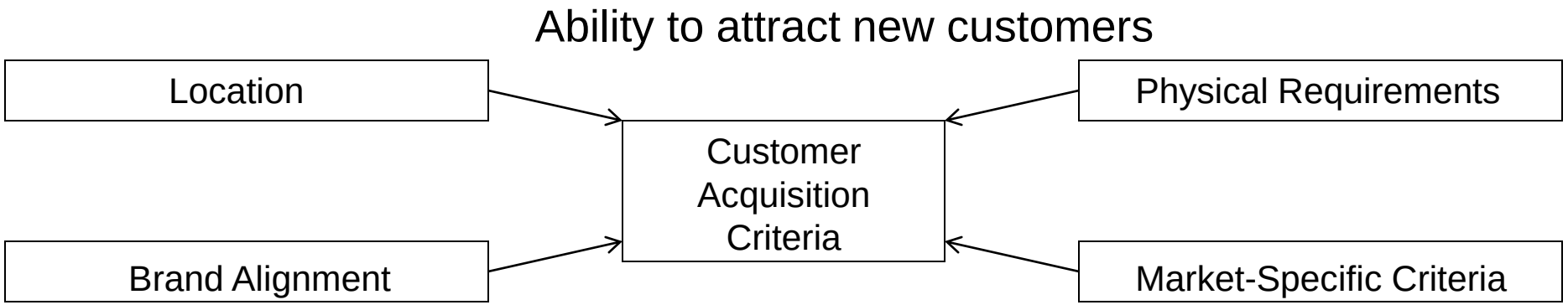
Channel Evaluation and Selection Model



Model to evaluate and select channel members, based on unique needs of business

Channel Evaluation Criteria Category	Description
Channel Expected Profit	Total expected revenue (quantity multiplied by price) less total expected costs (trade margins, logistics costs, discounts, etc.)
Channel Customer Acquisition	Effectiveness in attracting new customers
Channel Customer Retention	Effectiveness in keeping existing customers
Channel Customer Revenue Growth	Effectiveness in developing additional revenue streams from existing customers

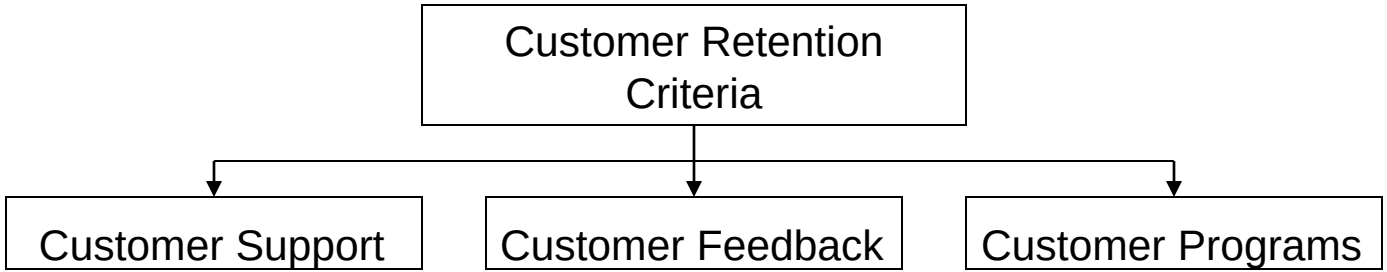
Channel Evaluation and Selection Model



Evaluation Criteria	Description	Example
Location	Effectiveness of location in attracting new customers	AM/PM at major intersection
Brand Alignment	Degree of fit between product brand and channel brand	Bloomingdale's vs. 7-Eleven
Physical Requirements	Degree to which channel meets physical needs, e.g., size, garage access, zoning	Square footage
Market-Specific Criteria	Degree to which channel fulfills market-specific criteria	Customization; Training; Installation

Channel Evaluation and Selection Model

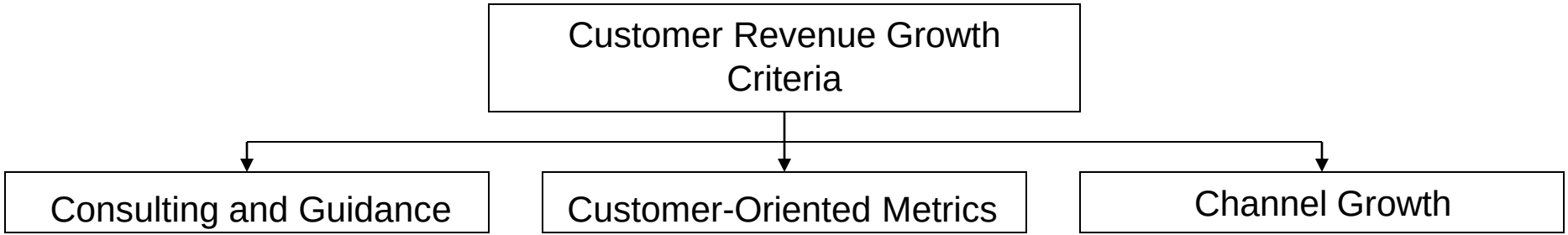
Ability to retain customers



Evaluation Criteria	Description	Example
Customer Support	Effectiveness of resolving customer issues	Amazon.com
Customer Feedback	Degree of customer feedback from channel partner to company	The Container Store
Customer Programs	Effectiveness of customer loyalty programs for customer retention	Neiman Marcus

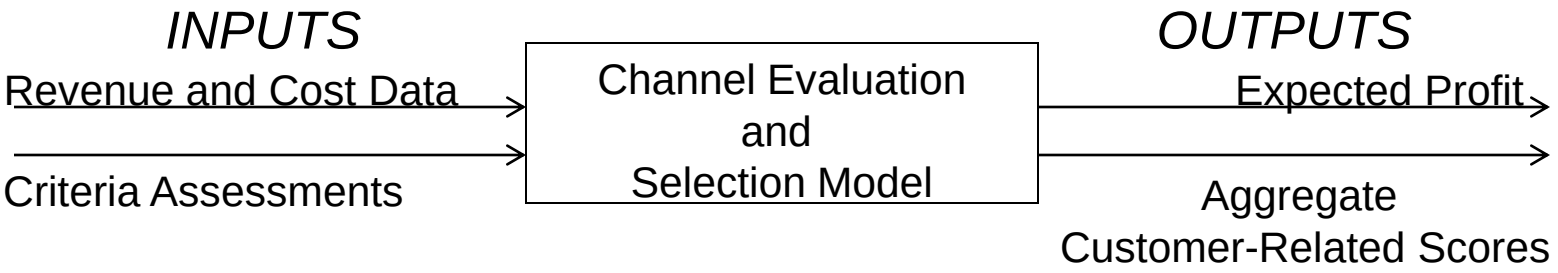
Channel Evaluation and Selection Model

Ability to grow revenue from customers; also known as “share of wallet”

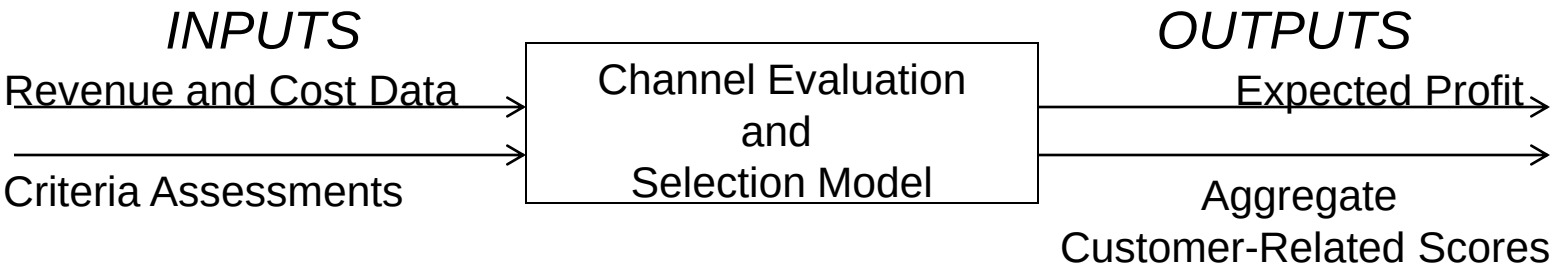


Evaluation Criteria	Description	Example
Consulting & Guidance	Effectiveness of consulting to increase revenue per customer	Fleet Feet Sports
Customer-Centered Metrics	Ability to track revenue at customer level	Ritz Carlton
Channel Growth	Degree to which channel will grow over time	Internet growth

Channel Evaluation and Selection Model



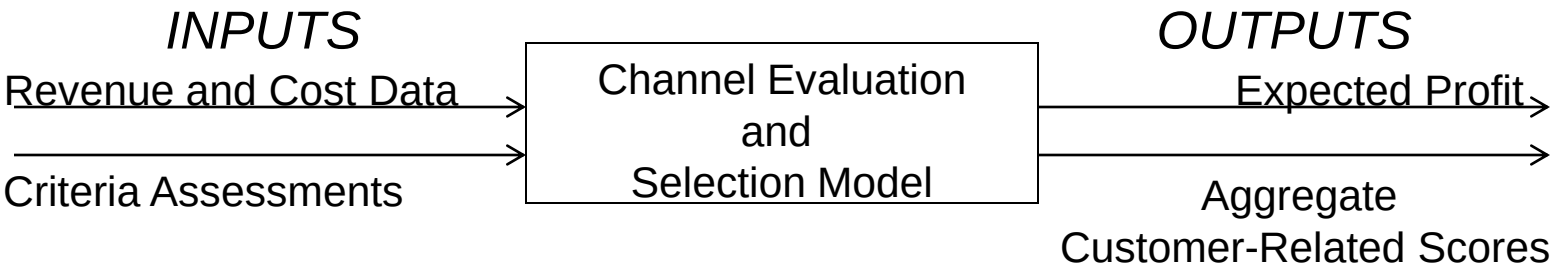
Channel Evaluation and Selection Model



Three-Step Execution:

1. Assess individual criteria: Calculate scores for each criterion (location, brand alignment, etc.)
2. Calculate total scores: Calculate the total scores for each criteria group
3. Calculate grand total score: Calculate grand total score for each channel alternative

Channel Evaluation and Selection Model



Model uses 3 Types of Data:

- Financial Data: Monetary terms (Dollars, Euros) for expected profitability
- Evaluation Criteria: User assessment based on rating scale (see next slide for ratings)
- Model Weights: Allows users to vary importance of different criteria

Channel Evaluation and Selection Model

Rating: Stars	Rating: Percentages	Description
5 Stars	100%	Perfect performance. This level will rarely, if ever, be achieved. Values of 5 in key areas, such as location, are very important.
4 Stars	80%	Excellent performance. This level will be reached by a handful of top-caliber channel members.
3 Stars	60%	Good performance. This level represents the minimum standard for passing.
2 Stars	40%	Fair performance. This level is unlikely to be accepted unless the channel member is outstanding in other areas.
1 Stars	20%	Poor performance. One evaluation at this level in an important area will likely remove the channel member from all consideration.

Ratings

Channel Evaluation and Selection Model

Expected Profitability

Gather revenue and cost information for each distribution channel member (e.g. retail store)
Plug data into model to get totals in monetary and normalized formats

Alternative	Revenue (1)	Revenue (2)	Cost	Total (Monetary)	Total (Normalized)
Member A				$10	16.6%
Member B				$20	33.3%
Member C				$30	50.0%
Total				$60	*100.0%*

Channel Evaluation and Selection Model

Assess scores and weights for customer acquisition criteria

Evaluation Criteria	Description	Weight
Location	Effectiveness of location in attracting new customers	Weight (L)
Brand Alignment	Degree of fit between product brand and channel brand	Weight (BA)
Physical Requirements	Degree to which channel meets physical needs, such as size, garage access, etc.	Weight (PR)
Market-Specific Criteria	Degree to which channel fulfills market-specific criteria	Weight (MC)

Total = Weight (L) * L + Weight (BA) * BA + Weight (PR) * PR + Weight (MSC) * MSC

Alternative	Weight (L)	L	Weight (BA)	BA	Weight (PR)	PR	Weight (MSC)	MSC	Total
Member A									
Member B									
Member C									
Total	*100%*		*100%*		*100%*		*100%*		

Channel Evaluation and Selection Model

Repeat process for Customer Retention and Customer Revenue Growth

Evaluation Criteria	Description	Weight
Customer Support	Effectiveness of resolving customer issues	Weight (CS)
Customer Feedback	Degree of customer feedback from channel partner to company	Weight (CF)
Customer Programs	Effectiveness of customer loyalty programs for customer retention	Weight (CP)

Evaluation Criteria	Description	Weight
Consulting and Guidance	Effectiveness of consulting to increase revenue per customer	Weight (CAG)
Customer-Centered Metrics	Ability to track revenue at customer level	Weight (CM)
Channel Growth	Degree to which channel will grow over time	Weight (CG)

Channel Evaluation and Selection Model

Calculate Grand Total, based on Total Scores from:

- EP: Expected Profit
- CA: Customer Acquisition
- CR: Customer Retention
- RG: Customer Revenue Growth

Alternative	Weight (EP)	EP	Weight (CA)	CA	Weight (CR)	CR	Weight (RG)	RG	Total
Member A									
Member B									
Member C									
Total	*100%*		*100%*		*100%*		*100%*		

Channel Evaluation and Selection Model

Acme Cosmetics Example: Weights and Assessment Scores

Attribute	Weight	Store X	Store Y	Store Z
Profitability: 40%				
Revenue (1)		$120	$100	$110
Revenue (2)		$60	$80	$50
Cost		$90	$72	$32
Customer Acquisition: 20%				
Location	50%	80%	60%	20%
Brand Alignment	20%	80%	60%	40%
Physical Requirements	20%	60%	80%	100%
Market-Specific	10%	60%	60%	100%
Customer Retention: 20%				
Customer Support	50%	80%	40%	40%
Customer Feedback	30%	60%	40%	40%
Customer Programs	20%	60%	20%	20%
Customer Revenue Growth: 20%				
Consulting / Guidance	50%	100%	60%	20%
Customer Metrics	30%	80%	40%	60%
Channel Growth	20%	20%	20%	100%

Channel Evaluation and Selection Model

Alternative	Weight (L)	L	Weight (BA)	BA	Weight (PR)	PR	Weight (MSC)	MSC	Total
Store X	.50	.80	.20	.80	.20	.60	.10	.60	.74
Store Y	.50	.60	.20	.60	.20	.80	.10	.60	.64
Store Z	.50	.20	.20	.40	.20	1.00	.10	1.00	.48

Acme Cosmetics Example, Acme Customer Acquisition

Alternative	Weight (CS)	CS	Weight (CF)	CF	Weight (CP)	CP	Total
Store X	.50	.80	.30	.60	.20	.60	.70
Store Y	.50	.40	.30	.40	.20	.20	.36
Store Z	.50	.40	.30	.40	.20	.20	.36

Acme Cosmetics Example, Acme Customer Retention

Alternative	Weight (CAG)	CAG	Weight (CM)	CM	Weight (CG)	CG	Total
Store X	.50	1.00	.30	.80	.20	.20	.78
Store Y	.50	.60	.30	.40	.20	.20	.46
Store Z	.50	.20	.30	.60	.20	1.00	.48

Acme Cosmetics Example, Acme Customer Revenue Growth

Channel Evaluation and Selection Model

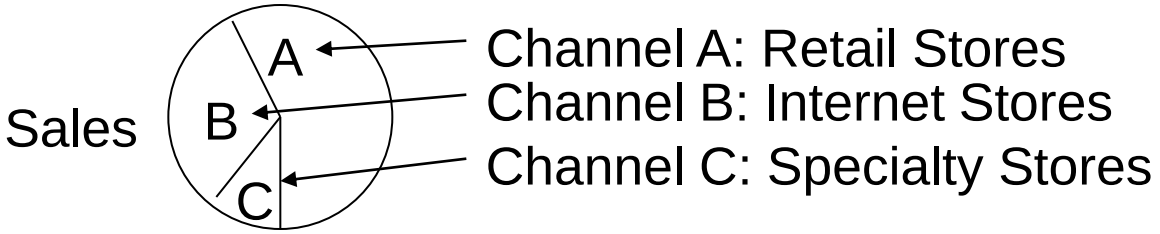
Alternative	Revenue (1)	Revenue (2)	Cost	Total (Monetary)	Total (Normalized)
Store X	$120	$60	$90	$90	28%
Store Y	$100	$80	$72	$108	33%
Store Z	$110	$50	$32	$128	39%

Acme Cosmetics Example, Acme Profitability Calculations

Alternative	Weight (EP)	EP	Weight (CA)	CA	Weight (CR)	CR	Weight (RG)	RG	Total
Store X	0.40	.28	0.20	.74	0.20	.70	0.20	.78	.38
Store Y	0.40	.33	0.20	.64	0.20	.36	0.20	.46	.31
Store Z	0.40	.39	0.20	.48	0.20	.36	0.20	.48	.32

Acme Cosmetics Example, Acme Grand Total Calculations

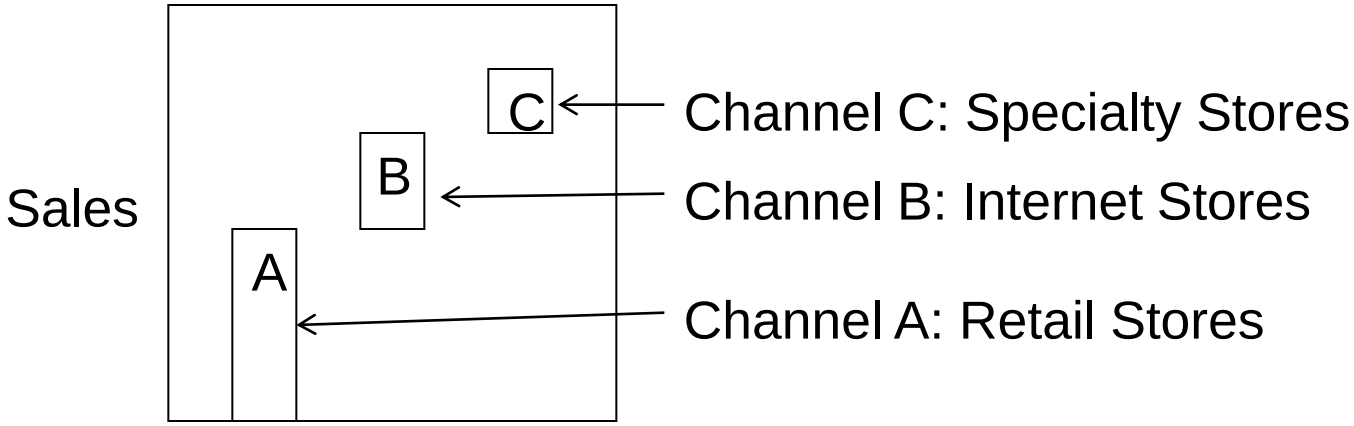
Multi-Channel Distribution



Revenues by Channel,
Product 1 (repeat for 2 & 3)

Channel Sales Comparison Chart

Multi-Channel Distribution



Incremental Revenue
By Channel, Product 1

Incremental Channel Sales Chart

Multi-Channel Distribution

Market	Corporate Consumer Web Store: home.cisco.com	Etail Web: Amazon.com	Retail Stores: Best Buy
Basic Consumers	✓	✓	✓
Mobile Consumers	✓		

Multi-Channel Market Table: Cisco Consumer Markets

Market	Corporate Business Website: cisco.com	Distributor (CDW, etc.)	Value-added Reseller (Nexus IS, etc.)
Small Business	✓	✓	
Enterprise		✓	✓
Service Provider			✓
Industry Specialist			✓

Multi-Channel Market Table: Cisco Business Markets

Distribution Channel Metrics

All Commodity Volume

Measures total sales of company products and services in retail stores that stock the company's brand, relative to total sales of all stores.

ACV in Percentage Units:
ACV = [Total Sales of Stores Carrying Brand ($)] / [Total Sales of All Stores ($)]

ACV in Monetary Units:
ACV = [Total Sales of Stores Carrying Brand ($)]

Distribution Channel Metrics

All Commodity Volume

Measures total sales of company products and services in retail stores that stock the company's brand, relative to total sales of all stores.

ACV in Percentage Units:
ACV = [Total Sales of Stores Carrying Brand ($)] / [Total Sales of All Stores ($)]

ACV in Monetary Units:
ACV = [Total Sales of Stores Carrying Brand ($)]

Example: Acme Cosmetics sells its products through a distribution network consisting of two stores, Store D and Store E.
The other store in the area, Store F, does not stock Acme.
Total sales of Stores D, E, and F, are $30,000, $20,000, and $10,000, respectively.

ACV = [Total Sales of Stores Carrying Brand] / [Total Sales of All Stores]

= [$30,000 + $20,000] / [$30,000 + $20,000 + $10,000] = 83.3%

Distribution Channel Metrics

Product Category Volume

Similar to ACV, but emphasizes sales within the product or service category

$$\text{PCV} = \frac{\text{[Total Category Sales by Stores Carrying Company Brand]}}{\text{[Total Category Sales of All Stores]}}$$

Distribution Channel Metrics

Product Category Volume

Similar to ACV, but emphasizes sales within the product or service category

PCV= [Total Category Sales by Stores Carrying Company Brand]
[Total Category Sales of All Stores]

Example: As we saw earlier, Acme Cosmetics sells its products through two stores, Store D and Store E. Stores D and E sell $1,000 and $800 of Acme products, respectively. The other store in the area, Store F, does not sell Acme products.
Stores D, E, and F sell $1,000, $800, and $600 in the cosmetics category, respectively.

PCV= [Total Category Sales by Stores Carrying Company Brand]
[Total Category Sales of All Stores]

PCV = [$1,000 + $800+ $0] / [$1,000 + $800 + $600] = 75.0%

Distribution Channel Metrics

Category Performance Ratio

Ratio of PCV/ ACV
Gives us insight into the effectiveness of the company's distribution efforts, relative to the average effectiveness of all categories

$$\textbf{Category Performance Ratio} = \frac{\textbf{[Product Category Volume]}}{\textbf{[All Commodity Volume]}}$$

Distribution Channel Metrics

Category Performance Ratio

Ratio of PCV/ ACV
Gives us insight into the effectiveness of the company's distribution efforts, relative to the average effectiveness of all categories

Category Performance Ratio = $\frac{\textbf{[Product Category Volume]}}{\textbf{[All Commodity Volume]}}$

Example: Acme Cosmetics wishes to determine how the product category volume (sales in the category) for the relevant distribution channels compare to the market as a whole. We can use the category performance ratio to compute this.

Category Performance Ratio = $\frac{\text{[Product Category Volume]}}{\text{[All Commodity Volume]}}$

= [75.0%] / [83.3%] = 90.0%

Outline/ Learning Objectives

Topic	Description
Distribution Concepts	Cover essential distribution concepts & terminology
Channel Model	Introduce proprietary channel evaluation model
Distribution Metrics	Discuss useful metrics for distribution