

Review of marketing analysis structure

4P's & 5 C's – used in every case so far

- **Customer** (customer needs, segments, consumer behavior)
- **Company Skills** (brand name, image, production capability, financial strengths, organization, etc.)
- **Competition** (actions are interrelated, market environment)
- **Collaborators** (downstream wholesalers or retailers, upstream suppliers)
- **Context** (culture, politics, regulations, social norms)

Marketing tactics – 4 P's

Starting the final P.

- **Product** (features, quality, service, support, product line etc.)
- **Promotion** (advertising, sales force, brochures, coupons, etc.)
- **Price** (list price, discount, deals, both end-user and channel)
- **Place** (channel of distribution, exclusive vs. intensive, etc.)

Session 15: Distribution Strategy

"the biggest reason for Caterpillar's success has been our system of distribution and product support and the close customer relationships it fosters."

– Chairman and CEO of Caterpillar

Caterpillar dealers

- About 200 dealers worldwide
- Combined net worth 1.5 x Caterpillar's
- Employ 25% more people
- Some have revenues over \$1B
- To customers
 - selection and application
 - training
 - service
 - financing & insurance
 - maintenance & repair
 - advice on replacement
- To Caterpillar
 - market intelligence
 - product design, pricing, delivery, field support

Why?

- “Buy the iron, get the company.”
- EVIU
 - Indonesian copper and gold mines (helicopter access, Cat generators & 500 pieces of Cat equipment). Equipment down, no mining.
 - independent contractor (livelihood depends of a \$50,000 backhoe)
 - lifetime cost of a cat machine is lower than competitors’
- Type of product that is field-stressed, but must continue to run
 - parts need to be installed within 48 hours (at night) – local parts facilities
 - critical design criterion – repair economically and conveniently
 - integrated and flexible manufacturing
- Volume is small (3-400K/yr), but new products many, e.g. D9 (track-type tractor weighing over 100,000 pounds)
 - new design, reduced stress on undercarriage and other fast-wearing parts
 - but some parts failing at 2500 hours (faster than projected)
 - dealers were able to repair before they fail, thus saving reputation
- Share the gain and the pain
 - During oil shocks, Caterpillar accepted losses of \$1M/day for 3 years to keep dealer network viable (total of \$943M)
 - initially refused business with Alaskan pipeline rather than bypass dealers
 - help dealers over crises – some dealerships in same family for over 50 years

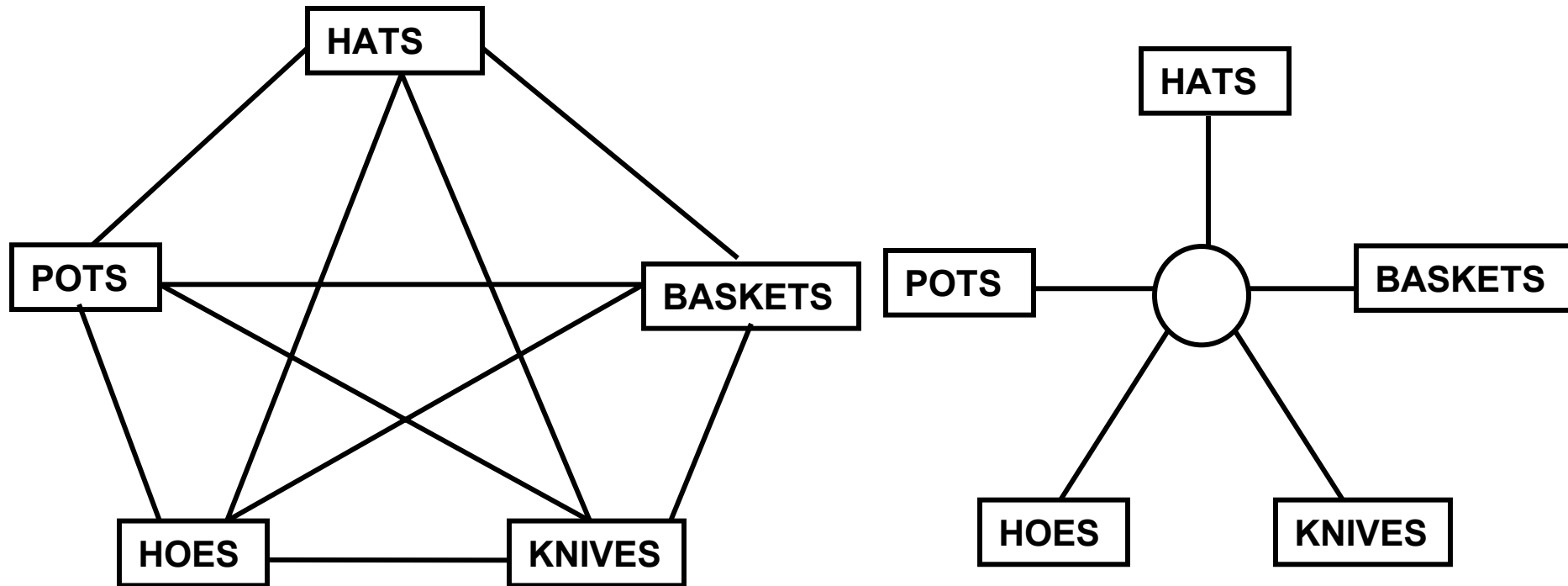
Other examples – 15.810 cases

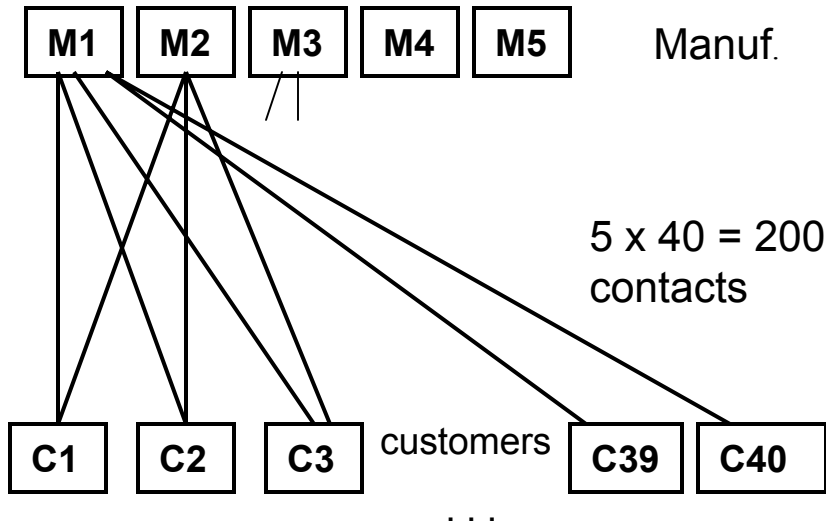
- ❑ **Barco** – distributors were the key to market intelligence
- ❑ **Calyx & Corolla** – replace long distribution system with Fedex
- ❑ **Southwest Airlines** – ticketing through website
- ❑ **Snapple** – need to have the cold-channel retailers on board
- ❑ **AIBO** – use of user groups to learn about household robots
- ❑ **Swatch (and Levi's)** – department store vs. jewelers (specialty shops)
- ❑ **Tweeter** – segment the market, price perceptions, branded variants
- ❑ **Aravind** – coming attraction

Distribution – today's topics

- ❑ Discrepancy of assortment.
- ❑ What channels do?
- ❑ Rule of efficiency.
- ❑ Power and conflict.
- ❑ Coordinating mechanisms.
- ❑ Structure to think about channel management

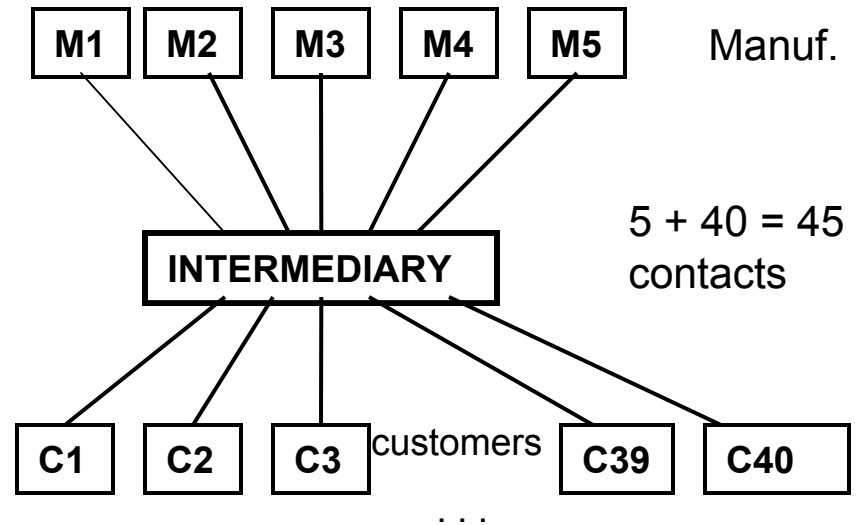
Markets develop for efficiency



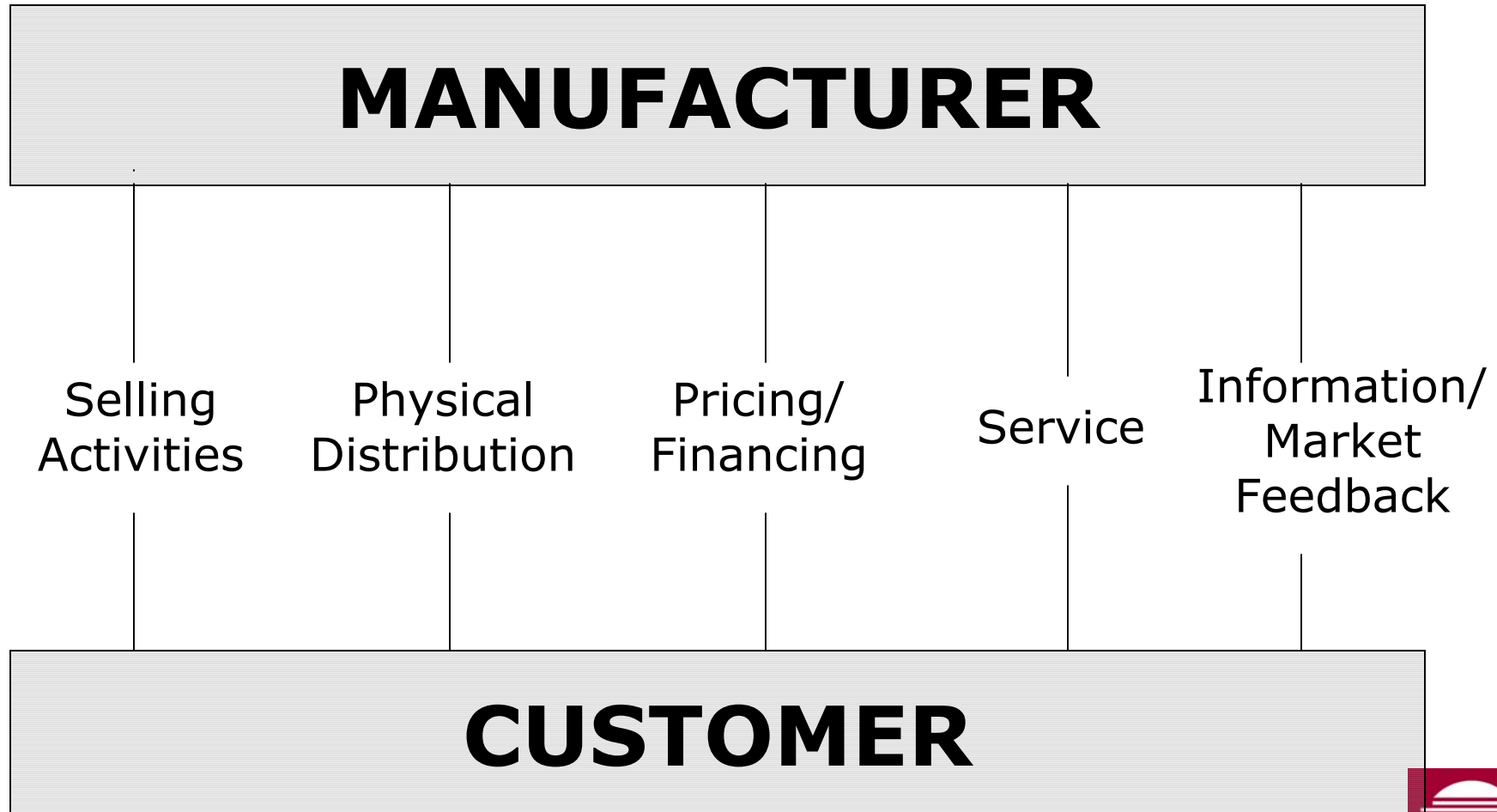


Discrepancy of
assortment

Channels
develop for
efficiency



What do channels do?



Rule of efficiency

“The rule is very simple – the most efficient organization for the task should perform the function.”

Example	Most efficient?	For what?
Levi's Pin-strip suits	Department store Specialty store	
Calyx & Corolla FTD	Florists Fedex	
Barco Sony	Own distributors Box distributors	
Swatch	Department store (US) Jewelers (Europe)	
Dell	Direct	

Channel advantages come from:

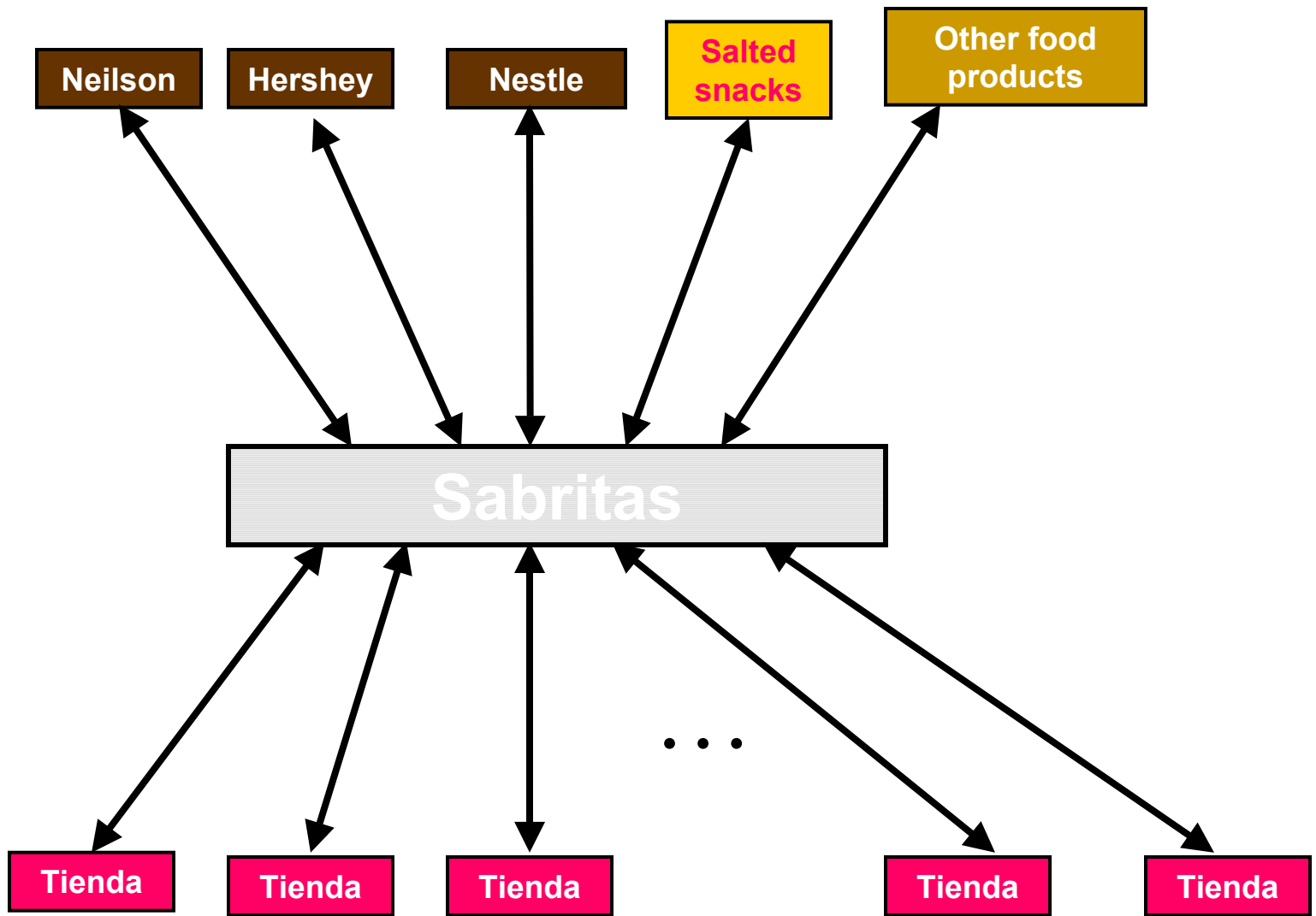
Local knowledge	personal relationships (Caterpillar) understand customers (Snapple)
Local availability	assortment economics (candy) provide value to the customer (Barco)
Salesforce efficiency	represent many suppliers (Eastern Yacht Sales) efficient "tours" (lobsters)
Rapidity	reduce supply chain delay (JIT, Caterpillar)
Search cost	capture some of consumer surplus (WalMart)
Systems integration	computer systems, florists, etc.

Discussion example

- Nielson (division of Cadbury) – best selling chocolate bars in Canada

- Grupo Bimbo – largest candy company in Mexico (over 20,000 distribution vehicles), but their own popular lines of candy

- Sabritas (division of Pepsico) – distributor of salted snacks in Mexico
 - Most of sales through “Tiendas”



450,000 Tiendas
Plus other outlets

Manufacturer

Assortment

Local Availability

Rapidity

Financials

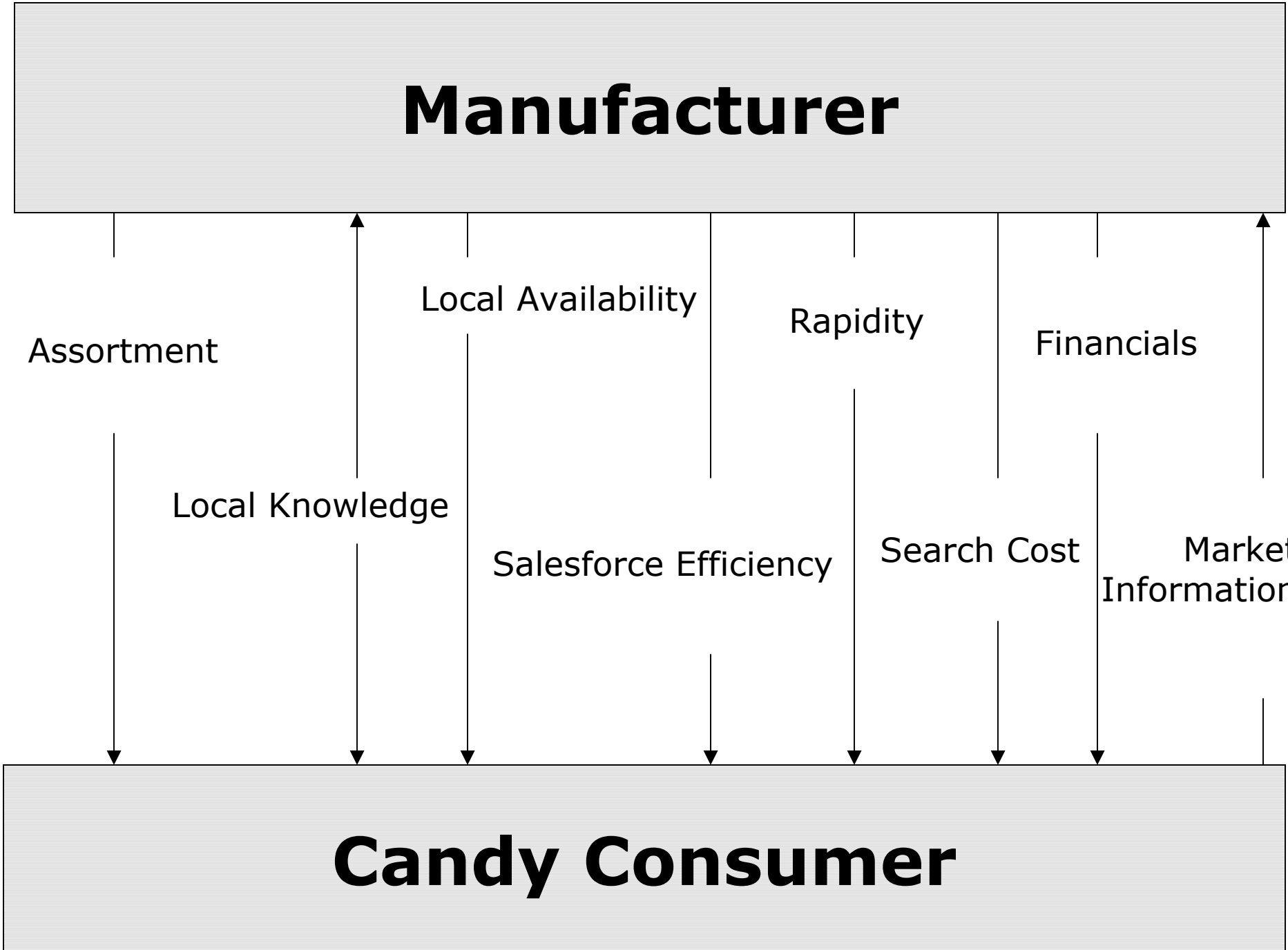
Local Knowledge

Salesforce Efficiency

Search Cost

Market Information

Candy Consumer



Manufacturer

Assortment
many candy bars
food products
convenience products

Local Availability
trucks
storage
details

Rapidity
re-supply
heat, melt

Financials
credit, currency
promotion
returns

Local Knowledge
Tiendas
government
consumers

Salesforce Efficiency
e.o.s.
delivery, storage
assortment

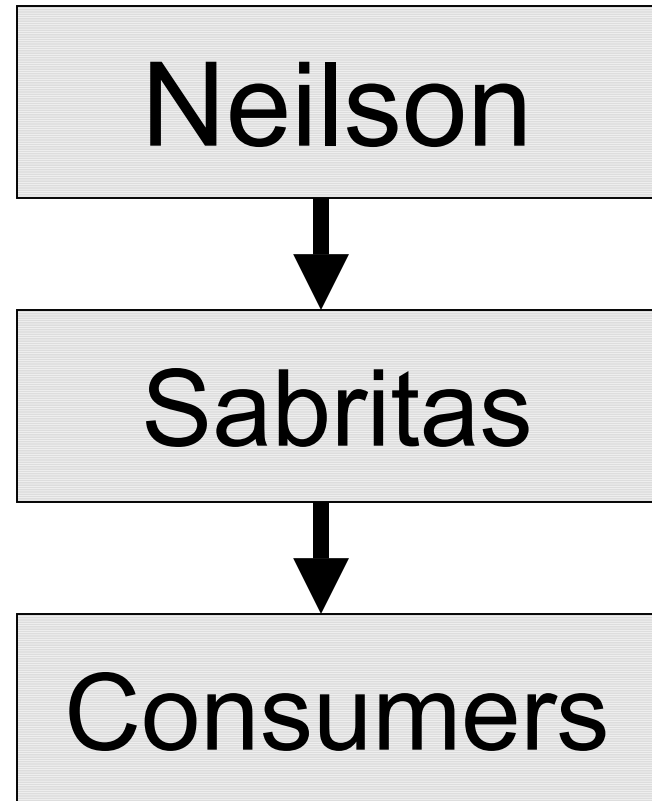
Search Cost
candies where
consumers are

Market Information
Changing
tastes,
competition
adv., etc.

Candy Consumer

Which functions are done best by:

- Sabritas or Neilson?
 - Assortment
 - Local knowledge
 - Local availability
 - Salesforce efficiency
 - Rapidity
 - Search cost
 - Financials
 - Market information
 - Product quality
 - National advertising



Conflict

- Different goals
 - Coke wants vending machines stocked
 - Distributors lose money on marginal machines. Prefer to “free ride”.
 - Training, set-up, etc. for sound system (Tweeter vs. Circuit City)
 - Who carries the inventory? (Yazaki or Toyota)

- Multiple Channels
 - High-end & new electronics needs selling (Tweeter vs. Circuit City)
 - avoid perceived overlap & enable Tweeter to capture value from service
 - New franchises
 - Gray market (diversion, Swatch)
 - Value-added resellers (VARs) conflict with box distributors

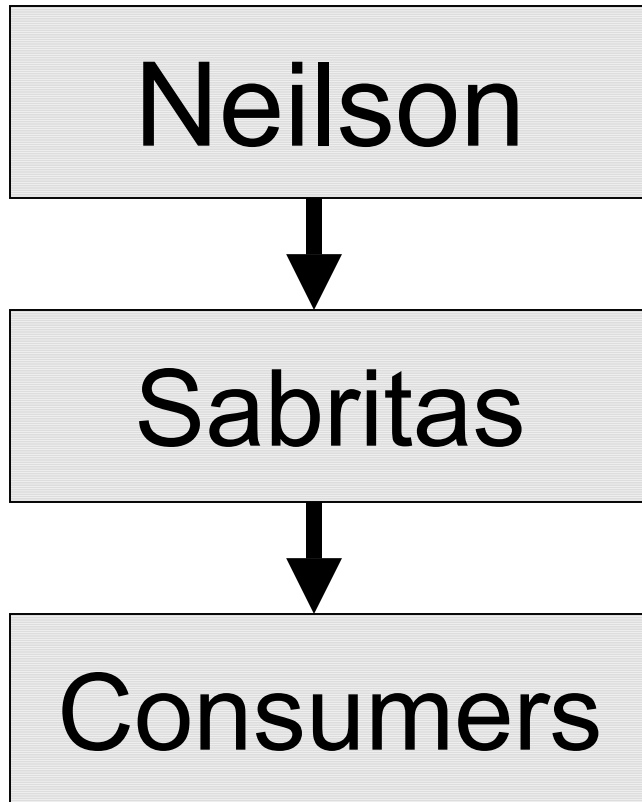
- Brand vs. Market
 - Brita gives a supermarket a trade discount on filters.
 - Does the supermarket have the incentives to pass it on if it means only that consumers switch from other PUR filters to Brita?

- Reverse Auctions
 - \$40B throughput, average (short-term) savings of 15-20%, less negotiation
 - sellers feel exploited, fear of shills
 - many respond by differentiation – encouraging sole sourcing

Conflict in channels – e-commerce

- Rubbermaid
- Hermann Miller
- Compaq vs. Dell
 - dealers vs. on-line
 - on-line vs. telephone
- Hewlett-Packard
 - 8% commission even if only order fulfillment

Double-marginalization: Example as illustrated with Nielson and Sabritas



If we could coordinate the channel we would set:

Marginal Revenue = Marginal Cost

Implies → quality, service at best levels
→ margins at best levels
→ no money left on table

However, channel is not coordinated.

- Nielson cannot buy Sabritas
- Sabritas cannot buy Nielson

Most profit: solving $MC = MR$ for combined vs. Actual profit: solving $MC = MR$ separately

	<u>Nielson</u>	<u>Sabritas</u>
Profit	P_N	p_s
Margins	M	m
Quality costs	Q	
Service costs		s
Fixed Costs	F	f
Price		p
Demand	$D(p)$	but $p_r = \text{costs} + \text{margins}$
Price	$p_r = (s + Q) + (m + M)$	
Coordinated profit	$P_N + p_s = (M + m) \cdot D(p_r) - F - f$	
MC = MR (set M)	$\partial(P_N + p_s)/\partial M = 0 \rightarrow \partial P_N/\partial M = -\partial p_s/\partial M$	
Nielson profit alone	$P_N = M \cdot D(p_r) - F$	note shared demand
Sabritas profit alone	$p_s = m \cdot D(p_r) - f$	note shared demand
Sabritas MC = MR	$\partial p_s/\partial M = m \cdot \partial D(p_r)/\partial M = m \cdot (\partial D(p_r)/\partial p_r) \cdot (\partial p_r/\partial M)$ $= m \cdot (\partial D/\partial p_r) \cdot (p_r/D) \cdot (D/p_r)$ $= -(m \cdot D/p_r) \cdot [-(\partial D/D)/(\partial p_r/p_r)]$ $= -(m \cdot D/p_r) \cdot [\text{price elasticity}] < 0$ at coord profit	

$\partial p_s/\partial M < 0 \rightarrow \partial P_N/\partial M > 0 \rightarrow$ **Nielson will want to "cheat" on margin**



Implications

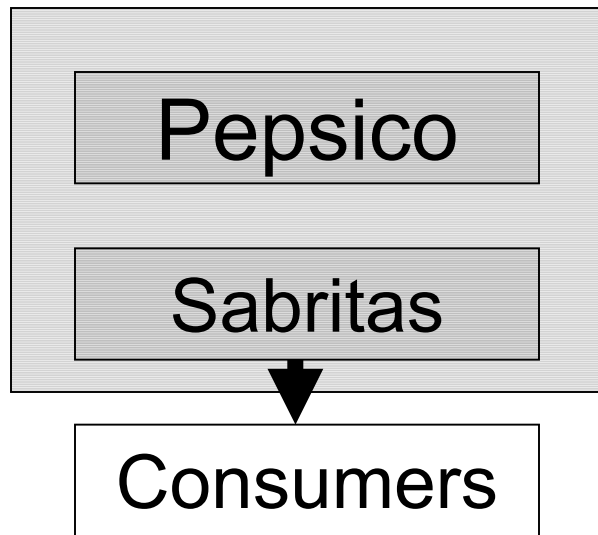
- Mathematics imply that
 - margins of coordination give the most joint profit
 - at those margins, Neilson has the incentives to raise its margin if it is acting unilaterally
 - by symmetry Sabritas will also want to raise its margin
 - net effect is a higher price to the consumer and
 - less money to be split between Neilson and Sabritas

- Intuition
 - demand is shared (pain is shared)
 - margin is not shared (gain is not shared) → want more gain at the margin

- Mathematics are similar for
 - Neilson's quality (unilateral incentives to cheat)
 - Sabritas' service (unilateral incentives to cheat)

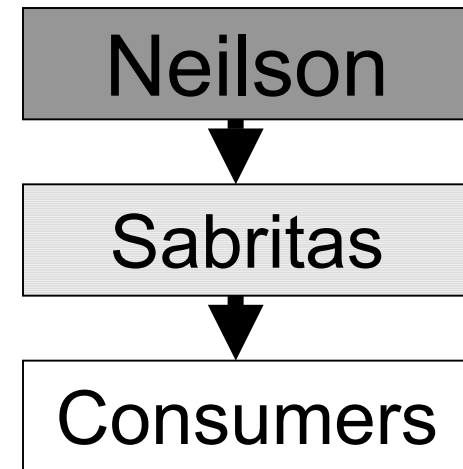
- Summary
 - all decision variables – both margins, service, quality are at levels that are not optimal
 - uncoordinated channel is less profitable

Shared demand is the root of conflict on margins.



MR in sync with MC

both revenue and loss of demand are shared



MR (Neilson margin) not shared
MR (Sabritas margin) not shared

MR (loss in sales) is shared

Net result without coordination.

- Both have higher margins → higher prices
 - Sabritas provides less service
 - Nielsen provides lower quality
-
- Can earn more profit between them if they can be given incentives to coordinate.

Coordinating Mechanisms

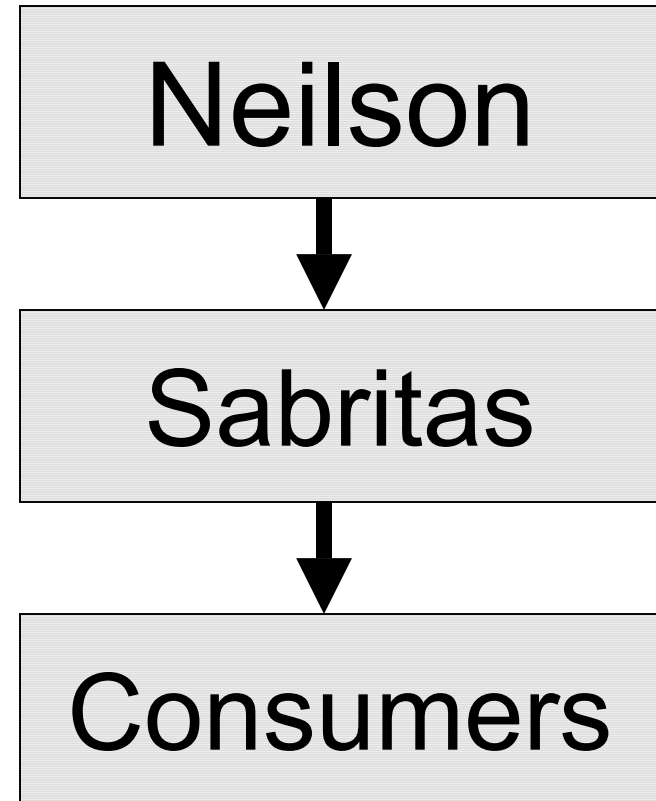
	PROS	CONS
Contracts	Can work, but Many details	Very hard for Neilson to either know or monitor
Profit Sharing	Can align $MR=MC$ Many details	Complex accounting and monitoring
Quantity Discounts	Share marginal gain align $MR = MC$	Very hard to get right Without local knowledge
Joint Ownership	What assets to share?	Service incentives Sabritas? Quality incentives Neilson? Automatic monitoring?

All dealers will receive a 20% discount from published suggested retail price. Value added incremental discounts will be awarded as follows:

1. Dealers with salespeople who routinely and personally visit, call on, and promote our products to at least 15% of the end-users in the dealer's trading area. **10%**
2. If not above, provide a catalog that is distributed to at least 80% of customer base in which all our major products are featured. **2%**
3. Maintain and inventory of our products that represents no less than 60 days of estimated or historical sales and at least one item for demonstration or display. **5%**
4. Offer open account privileges to all responsible customers and provide financing or leasing alternatives for large purchases. **2%**
5. Schedule at least 1 week of detailing with us and organize not less than 2 clinics per years with at least 12 end-users , the cost to be paid by the dealer. **2%**
6. Provide reasonable parts inventory and employee capability to handle routine returns, exchanges, and warranty replacement or repair. **1%**

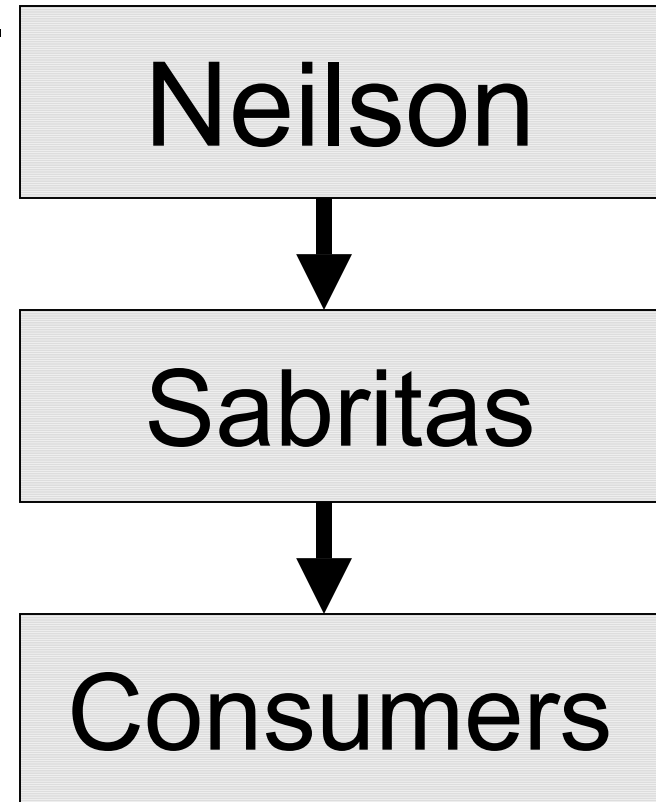
Can Sabritas monitor Neilson?

- Quality of the candy?
- Return on brand name?
- Quality of the advertising?
- Sell candy in other markets.



Can Neilson monitor Sabritas?

- ❑ Need to have presence in Mexico.
- ❑ Ride with trucks to tiendas?
- ❑ Local advertising?
- ❑ Candy vs. salted snacks?
- ❑ Beyond Mexico?



Quantity Discount

- Problem comes from mismatch of $MR = MC$
 - Channel does not get all of the benefit (increased demand) for investments in service or reductions in margin
- Solution comes from realigning $MR = MC$
 - Need to increase marginal revenue
 - Marginal Revenue = (margin)*(change in quantity)
 - Thus, increase margin as quantity changes
 - increases marginal revenue when
 - quantity increases as a result of service investments
- Can Nielson implement quantity discount to Sabritas?

Can any assets be owned jointly?

- ❑ Trucks? Warehouses?
- ❑ Manufacturing?
- ❑ Perceptual assets?
- ❑ Crispy Crunch brand?
 - gives Sabritas incentives to invest in service
 - less likely that Sabritas will drop Nielson brand in future
 - but lowers Neilson's incentives to invest in quality
 - need something to raise Neilson's incentives
- ❑ New brand for all of Sabritas' candies?
 - investments in Crispy Crunch advertising pay off for many new brands
 - gives Neilson incentives to invest in advertising and quality
 - Sabritas' incentives to carry "Milch" sub-brand raised relative to Hershey's and Nestle.

Qualitative explanation:

Milch brand increases MR for quality

MR = MC → margin*demand = marginal cost of serving customer

Coordinated → margins (Neilson + Sabritas)*demand(quality Crispy) =
MC(quality Crispy)

Neilson alone → margin(Nielson Crispy)*demand(quality Crispy)
< MC(quality CC)

→ to get back in sync, need to raise the LHS

→ margin(Nielson Crispy)*demand(quality Crispy)

+ margin(Nielson Milch)* future demand(quality Crispy, Milch)

= MC(quality of Crispy, Milch)

Brand name sharing: What happened?

Other examples of brand cooperation as a means to align incentives

- WalMart and P&G – information and inventory
 - \$3B in sales, 10% of P&G's revenue
 - began with a canoe trip – Sam Walton & Lou Pritchert (P&G VP Sales)
 - P&G manages WalMart's inventory
 - satellite data on sales, inventory, prices
 - electronic invoicing & funds transfer
 - no stock outs, no sales visits, reduced inventory
 - everyday low prices

- Coke and McDonalds' – promotions

- Others?

Structure to think about channel

	Exclusive	Selective	Intensive
Examples	Automobiles Sailboats	Most Furniture Consumer Electronics	Candy Auto Parts Packaged goods
Importance of service and quality	Service key, quality by both brand & channel	At point of sale: some service & quality advice & sales	Brand assures quality Little service Frequent purchase
Competitive structure	Brand-channel vs. Brand-channel	Mixed	Brands compete Stores compete
Channel member skills	Provide service Assure quality	Moderate service	Assort. efficiency, display, handling
Strategy	Align joint incentives, econ. of scale, easier to coordinate But risk, retail market power, monitoring		Competition between stores, less need to monitor, broad coverage, But double-marginalization issues

The Ekornes Group (Norwegian furniture)

- 450 dealers → 150 dealers (France)
 - exclusive territories
 - increased margin in return for local advertising
 - focus on improving returns to retailers
 - salesforce from commission to salary with retailer-satisfaction incentives
 - training sessions – retailers willing to trade successful & unsuccessful sales strategies

- sales tripled

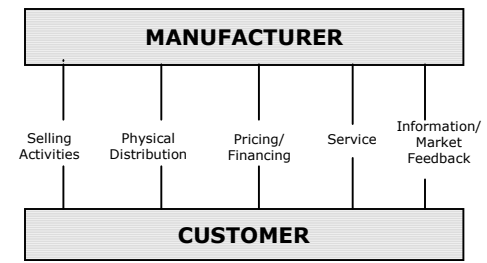
Some puzzles

To illustrate how to work through channel issues.

- ❑ Is it always cheaper to buy at a double-coupon store?
- ❑ Why can't you ever find the item number that is reviewed in *Consumer Reports*?
- ❑ Can it ever be cheaper (per oz.) to buy two small cans of tuna than one large can?

Final case – Aravind

What is the best channel to distribute "cured eyes?"



The channel is a means to serve downstream customers.

The channel is a customer too!

Analyze with 5 C's.