

# The Effect of Retail Distribution on Brand Equity

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Carl F. Mela, Duke University



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Center for Retail Studies, Santiago, Chile

# Personal Background

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# Personal Background

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# So What Does Carl Do?

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- Econometrics, statistics, and economics ... plus
- Large data sets to mine ... leads to
- Actionable business insights (it's my MBA & prod. mgmt orientation)
- I almost always work with companies
  - First grocery, financial services, wireless, etc.
  - Increasingly Internet (neat problems and very cool data)

# Overview

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- Part 1: Retail distribution plays a greater role in brand equity than advertising and promotion!
  - Harvard Business Review 2007
  - Journal of Marketing Research 2011
- Part 2: Channel migration to the Internet can cut costs, but can also hurt the retailer's brand
  - Journal of Marketing Research 2008

# What's Happening With Brands?

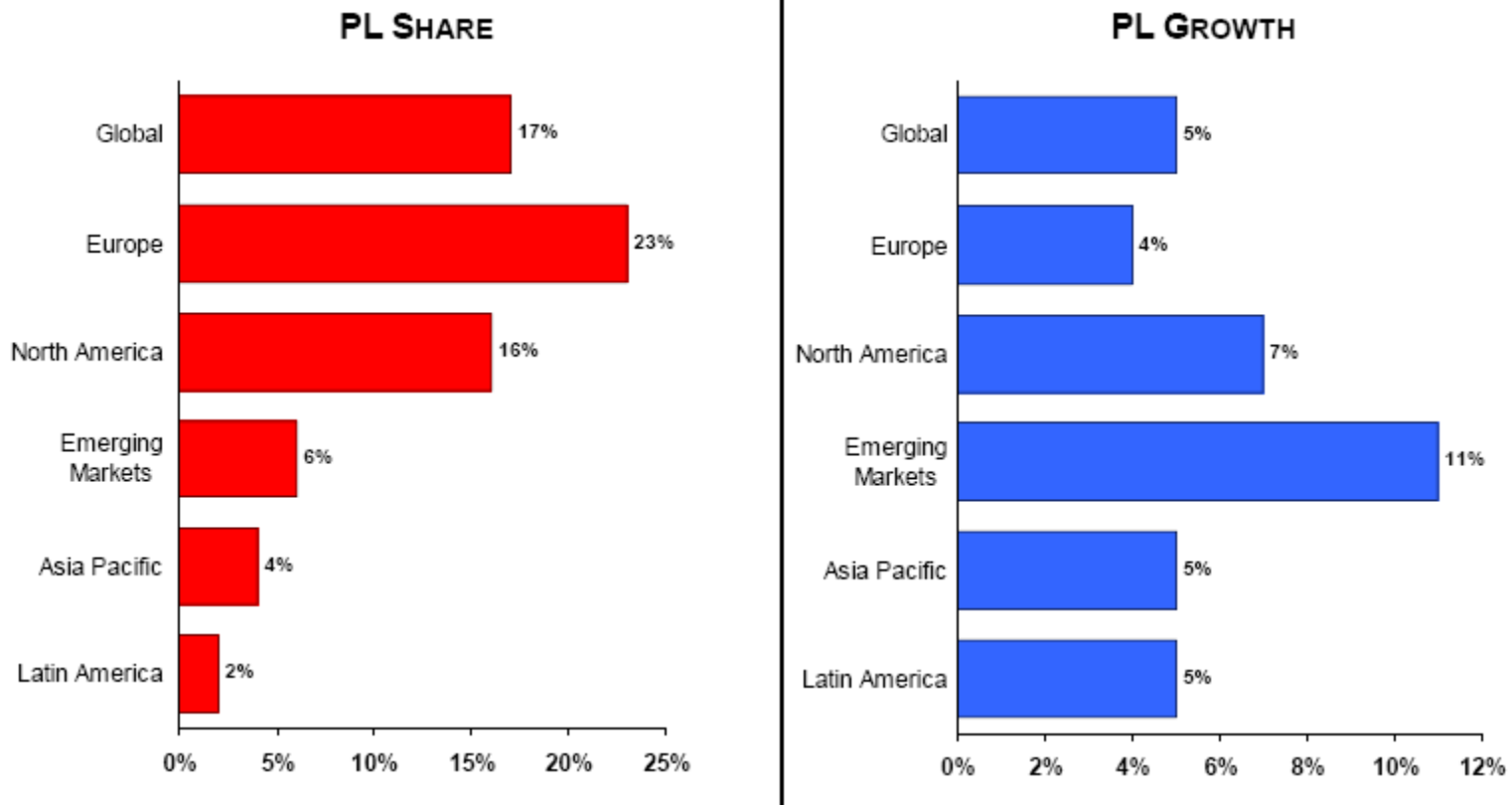
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- Customers are more price sensitive
  - 75% of CPG retailers and manufacturers rank pressure to reduce price as single largest threat in the next 3 years (IRI/EIU Survey)
  - Sales elasticities have increased 1 point in past 25 years (Bijmolt et al. 2005)
- More products are failing
  - Consumers select 20-50 skus among 1,000,000+ available (IRI/EIU Survey)

# What's Happening With Brands?

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**SHARE AND GROWTH RATES OF PRIVATE LABEL BY REGION  
(BASED ON VALUE SALES)**

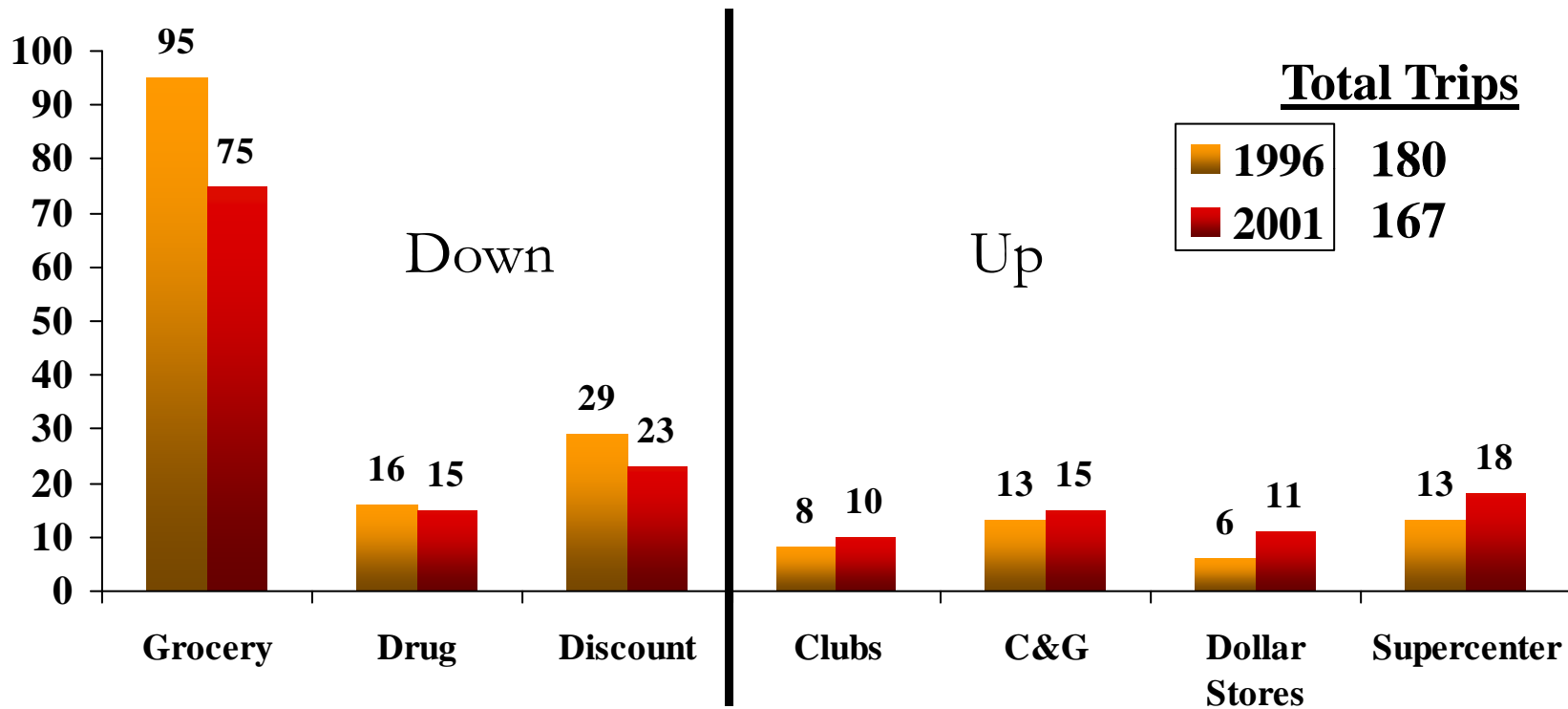


Source: AC Nielsen

# What's Happening With Brands?

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## Shopper Trips/Year By Channel



Source: AC Nielsen Homescan, Hoyt & Company 2003 CPG Drivers Study

# A Tale of Two Brands

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- Vlasic



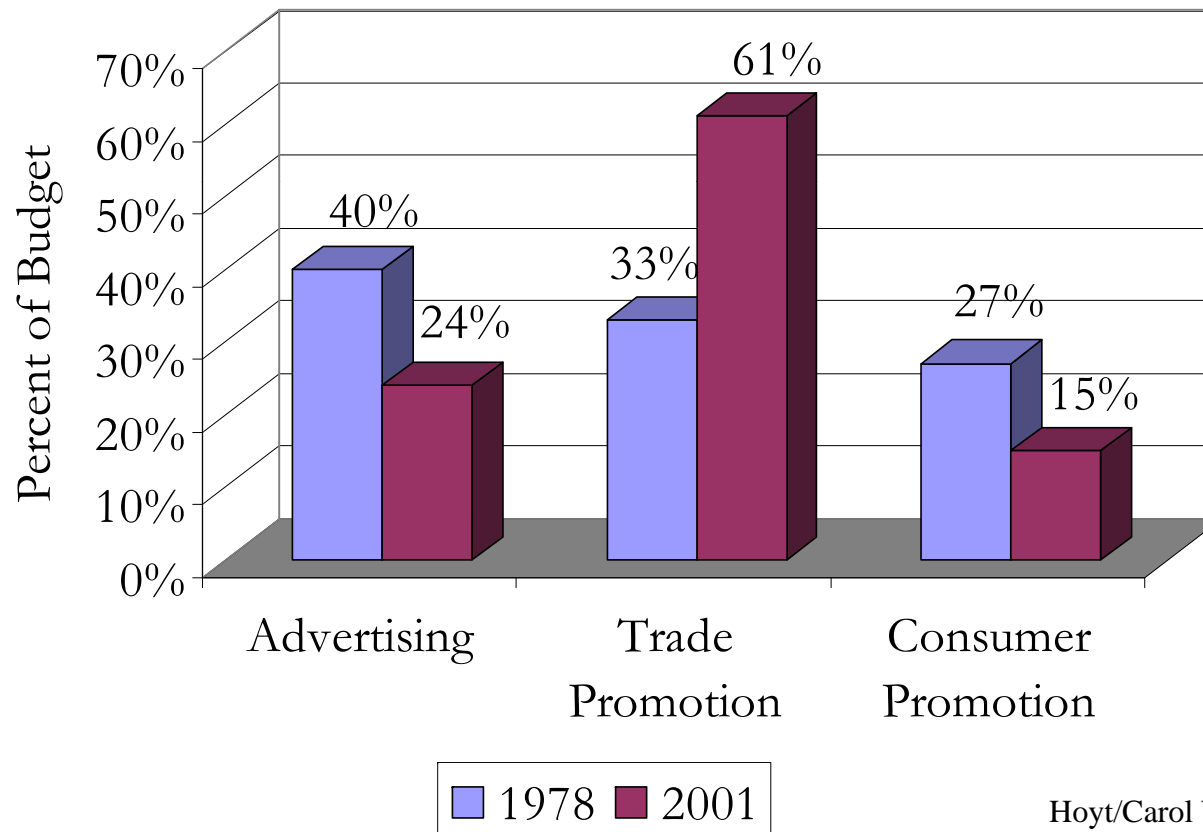
- Footlocker



# Changes in Promotion

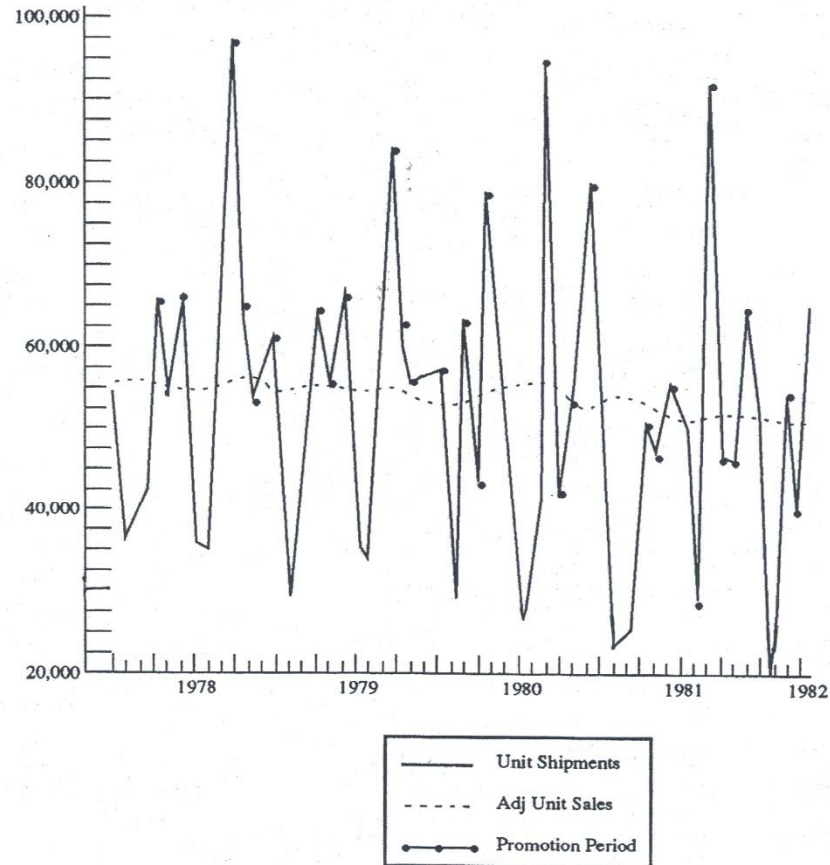
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**Changing Promotional Landscape**

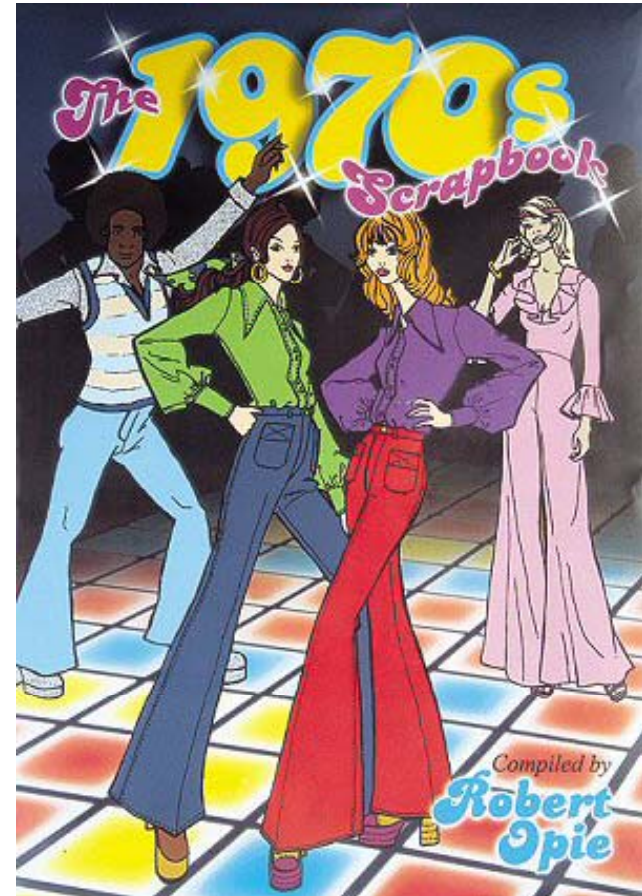


Hoyt/Carol Wright/Accenture/  
Cannondale/Donnelly

# So Why the Emphasis on Deals?



A plot of consumer sales and shipments shows major promotional peaks and troughs for shipments to the trade but less apparent effects at the consumer level.



# So Why the Emphasis on Deals?

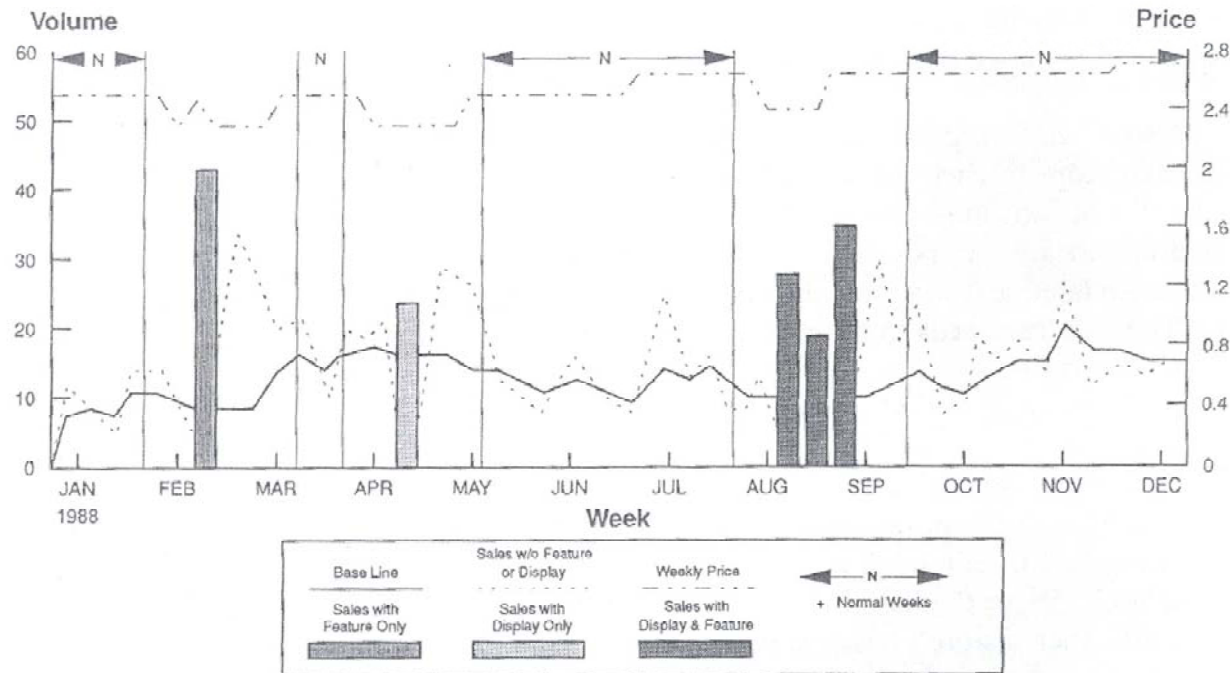
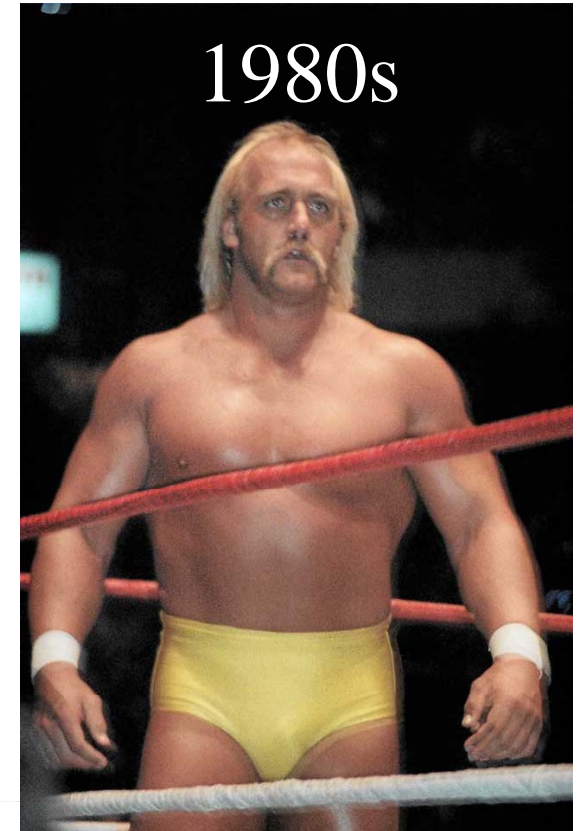
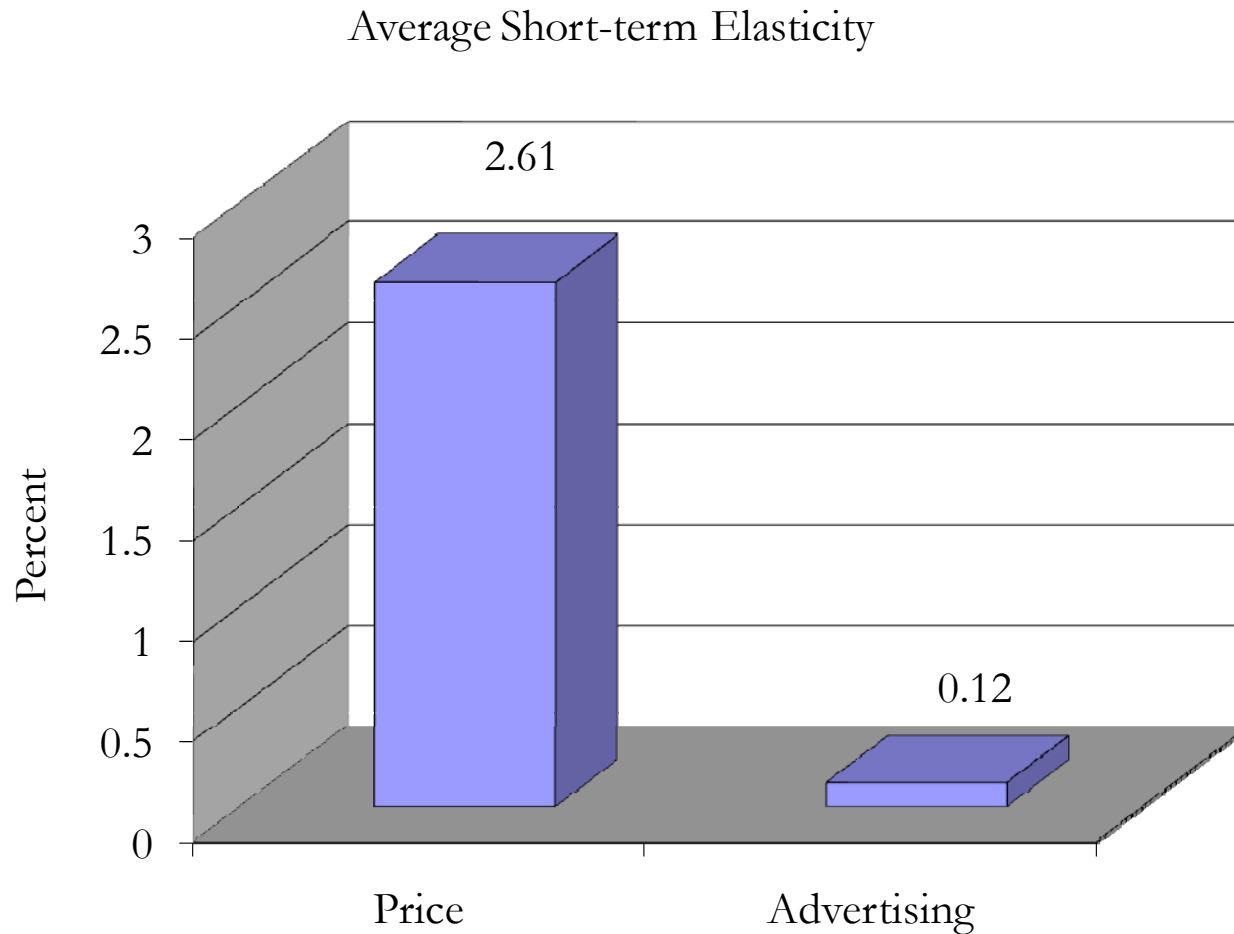


FIGURE 2A. A Store-Level Baseline, TRIX 12 oz., Store E.



# So Why the Emphasis on Deals?

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Sources:

Bijmolt et al.

2005 JMR,

Lodish et al.

1996 JMR

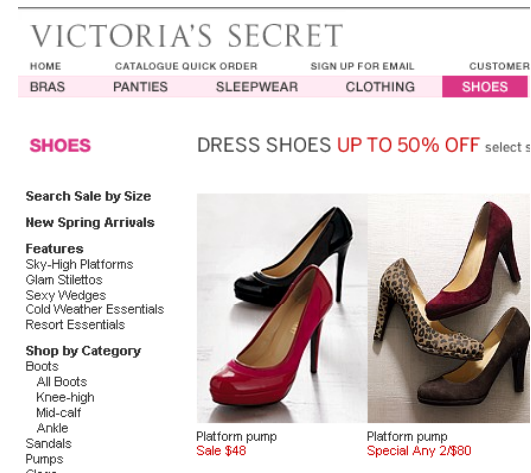
Sethuraman et al.

2011 JMR

\* Long term ad  
effect is 2x short  
term effect

# Why the Short-term Orientation?

- Hard data drive out soft
  - Measuring price vs. ads, distribution and product
    - Advertising dynamics
    - Advertising affect on margins



- Wall Street analysts have little information beyond quarterly revenue and profits
  - Looking instead to sustainable growth
  - Data they have vs. data they need

# Why the Short-term Orientation?

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- Tenure Issues
  - Brand managers promoted within year
- Data Ironies
  - More data
    - but more discarded
  - Years to build brands
    - but managed by days



# Yet Short-term Orientation Ignores

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- Consumer learning
- Brand purchase attributions
- Stockpiling
- Competitive response

# Some Recent Findings

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- IRI study of 24 brands in 2004-2006
  - Long-term sales effect is 80% of short-term effect
- Major CPG firm study of 71 brands in 1995
  - Long-term price lift is 1/7 short-term price lift
- Positive advertising effects can last over 2 years

# Back to the Future: Long-term View

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- Short-term effects
  - Current period lift over base from marketing
  - Yet lift and baseline are not immutable
- Long-term effects (brand health)
  - Changes in price premium (margins)
    - Lower price sensitivity means higher margins
      - For manufacturer *and* retailer
  - Changes in quantity premium (baselines)

# Long-term View

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		Margin Premium	
		Low	High
Quantity Premium	High	Value Brands	Quality Brands
	Low	Cheap Brands	Luxury Brands

Source: Ataman Mela Van Heerde 2006

# Examples

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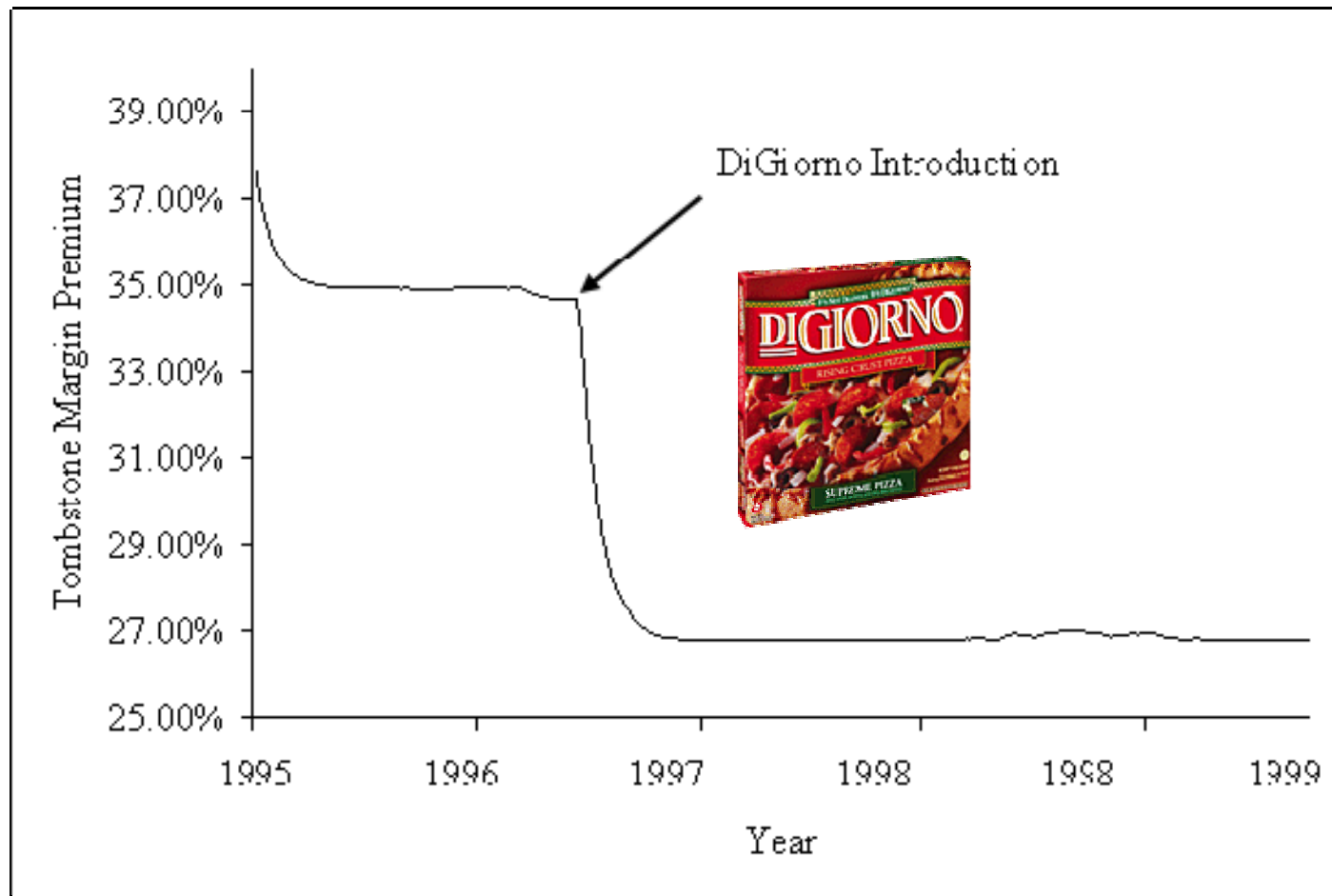
- Fashion rage through '80s
- General Mills cuts price increases distribution
  - Initial sales increase masks increasing need to discount
- Lacoste repurchases brand in 2002 raises price and uses celebrity endorsements
  - Sales up 800% after slow initial change

- 1999 price increase failed
- 7% sales gain '94-'99 but
  - 3% decline in baseline sales
  - 14% increase in price sensitivity
    - implies 5MM in lost revenue
  - 8% increase in deals
  - 7% decrease in ads



# Examples

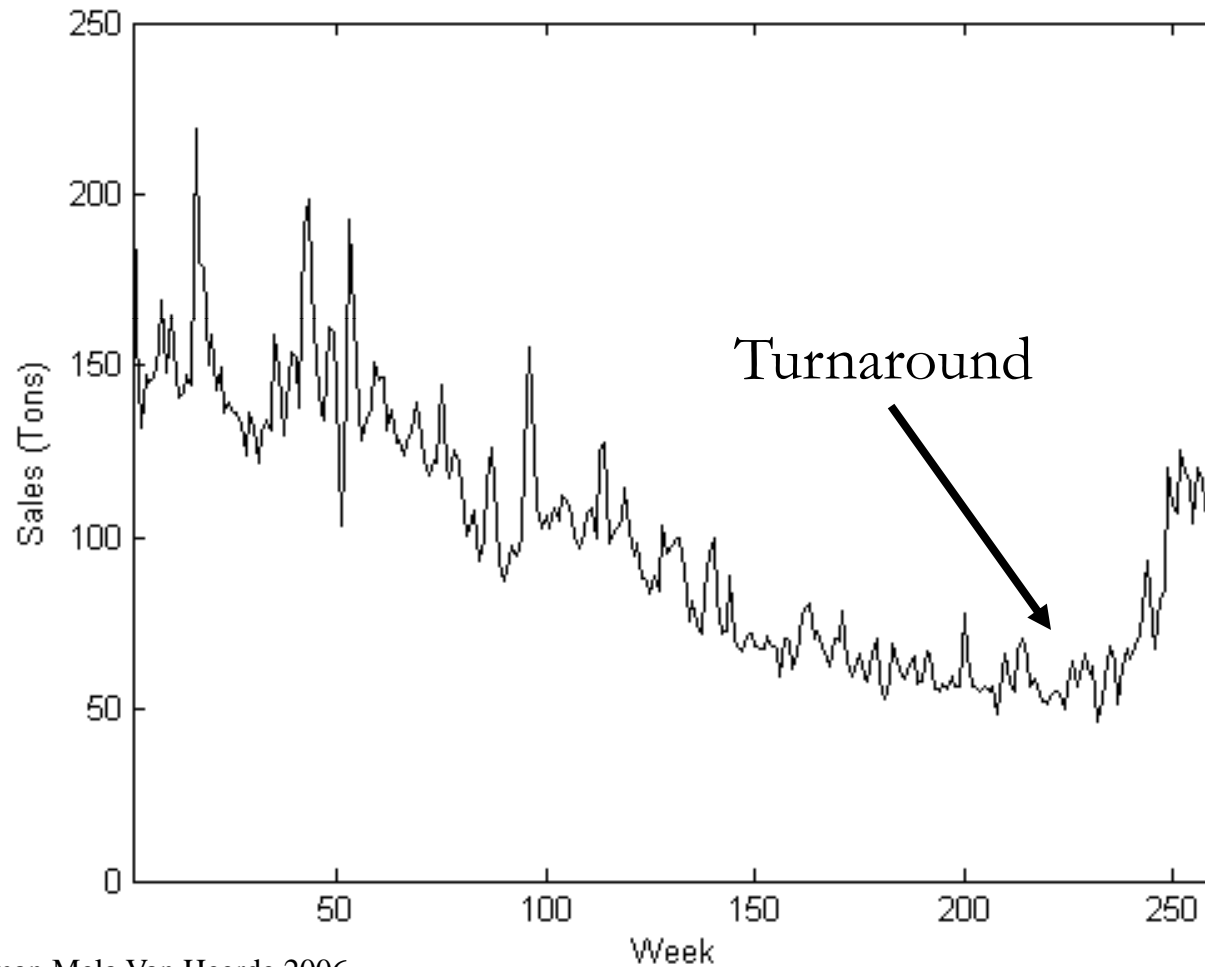
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Source: Van Heerde, Mela and Manchanda, *Journal of Marketing Research* 2005

# Case Study – French Pizza

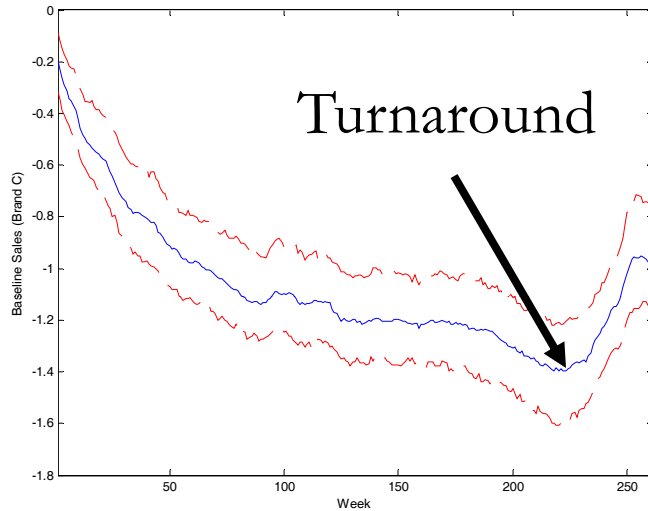
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Source: Ataman Mela Van Heerde 2006

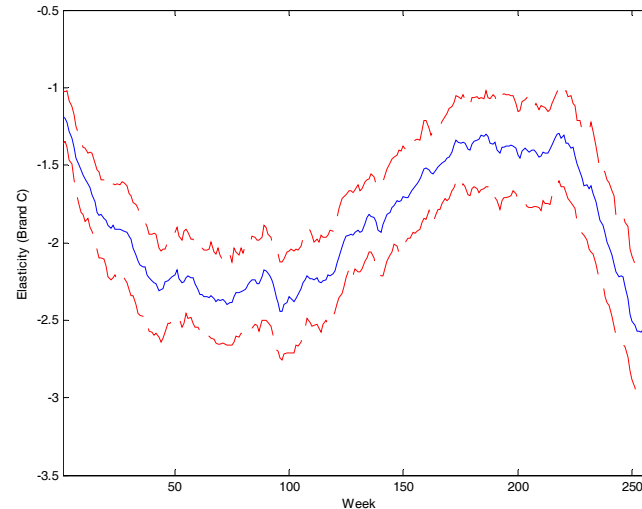
# Case Study – French Pizza

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Intercept (quantity premium) is decreasing until turnaround late in period

Elasticity magnitude (price premium) is increasing during turnaround

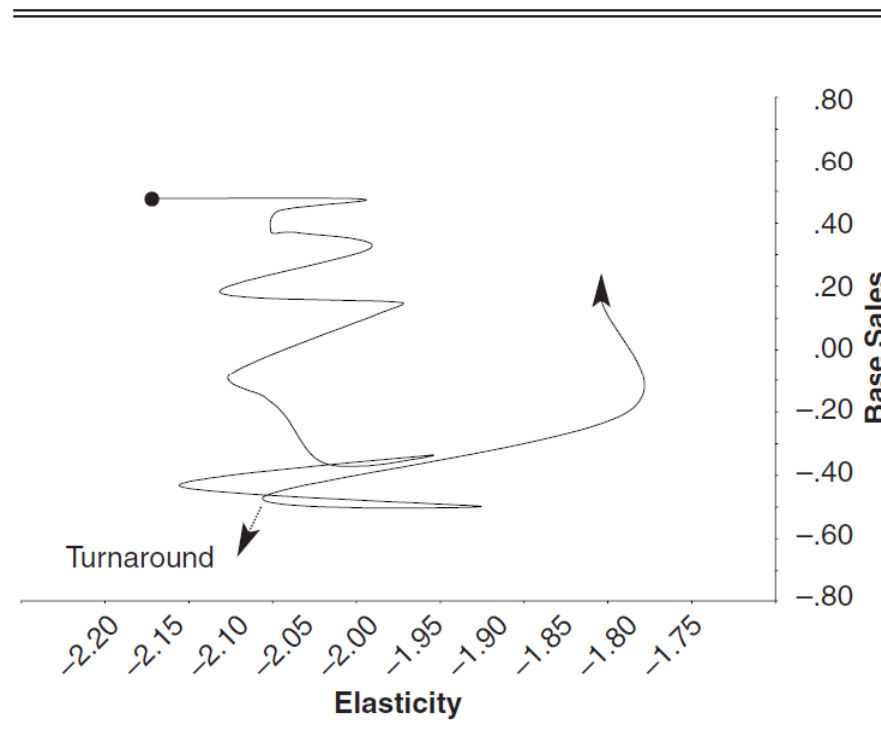


Source: Ataman Mela Van Heerde 2006

# Case Study – French Pizza

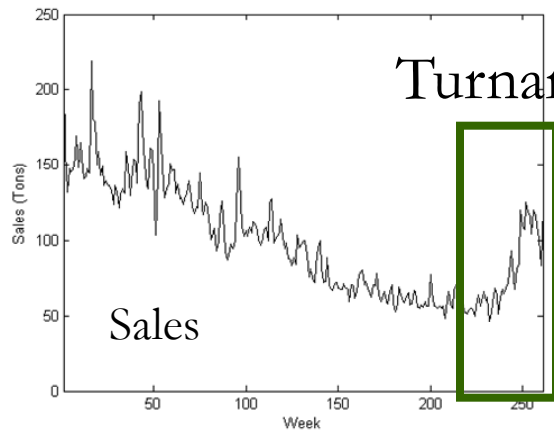
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Figure 3  
PLOT OF BASE SALES AND PRICE ELASTICITY OVER TIME  
FOR BRAND C

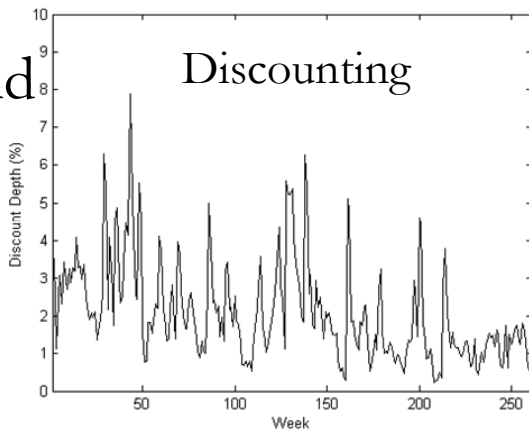


Source: Ataman Mela Van Heerde 2010

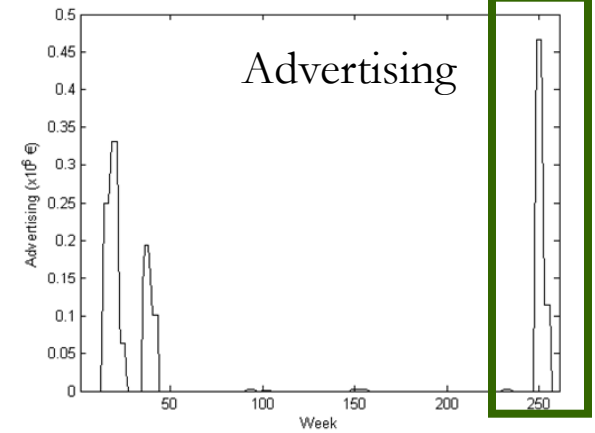
# Case Study – French Pizza



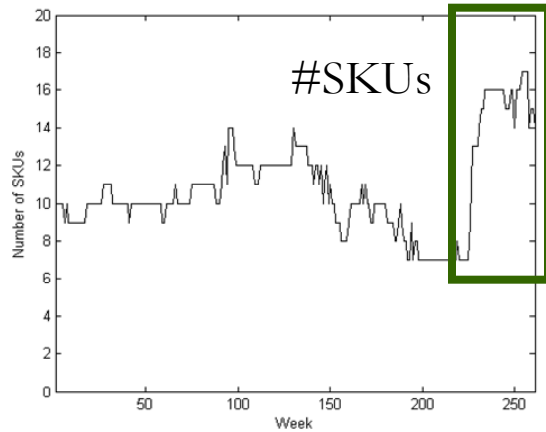
(a)



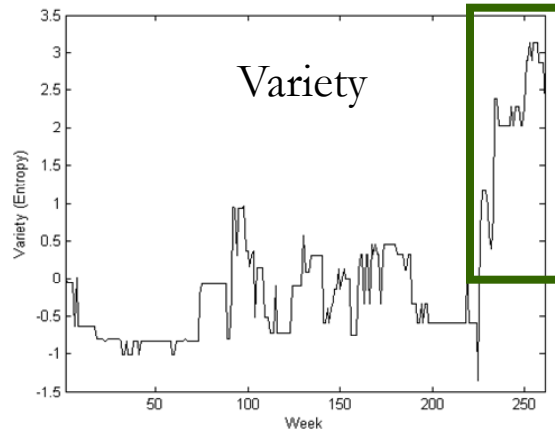
(b)



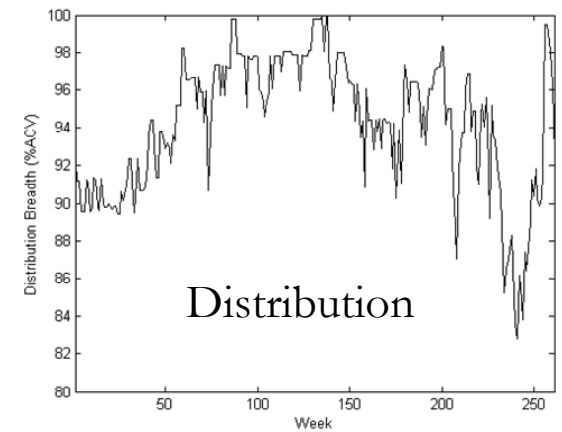
(c)



(d)



(e)



(f)

Source: Ataman Mela Van Heerde 2010

# Linking Strategies to Performance

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- Methods
  - Experiments (e.g., Behavior Scan)
  - Secondary data (regression based)
    - $\text{Sales} = a + b * \text{price}$
    - $a = f(\text{strategy}), b = f(\text{strategy})$
- Data
  - Collect more longitudinal data

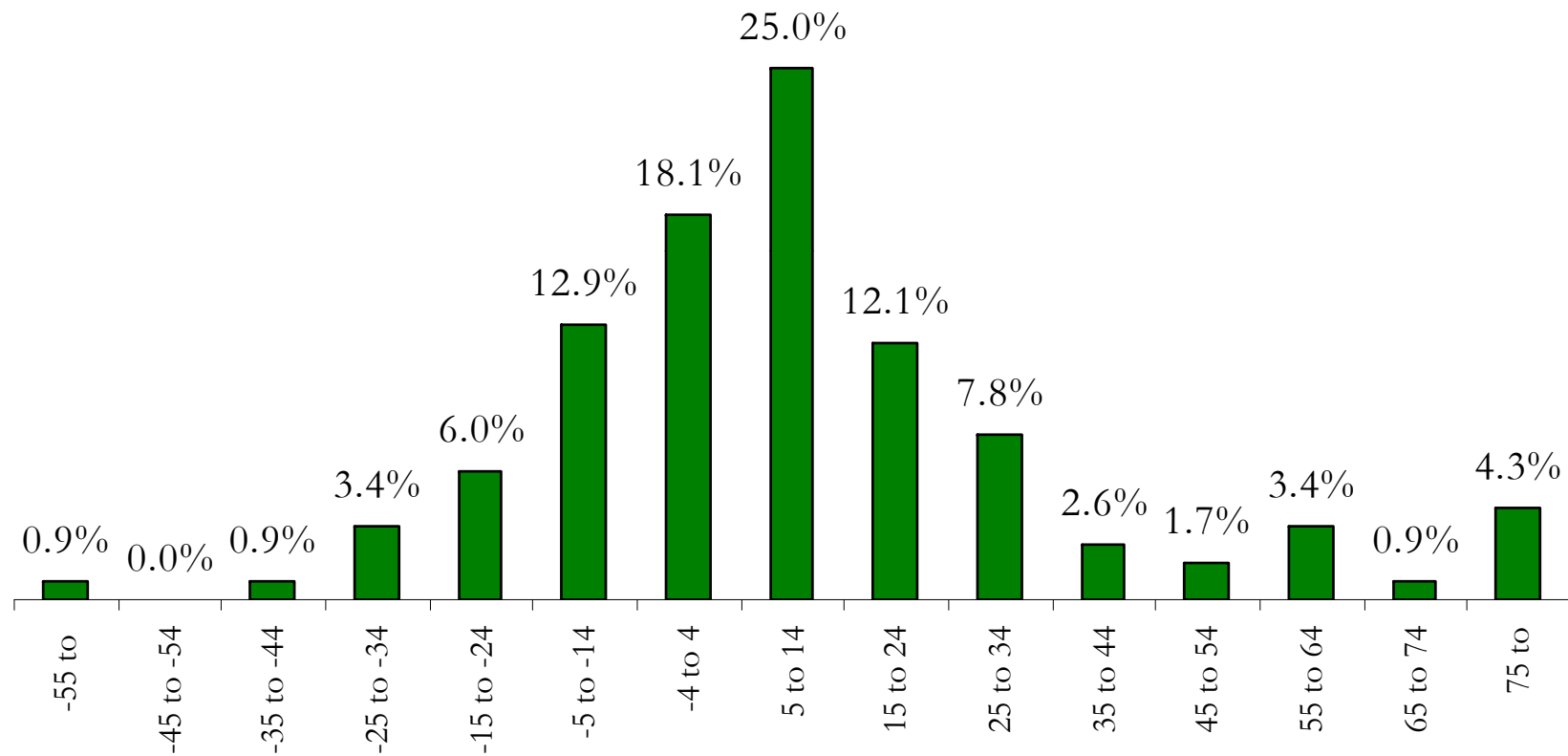
# Marketing Strategy

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Strategy	Manufacturers	Retailers
Price	Wholesale price	Markups
Place	Regions and chains	Regions and stores
Product	Line length	Category assortment
Promotion	Brand advertising	Store advertising

# A Large Scale Analysis: IRI Data

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€ Sales Change (%) in last 2.5 years relative to first 2.5 years

Source: Ataman Mela Van Heerde 2010

# A Large Scale Analysis: IRI Data

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Table 7  
SALES IMPACT OF 1% TEMPORARY INCREASE IN  
MARKETING SUPPORT (%)

	<i>Contemporaneous</i>	<i>Long Term</i>	<i>Total</i>
Discounting	.06	-.02	.04
Advertising	.01	.12	.13
Distribution	.13	.61	.74
Line length	.08	1.29	1.37

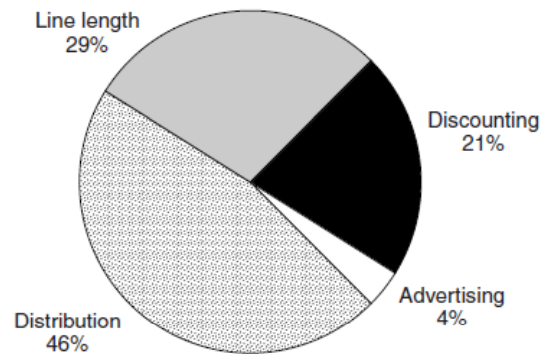
Notes: Table entries are medians across brands.

# A Large Scale Analysis: IRI Data

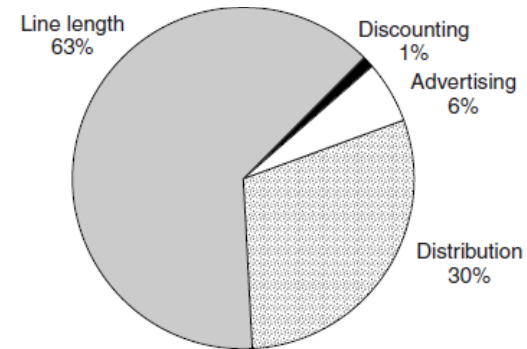
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Figure 4  
RELATIVE ELASTICITIES ACROSS THE MIX

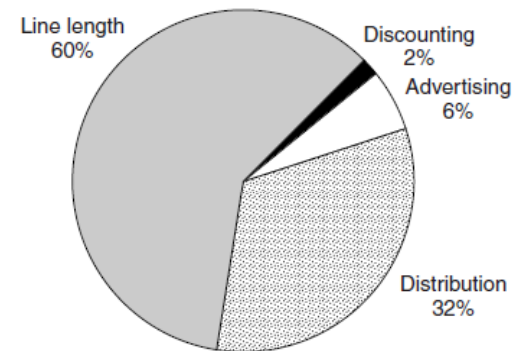
*A: Short-Term Elasticity*



*B: Long-Term Elasticity*



*C: Total Elasticity*



# A Leading Edge Application

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- Thanks to Stephen Garry and Clorox



# A Leading Edge Application

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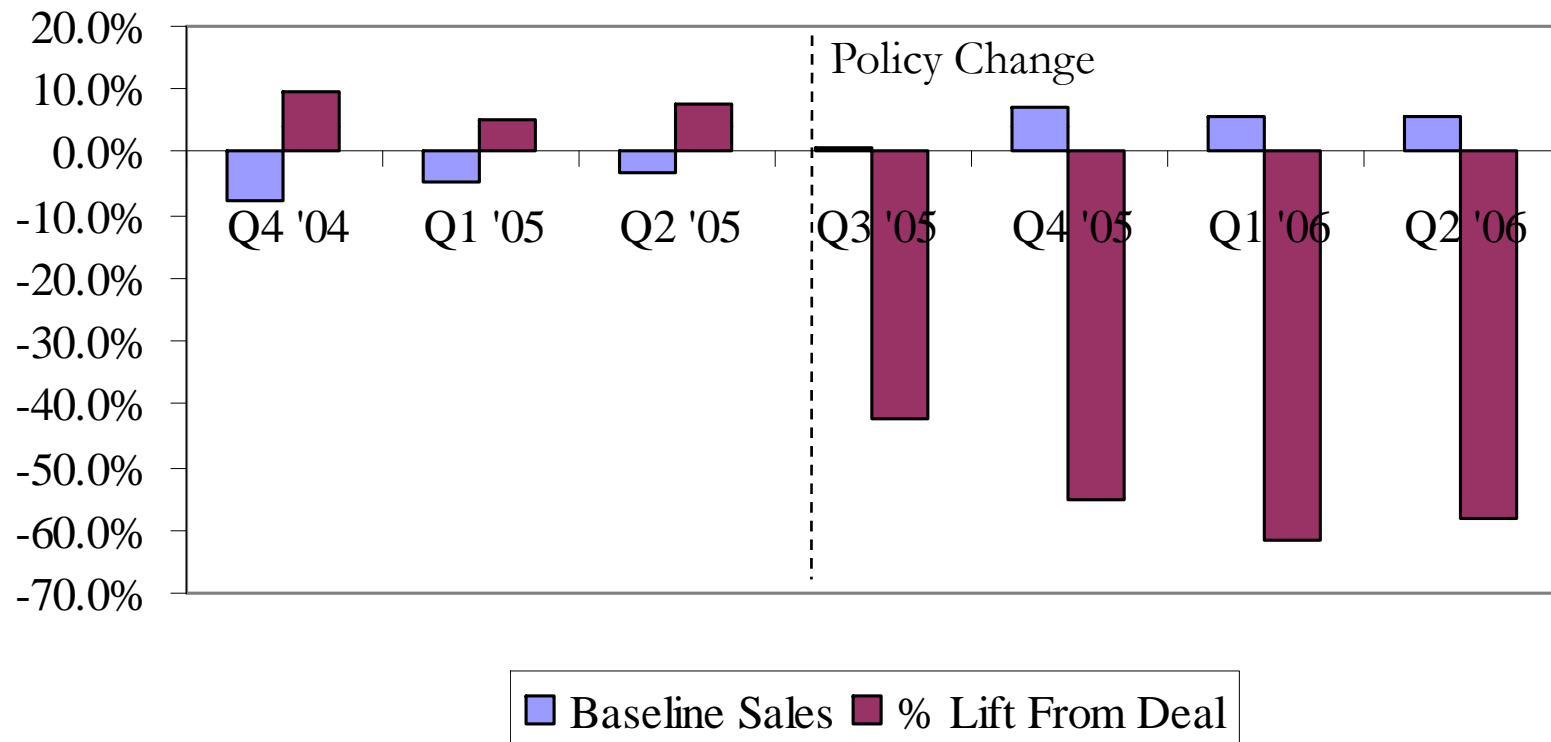
- Monthly discount of Clorox Bleach at retail is \$0.99
  - Consumers learned to lie in wait
- Advertising curtailed
- Q3 05 policy change
  - ads to deals



# A Leading Edge Application

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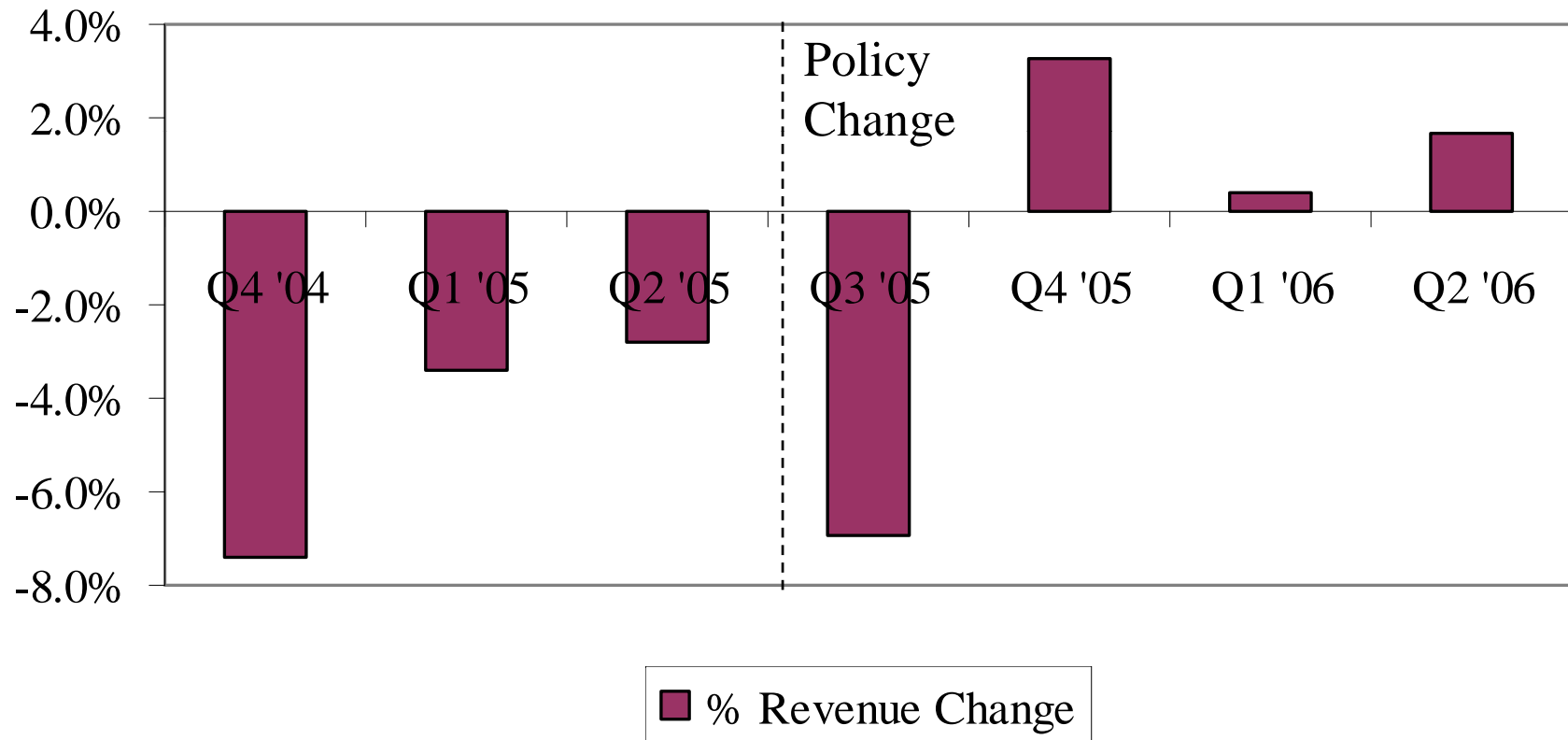
Clorox Baselines and Deal Response (Year Over Year)



# A Leading Edge Application

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Clorox Revenue (Year Over Year)



# A Leading Edge Application

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- Short-term perspective would not have sufficed
  - Sharp decrease in revenues in first quarter after change
  - But elasticities down and intercepts up
  - Useful info for firm and analysts and needed to stay the course

# In Sum

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- Many brands are flailing
- Short-term orientation
  - Data
  - Manager tenure
  - Analysts
- Long-term metrics
  - Keep eyes 100 feet ahead on road, not 5
  - Retail distribution is over 1/3 of the total brand effect
- Paper available at  
<http://faculty.fuqua.duke.edu/~mela>

# Part II - Channel Migration

**LANDSEND**  
GREAT MERCHANDISE

Landsend.com Overstocks Customer Service Business Outfitters Site >

Welcome Women Men Girls Boys For the Home Luggage

1-800-963-4816

shopping bag  
my account  
my model

search with an item number or keyword  
 go  
In All Products ▾

order from a catalog  
Catalog Quick Order  
click here

Sign up!  
• Subscribe to our e-mail newsletter  
• Request or Cancel our Catalog  
• Join our Affiliate program

## Holiday Gift Shop

TOP 5 GIFT SUGGESTIONS  
[Fleece Clog Slippers](#),  
[ThermaCheck™ Rollbrim Hat](#),  
[Squall® Parka](#), [Marinac™ Boots](#),  
[10-oz. Terry Robe](#)

FIND GREAT GIFTS  
for [Women](#), [Men](#), [Girls](#), [Boys](#)  
and [Home](#) - including  
[seasonal sweets](#) & [decorations](#).

Or, let them choose with  
the [Lands' End Gift Card](#).

DASHING THROUGH YOUR HOLIDAY GIFT LIST. We'll help you every step of the way!  
[Gift Cards](#) | [Gift Boxing](#) | [Monogramming](#) | [Track Orders](#) | [Shipping Information](#) | [Returns](#)

Just what you wished for  
Perfect Gifts—innovative, unique!

ebay  
HOLIDAY 2004

Special Offer!  
Get a FREE 10  
Gift Certificate!

# Channel Migration

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- Online sales were \$65 BB in 2003, or 5% of all retail sales, and should continue to grow to \$279 BB by 2015 (Forrester).

# Conceptual Framework

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- Profits are affected by migration
  - Either revenue (sales) increases
  - Or costs decrease via web
- The effects of costs well known – what about demand effects?
  - Two sources
    - Overall demand
    - Channel share

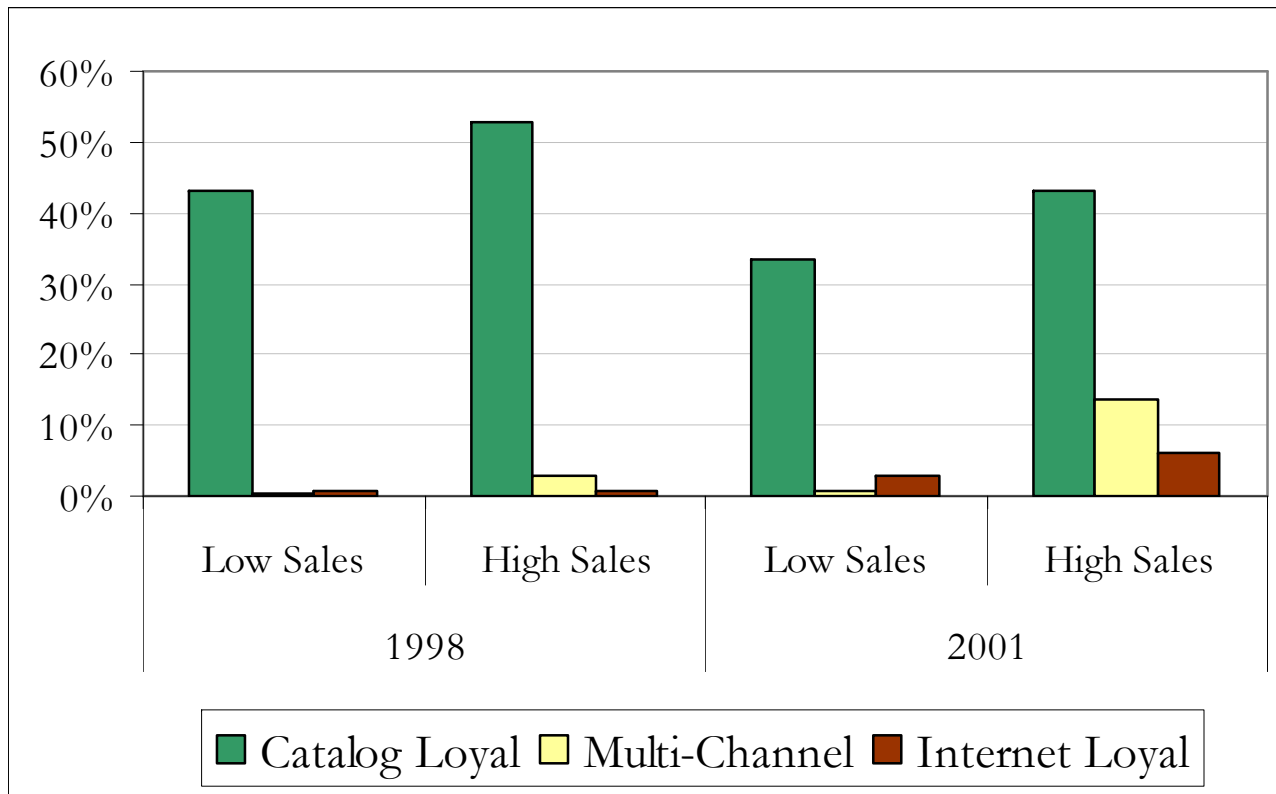
# Channel Migration

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- “You grow through a multichannel strategy,” – Chris McCormick, President LL Bean, as quoted in New York Times (nytimes.com).
- “Multichannel shopping increases stores sales by driving Web traffic into stores and by driving store customers to the Web.” – Chain Store Age.

# Channel Migration Example

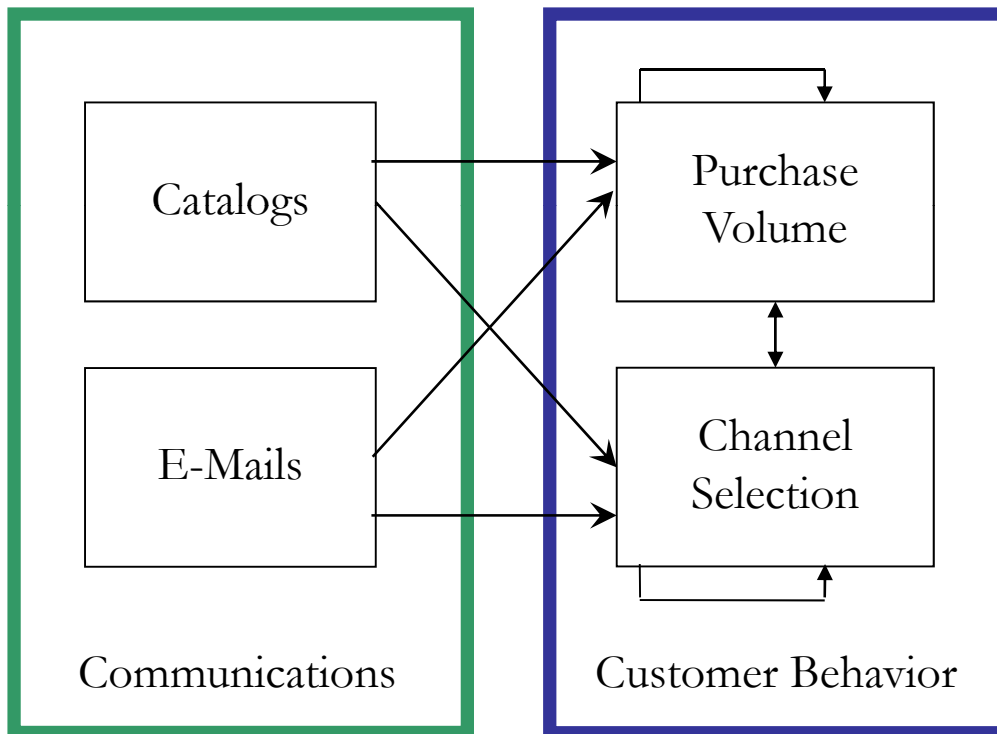
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- Internet share is growing: why?
- Internet users buy more: so switch users to Internet?

# Channel Migration “Case”

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- Marketing?
- Experience?
  - If experience is negative, but marketing positive, may be problem
- Customer Demos?
- Trend?

# Model

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- Two equations
  - Purchase volume
  - Channel selection (catalog vs. web)
- Each equation includes
  - Marketing (catalog and e-mail)
  - Customer experience
  - Customer characteristics
  - Time factors (trend and seasonality)

# Experience Effects

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- Experience Effects
  - Purchase volume model
    - Past purchase volume (web and catalog)
  - Channel selection model
    - Past channel choice
    - Past purchase volume
  - Both models
    - Cumulative web usage
    - Weeks since last bought (Recency)

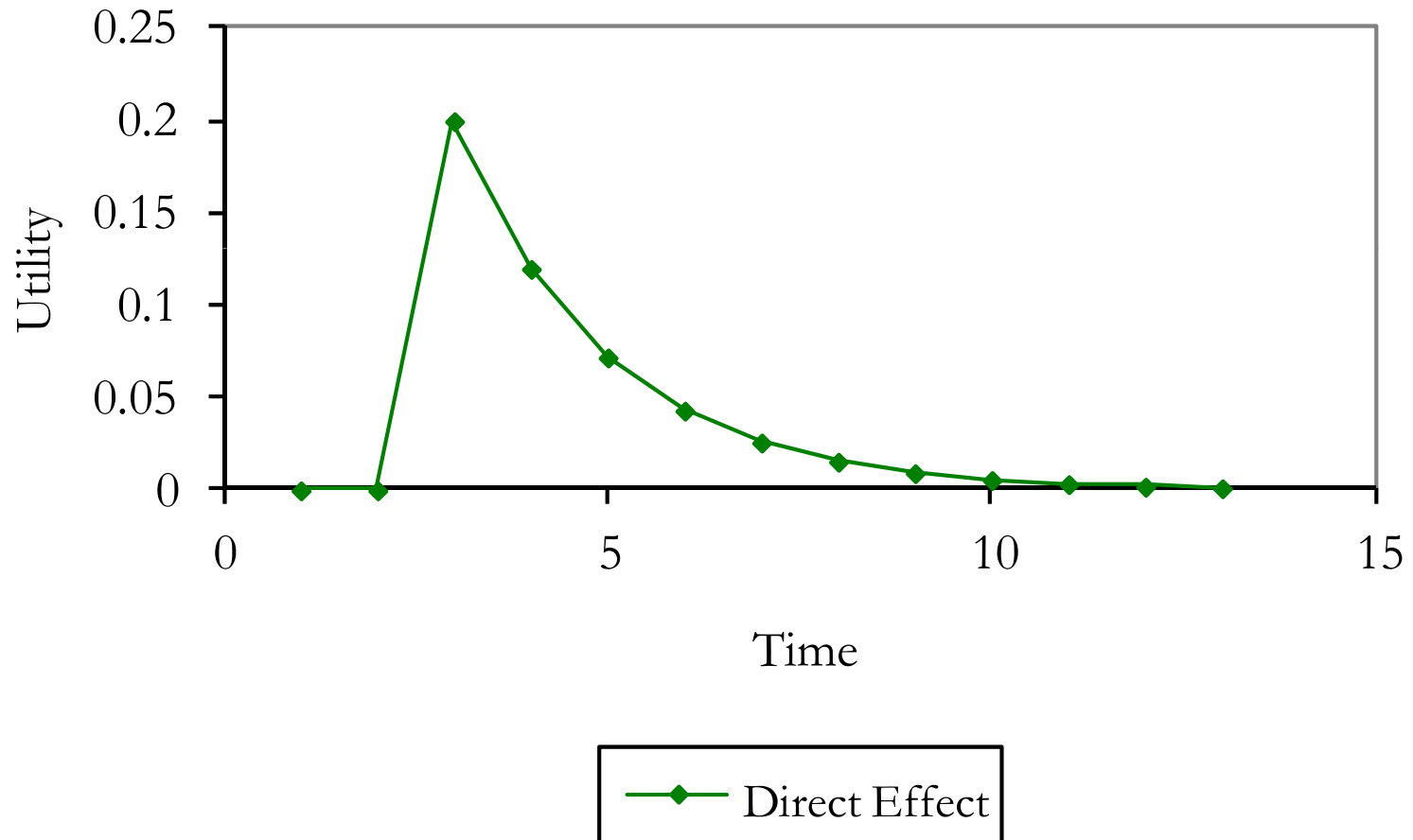
# Communication Effects

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- Communication Effects
  - Direct Effects
  - Interaction Effects
  - Lag Effects

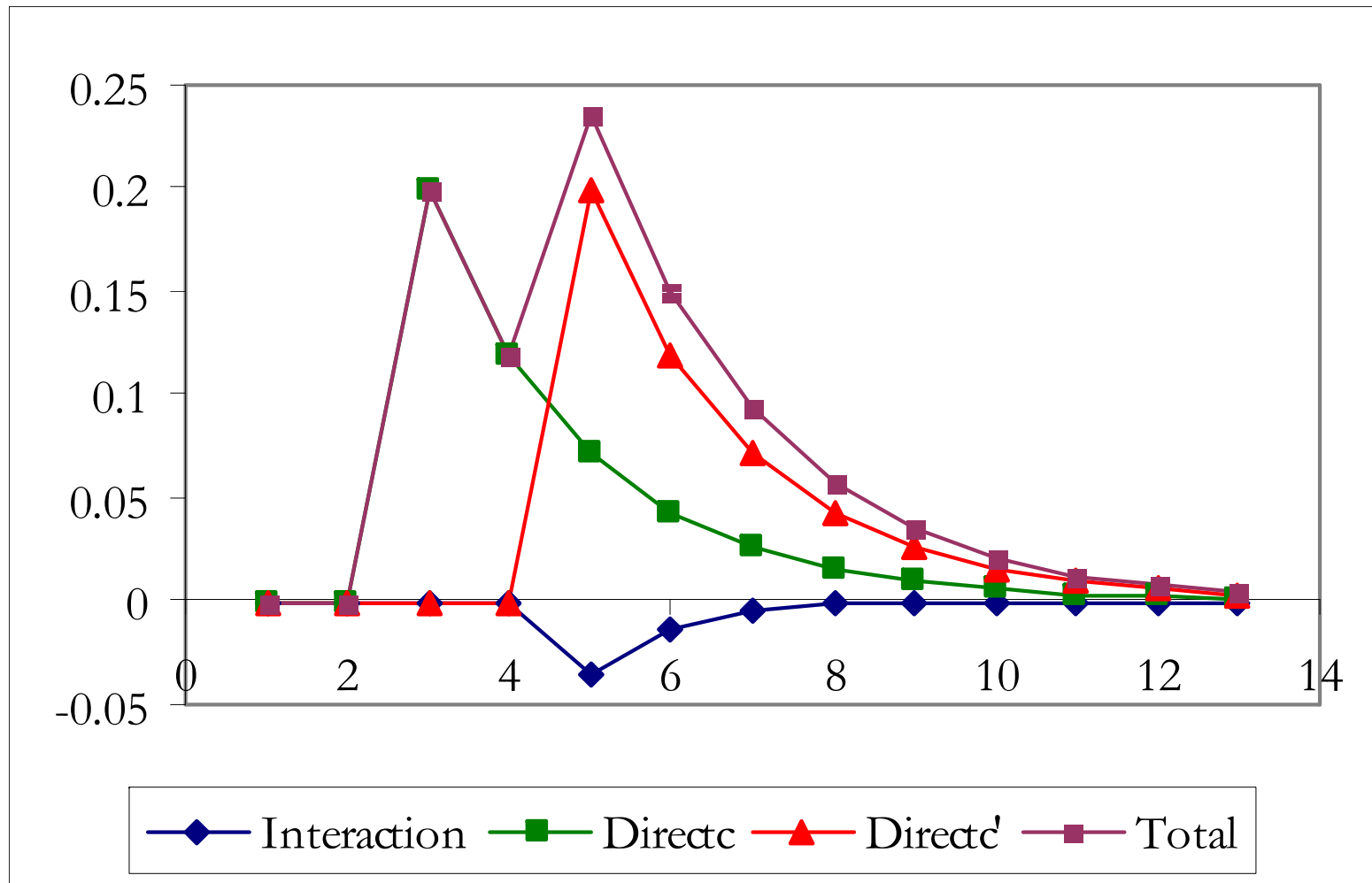
# Modeling Direct Communication Effects

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# Modeling Communication Interactions

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# Time and Customer Effects

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- Time
  - Trend
  - Jan-Feb, Oct, Nov, Dec
- Customer Effects
  - Observed
    - Age, Income
  - Unobserved
    - “Random effects”

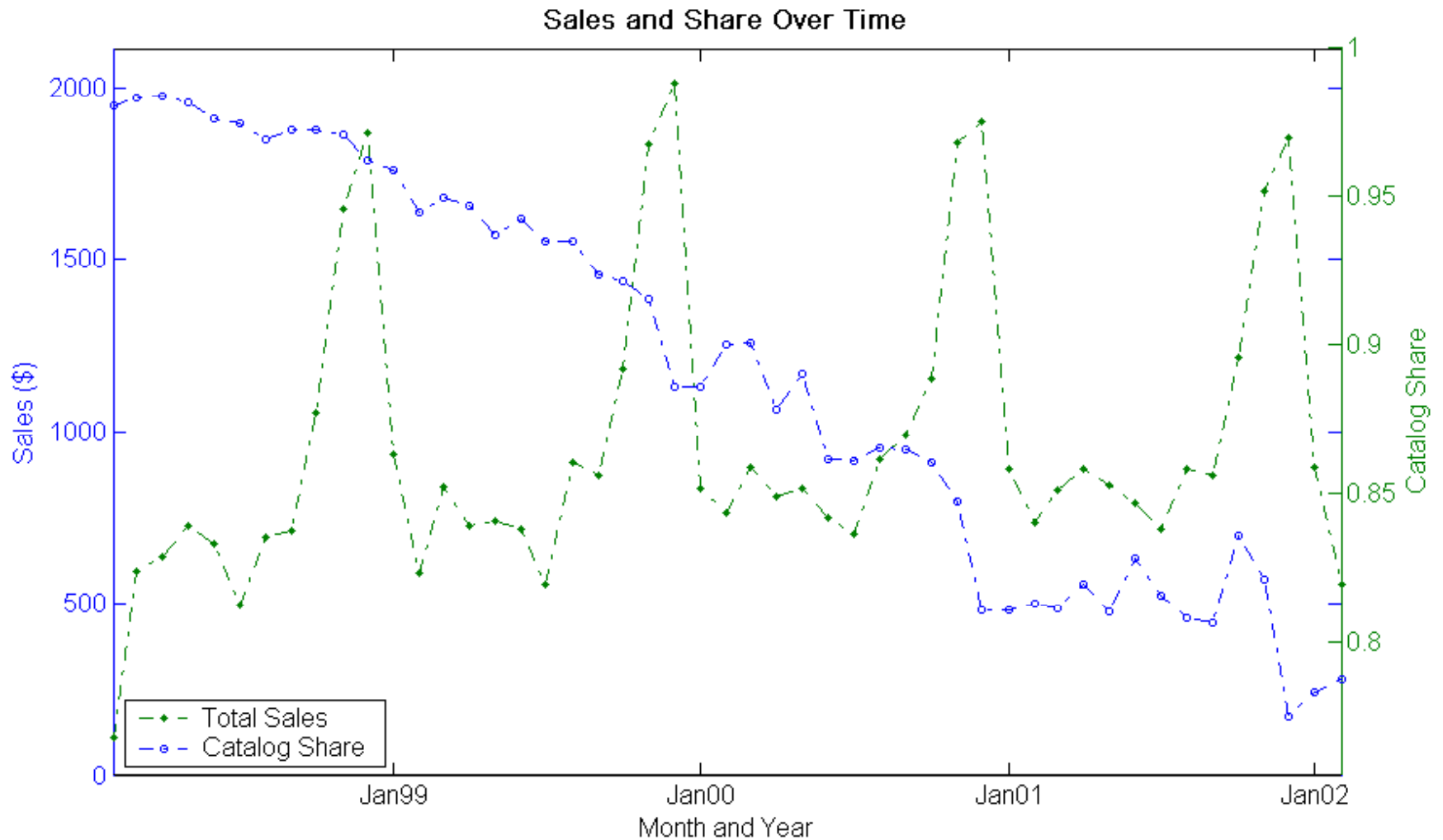
# Data and Application

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- Major retailer sells on Internet and catalog
- 4 years, 500 households
- Variable means

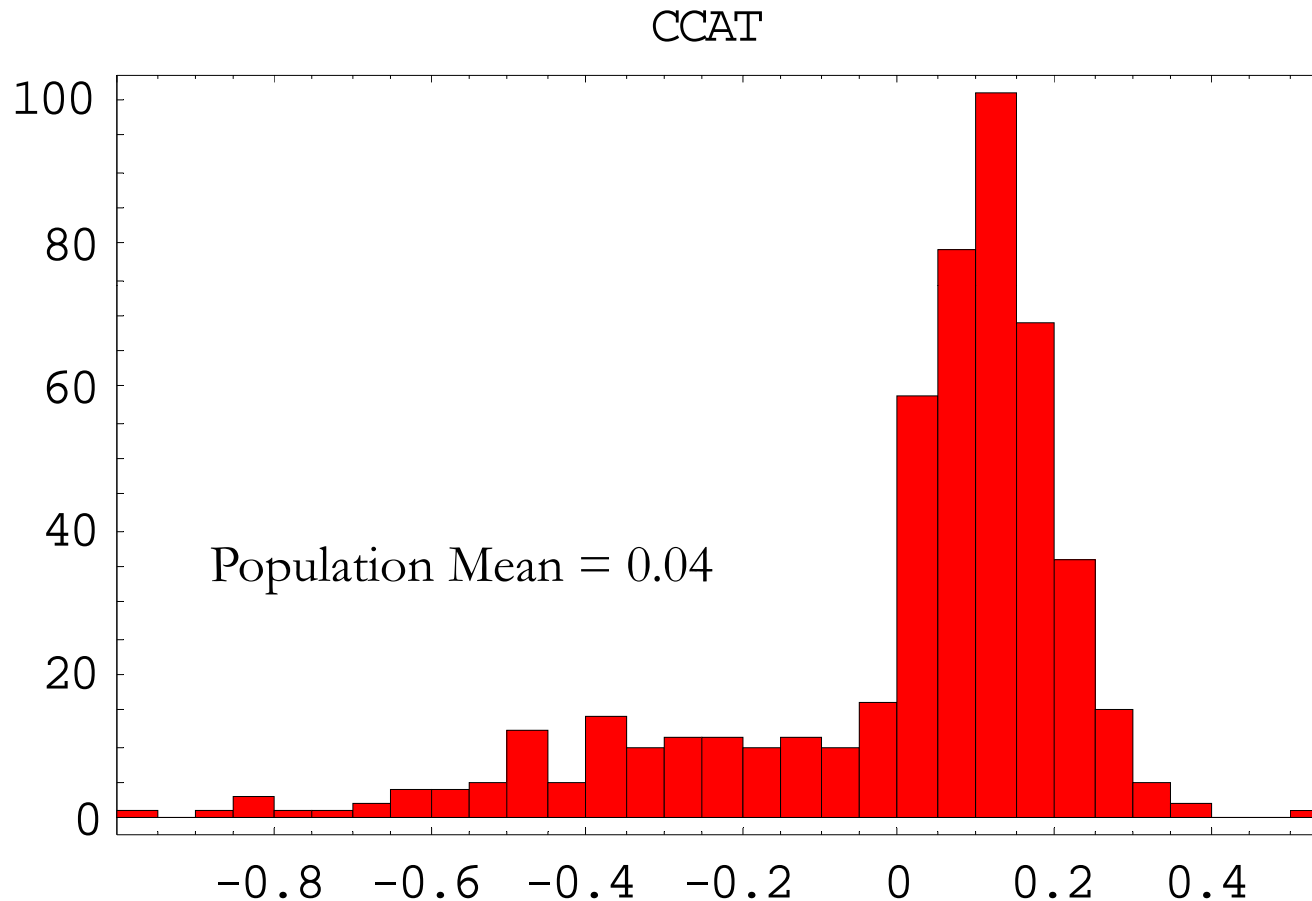
<b>Variable</b>	<b>Value</b>
Average Purchase	\$121.85
Purchase Frequency	2.14 purch/year
Income	\$83,556.30
Age	49.67 years
E-mails	0.36 per month
Catalogs	3.38 per month
Catalog Share	90.29%

# Data and Application



# Effect of Catalog Mail on Catalog Choice

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# So Why Did Customers Migrate?

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- Recall

Total migration effect = Customer Characteristics  
+ Experience  
+ Marketing  
+ Time

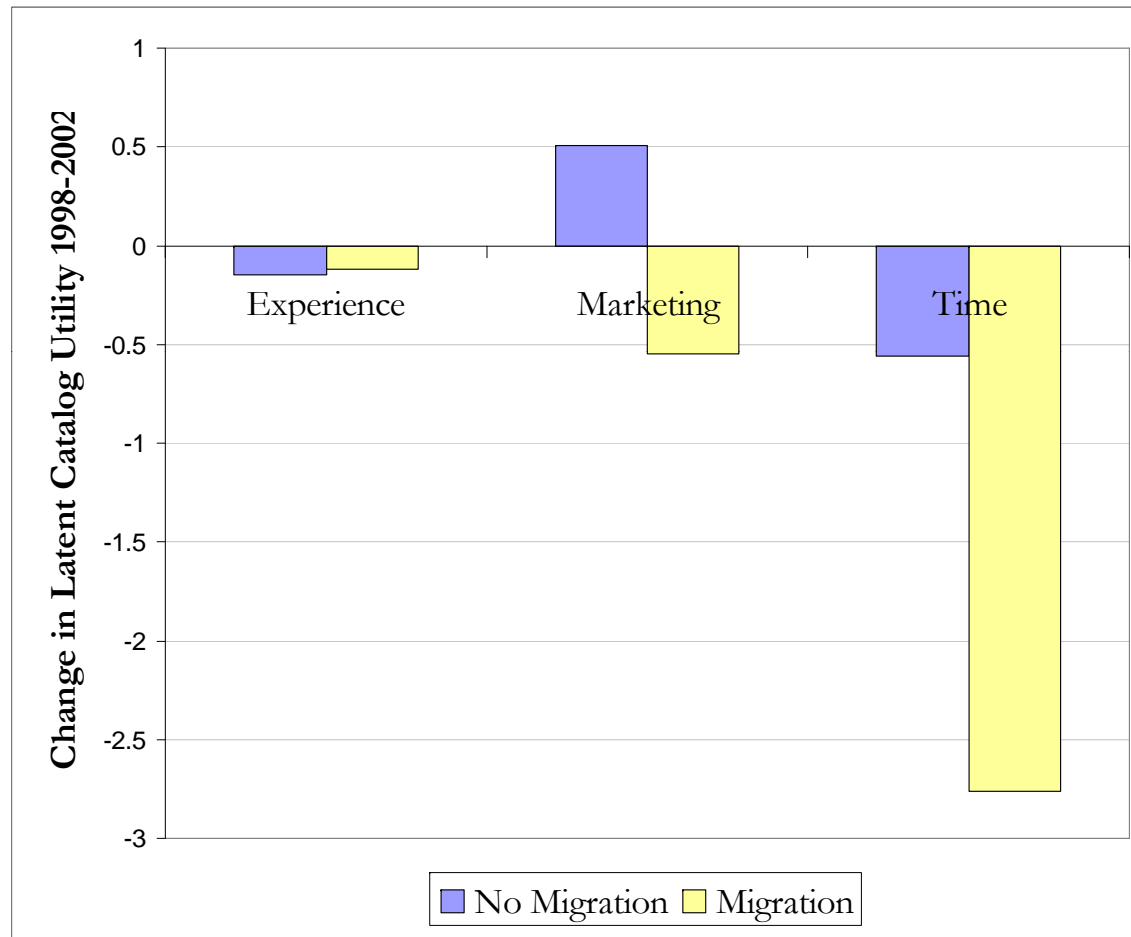
- What changes?

Customer characteristics remain constant over time.

Answer must lie in experience, marketing, or time.

# So Why Did Customers Migrate?

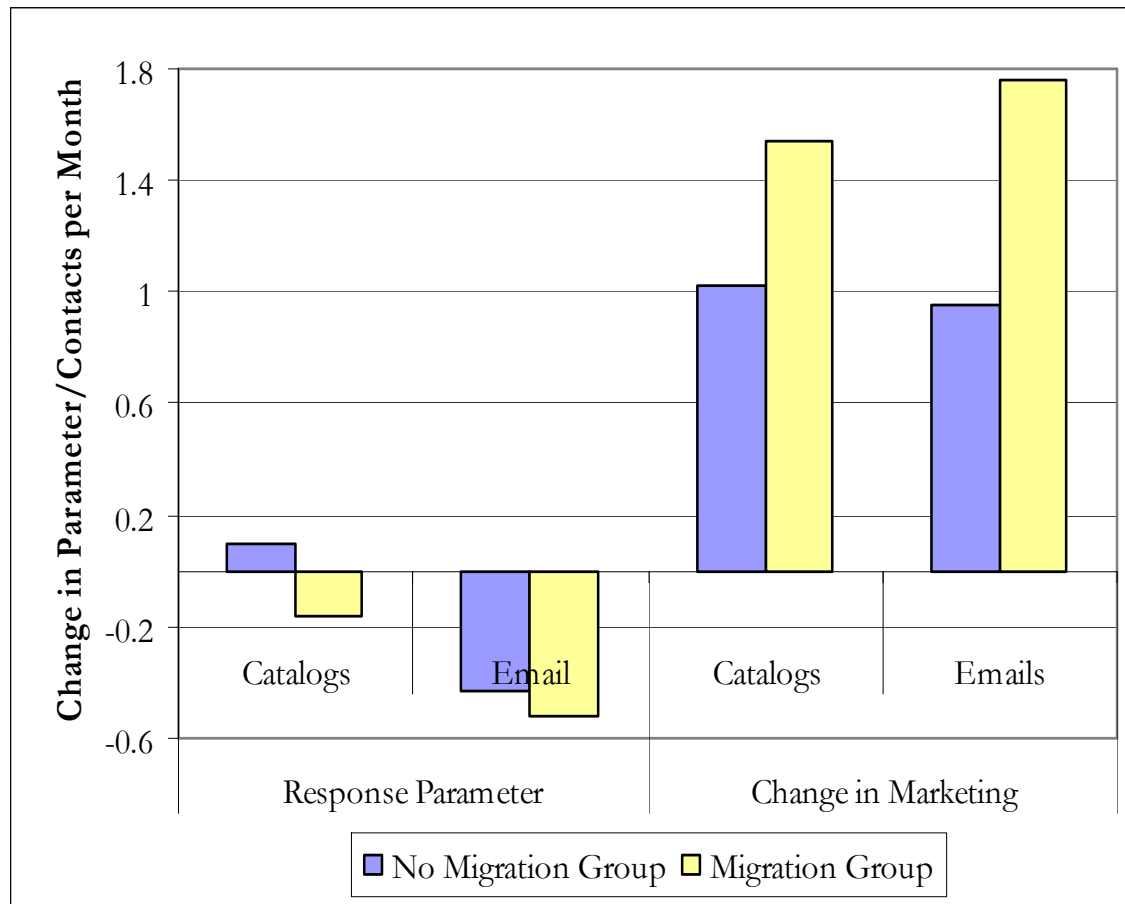
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- Marketing and trend explain migration.

# So Why Did Customers Migrate?

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- Migraters get more marketing and are more responsive.

# So Why Do Migrators Buy More?

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- Recall

Total migration effect = Customer Characteristics

+ Experience

+ Marketing

+ Time

- What changes?

Maybe heavy users more likely to migrate.

Maybe it is experience, marketing, or time.

# So Why Do Migrators Buy More?

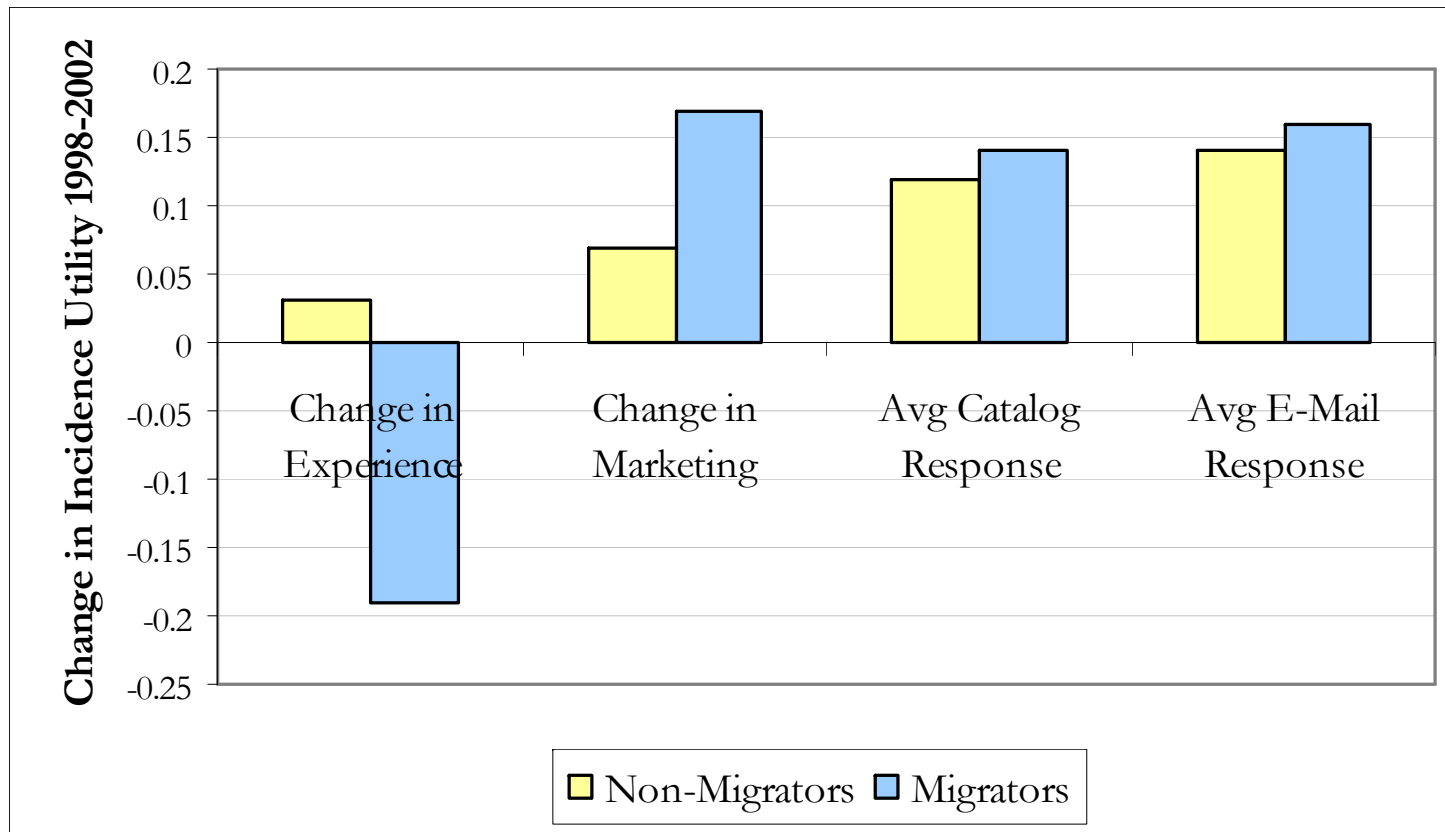
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- It wasn't that the Web attracted heavier users – Migrators equal non-migrators in terms of customer characteristic factor and 1998 purchase level.

	Volume Utility (Intercept + Demos)	1998\$
Migrate	-1.81	0.27
Non Migr	-1.53	0.32

# So Why Do Migrants Buy More?

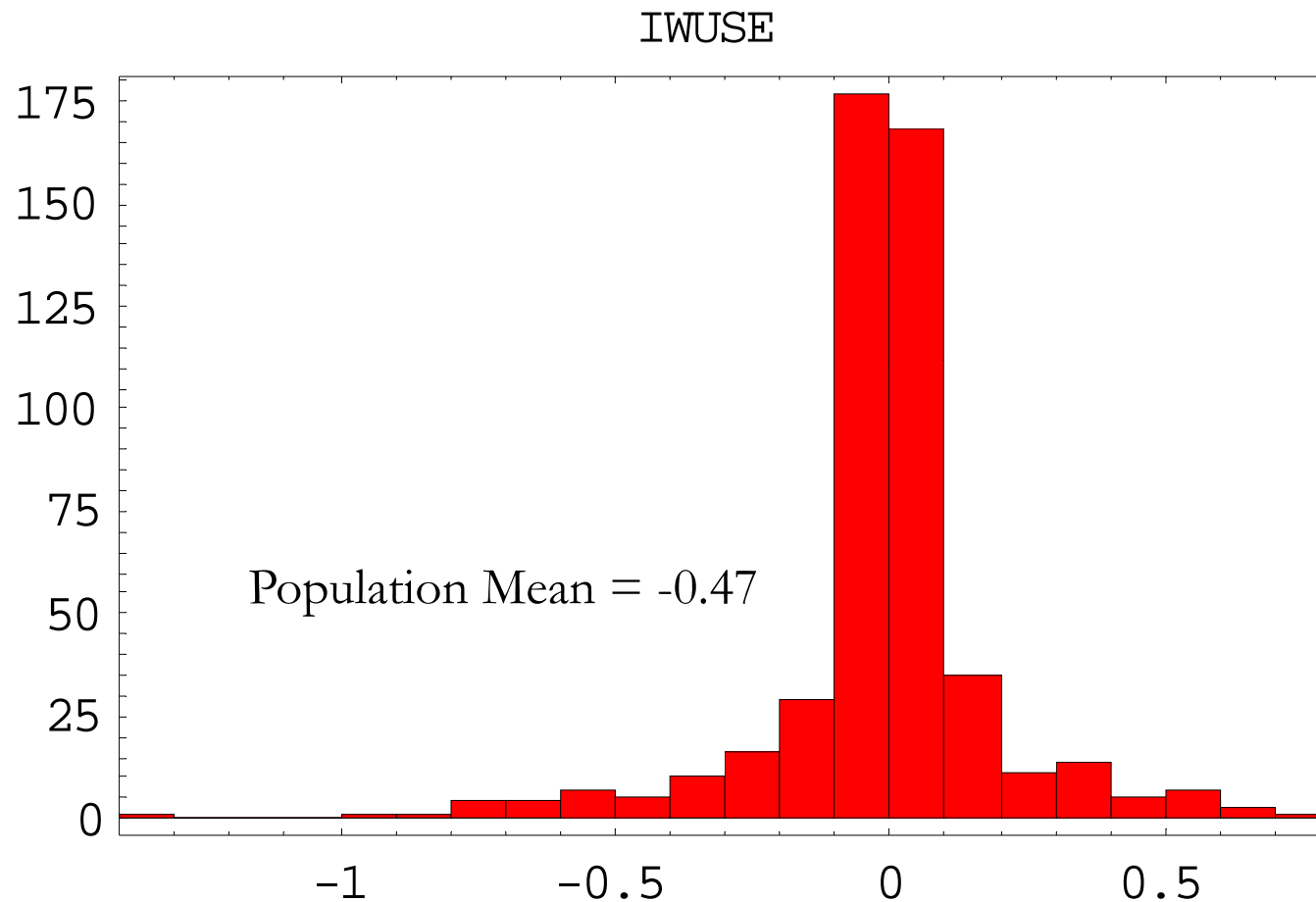
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- Migrants received more marketing and were more receptive to it – masks negative experience effects.

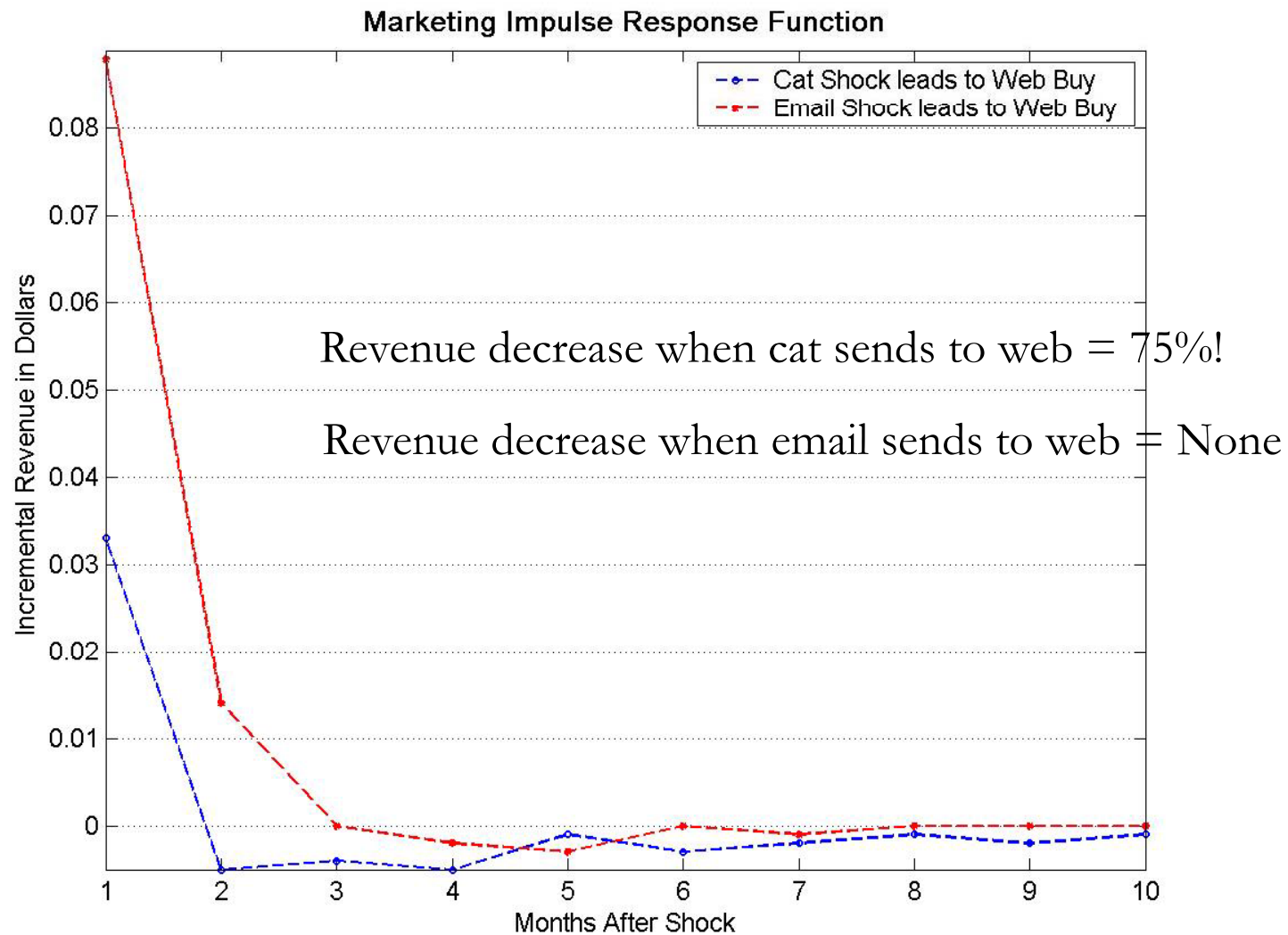
# Effect of Web Use on Purchase Volume

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- It's negative!

# Web Switch Endures



# Conclusions

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- Key Modeling Issues
  - Understanding customer migration requires model of purchase level and channel selection.
  - Major factors to include:
    - Marketing (large number of communications)
    - Experience
    - Customer characteristics
    - Time trends

# Conclusions

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- Key Findings
  - Marketing and trend induce migration.
  - Web experience has a negative impact on future volumes:
    - Switch to other firms as a result of lower switching costs?
    - Effect of lower service levels?
    - Positive trend masks negative effect of marketing.
  - Presumption web lowers costs (true) and raises demand (false).
    - Reevaluate migration strategies if marketing induces migration.

# Conclusion

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- Make on-line experience as or more satisfying than store or catalog as competition is even greater!
  - Wal-mart has greater selection
  - Lands' end has virtual models
  - On line chat

# Building Store Equity

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- Nike town, Disney store, Apple both contribute to brand image
  - Depth and variety
  - Merchandising
- Retail as a promotion for the web!



# Other “Stuff”

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- Duan and Mela
  - Store site location model
  - Journal of Marketing Research 2009
- Thanks every one for having me!!

Thanks every one for having me!!