Marketing Accountability Standards

Measuring Return from CPG Target Segments using CLV

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Outline

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Measuring CLV for CPG Target Segments

Issue

Improvement in target marketing strategies for CPG has been hampered by the inability to measure the return from those targets. This issue will become even more important as TV (cable) will soon be household addressable. We market to consumers but have been measuring at the store, market and product levels…not at the consumer level.

Background

CPG companies have been marketing to target segments without the ability to directly measure the return from those targets in many situations. This has hampered the ability to accurately forecast and improve the effectiveness of "target marketing" over time. Marketing is planned to reach and appeal to certain targets but the post evaluation does not distinguish effectiveness for the different target segments leaving a gap in the feedback loop for marketing planning. Firms need a better understanding of how marketing impacts the behavior of their target segments in order to improve return from targeting strategies.

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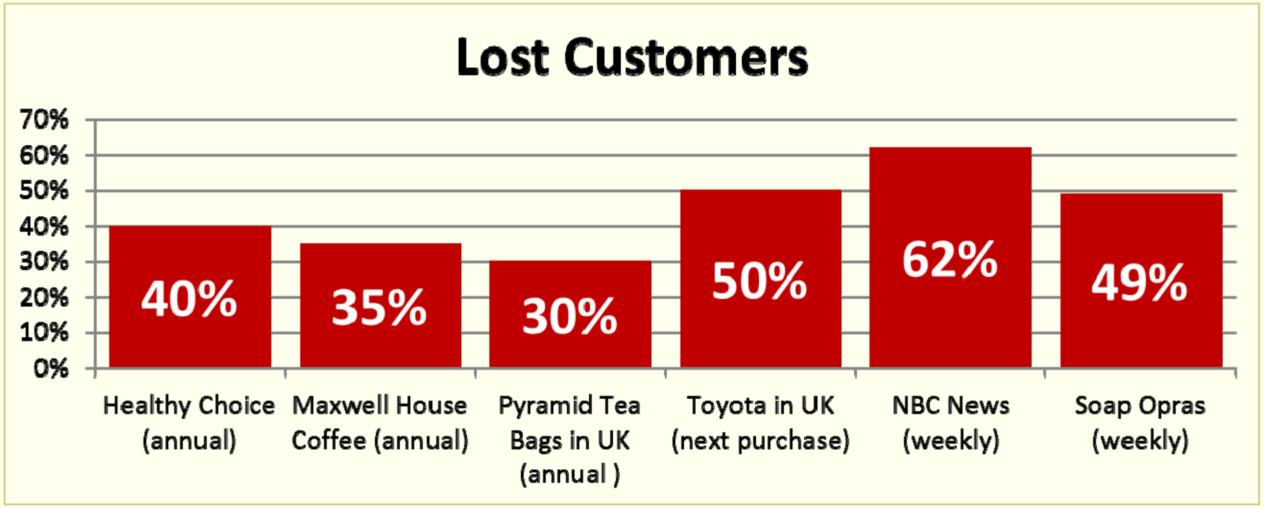
Loyalty issues in CPG

Customer churn is expensive

- Most brands loose customers



Source: Ehrenberg-Bass Institute for Marketing Science (2010)

- Customer acquisition requires much effort
  - 5X vs keeping existing customer happy (Ohio State University)
  - 6-7X vs retaining an existing customer (Bain & Co.)
  - 12x vs retaining an existing customer (dunhumby)

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Academic work provided a Roadmap

Problems

Lack of formal relationship with customers (consumers)

High degree of brand switching

Sales transactions not easily available to CPG firms

Solutions

CLVs calculated for customer cohorts based on time of acquisition (Gupta, Lehmann, Stuart 2004)

Probability-based customer definition (Yoo, Hanssens, Kim 2011) (Fader, Hardie, and Lee 2005)

3rd-party transaction data (e.g. Nielsen Homescan)

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What is known: Business Needs

Why CLV?

- Forward looking metric unlike other traditional measures (that include past contributions to profit)
- Helps marketers adopt the right marketing activities 'today' to increase profitability 'tomorrow'
- Can be used to understand current clients as well as prospects
- The only metric that incorporates all elements of revenue, expense and customer behavior
- Focuses on the customer (rather than products) as a driver to profitability

Source: What is Known about CLV, VK Kumar, 2009

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What is known: Marketing Change

Marketing Paradigm Shift

	Traditional Approach	CLV Based Approach
Management Dimension	Manage products	Manage customers
Focus	Focus business on products that are most profitable	Focus business on customers that are most profitable
Selling Approach	How many customers can we sell this product to?	How many products can we sell this customer to?
Decision Orientation	Marketing decisions based on historic measures or past value of profitability	Marketing decisions based on forward-looking measures or the customer lifetime value metric

Source: What is Known about CLV, VK Kumar, 2009

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Customer Equity and Firm Value

Market Cap	Customer Equity
Net Present Value of all Future Earnings by the Firm	Net Present Value of all Future Earnings from Customers

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Project Objectives

Phase I:	Document what is known about CLV
Phase IIA	Conduct a pilot that will demonstrate the CLV construct and models applied to CPG
Phase IIB	Conduct a test that will replicate the pilot on a larger scanner data set
Phase III	Determine the extent to which this approach satisfies the MMAP Characteristics

Methodology

- Current buyers and prospects are identified by estimating probability of being active customers, based on past behavior
  - Hanssens and Yoo (2010); Schmittlein, Morrison, Columbo (1987)
- Expected # of future purchases are predicted from purchase frequency, recency and size
  - Fader, Hardie, Lee (2005)
- Purchase transaction values are projected and discounted for net present value
- Blue-Marble Enterprise provided data processing and CLV modeling

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Data

- Categories analyzed in the pilot test include:
  - Sports Drinks
  - Diapers
  - Baby Wipes
  - Carbonated Beverages
  - Canned Pasta

- Nielsen Panel Data Sets used were formed as a 3-year, 10/12 Static Panel
  - Households included in the data had to be panelists who reported regularly (10 of 12 months in each of the 3 years of the time frame spanned by the transactions data)
  - Our data showed household level purchase transactions from 8/2007 – 7/2010

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Critical Variable Explanations

- Consumer Equity
  - Sum of CLV for all customers
- Acquisition Households = inactive customers
- Retention Households = current customers
- Transaction level
  - Number of purchase transactions
  - Number of units per transaction
  - Price per transaction

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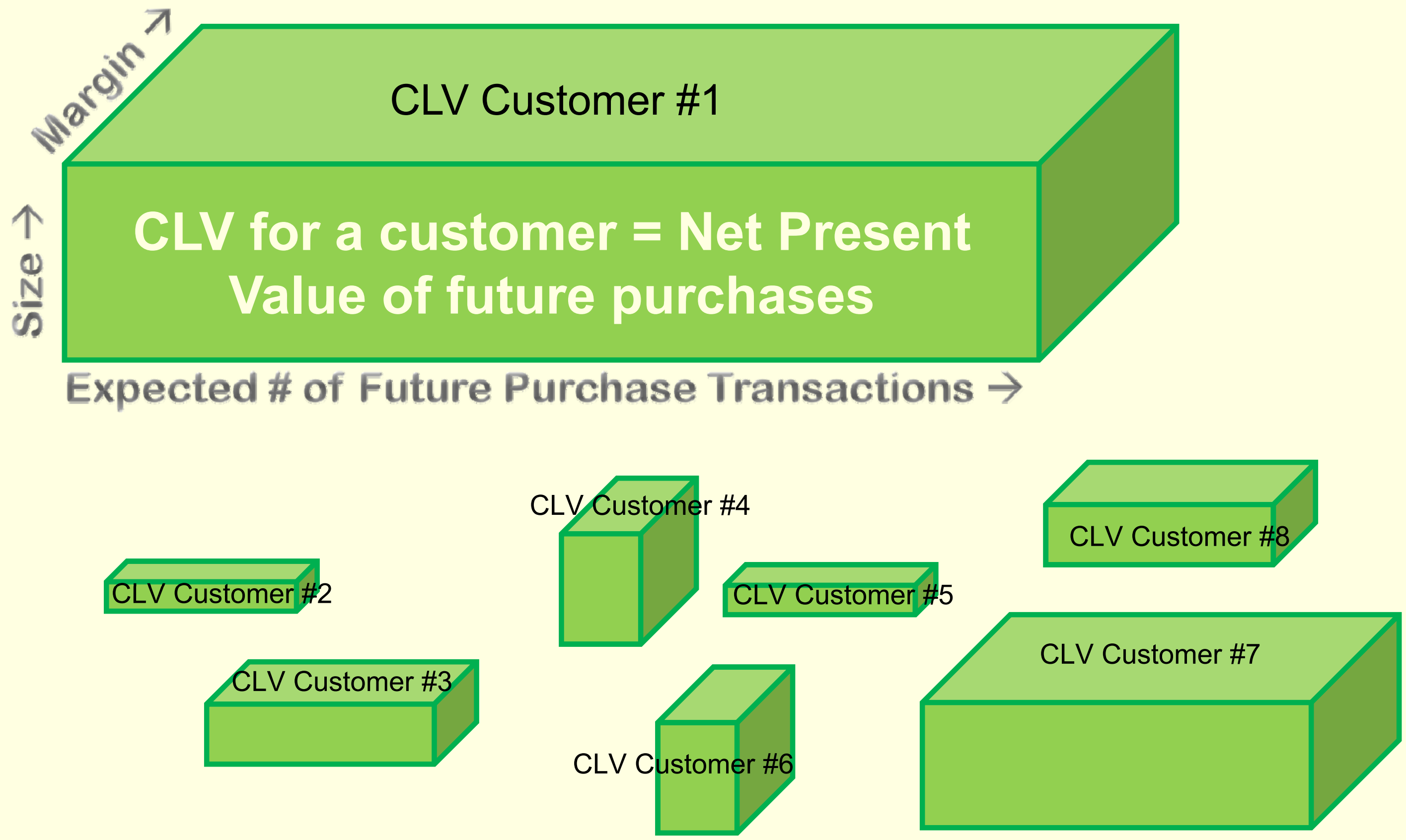
CLV and CE are forward-looking values based on transactions, size & margin rate

Customer Equity is the sum of CLV for all customers



MASB CLV Project Brand Results

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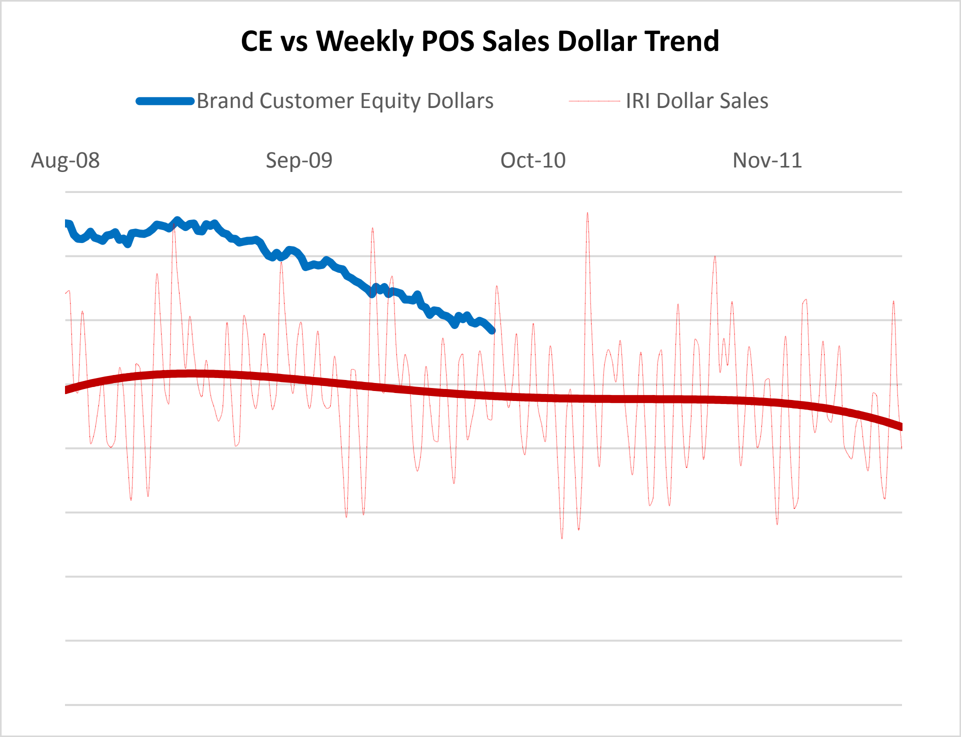
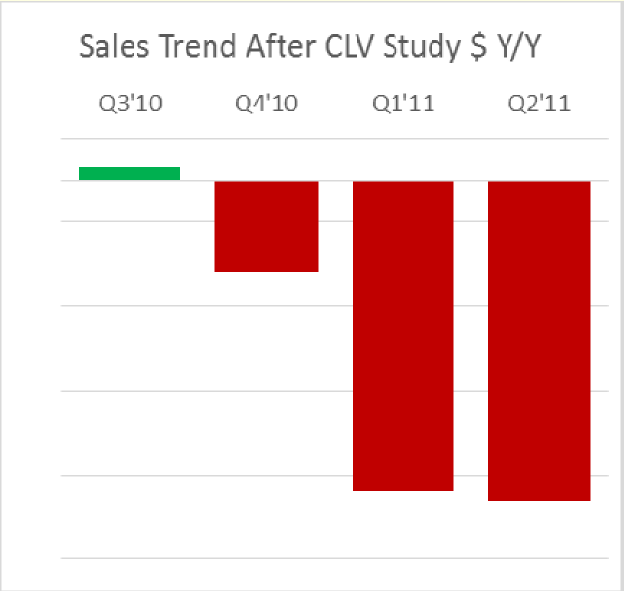
The CE metric seems to have predicted the accelerating sales decline of this CPG





Source: CE from MASB Model using Nielsen Homescan
POS from IRI Infoscan

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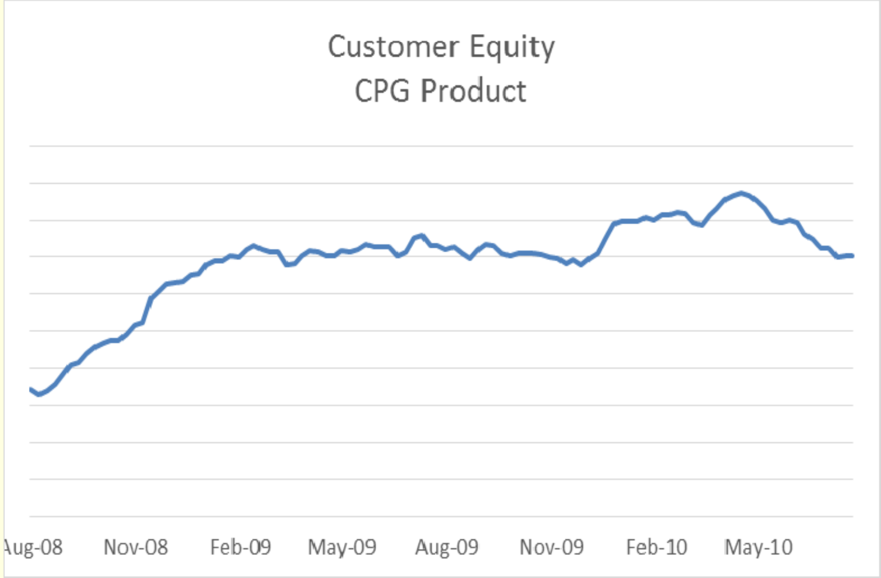
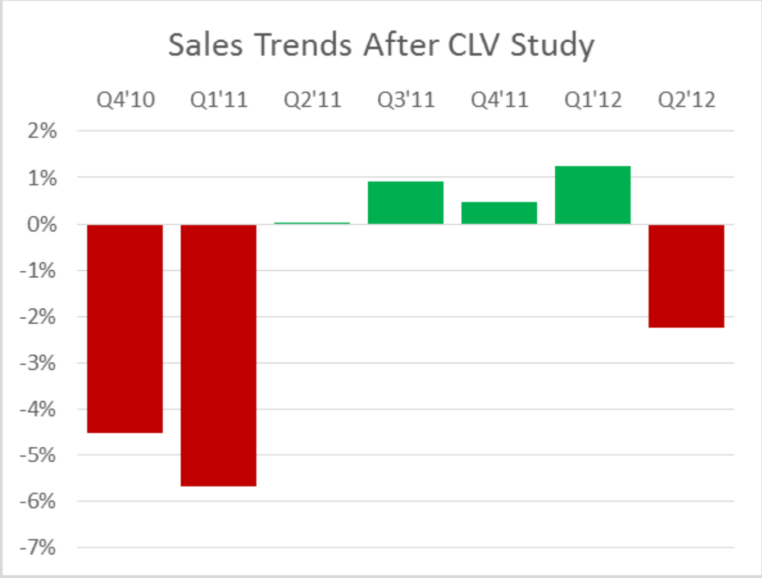
The CE metric seems to have predicted the positive turnaround of sales decline of this CPG





Source: CE from MASB Model using Nielsen Homescan
POS from Nielsen Scantrack

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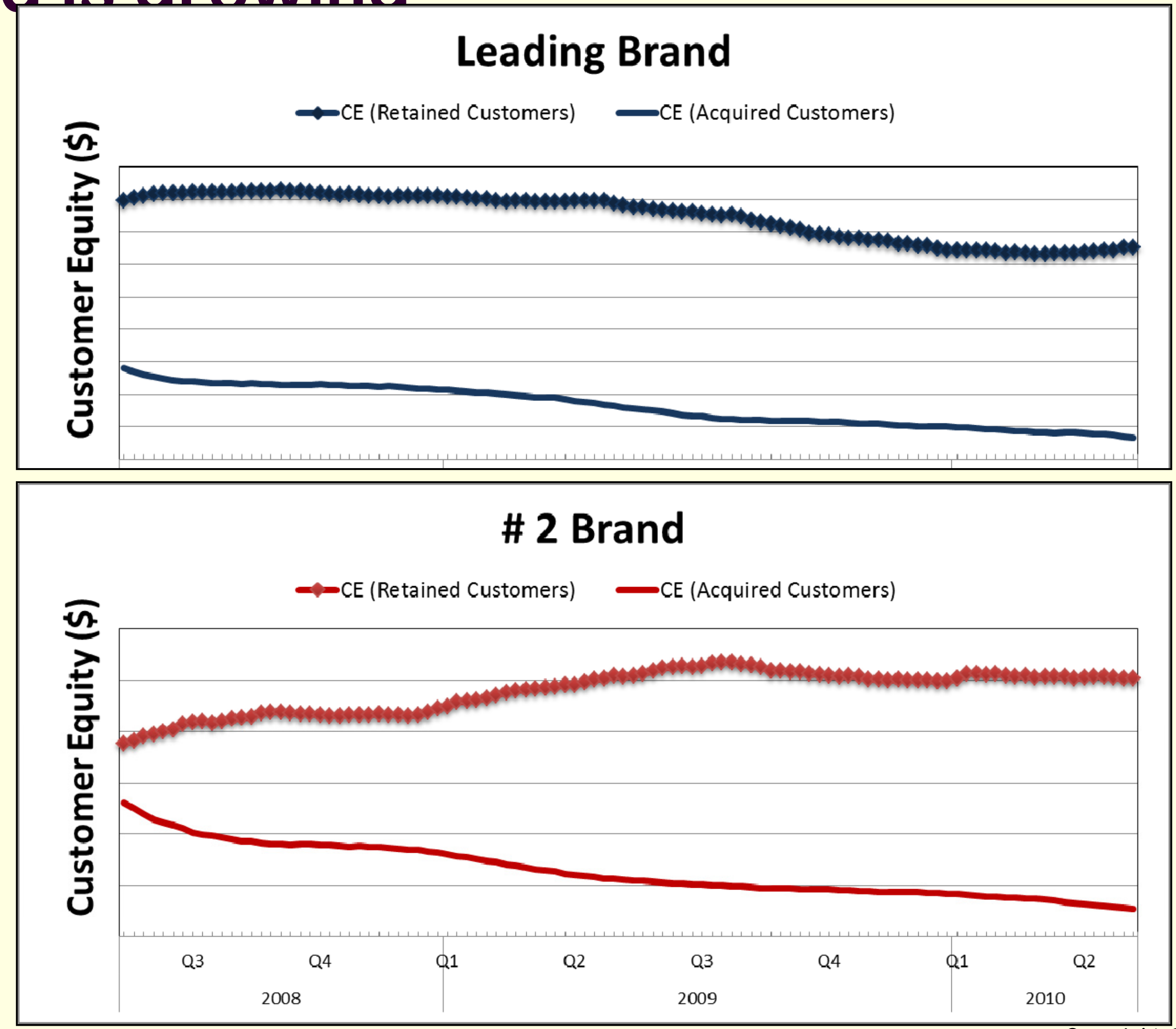
The leading brand share and CE losses are coming from retained customers, while #2 brand is growing



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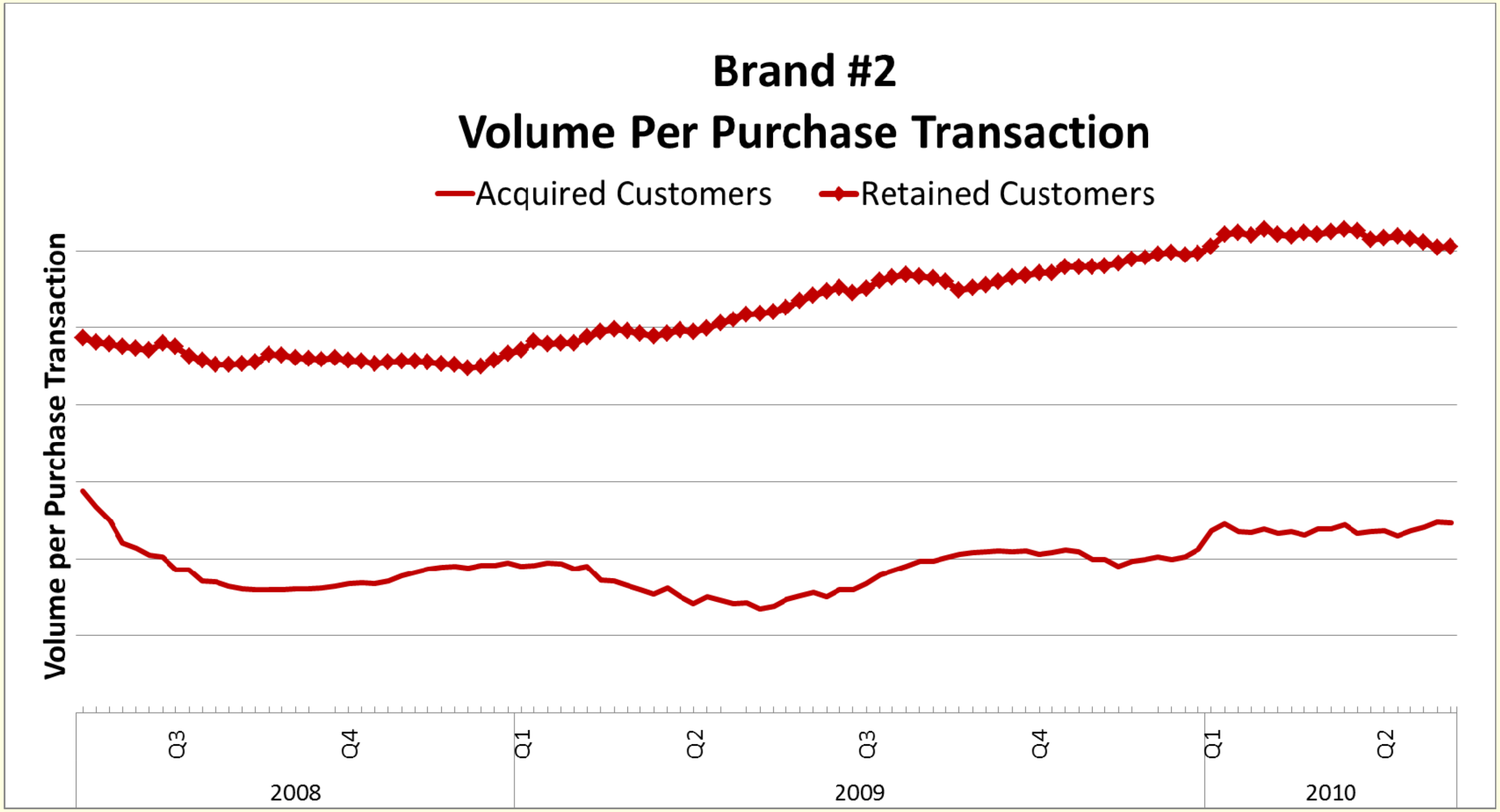
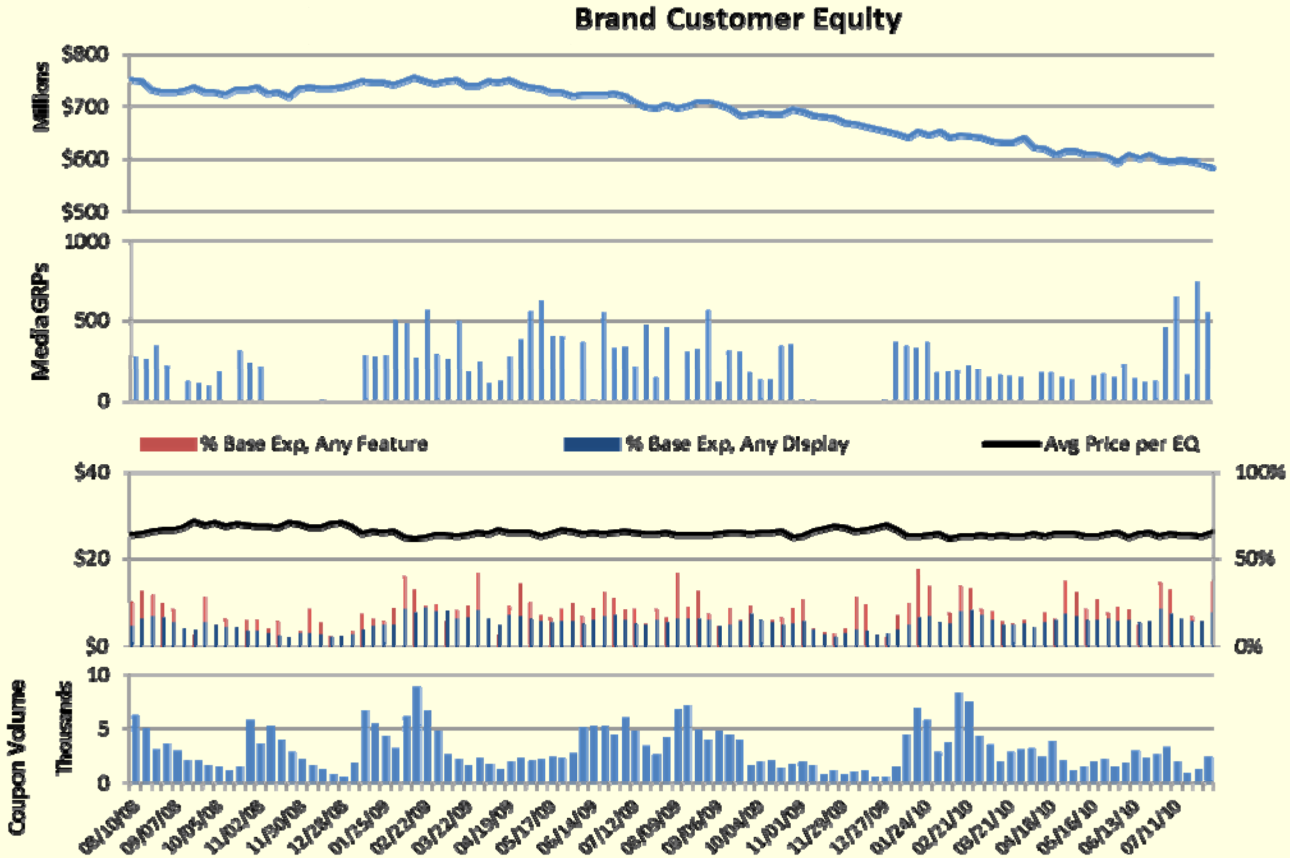
Purchase size is increasing among retained customers driving share and customer equity



Marketing effects to customer equity tested

- Marketing mix models were conducted to compare:
  1. acquisition and retention customer equity elasticity to marketing
  2. short-term sales elasticity to marketing



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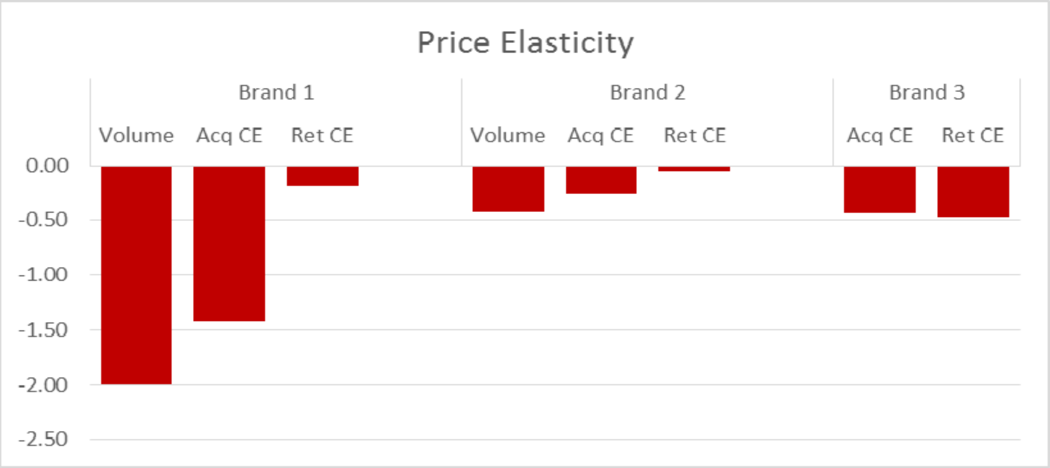
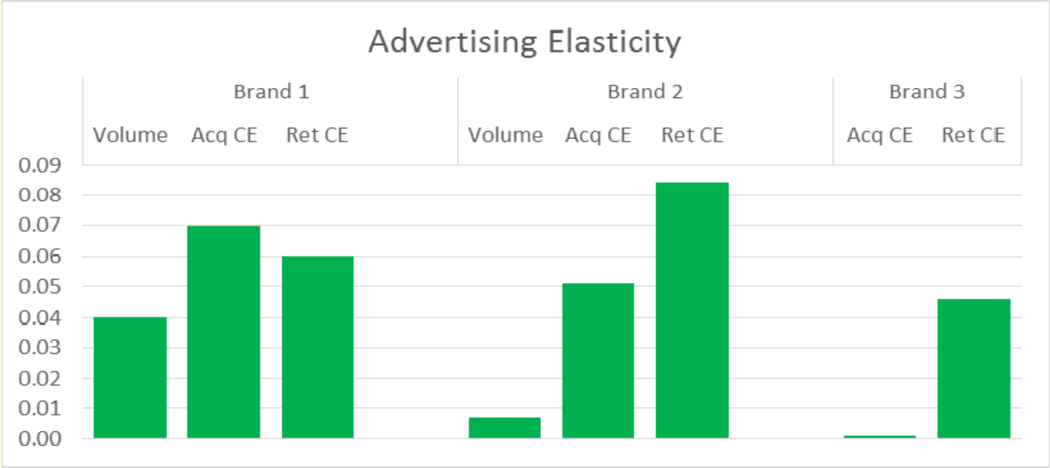
CE is less sensitive to price and is more sensitive to advertising than is weekly volume

- ❑ Prospects need a price incentive
- ❑ Current customers respond to advertising messages





Elasticity = $\dfrac{\%chg\ Dependent\ Variable}{\%chg Independent\ Variable}$

Acq Customer Equity =
CE from acquired customers

Ret Customer Equity =
CE from current customers

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Conclusions

- The pilot demonstrated that the YOO/Hanssens CLV model can be applied systematically to CPG brands
- It is a stable metric (ie low volatility) and forward looking (different from sales or market share)
  - As such, is important for setting strategy (for example budget allocations between advertising and promotion)
    - Stable CE: assuming the brand is profitable, then continued future profitability may be expected under the status quo.
    - Rising CE: Higher profitability.
    - Declining CE: is a leading indicator of deteriorating profitability. Change course.
- It's tangible: represents expected future financial trends relative to competition & category (assuming brand, competitors, and category behave like past year)
- The predictive power of CLV in this study was limited due to:
    1. Static panel of households without adding new households
    2. Panelist (reporting) fatigue caused a downward trend

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Hanssens Comments

- It's a stable metric (ie low volatility)
- It is forward looking (different from sales or market share)
- It can be related to marketing and competitive actions
- It's tangible: represents expected future financial results (assuming brand, competitors, category behave like past year)
- It sets up a discussion for strategic change in marketing before it's too late

"I believe the pilot has delivered on the first three points, and the fourth has already started. The fifth is 'managerial implications', which is in the hands of the brand executives."

"CE also provides full accountability for marketing spend vs just the short-term impact from typical marketing mix studies."

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CPG Applications

1. Measure and manage customer retention and loyalty
   - Beyond just Kroger
   - More reliable than customer churn metrics
   - Meaningful current and loyal customer identification
2. Manage customer relationships with the full marketing mix
   - More than just email
3. Provide accountability for marketing budget beyond just the short-term impact

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What Lies Ahead

- Next CLV/CE Project
  - Full-Up test using larger “single source” panel (Nielsen Catalina)
  - Will replicate the pilot
  - Will look at target segments
  - Will explore magnitude predictive capabilities

- Are you interested in joining & adding your brand?

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Thank-you!