

The Advertising
Research Foundation
presents

RE:THINK



The Princess and the Pea: Marketing Mix vs. Other Methodologies



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The Fairy Tale Now Takes Place in Major CPGs

First you must substitute modern CPG terms for characters/things

The Prince	=	Brand Manager
A Princess	=	A volumetric model
The Princess	=	A perfect volumetric model
The Queen	=	The CEO
The Pea	=	An in-store marketing event
The Mattresses	=	Marketing vehicles
The Feather Beds	=	Trade event
The Storm	=	Confusion/lack of clarity

The Fairy Tale Modified with the CPG Entities

“The **perfect volumetric model** and the **In-store marketing event**.”

There was once a **brand manager**, and he wanted a **volumetric model**, but then she must be a **perfect volumetric model**. He travelled around the world to find one, but there was always something wrong. There were plenty of **volumetric models**, but whether they were **perfect volumetric models** he had great difficulty in discovering; there was always something which was not quite right about them. So at last he had come home again, and he was very sad because he wanted a **perfect volumetric model** so badly.

One evening there was a terrible **confusion**; It was a **volumetric model** who was in a terrible state from the **confusion**, but she said that she was a **perfect volumetric model**.

‘Well we shall soon see if that is true,’ thought the **CEO**, but she said nothing. She went into the **brand plans** and added a **small in-store program** then she took twenty **marketing vehicles** and piled them on top of the **in-store program**, and then twenty **trade events** on top of the **marketing vehicles**. This was where the “**perfect**” **volumetric model** was to be tested. In the morning they asked her how she felt.

‘Oh terribly bad!’ said the **perfect volumetric model**. ‘I have hardly closed my eyes the whole night! Heaven knows what was in the **mix**. I seemed to be lying upon some **new variable**, and my whole body is black and blue this morning. It is terrible!’

They saw at once that she must be a **perfect volumetric model** when she had felt **the in-store program** through **trade events** on top of the **marketing vehicles**. Nobody but a **perfect volumetric model** could be so sensitive!

The Fairy Tale Is Just As Unlikely at a Major CPG



Think about the 'Path to Purchase'

How much advertising is a consumer exposed to?

- TV
- Print
- Radio
- Digital/Social
- FSIs
- Mobile
- E-mail/Direct mail
- Retailer ads



The Fairy Tale Is Just as Unlikely at a Major CPG

Can a Marketing Mix Model truly capture every element and correctly attribute each effect of every advertising vehicle?

- Marketing Mix models are supposed to Measure the impact of marketing (and other drivers) on sales.
 - Get sales data from CPGs
 - Find matching time series data for “everything” that affects sales
 - Advertising (TV, radio, print, online)
 - Trade activity (Features and/or displays and discounts)
 - Distribution and Pricing
 - Holidays
 - Industry trends
 - Use a regression model
 - Predicts sales based on all of these factors
 - Attribution of the ad drops
 - Decomposition of sales of factors in the model, based on coefficients



Can you truly measure everything?

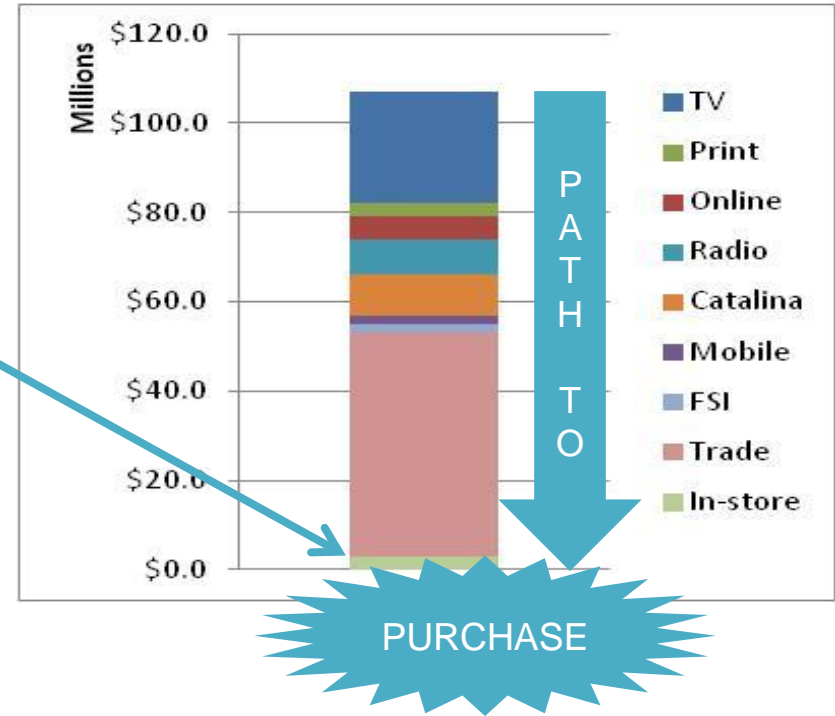
Not really.

Advertising Occurs All Along the Path to Purchase

TV, Print, Online*, Radio, FSI and Trade Spending all have independent sources of data, helpful in creating coefficients.

What about **in-store** vehicles?

- How do we measure their effectiveness buried under layers and layers of other marketing vehicles?
- They are the “Pea” in the modern Fairy Tale
- How sensitive is a “Real Princess”; the Marketing Mix?



* Still fragmented, though

What Happens When a “No Read” Occurs?

When all the data elements of a Marketing Mix model are readied

This is what is asked.



Can you model it?

Brand manager

We will try!



Marketing Mix modeler

This is what happens after modeling is complete.



We could not create a coefficient for the vehicle because of multicollinearity.

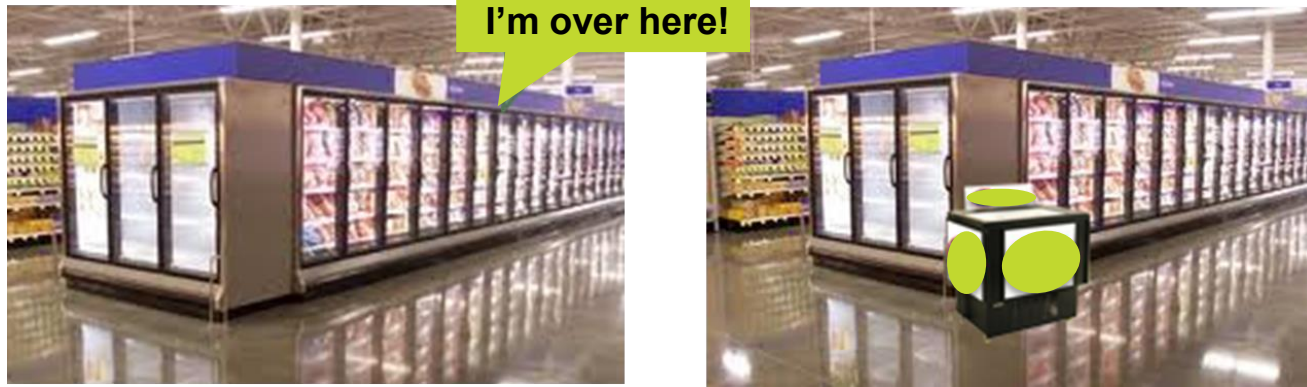


I'll tell my boss it doesn't work.

What Are the Causes of Mis-reading In-store Advertising Vehicles?

(Multi)collinearity can destroy the ability to read two vehicles that occur simultaneously – especially if one of those is trade spending.

Here's an example of significant advertising spend that is almost impossible to read.



Superfridge – in-store advertising that promotes via signage and secondary placement.

What Is the Main Cause of Mis-reading In-store Advertising Vehicles?

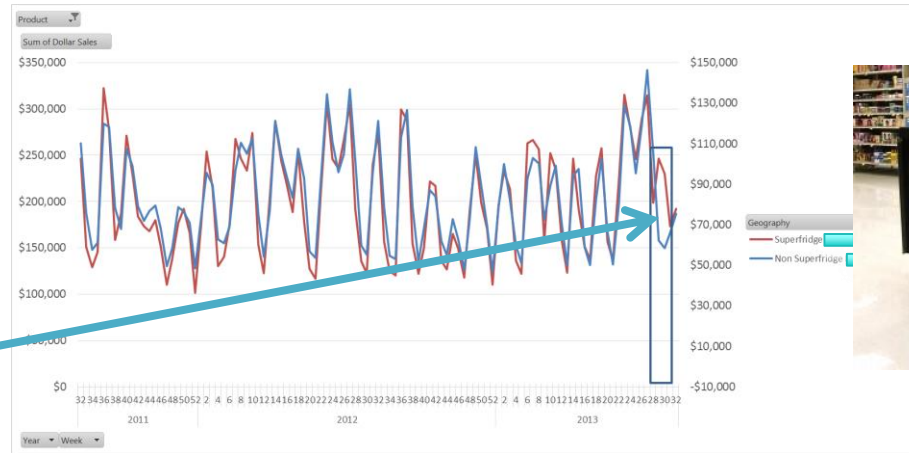
Here's an example of Superfridge with a highly promoted product line

Note the “spikes” of trade spending

- Same Retailer
- Same price
- Same lifts

One thing different, Superfridge in some geographies (red)

Volume \$200K

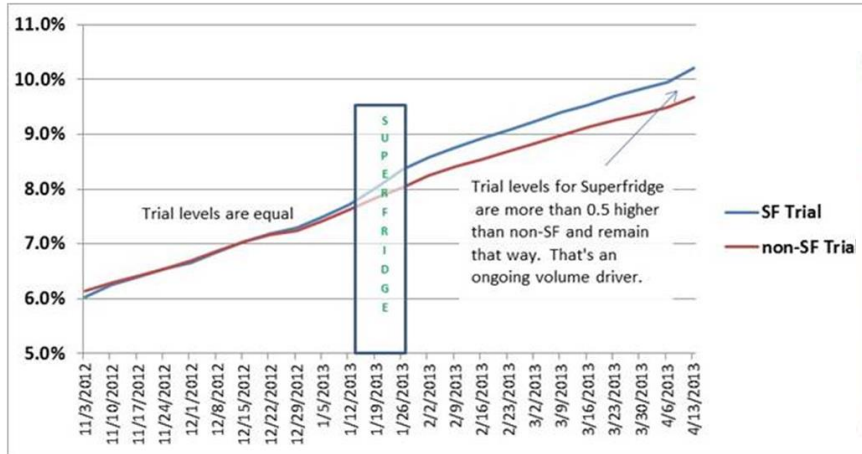


Even working with modelers to include this event into Marketing Mix, this volume is absorbed by variation attributed to trade spending, yielding a “No read.”

What's Missing from a Marketing Mix Model?

Here's something a Marketing Mix will *never* read: “Downstream” volume

- Using Trial data from Consumer panels also shows the effect “downstream”
- 0.5% Trial increase during In-store advertising cycle
- Annualized volume of repeating triers was estimated to be over \$700K!



This payback might never be realized in a Marketing Mix model; therefore reducing payback/ROI by a significant amount.

Another In-Store Advertising Vehicle: Insignia Pops



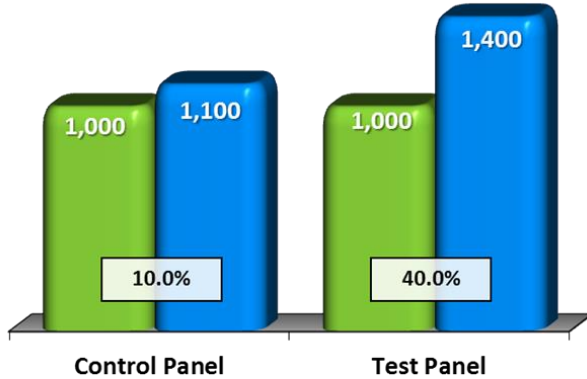
An innovative and effective in-store media

- Raise awareness of products
- Effectively and turn shoppers into customers
- Signage individually tailored to meet the diverse needs of their client base

Also, it is almost impossible to read in a complicated Marketing Mix

How Does Insignia Systems Prove Effectiveness?

Net Lift: 30.0%

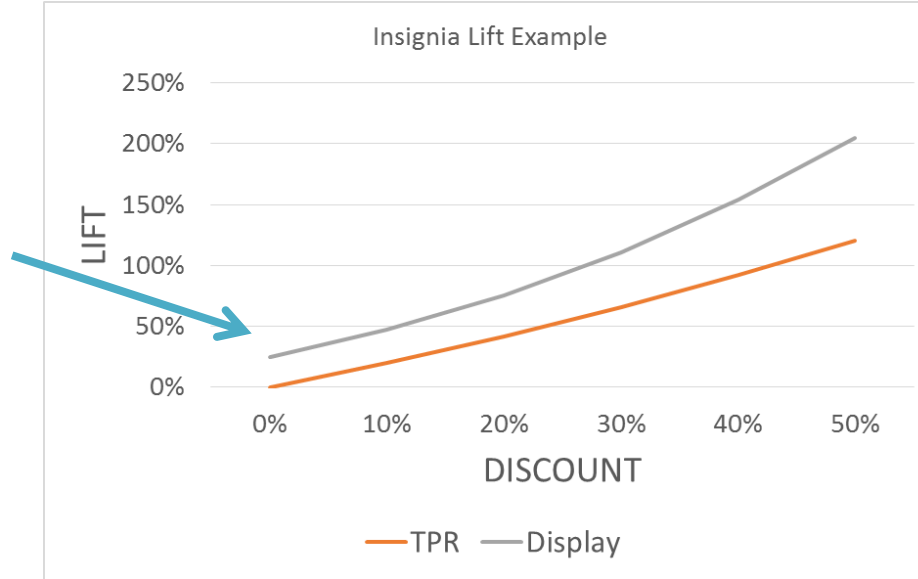


- Incremental Units per Store: 15.0
- Weighted Average Price:
 - Pre Period: \$3.99
 - Test Period: \$3.99
- Incremental Revenue per Store: \$59.85

- They pay for Nielsen store-level data and have a former Nielsen employee put together analyses
- Using a matched panel methodology, the question is not whether the signage works (it does) but whether it is cost effective for their clients (it is)
- This graph is from a presentation. Product was not discounted, yet achieved “payback” and probably positive ROI
- \$59.85 is significantly more than the cost of the signage

How Does Insignia Systems Prove Effectiveness?

- The In-Store signage also amplifies a discount
- Even with no discount, you will get a small lift
- This is a fantastic outcome for both the CPGs and retailers



INSPIRE shoppers. DELIVER value.™

So How Much Do These Alternate Methodologies Cost?

- If you already have access to syndicated data and panel data from Nielsen, IRI, dunnhumby, etc. ...
THEY COST NOTHING (for the Superfridge analyses)
- For Insignia POPS – the cost is spread out in their program costs. So, it *seems like nothing*
- Any good supplier of advertising should help a CPGs analytics people to measure their vehicles in a rigorous way
- For CPGs they can also work with the data providers to perform Controlled Store Tests (CST). This will eliminate any notion that the “fox is guarding the henhouse.”



This Is Not an Attack on Marketing Mix Models As We Have Seen in the Last Year

I am attempting to demonstrate its usefulness
and its limits to the CPG marketer

Accept that

- A Marketing Mix model will model only the effects of the data that is included
- It can't attribute downstream effects to marketing vehicles
- It will sacrifice coefficients of smaller vehicles on the altar of collinearity
- It is NOT the “Perfect Volumetric model”; don't be “wed” to it



The Fairy Tale Does Not Just Happen; Take Action

Relying exclusively on a Marketing Mix model will eliminate the hope of moving towards the optimal advertising spend

- Use Marketing Mix models for large advertising spends
- To detect the impact of smaller vehicles, utilize other methodologies:
 - Syndicated data examination of baseline and incremental sales impact*
 - Panel analysis to detect “downstream” data*
 - Matched Panel CSTs

* Requires geographic data planning



Tie It All Together with an ROI Metric

- Once the various methodologies give you a “complete” picture of the various advertising vehicles, lay them out in a logical fashion
- In this case, I developed a grid for a major CPG where all of the vehicles in the top section used a Marketing Mix model from a major supplier of these models.
- The bottom section utilized other methodologies, where CSTs were preferred

G-Y-R Reco

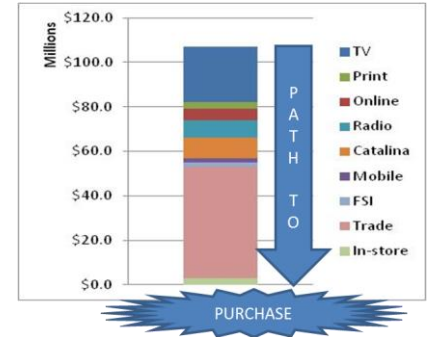
Actual studies

Marketing Expenditures										G-Y-R Reco		Actual studies						
Touchpoint (in case, stream all items)	Vendor	Program type	Reach (Impressions or reach...)	Cost	Analysis method	Forecast (increase in sales)	ROI (Profit or \$1.00 spent)	Study Completion #	Valid Custom GYR	Brand observed	Key insight	STP SS	STP MD	LC	IP/UP	Q&K	OUT	
National	TV	Zenith	12-30 sec	\$20.00/CPA	\$7.00/SP	10.1%	2%	\$ 1.00	Qpr+11	●	STT, LC, WFG, Subopt						●	
	Print	Zenith	Magazine ad	\$5.00/CPA	10.1%	n/a	\$ 0.50	Qpr+11	●	STT, LC, WFG, Subopt	Generally useful volume offer.	●	●	●	●	●	●	
	In-store Coupons	Cashier	Magazine/Transaction	\$1.00/CPA	\$2.00/CPA	10.1%	PMI	\$ 0.70	Qpr+11	●	STT, LC, WFG, Subopt	Online stream by WFG - obs have many "missed" high-potential offers. Generally a high ROI vehicle.	●	●	●	●	●	●
		Entry Point	Shrug Card/Sky	TBD						●	STT, LC, WFG, Subopt	Based on P-MI analysis - NO CONTACT from them - still OK.						
	PO	Ryan	Coupon	42000	\$10.00/CPA	10.1%	15%	\$0.40/CPA	Qpr+11	●	STT, LC, WFG, Subopt	Seems appropriate because not incrementally. For new items, only trial is considered. Not much volume decreases and POS doesn't have their share. Not too great statistical test to meet repeat criteria; good ROI - but more volume through the offer vehicle is more dollar volume.	●	●	●	●	●	●
	Printer	WAL, Yahoo!	Banner	60000	\$ 1.20/CPA	10.1%	\$ 1.22	Qpr+11	●	STT, LC, WFG, Subopt		●						
						Annualized												
						Use items		CPM										
In-store	PO	Walgreens POPA	\$ 14.00	\$ 4.00	\$10.00/CPA	10.1%	1.5%	Dec-07	●	Lean Cuisine	By using the price, POA seems to be an efficient in-store vehicle. Their real customer groups is women; being used for an entry, response to "offer" metric.			●				
	Supermarket	Superstage	\$ 176.00	\$ 3.00	\$60.00/CPA	35%	3.00	Q1-2008	●	STP SS, NTR, Bar/Outlet Dough	The expense for an initial test is high - the large businesses. There are several advantages over in-store (more, more location, etc).	●				●		
	Floor display	PO	\$ 42.00	\$ 3.00	\$14.00/CPA	10.1%	4%	Dec-05	●	Shoeflex Multigrain	These results include a "no test" that would indicate the PO is not working. Check the vehicle.	●	●					
	Shelf Talker	Reader Deal	\$ 20.47	\$ 1.00	\$20.47/CPA	10.1%	4%	Q1-08	Qpr+11	CS, STP Leasepa	Recent SPX study showed margin for Kidge Buy/Out indicates no PO. Caution - use is August of 08.	●	●					
	Shelf Talker	Reader Deal	\$ 18.80	\$ 1.00	\$18.80/CPA	10.1%	0%	Feb-07	●	CS, STP Leasepa	Kidge Buy/Out indicates no PO for this vehicle in a test control environment.	●	●					
	Floor Talk	Reader Deal	\$ 27.72	\$ 1.00	\$27.72/CPA	10.1%	0%	Feb-07	●	CS, STP Leasepa	Kidge Buy/Out indicates no PO for this vehicle in a test control environment.	●	●					
	VanCan	VanCan	\$ 1.00	\$ 0.00	\$1.00/CPA	10.1%	2%	Feb-09	●	LC	Not new "Call to action"	●	●					
	CDP	CDP	\$ -	\$ 0.00		10.1%	0%	Dec-09	●	STP SS, LC	Not new "Call to action"	●	●					
	Smart Source CM	Have America	\$ 28.24	\$ 1.00	\$28.24/CPA	10.1%	n/a	n/a	●	Have America Capon, EXPENSIVE		●						
	Cash	Have America	\$ 22.94	\$ 1.00	\$22.94/CPA	10.1%	n/a	n/a	●	Have America Capon, EXPENSIVE		●						
Shopper	Have America	Package outpoint	\$ 10.00	\$ 1.00	\$10.00/CPA	10.1%	n/a	n/a	●	Unusual Distribution - Good Cost/Response - Proceed with Caution		●						
Talk One	Have America	Outing/Coupons	\$ 16,000	\$ 111.21	n/a	n/a	n/a	●	Have America Capon, EXPENSIVE		●							
Walmart TV	PO	\$ 3,000	\$ 240,000	n/a	17%			●	Shoeflex Shred	Have America Capon, EXPENSIVE - Proceed with Caution	●					●		

The Perfect Volumetric Model Is a Fairy Tale



- Maybe someday there will be a model that will solve the issue of proper volumetric attribution of all advertising vehicles
- Today, it requires thoughtful consideration by an analytics professional to combine metrics in a useful way
- Advertising can be effective all along the 'Path to Purchase'; proper measurement is the key to identifying what works for the CPG and retailer



Interested in Upgrading Your Analytics?

THANK YOU!



Contact DCI Consulting LLC
<http://thatguydemos.com>



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