

Marketing Experiments

Introduction

- **Experimentation is a key component of the resource allocation portfolio that allows us to evaluate the consequence of different marketing actions.**
- **In this module we will**
 - Understand some basic experimental designs
 - Follow a case study of a firm that implemented experiments on TV and the web
- **By the end of this module, you will be able to conduct basic experiments to assess the effectiveness of marketing efforts.**

Correlation vs Causation

- **Does skipping breakfast cause obesity?**

- <http://www.webmd.com/diet/news/20080303/eating-breakfast-may-beat-teen-obesity>

- **Alternative explanations:**

- Physical activity
- Lack of sleep

“Half the money I spend on advertising is wasted; the trouble is I don’t know which half”

John Wanamaker

Father of Modern Advertising

Marketing Return on Investment



- Why is it hard to measure the Return on Marketing Spending?

- TV Advertisements
- Promotion
- Better Customer Targeting



- ***Basic Issue: Would you have achieved the same sales increase without the increased advertising spend?***

What Establishes Causality?

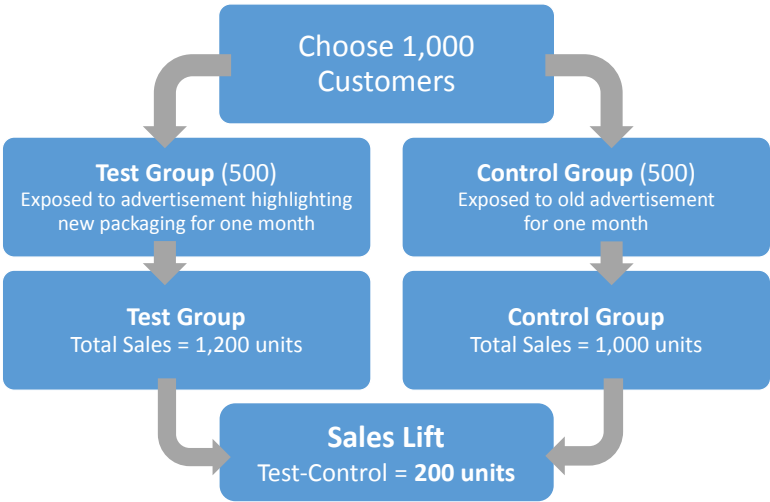
- Change in marketing mix produces change in sales
 - Increasing Advertising \$  Increased Sales
- No sales increase when there is no change in the marketing mix
 - No Increase in Advertising \$  Same Sales
- Time Sequence
 - Increased advertising \$ today leads to higher sales tomorrow
- No other external factor
 - When advertising was increased, one of the competitors left the market. So sales increased because of lesser competition not because of increased advertising.

Experiments – The Holy Grail!

One or more independent variable(s) [**Advertising \$**] are manipulated to observe changes in the dependent variable [**Sales or Brand awareness**]



A Basic Experiment

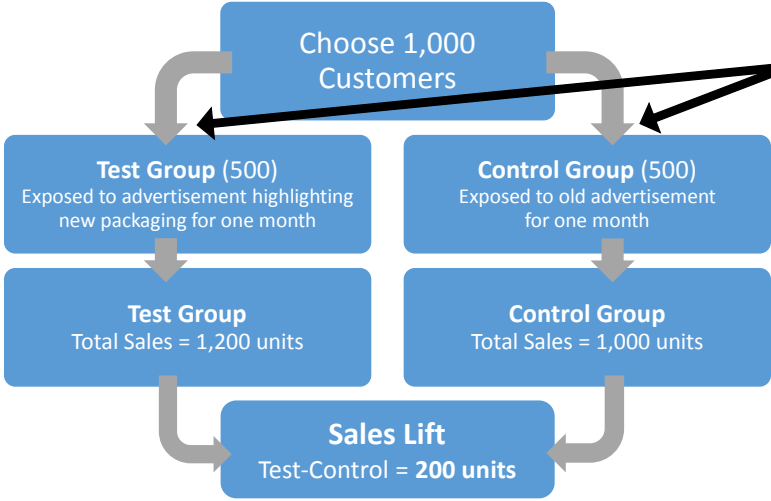


How to assign customers to Experiment and Control Group?

Marketing Analytics Module 5 Slides

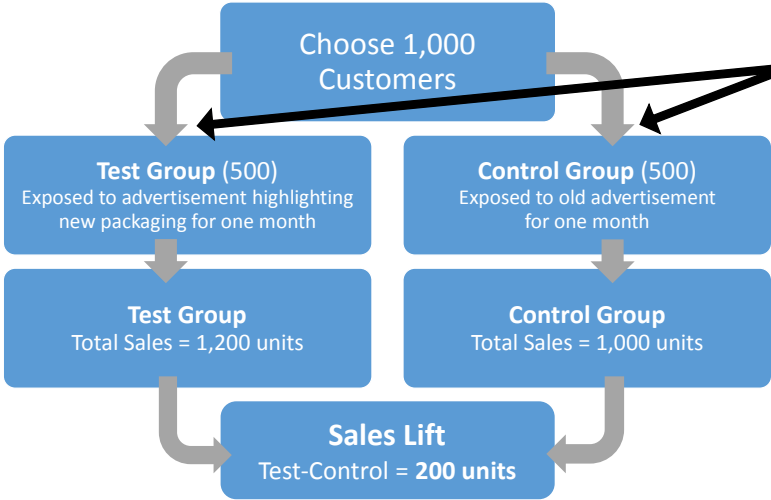
These materials are for your personal use while participating in this course.
Please do not share or distribute them.

A Basic Experiment



Randomization
can match test and control groups on all dimensions simultaneously, given a sufficient sample size

A Basic Experiment



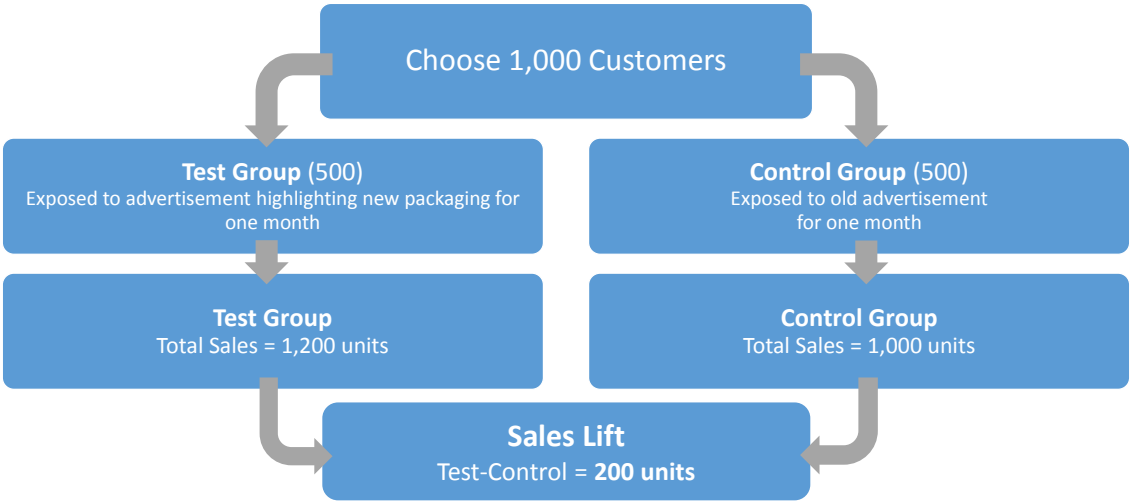
Match
experiment and control groups on known attributes (e.g., demographics)

When would this be necessary?

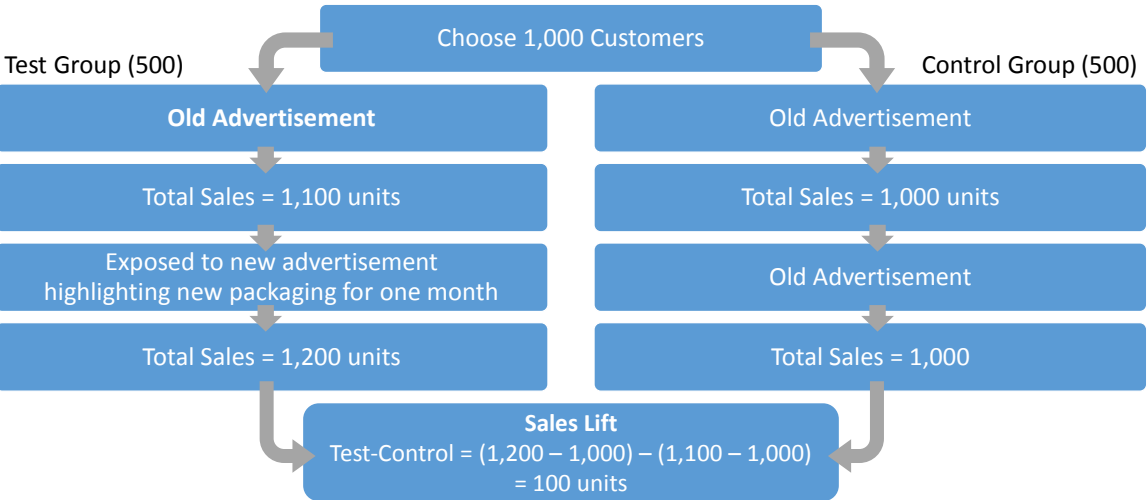
Marketing Analytics Module 5 Slides

These materials are for your personal use while participating in this course.
Please do not share or distribute them.

Before – After Design



Before – After Design



Marketing Analytics Module 5 Slides

These materials are for your personal use while participating in this course.
Please do not share or distribute them.

Web Experiments – Full Factorial Design

Price		
\$1.59	\$1.89*	\$2.15

* Current conditions, so can be considered controls.

Web Experiments – Full Factorial Design

Advertisement Copy	Price		
	\$1.59	\$1.89*	\$2.15
“Lasts Longer”			
“Tastes Better”			
“Good for You”*			

* Current conditions, so can be considered controls.

Marketing Analytics Module 5 Slides

These materials are for your personal use while participating in this course.
Please do not share or distribute them.

Web Experiments – Full Factorial Design

Advertisement Copy	Price		
	\$1.59	\$1.89*	\$2.15
“Lasts Longer”		\$1,112	
“Tastes Better”		\$1,030	
“Good for You”*		\$820	

* Current conditions, so can be considered controls.

Web Experiments – Full Factorial Design

Advertisement Copy	Price		
	\$1.59	\$1.89*	\$2.15
“Lasts Longer”		\$1,112	
“Tastes Better”		\$1,030	
“Good for You”*	\$930	\$820	\$770

* Current conditions, so can be considered controls.

Marketing Analytics Module 5 Slides

These materials are for your personal use while participating in this course.
Please do not share or distribute them.

Web Experiments – Full Factorial Design

Advertisement Copy	Price		
	\$1.59	\$1.89*	\$2.15
“Lasts Longer”	\$1,315	\$1,112	\$1,206
“Tastes Better”	\$957	\$1,030	\$1,500
“Good for You”*	\$930	\$820	\$770

* Current conditions, so can be considered controls.

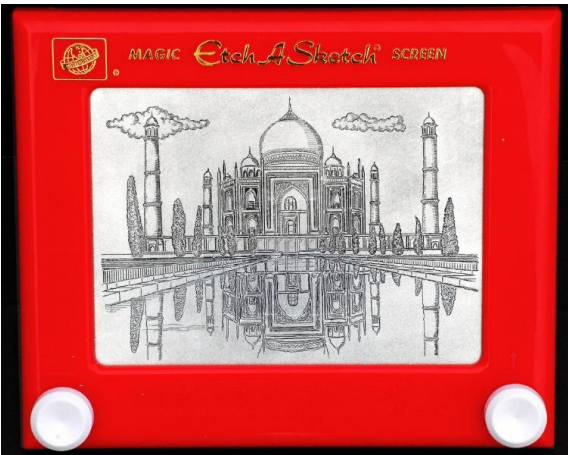


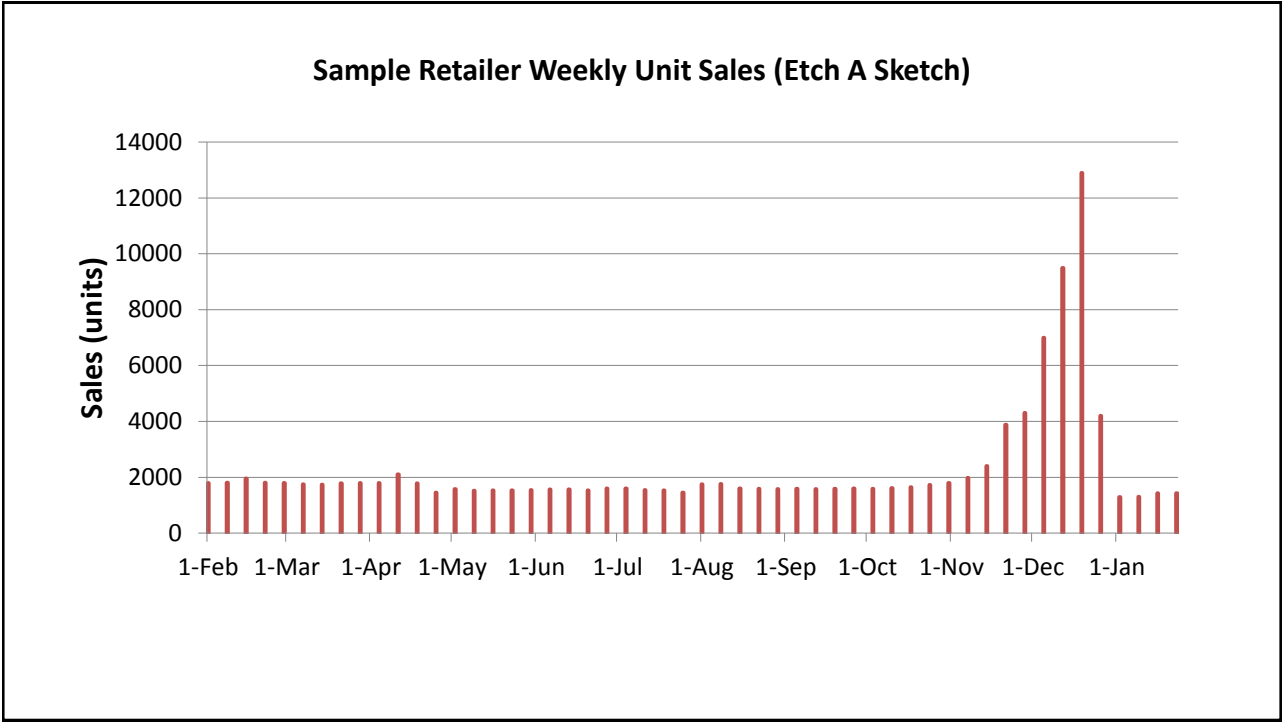
Photo Credit: Etcha (Own work) [CC BY-SA 3.0
(<http://creativecommons.org/licenses/by-sa/3.0>) or GFDL
(<http://www.gnu.org/copyleft/fdl.html>)], via Wikimedia Commons



Photo Credit: By Shikhar Sharma (Own work) [CC BY-SA 3.0
(<http://creativecommons.org/licenses/by-sa/3.0>)], via Wikimedia Commons

Marketing Analytics Module 5 Slides

These materials are for your personal use while participating in this course.
Please do not share or distribute them.



Etch A Sketch Test Results

	Etch A Sketch		
	Test Product		
Number of Weeks	Cincinnati Units	Control* Units	Cincinnati Shares (%)

* Control Cities included (a) Charleston, South Carolina; (b) Cleveland, Ohio; (c) Indianapolis, Indiana; and (d) Pittsburgh, Pennsylvania

Marketing Analytics Module 5 Slides

These materials are for your personal use while participating in this course.
Please do not share or distribute them.

Etch A Sketch Test Results

	Number of Weeks	Etch A Sketch		
		Test Product		
		Cincinnati Units	Control* Units	Cincinnati Shares (%)
Pre Test 5 Dec 2005 – 26 Nov 2006	12	162	1526	9.6

* Control Cities included (a) Charleston, South Carolina; (b) Cleveland, Ohio; (c) Indianapolis, Indiana; and (d) Pittsburgh, Pennsylvania

Etch A Sketch Test Results

	Number of Weeks	Etch A Sketch		
		Test Product		
		Cincinnati Units	Control* Units	Cincinnati Shares (%)
Pre Test 5 Dec 2005 – 26 Nov 2006	12	162	1526	9.6
Test 27 Nov 2006 – 16 Dec 2006	3	240	1598	13.1

* Control Cities included (a) Charleston, South Carolina; (b) Cleveland, Ohio; (c) Indianapolis, Indiana; and (d) Pittsburgh, Pennsylvania

Marketing Analytics Module 5 Slides

These materials are for your personal use while participating in this course.
Please do not share or distribute them.

Etch A Sketch Test Results

	Number of Weeks	Etch A Sketch		
		Test Product		
		Cincinnati Units	Control* Units	Cincinnati Shares (%)
Pre Test 5 Dec 2005 – 26 Nov 2006	12	162	1526	9.6
Test 27 Nov 2006 – 16 Dec 2006	3	240	1598	13.1
Lift				136.1

* Control Cities included (a) Charleston, South Carolina; (b) Cleveland, Ohio; (c) Indianapolis, Indiana; and (d) Pittsburgh, Pennsylvania

Etch A Sketch Test Results

	Number of Weeks	Etch A Sketch			Doodle		
		Test Product			Control Product		
		Cincinnati Units	Control* Units	Cincinnati Shares (%)	Cincinnati Units	Control Units	Cincinnati Share
Pre Test 5 Dec 2005 – 26 Nov 2006	12	162	1526	9.6	1517	6742	18.4
Test 27 Nov 2006 – 16 Dec 2006	3	240	1598	13.1	816	3780	17.7
Lift				136.1			96.7

* Control Cities included (a) Charleston, South Carolina; (b) Cleveland, Ohio; (c) Indianapolis, Indiana; and (d) Pittsburgh, Pennsylvania

Marketing Analytics Module 5 Slides

These materials are for your personal use while participating in this course.
Please do not share or distribute them.

Etch A Sketch Test Results

		Etch A Sketch			Doodle		
		Test Product			Control Product		
	Number of Weeks	Cincinnati Units	Control* Units	Cincinnati Shares (%)	Cincinnati Units	Control Units	Cincinnati Share
Pre Test 5 Dec 2005 – 26 Nov 2006	12	162	1526	9.6	1517	6742	18.4
Test 27 Nov 2006 – 16 Dec 2006	3	240	1598	13.1	816	3780	17.7
Lift				136.1			96.7
Net Lift				39.4%			

* Control Cities included (a) Charleston, South Carolina; (b) Cleveland, Ohio; (c) Indianapolis, Indiana; and (d) Pittsburgh, Pennsylvania

Etch A Sketch Test Results

Retail Price	10
Retail Margin	36%
Manufacturer Selling Price	6.4
Manufacturer Contribution Margin %	58%
Manufacturer Contribution Margin \$	3.71

Marketing Analytics Module 5 Slides

These materials are for your personal use while participating in this course.
Please do not share or distribute them.

Etch A Sketch Test Results

Retail Price	10
Retail Margin	36%
Manufacturer Selling Price	6.4
Manufacturer Contribution Margin %	58%
Manufacturer Contribution Margin \$	3.71
National Budget	5,000,000
Units Break Even	1,346,983
Base Units	3,100,000
Base Units Test Period	1,085,000

Etch A Sketch Test Results

Retail Price	10
Retail Margin	36%
Manufacturer Selling Price	6.4
Manufacturer Contribution Margin %	58%
Manufacturer Contribution Margin \$	3.71
National Budget	5,000,000
Units Break Even	1,346,983
Base Units	3,100,000
Base Units Test Period	1,085,000
Break Even Lift % of Base	224%

Marketing Analytics Module 5 Slides

These materials are for your personal use while participating in this course.
Please do not share or distribute them.

Betty Test Results

Arizona	
Color Crazy	Go Go Glam

Betty Test Results

	Arizona	
	Color Crazy	Go Go Glam
Total/Store/Week 17 Jun – 17 Jul 2007	1.8	2.2

Marketing Analytics Module 5 Slides

These materials are for your personal use while participating in this course.
Please do not share or distribute them.

Betty Test Results

	Arizona		California	
	Color Crazy	Go Go Glam	Color Crazy	Go Go Glam
Total/Store/Week 17 Jun – 17 Jul 2007	1.8	2.2	0.3	1.2

Betty Test Results

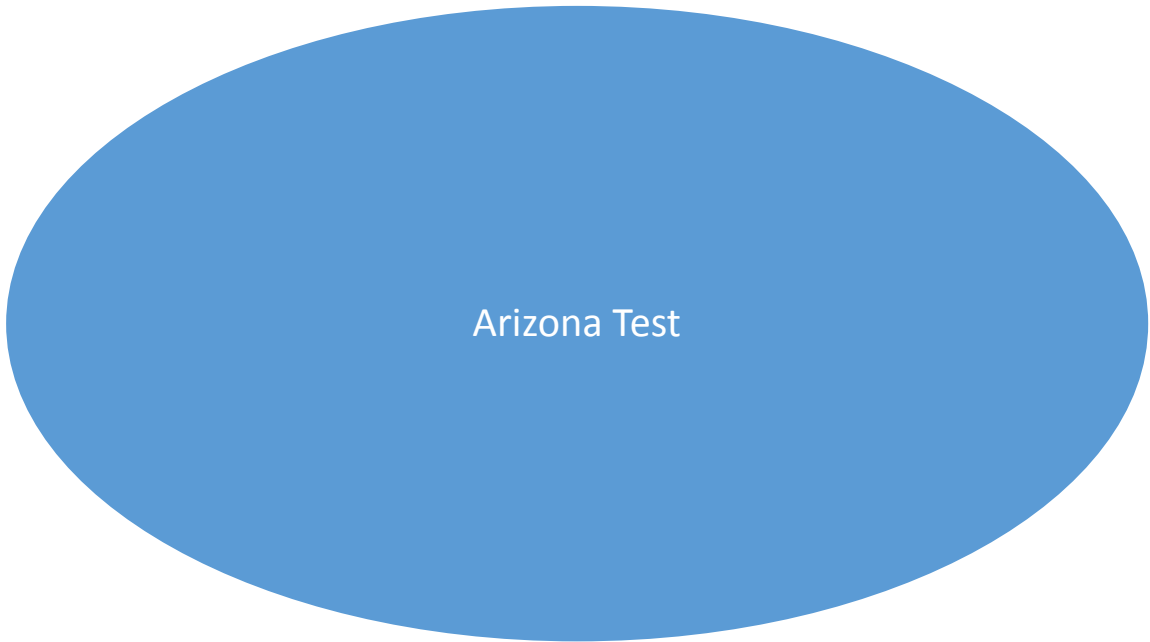
	Arizona		California	
	Color Crazy	Go Go Glam	Color Crazy	Go Go Glam
Total/Store/Week 17 Jun – 17 Jul 2007	1.8	2.2	0.3	1.2
Lift	267%			

Marketing Analytics Module 5 Slides

These materials are for your personal use while participating in this course.
Please do not share or distribute them.

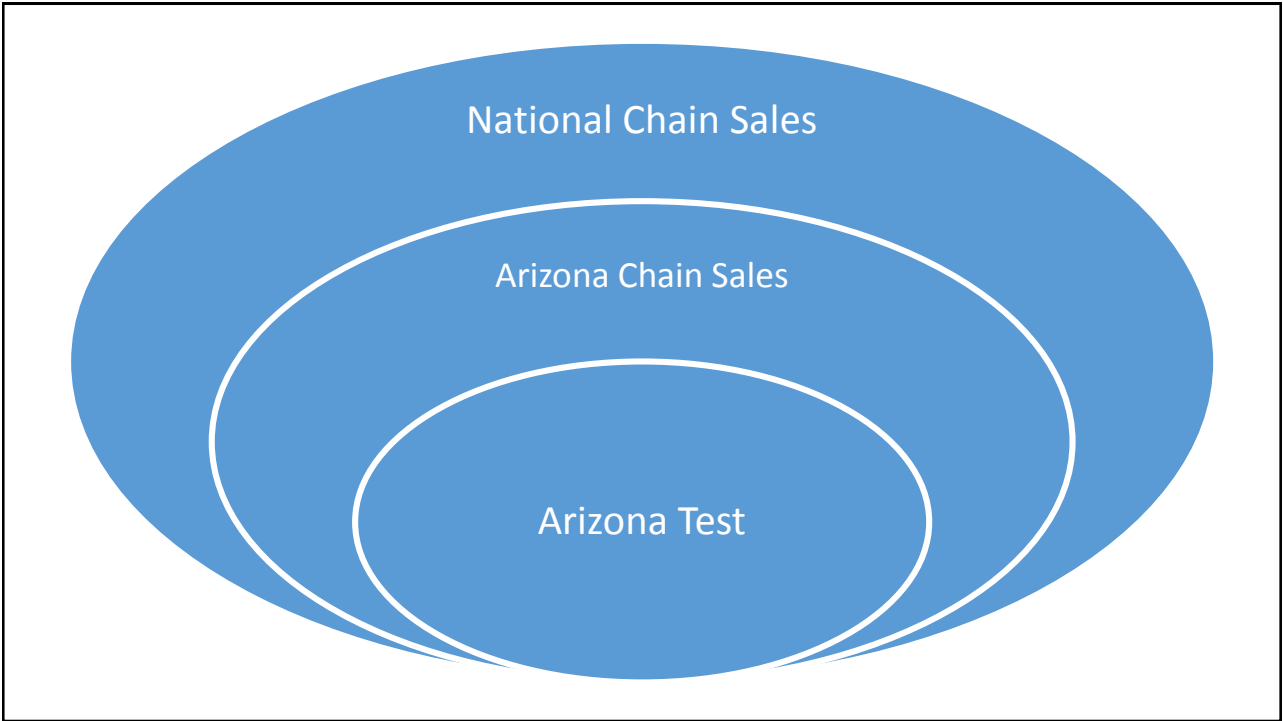
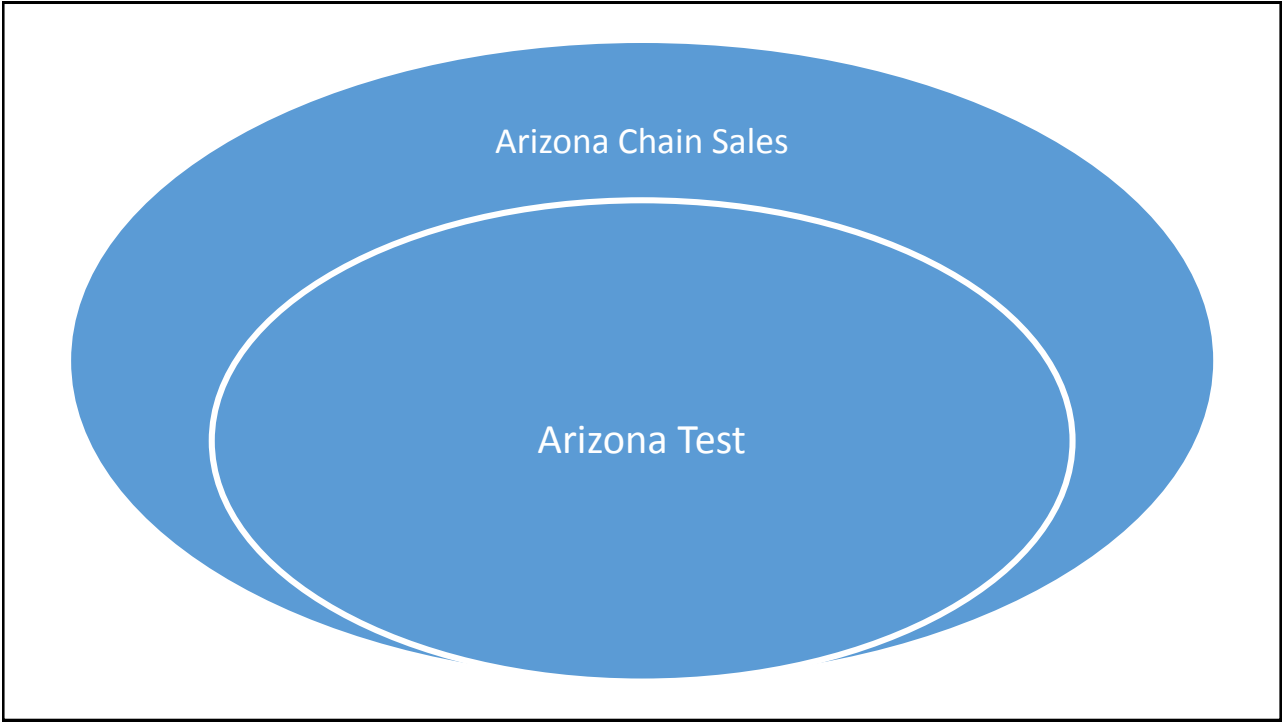
Betty Test Results

Ad Budget	3,000,000
Retail Selling Price	15
Retail Margin %	36%
Manufacturer Suggested Price	9.6
Manufacturer Contribution Margin %	58%
Manufacturer Contribution Margin \$	5.568
Break Even Units	538,793



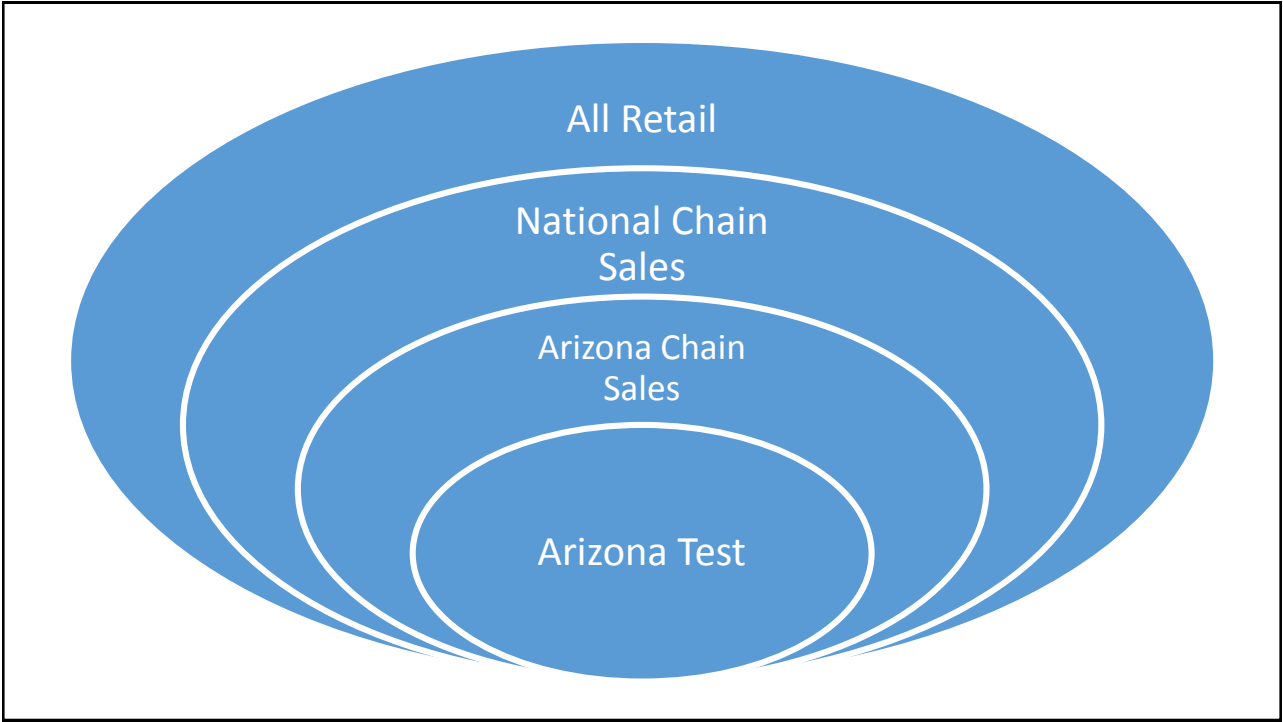
Marketing Analytics Module 5 Slides

These materials are for your personal use while participating in this course.
Please do not share or distribute them.



Marketing Analytics Module 5 Slides

These materials are for your personal use while participating in this course.
Please do not share or distribute them.



Marketing Analytics Module 5 Slides

These materials are for your personal use while participating in this course.
Please do not share or distribute them.

Betty Test Results

Betty Test Results

Ad budget	3,000,000
Retail selling price	15
Retail margin %	36%
Manufacturer selling price	9.6
Manufacturer contribution margin %	58%
Manufacturer contribution margin \$	5.568
Break even units	538,793

2008 Holiday Season

- **Betty Spaghetti was supported with a \$2M advertising campaign**

2008 Holiday Season

- **Betty Spaghetti was supported with a \$2M advertising campaign**
- **Sales not as expected**
 - Upstaged by Hannah Montana

Marketing Analytics Module 5 Slides

These materials are for your personal use while participating in this course.
Please do not share or distribute them.

The Nanoblock Amazon Goldbox Experiment – March 2012



Nanoblock Eiffel Tower (200 pcs)

by Ohio Art
★★★★★ 35 customer reviews

List Price: \$49.99
Price: \$14.72 Prime
You Save: \$5.27 (26%)

In Stock
Ships from and sold by Amazon.com.

Want it tomorrow, Dec. 4? Order within 4 hrs 28 mins and choose One-Day Shipping at checkout. Details

- Micro-sized building blocks will enable you to execute even the finest details like never before
- A 3D work of art that fits in the palm of your hand, create details with assorted sizes and colored pieces.
- Collect, build and display your works of art.
- Includes detailed color instructions.
- Not compatible with Lego blocks

55 new from \$11.18 1 used from \$12.68



Holiday Toy List Daily Deals
Starting at 7 a.m. PT every day, find Lightning Deals on the coolest toys, video games, books, music, and movies for kids. Explore the Holiday Toy List for hundreds of this year's top picks and get the right gifts in just a few clicks. See more

Nano Eiffel Tower – Amazon Goldbox Promotion

Gold Box Economics

	% Lift From Feb	Incremental Units	Incremental Revenue
Eiffel Regular	182%	249	\$4,978
Eiffel Sale		300	\$1,797
Etch A Sketch	105%		


Goldbox Promotions Provide Dividends in Search Results

Share


Related Searches: nanoblocks nanoblocks

Showing 1 - 24 of 335 Results


Sort by: Relevance




Nanoblock Space Shuttle
\$24.00 **\$17.72** off
Order in the next 6 hours and get it by Wednesday, Dec 4.
More Buying Choices
\$14.04 new (34 offers)
\$15.26 used (1 offer)
Manufacturer recommended age: 8 - 15 Years
★★★★★ (145)
Product Features
... More-sized building blocks will enable you to excelsite even the finest...
Show only Nanoblock items




Nanoblock Empire State Building
\$44.00 **\$27.36** off
Order in the next 6 hours and get it by Wednesday, Dec 4.
More Buying Choices
\$21.49 new (53 offers)
Manufacturer recommended age: 8 - 15 Years
★★★★★ (133)
Product Features
... small sized building blocks full... world nanoblock from the USA...
Show only Nanoblock items




Nanoblock Castle Neuschwanstein (550 pcs)
\$19.00 **\$14.72** off
Order in the next 6 hours and get it by Wednesday, Dec 4.
More Buying Choices
\$12.59 new (35 offers)
Manufacturer recommended age: 8 - 15 Years
★★★★★ (145)
Product Features
... More-sized building blocks will enable you to excelsite even the finest...
Show only One Art items



Nanoblock Eiffel Tower (200 pcs)
\$14.00 **\$14.72** off
Order in the next 6 hours and get it by Wednesday, Dec 4.
More Buying Choices
\$11.19 new (53 offers)
\$12.68 used (1 offer)
Manufacturer recommended age: 8 - 15 Years
★★★★★ (145)
Product Features



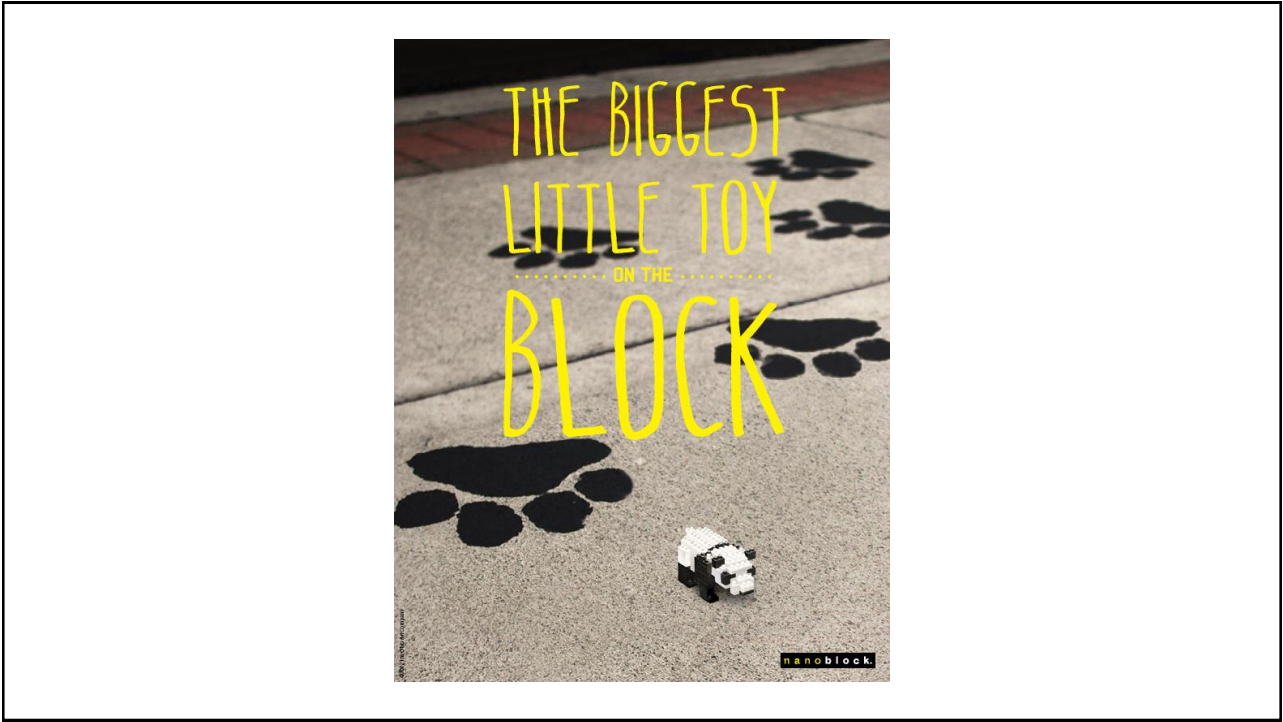
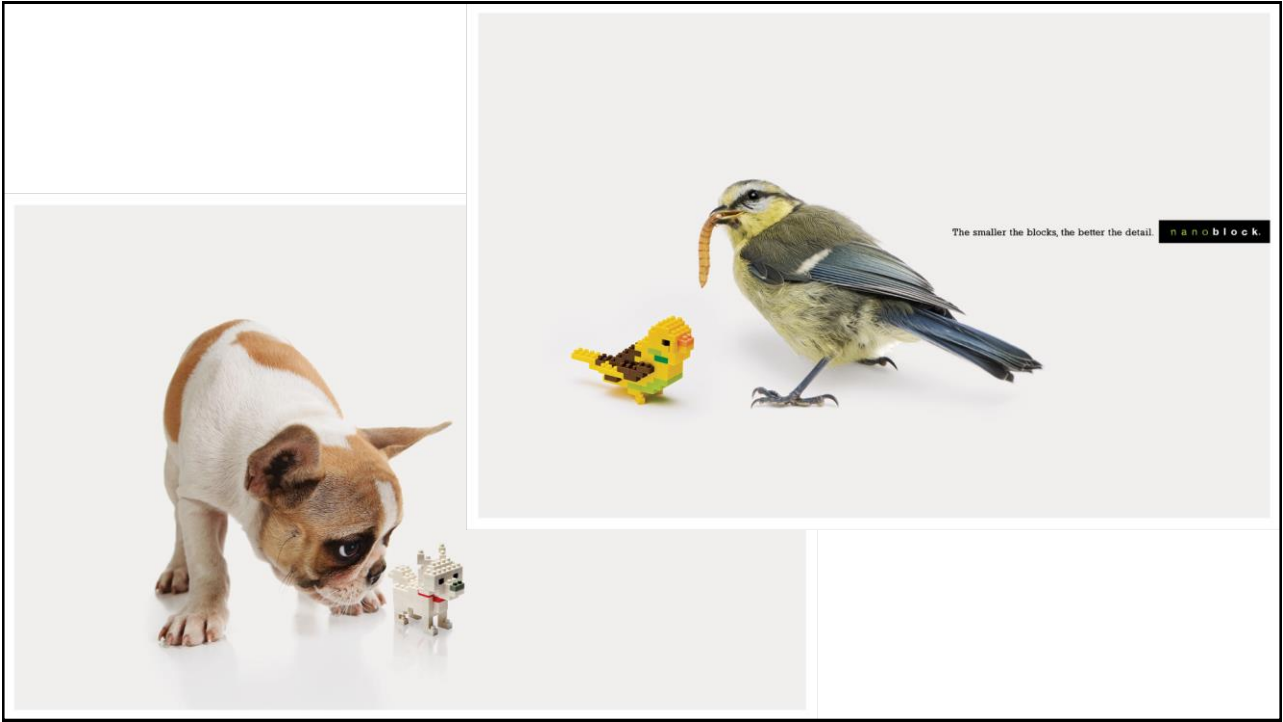
Nanoblock Statue of Liberty
\$44.00 **\$24.99** off
Order in the next 6 hours and get it by Wednesday, Dec 4.
More Buying Choices
\$20.50 new (43 offers)
Manufacturer recommended age: 8 - 15 Years
★★★★★ (133)
Product Features
... small sized building blocks full... world nanoblock from the USA...



Nanoblock Mont Saint Michel
\$24.00 **\$6.56** off
Order in the next 6 hours and get it by Wednesday, Dec 4.
More Buying Choices
\$6.98 new (35 offers)
Manufacturer recommended age: 8 - 15 Years
★★★★★ (145)
Product Features
... More-sized building blocks will enable you to excelsite even the finest...

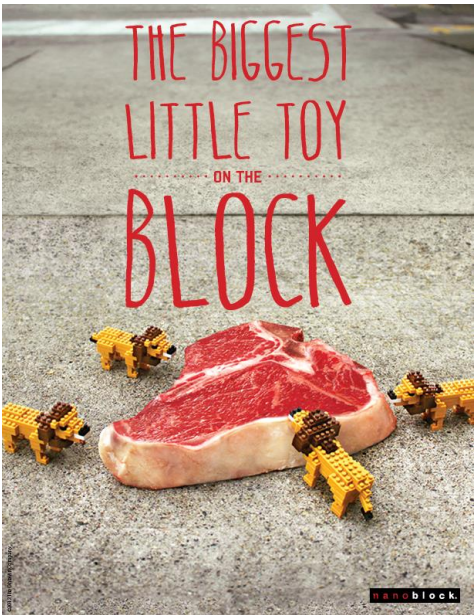
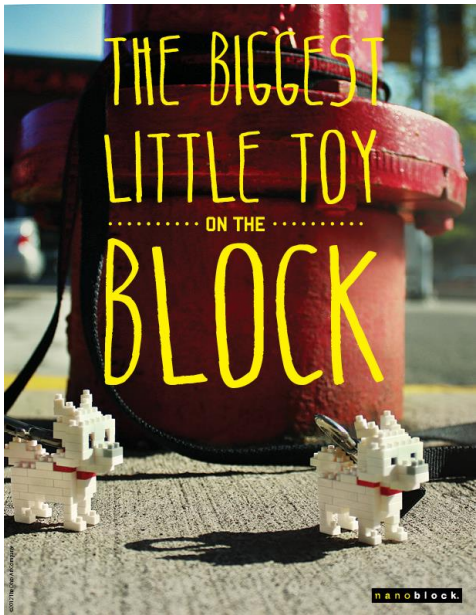
Marketing Analytics Module 5 Slides

These materials are for your personal use while participating in this course.
Please do not share or distribute them.



Marketing Analytics Module 5 Slides

These materials are for your personal use while participating in this course.
Please do not share or distribute them.



Marketing Analytics Module 5 Slides

These materials are for your personal use while participating in this course.
Please do not share or distribute them.



Conclusion

- **Experiments assess cause and effect**
- **Pay attention to:**
 - Design
 - Gap between test results and field implementation
 - Difference between test and campaign contexts
- **Web experiments are cheaper and faster**
 - Costs of experiments can be variable rather than fixed
- **Experiments provide forecasts of expected ROI**
 - This can help with determining campaign budgets