

## ADVERTISING EXPERIMENTS AT THE OHIO ART COMPANY

Headquartered in Bryan, a small northwest Ohio town, the Ohio Art Company was best known for its classic drawing toy, Etch A Sketch. In stark contrast to the faddish toys that crowded the toy market during the late 20th and early 21st centuries—as well as the increasing prevalence of toys featuring a licensed identity—the company’s flagship product had endured for more than 40 years, sold over 100 million units, and appealed to children in dozens of countries worldwide. About 25% of the firm’s revenues were derived from the sale of toys for writing and drawing. One of the oldest toymakers headquartered in the United States, Ohio Art produced about 50 toys in all, including the popular Betty Spaghetti line of dolls as well as water toys, children’s drum sets, and sports sets. The company’s slogan, “Making Creativity Fun,” emphasized its focus on arts-and-crafts-oriented toys. Although toys generated the majority of Ohio Art’s annual sales, the production and sale of custom metal lithography contributed about one-third of the company’s revenues.<sup>1</sup> **Exhibit 1** provides pictures of some of the major toys sold by the Ohio Art Company.

### Recent Performance History

In recent years, Ohio Art had experienced a bumpy ride, alternating between profits and losses throughout the 1990s and up through much of 2006. The recession of the early 1990s helped Ohio Art to a certain degree, because many of its toys retailed for less than \$20 and thus appealed to budget-conscious parents. Sales and profits peaked at \$55.6 million and \$3.4 million in 1992. Product placement of Etch A Sketch in the hit animated film *Toy Story* was a shot in the arm for Ohio Art in 1995.

Sales increased 27% in 1998, to \$45.9 million, as the company scored a hit with its newly introduced Betty Spaghetti doll. Aimed at girls ages four and up, the small doll featured interchangeable limbs, spaghetti-like hair, and a variety of accessories, such as a cell phone, a laptop computer, and in-line skates. According to company President Martin Killgallon II,

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<sup>1</sup> “The Ohio Art Company,” *International Directory of Company Histories* 59 (Farmington Hills, MI: St. James Press, 2004).

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This case was prepared by Associate Professor Rajkumar Venkatesan with the assistance of Landmark Communications Professor Paul W. Farris. It was written as a basis for class discussion rather than to illustrate effective or ineffective handling of an administrative situation. Copyright © 2007 by the University of Virginia Darden School Foundation, Charlottesville, VA. All rights reserved. To order copies, send an e-mail to [sales@ardenbusinesspublishing.com](mailto:sales@ardenbusinesspublishing.com). No part of this publication may be reproduced, stored in a retrieval system, used in a spreadsheet, or transmitted in any form or by any means—electronic, mechanical, photocopying, recording, or otherwise—without the permission of the Darden School Foundation.

quoted in the *Cleveland Plain Dealer*, “She’s funky. She’s different. She’s certainly not Barbie.” Despite Betty’s popularity, Ohio Art failed to post a profit in 1998, losing \$1.8 million, mainly because a “major retailer” abruptly canceled a \$15.2 million toy order just before the holiday season. The company was left with a large amount of excess inventory and also was unable to cancel television advertising commitments that had been made in support of the holiday line. In 1999, the company was again helped by the release of the smash-hit movie sequel *Toy Story 2*, which once again featured Etch A Sketch. Despite its appearing onscreen for only about 30 seconds, the attendant free advertising helped boost sales of the drawing toy by 20% during the 1999 holiday season. Revenues for 1999 increased 16%, and Ohio Art achieved a profit of \$356,000.

Ohio Art also managed to overcome the weak economic climate in the United States in late 2001 as well as the financial troubles at retailer Kmart Corporation. Since 2002 Ohio Art had strong sales of Etch A Sketch and other toys. 2007 offered the opportunity to reinvigorate sales of launch the classic Etch A Sketch with a new advertising campaign. An updated Betty Spaghetty line was also available for relaunch.

## Toy Stores

The toy industry was dominated by three major retailers that controlled more than 50% of the market. Wal-Mart had the highest market share, about 25%; followed by Toys“R”Us with 17%; and Target, which held 12%. Traditional specialty toy stores had a 20% market share. Online toy sales were responsible for \$1.3 billion of overall toy sales. Mass merchants used hot-selling toys as loss leaders particularly during the crucial holiday selling season. The mass merchants held substantial power in the distribution channel. The growth of mass merchants came at the cost of several specialty toy retailers, including KB Toys and FAO Schwarz. To avoid competing directly with mass merchants, retailers like FAO Schwarz sold unique items such as \$300 stuffed giraffes and customized toys. The K’s Kids product line of the Ohio Art company was designed specifically for specialty retailers. The toys in this product line were targeted toward infants and toddlers and were priced from \$6 to \$85.

## Shifting Production

Ohio Art always prided itself as being a toy maker based in the United States. But the need for lower costs (to compete effectively in the mass-merchant channel) forced the company to shift all production of its toys to China in 2001. An Etch A Sketch made in China and delivered to the company’s warehouse in Bryan was found to cost 20% to 30% less than one made it in Bryan.<sup>2</sup> In 2001, Ohio Art recorded its highest profits in nearly a decade, \$3.1 million. The gain was attributed to major restructuring efforts in the previous year that included shifting production to China.

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<sup>2</sup> Joseph Kahn, “Ruse in Toyland: Chinese Workers’ Hidden Woe,” *New York Times*, December 7, 2003.

## The Etch A Sketch Experiment

Inspired by the impact of placements in (1) the *Toy Story* franchise and (2) the television commercial for Target stores, Ohio Art ventured on a strategic initiative to pull consumer demand through a new national television advertising campaign of its flagship product, Etch A Sketch. It was decided to test the effectiveness of television advertising through a field experiment that lasted three weeks from November 27 to December 16, 2006. Weekly sales of Etch A Sketch at a major mass merchant in 2006 are provided in **Exhibit 2**. The annual unit sales of all models of Etch A Sketch through this mass merchant in 2006 was 782,519. The holiday shopping season spanning the months of November and December accounted for about 45% of the annual sales of the Etch A Sketch product line.

Television commercials for the Classic Etch A Sketch were aired during syndicated morning and evening talk shows, daytime soaps, and evening news programs in only Cincinnati during the three test weeks. Each of these television programs reached about 3.7% of the population in Cincinnati. Commercials were not aired in any other city or town in the United States. The breakdown of the total advertising spent in the three weeks is provided in **Table 1**. **Exhibit 3** presents storyboards for the two commercials that aired. The cost of developing the commercials for Etch A Sketch with an outside agency was \$75,000.

Table 1. Media spend in Cincinnati.

Dates	Total Cost	Total Rating Points	# of TV Spots
November 27–December 1	\$ 9,350	91.8	39
December 2–8	10,200	106.3	44
December 11–16	10,600	112.1	46
<b>Total</b>	<b>\$30,150</b>	<b>310.2</b>	<b>129</b>

Data source: Ohio Art Company.

Four other cities—Charleston, South Carolina, Cleveland, Ohio, Indianapolis, Indiana, and Pittsburgh, Pennsylvania—were chosen as control cities to evaluate whether the advertising of Etch A Sketch led to increased sales. The greater Cincinnati area represented about 0.7% of the U.S. population. The average population of the control cities was about 2 million, which represented about 0.6% of the U.S. population. The Excel spreadsheet that accompanies this case (UVA-M-0752X) provides the following information:

1. Weekly sales of Classic Etch A Sketch and Doodle Doug in Cincinnati and the four control cities at a major mass merchant from December 3, 2005, to March 2, 2007.<sup>3</sup> Depending on the stock-keeping unit (SKU) and the month, the market share of the mass merchant that participated in this experiment ranged from 15% to 30%.
2. Detailed media plan for Cincinnati.

<sup>3</sup> Unit sales figures are not provided in some weeks because Etch A Sketch was not carried by the mass merchant in these weeks due to disagreements over price points.

The suggested retail price for Classic Etch A Sketch was \$12.99. The Travel, Pocket, and Mini Etch A Sketch versions were less expensive at \$8.99, \$4.99, and \$2.99, respectively. The suggested retail price for Doodle Doug was \$9.99. The average gross margin for Ohio Art for the Etch A Sketch products was 58%, and the average retail margin was 36%.

### **The Betty Spaghetti Experiment**

In mid-2007, management decided to conduct another field experiment for the Betty Spaghetti product line. The experiment had the dual objective of testing whether advertising could increase sales (and the profits) obtained for the redesigned Betty Spaghetti and also convincing the merchandise manager at a mass-merchant chain that sales of Betty Spaghetti justified their shelf space. For the Betty Spaghetti experiment, television and radio commercials were aired in Arizona for four weeks from June 17, 2007, to July 14, 2007. Two products, the Betty Spaghetti Color Crazy and the Betty Spaghetti Go Go Glam, were the focus of this experiment. The company purchased 600 gross rating points (GRPs) for the television advertisements for a total cost of \$31,500. The test television commercial was aimed at girls between ages 2 and 11, and was aired on cable channels such as Nickelodeon and the Cartoon Network in Arizona. Management purchased 64 GPRs for the radio commercials at a total cost of \$8,022. The radio commercials were aired during the morning and evening commutes. Each of the television and radio programs selected for the commercials reached about 1.8% of the population in Phoenix. The cost of developing the commercial through an outside agency was \$150,000. The case dataset contains the following information regarding the Betty Spaghetti experiment:

1. Weekly sales data from 23 stores of a mass merchant in Arizona and 24 stores of the same mass merchant in California (the control group), for two products: the Betty Spaghetti Color Crazy and the Betty Spaghetti Go Go Glam. The 23 stores represented 50% of the total stores in Arizona, and 24 stores represented about 10% of the total stores of this mass merchandiser in California.
2. Year-to-date sales until July 2007 from the mass merchant for Betty Spaghetti Color Crazy and the Betty Spaghetti Go Go Glam in Arizona and California.

Depending on the stock-keeping unit (SKU) and the month, the market share of the mass merchant that participated in the Betty Spaghetti experiment had a national market share that ranged from 10% to 15%. California and Arizona represented about 12% and 2% respectively of the U.S. population. The retail prices of Betty Spaghetti at various major retailers are provided in **Table 2**. Each price point for Betty Spaghetti represented a different SKU. Some SKUs came as a pack of two dolls while others had more options such as different hair styles for the Betty Spaghetti doll. The retail margin for the Betty Spaghetti products was 36% on average, and Ohio Art obtained a gross margin of 56%.

Table 2. Betty Spaghetti retail prices.

Retailer	Styling Heads \$5.99	Go Go Glam \$9.99	Themes \$12.99	Themes Plus \$16.99	Color Crazy \$19.99
Wal-Mart	X	X			
Target		X			X
Toys“R”Us				X	X
Kmart			X		X
KB Toys	X		X	X	X
Walgreens		X			

Data source: Ohio Art Company.

## Decisions

Management at the Ohio Art Company was eager to evaluate the results from the two field experiments. They wondered how some of the differences in the experiments should affect the eventual decisions. First on their mind was the highly seasonal nature of toy sales. The Etch A Sketch experiment was conducted in December—peak season. This was a source of intense debate within Ohio Art. Some alternatives that were considered for measuring the economic worth of advertising Etch A Sketch included:

- Directly evaluating the difference between November 2006 and December 2006 Etch A Sketch sales in Cincinnati
- Comparing Etch A Sketch sales in Cincinnati during December 2006 to the corresponding sales in the other four control cities
- Adjusting for seasonality in December 2006 sales using the December 2005 Etch A Sketch sales before performing any analysis
- Adjusting for seasonality in December 2006 Etch A Sketch sales using sales of Doodle Doug in all the cities, including Cincinnati and the four control cities before performing any analysis

Management wondered how conducting the Betty Spaghetti experiment in June, a slower month, affected their advertising decisions. While historic information on Etch A Sketch sales was available, sales information on Betty Spaghetti was only available for the time periods the experiment was conducted. The media plans were also different. The Etch A Sketch commercials were aired during television programs most likely to be watched by adults, whereas the Betty Spaghetti commercials clearly targeted children.

The experiments represented a strategic shift in the marketing of Ohio Art products. The results from these experiments would determine whether Ohio Art moved aggressively to build consumer demand through advertising. A GRP on national cable TV was expected to cost \$3,473 for the Betty Spaghetti campaign. Nationally syndicated TV was planned for the Etch A Sketch

campaign, which was expected to cost \$2,499 per GRP. The cost of advertising during the last quarter of a year that included the holiday season was expected to be at least 15% higher than the rest of the year. About \$2 million each was allocated for the Etch A Sketch and Betty Spaghetti national advertising campaigns that were planned for two months during the 2008 holiday season. Management was interested in evaluating whether the lift in sales observed in the two experiments would justify their respective national advertising budgets. See **Appendix 1** for a side-by-side comparison of the two experiments.

Exhibit 1

**ADVERTISING EXPERIMENTS AT THE OHIO ART COMPANY**

A Selection of the Ohio Art Company's Toys

**Etch A Sketch**



**Suggested Retail Prices:**  
Classic: \$12.99, Mini \$2.99,  
Pocket \$4.99, Travel: \$8.99

**Dora the Explorer**



**Suggested Retail Price:**  
\$14.99

**SpongeBob Square Pants**



**Suggested Retail Price:**  
\$14.99

**THE ORIGINAL  
MagnaDoodle**



**Suggested Retail Prices:**  
\$5.99–\$14.99

**Doodle Doug**



**Suggested Retail Price:**  
\$9.99



**Betty Spaghetti**

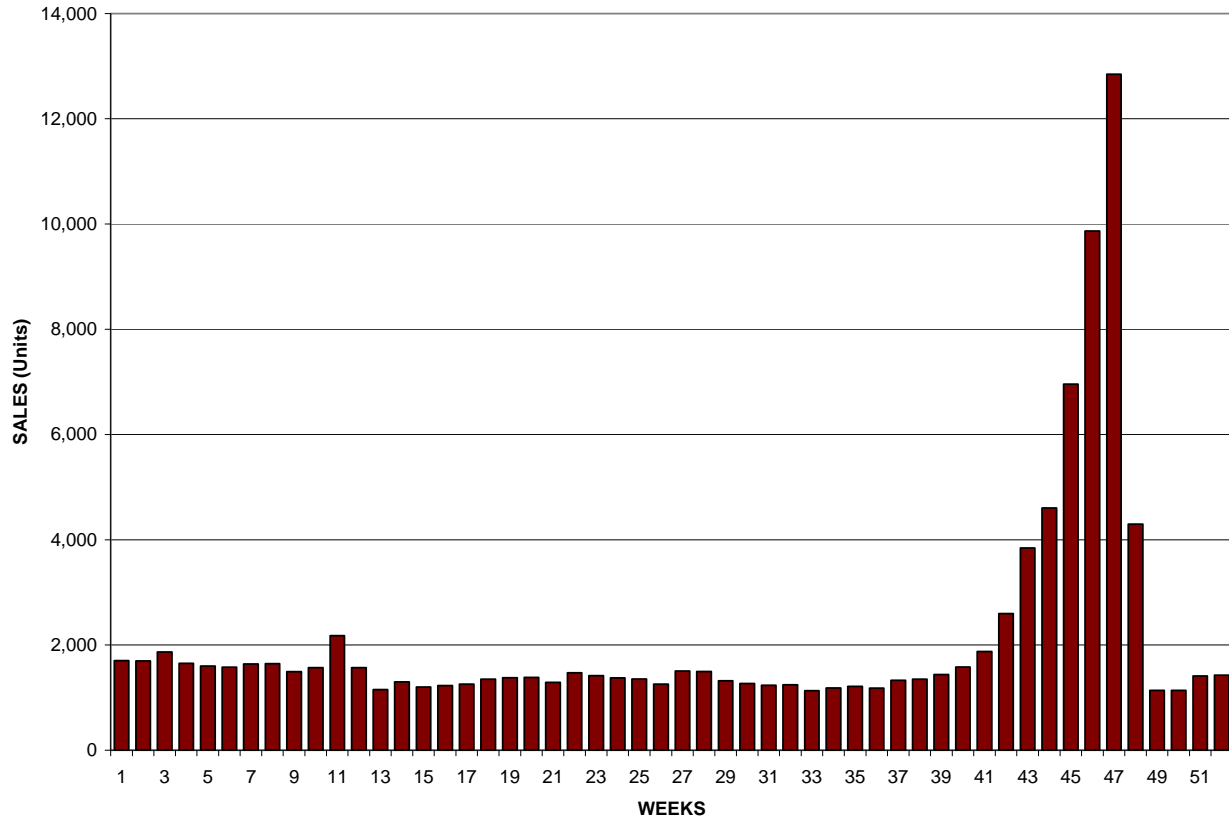
**Suggested Retail Prices:**  
\$5.99–\$19.99

Source: Ohio Art Company. Used with permission.

Exhibit 2

**ADVERTISING EXPERIMENTS AT THE OHIO ART COMPANY**

Weekly Sales of Etch A Sketch



Source: Ohio Art Company. Used with permission.



Exhibit 2

**ADVERTISING EXPERIMENTS AT THE OHIO ART COMPANY**

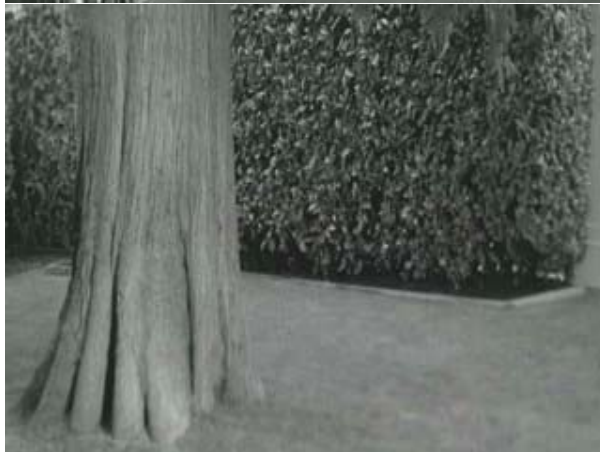
Storyboard for Boy Book Rain



Source: Ohio Art Company. Used with permission.

Exhibit 3 (continued)

Storyboard for Library Tree Plate



Source: Ohio Art Company. Used with permission.

Exhibit 3 (continued)

Storyboard for Betty Spaghetti



Source: Ohio Art Company. Used with permission.

## Appendix 1

**ADVERTISING EXPERIMENTS AT THE OHIO ART COMPANY**

## Summary of the Advertising Experiments

	<b>Etch A Sketch</b>	<b>Betty Spaghetti</b>
Time period	November 27–December 16, 2006	June 17–July 14, 2007
Test	Cincinnati	Phoenix
Control	Charleston, Cleveland, Indianapolis, Pittsburgh	California
Media spend	\$30,150	\$39,522
Cost of developing media	\$75,000	\$150,000
Media plan	Not available	Not available
Number of commercials	Two	One
Number of GRPs	310	664
Sales data	Weekly sales data for Etch A Sketch and Doodle Doug from December 3, 2005 to March 2, 2007	Weekly sales data during the experiment time period from 23 stores in Phoenix and 24 stores in California

Data source: Ohio Art Company.