

# Managing Multichannel Communications: A Field Experimental Study of Emails and Catalogs

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# Research Question

- How does multichannel marketing affect consumer demand?
- Do different channels substitute or complement each other?

# Difference between Emails and Catalogs

- Catalogs:
  - Costly (roughly \$1)
  - Containing detailed product information
  - Reaching selected customers
- Emails:
  - Cost efficient (almost zero)
  - Instantaneous
  - Referring customers to website

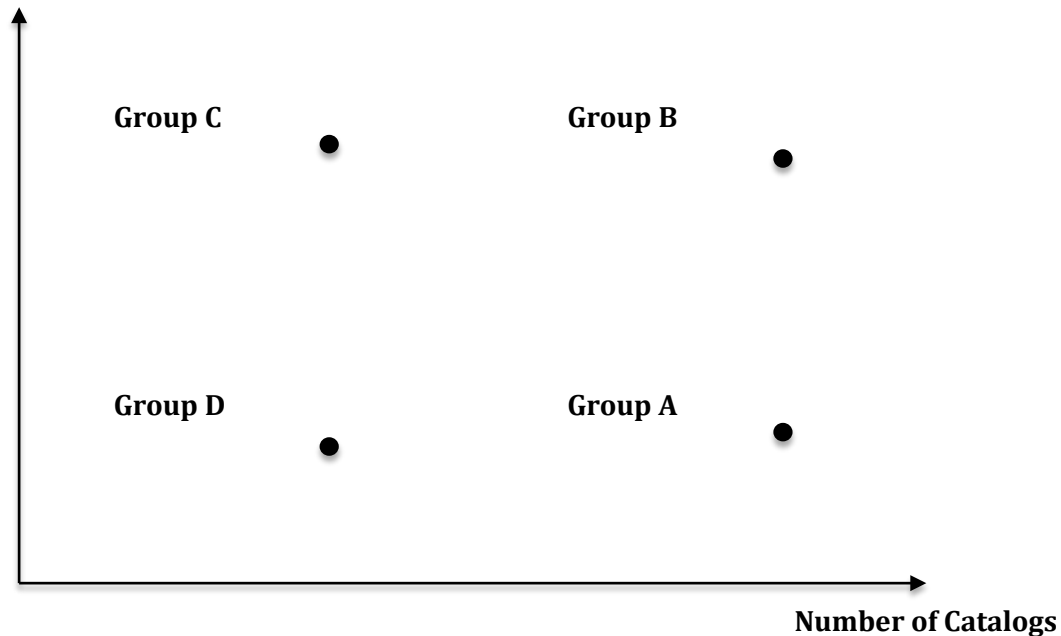
# Field Experiment

- Medium-sized retailer of women's clothing
  - Catalog (telephone and mail)
  - Internet
- Test was conducted over an eighteen-week period from July 16, 2006 to November 18, 2006

# Research Design

- 10,000 active customers
- Randomly assign them to four equal-sized groups

Number of Emails

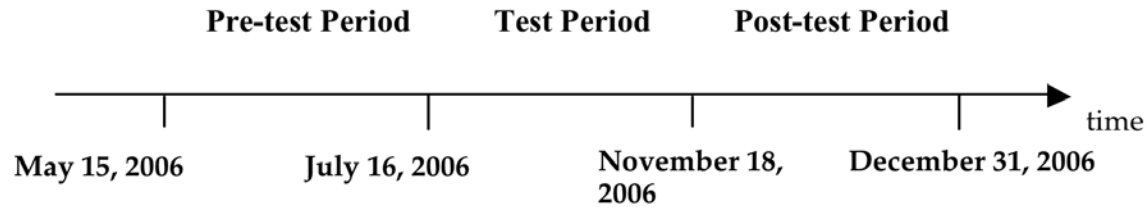


# Research Design

- Group D: 5 catalogs and 18 emails
- Group A: 3 additional catalogs
- Group C: 18 additional emails
- Group B: 3 additional catalogs and 18 additional emails

# Research Design

- Timeline:



# Confirm Random Assignment (pre-test)

	<b>Recency</b>	<b>Frequency</b>	<b>Monetary Value</b>
Group A	437.507 (366.274)	5.504 (8.381)	23.276 (13.531)
Group B	434.657 (368.383)	5.385 (7.879)	23.098 (13.823)
Group C	439.225 (367.744)	5.507 (8.328)	23.254 (13.486)
Group D	436.648 (367.683)	5.390 (7.797)	23.061 (13.996)



# Effect of Additional Catalogs and Emails

	Number of Items	Dollar Amount	Profit	Sample Size
Group A	0.402 (0.012)	11.077 (0.331)	6.272 (0.192)	24,875
Group B	0.444 (0.023)	11.694 (0.397)	6.477 (0.196)	24,893
Group C	0.402 (0.012)	10.804 (0.345)	6.025 (0.200)	24,899
Group D	0.365 (0.011)	9.733 (0.287)	5.453 (0.165)	24,879

- Effect of additional emails is moderated by the number of catalogs that customers are already exposed to

# Demand from Each Channel

	Number of Items Ordered from Internet	Number of Items Ordered from Catalogs
Group A	0.313 (0.010)	0.089 (0.005)
Group B	0.347 (0.011)	0.097 (0.017)
Group C	0.318 (0.010)	0.084 (0.005)
Group D	0.289 (0.010)	0.076 (0.004)

*Note: Red arrows and a red oval highlight the Internet demand values for Groups A, B, and C, and the Catalog demand values for Groups A and B.*

- Additional emails increase Internet demand, but not catalog demand
- Additional catalogs increase both Internet and catalog demand

# Confirming Our Findings through Advanced Statistical Analyses

- We estimate a Negative Binomial Model:

$$f(y_i | X_i, \mu_i) = \frac{e^{-\lambda_i \mu_i} (\lambda_i \mu_i)^{y_i}}{y_i!}$$

$$\log \lambda_i = \beta_1 \log(\text{Recency}_i) + \beta_2 \log(\text{Frequency}_i) \\ + \beta_3 \log(\text{MonetaryValue}_i) + \alpha D_i$$

- We find similar results

# Conclusions

- Multichannel communications via emails and catalogs impact customer demand
  - Increase overall demand
  - Effect different for emails versus catalogs
- Customer purchasing history also impacts demand