ENERGY SAVINGS AND BEYOND

Measuring the Success of Marketing, Education, and Outreach Efforts

Tami Buhr
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Marketing Isn’t New

- Been around as long as there have been goods and services
  - Key development was the separation of production and consumption of goods and services
- Undergone dramatic change in the 20th century that has accelerated in the past 25 years
History of Mass Marketing

- **1704**: First American newspaper ad
- **1830s**: Posters became commonplace
- **1867**: First TV ad
- **1873**: First billboard
- **1922**: First radio ad
- **1941**: Internet reaches 5 million users
- **1970s**: Telemarketing
- **1999**: Internet ads reach $2 billion
- **2000s**: Social Media
- **2002**: Friendster
- **2003**: MySpace
- **2004**: Facebook
- **2006**: Twitter
Early “Green” Marketing

- “Keep America Beautiful” campaign.
- Targeted pollution and littering
- Begun in 1953.
- Lassie was an original mascot for the campaign.
- The more memorable ad was the “Crying Indian” ad.
- First TV ad aired on Earth Day 1971
The Crying Indian/Italian American Campaign
Selling Energy Efficiency – Traditional Programs

- Marketing in traditional demand side management programs is underappreciated
- Programs contain both marketing and financial incentives
  - Incentives are assumed to be the prime driver of program energy savings
- Would be extremely challenging to disentangle effects of the program’s marketing and education efforts from financial incentives
Selling Energy Efficiency – Branding

- Energy efficiency program administrators (PAs) are launching branding efforts
- Objective is to engage and educate customers
- Ultimately causing them to take actions that save energy
- These brands promote more than energy efficiency. They promote energy management as a lifestyle.
The Challenge of Selling Energy Management

It’s Complicated
Selling a Complicated Concept

- Really selling “energy management” and not simply “energy efficiency”
  - Singular one-time actions versus a lifestyle
  - Specific versus general attitudes
- Other social marketing campaigns have a more straight forward “ask” and more defined metrics
  - Don’t litter
  - Stop smoking
Complicated Information Environment

- Crowded media space with competing messages in which...
- ...narrowcasting has replaced broadcasting and...
- ...energy efficiency is politicized.
Establishing a Causal Linkage between Campaign and Metrics is Not a Simple Task

- Typical methods for estimating impact of an ad campaign are not very rigorous
- Are less appropriate when are not selling a particular product but a lifestyle
  - What is the dependent variable if it isn’t sales of a product?
  - Brand awareness? Attitude change?
- Changes in technology and consumer behavior have reduced the usefulness of traditional marketing effects methods
A Further Complication

Agreement on Metrics
How Do We Measure ME&O Success?

Awareness/Knowledge
- I am aware of the connection between energy consumption and climate change.

Concern
- I am concerned about the effects of climate change.

Personal Responsibility
- I believe the science behind climate change.

Intention
- I believe that I am responsible for helping to prevent climate change.

Behavior Change
- I can reduce my energy consumption and I intend to do so.

Maintenance
- Adoption of energy saving habits & purchases
- I notice a reduction in my energy use, so I continue energy saving habits.
Is Awareness Enough?

- ENERGY STAR® has built tremendous awareness

Source: CEE ENERGY STAR Awareness Surveys
Wouldn’t We Rather Have a Measure of Behavior Change?

Sales of ENERGY STAR® Appliances Compared to Awareness

Opinion Dynamics  Source: EPA ENERGY STAR Market Penetration Data and CEE ENERGY STAR Awareness Surveys
Awareness of Energy Efficiency Brands Across the Country

- ENERGY Star (92-13): 87%
- Flex Your Power CA (01-07): 50%
- MassSave (1980s-13): 43%
- Energize Connecticut (12-13): 23%
- Energy Upgrade CA (10-12): 17%
Stakeholder Agreement on Success Metrics and Definitions of Success

- Energy savings is the standard metric
- How do you sustain a program or campaign if you can’t quantify savings?
- How do you build and maintain stakeholder support for such a campaign?
Solutions

Implementation
Develop a Program Theory Logic Model

- A visual tool to systematically define program objectives and how they will be achieved through program activities.
- A PTLM...
  - Provides a more defined causal connection linking ME&O to outcomes.
  - Helps to gain stakeholder agreement on the metrics that will be used to assess whether the campaign has met its objectives.
  - Helps ensure that the data needed for evaluation are collected.
PTLM for an ME&O Campaign

Marketing, Education, and Outreach Logic Model

Activities

- Create Messaging to Help Consumers Learn About Available Programs and their Benefits, as well as the concepts of EM, DR, and DG.
- Create Messaging Encouraging Use of Tools & Resources
- Create Complementary Messaging for Partners

Outputs

- Messages Developed & Implemented & Coordinated with Utility Programs & Partners
- Media Channels Purchased & Earned; Social Media Campaign Implemented

Intermediate Outcomes

- Consumers Understand Benefits of Utility Programs & Know How to Participate
- Consumers Understand Energy Use
- Consumers Aware of Brand, Understand Energy Management Concepts, Products & Services & Connect Them to Brand
- Consumers Understand specific actions they can take outside of programs, especially no- and low-cost actions
- Consumers Use Resources & Tools (Use Website & its Tools)
- Consumers Understand Specific Actions They Can Take Outside Programs, Esp No- & Low-Cost Actions

Long-Term Outcomes

- Increased Utility Program Participation Including Demand Response
- Increased Installation of Distributed Generation
- Increased Energy Efficiency Actions Taken Including Moving Usage Off Peak As Needed

Contribution to Long-Term Run Savings

Opinion Dynamics

BECC 2014
Use PTLM to Distinguish between Outputs and Outcomes
Use PTLM to Demonstrate Progression from Short-Term to Long-Term Outcomes

- Campaigns take time to change behavior
  - Other short and intermediate metrics are valid indicators of performance
Solutions Evaluation
Plan and Utilize Research to Measure Campaign Performance: Traditional Methods

- Pre-Post Campaign Surveys
  - Timing and target of survey is important

- Rolling Cross-sectional surveys
  - Can more closely track audience response to campaign and timing of response
  - Requires big samples

- Panel Surveys
  - Repeated interviews with the same individuals
  - Concern over panel effects

- Direct Response Tracking
  - Response to direct mail or email campaigns
  - More appropriate for EE program advertising
Plan and Utilize Research to Measure Campaign Performance: Traditional Methods

- Marketing Mix Modeling
  - Determine relative impact of different marketing techniques through statistical modelling
  - Typically uses product sales as the indicator of impact
  - Could use survey data on short-term metrics such as awareness or self-reported behavior change but issues of establishing causality

- Digital Media Measures
  - Web visits, length of visit, searches, paid displays, click through rates, Facebook “Likes”
Plan and Utilize Research to Measure Campaign Performance: New Methods

- Passive Media Measurement
  - Self-reports of ad exposure suffer from recall error
  - Apps measures exposure to audio messaging

- Cross Media Measurement
  - Can link ad exposure to subsequent on-line behavior
  - See an ad for a product, search for the product on-line, read different product reviews, watch a YouTube video of different products, eventually purchase the product from an on-line retailer
  - Alternatively, can examine what panel member was doing on-line or hearing before searched for EE product or topic. What triggered that search?

- Social Media
  - Analyze volume and tone of social media communications
Summary: Energy Management ME&O Paradigm Shift

Utility Programs → Umbrella Brand
Widgets → Lifestyle
Financial Incentives → Other Interventions
Energy Savings → Variety of Metrics
Tami Buhr
Vice President
Opinion Dynamics

tbuhr@opiniondynamics.com
617-301-4654