INFLUENCING CONSUMER BEHAVIOR - BEYOND “EFFICIENCY”

Exploring the Roles of Attitudes, NEBs, and Social Marketing Approaches

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BACKGROUND – TRADITIONAL TO ENHANCED METHODS

- Programs designed toward energy – including outreach / education (exception – low income). Behavior / purchase influence
  - Step beyond ➔ Research on the “human” side

- 3 areas of research provide motivation insights beyond efficiency and savings
  - Community Based Social Marketing (CBSM)
  - Self-efficacy
  - Non-energy benefits (NEBs)
### BRIEFS ON OTHER WORK

<table>
<thead>
<tr>
<th><strong>Elements</strong></th>
<th><strong>Effects</strong></th>
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<tbody>
<tr>
<td>Energy</td>
<td>0-12% savings; most 4-7%. Higher (13-15%) from feedback; increase in satisfaction</td>
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<td>Influencing factors; limited work on outreach methods; small sample issue.</td>
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<td>Advert.</td>
<td>Intent &amp; recall but little quantitative work on purchase or behavior change</td>
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<td>Focus, survey methods; Success at “decision point” / intention. Track quality of copy, “hits”. Control/test.</td>
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<td>Recycl.</td>
<td>2-12% diversion; 0-50% target material, other effects (HHW)</td>
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<td>Pre/post, seldom control; CBSM non-quantitative; primitive analyses</td>
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*Source (SERA 2000)*

→ **Limited sample size; data / market complexities; Attribution; Little analysis of retention**
COMMUNITY BASED SOCIAL MARKETING (CBSM)

 Traditional education / outreach / advertising to move residents from:
- Unaware ➔ aware ➔ consider ➔ intent ➔ purchase/modify behavior
- Led to focus on awareness-product basis

 CBSM approach / focus – incorporate culture, interactions, feelings to encourage behavioral change
- Address barriers to change
- Personal approach
- Pledges and honor commitments
- Limited quantitative
COMMUNITY BASED SOCIAL MARKETING (CBSM)

- Recommends 5 elements:
  - Commitments to behavioral change
  - Prompts
  - Norms
  - Incentives
  - Communication

- Argues greater...
  - Participation and behavior change
  - Unconverted
  - Retention

- Impacts
  - CFLs in South Africa
    - 100% increases each of 5 years
  - Door to door about education about upcoming program changes – forum for public feedback
    - Pre-post showed 10% increase in savings
  - Interventions in other fields / consider approach
    - Pledges (paint)
    - Personal (grocery)
    - Outreach tailoring
SELF-EFFICACY

- Traditional “unaware to purchase” on product basis...
  - Consider attitudes as underlying factor to reach “next level” of potential participants – beyond traditional demographic stratification

- Self-efficacy: participant has ability, skill, knowledge, experience to contribute to change / empowerment

- Scaled attitudes – specialized statistical analysis method:
  - What I do makes a difference; future, etc.
**SELF-EFFICACY RESULTS**

- **SMUD Green Energy Focus Groups**
  - Reaction to LFG as green energy, WTP premium
  - WTP \( \Rightarrow \) If I don’t, who will; important 1\(^{st}\) step
  - Control \( \Rightarrow \) why if everyone else doesn’t; should be same for everyone

- **TVA Renewables**
  - Early sign-ups 90%+ agreed/strongly “my actions can make a difference”; 57% disagreed with “only a difference if others do it too”

- **Wisconsin FOE upcoming renewables**
  - Pre/post showed awareness increased 46-55%
  - Self-efficacy motivated seeking more info to learn about renewables
SELF-EFFICACY RESULTS

- Utah (SERA)
  - 11% higher conservation for: “each responsible”, conservation “easy, common sense to reduce resource use”

- ASE Green Campus Program (SERA)
  - Intern-delivered program
  - 9 attitudinal statements; causal models
  - Strongest behavior change/influence from “make a difference in future”, “each responsible”, “using resources too quickly” – BEYOND quality of information, “exposures”
SELF-EFFICACY RESULTS

- Photovoltaics and Energy Star programs – 3 groups (SERA)
  - ESTAR appliance purchasers
  - Renewables participants
  - Non-participants
    - Scaled on 9 attitudinal statements

- PV: “make a difference”, “impact on future”, “using energy too fast”

- ESTAR: “control costs”, “reduce energy in home”
  - However, also “don’t think I can do much” also purchased – already purchased and done?
SELF-EFFICACY EXAMPLES

- Results / graphics / examples from several SERA projects:
  - ASE Green Campus program
  - Photovoltaics program
  - Energy Star appliance program
SELF EFFICACY RESULTS

☐ More likely to purchase EE
  ■ Those who feel what they do makes a difference regardless of what others do
  ■ Those who believe the amount of energy they use has impact on future generations
  ■ Those who feel we are using energy too fast

☐ ➔ Consider advertising local actions to encourage feelings of empowerment to move toward converted – especially for “cutting edge”

(Source: SERA 2004)
NON-ENERGY BENEFITS

- What are NEBs?
  - Net, attributable, omitted, hard to measure; 3 perspectives
  - Participant NEBs represent “bundle of features”
  - Negative → Barriers

- Motivating consumers... what do they value?
  - SERA research shows NEB results vary by program, region, measures, household characteristics; based on research on >50 programs, residential, comm’l, other
NEB EXAMPLES

- Results / graphics / examples from several SERA projects:
  - Total values of NEBs compared to energy savings
  - Energy Star™ appliance program results – leading NEB categories
  - Real time pricing program
  - Low income weatherization program
MOTIVATING CONSUMERS

- Multiple actors
  - Motivating the “specifiers”, market actors, decision-makers...
    - Differences?
    - Positive / negative?
    - Implications
NEB EXAMPLES

- Results / graphics / examples from several SERA projects:
  - Home Performance with Energy Star™ and Energy Star™ Homes – multiple actors
  - High Performance design program – multiple actors
NEBS RESULTS

☐ Differences in NEBs ➔ “Disconnects” to be addressed (real vs. perceived)

☐ Negative NEBs ➔ barriers to be addressed; value of intervention (real vs. perceived)

☐ ➔ NEBs imply - Sell on features people want to buy – Tide™

■ EE are “already converted” (and not always sure of savings!)

■ Use to craft outreach & program modifications

■ Valuable applications well beyond outreach (C/B, targeting, design...)

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CONCLUSIONS & IMPLICATIONS

☐ Theory and results indicate influences beyond demographics and traditional factors...
  - integrate elements, expand toolkit, message!

☐ CBSM
  - Personal link increases impacts and possibly retention – add to toolkit

☐ Self-efficacy
  - Strong relation with EE purchase and participation
  - Necessary but not sufficient / add nod to financial benefits
CONCLUSIONS & IMPLICATIONS

☐ To change behavior - Emphasize links
  ■ Persuading that individuals can make a difference may help, perhaps by linking local/small behavior to environmental changes
  ■ Education efforts toward conservation may consider attitudes and effects to move beyond converted...

☐ NEBs powerful, useful (inexpensive)
  ■ Market / design to emphasize program effects (NEBS) that participants value
  ■ EE may not “sell” best, and don’t have to sell on benefits “we” care about... and easier to “sell” in many cases...!  SELL ON FEATURES THEY VALUE!
  ■ Also relevant applications in regulatory “tests”
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