Know Before You Go: How Up-Front Investment in Market Research and Segmentation Can Improve Outcomes in Small Business Direct Install Programs

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ABSTRACT

Small Business Direct Install (SBDI) programs offer potential savings in energy efficiency portfolios, yet small businesses are often described as “hard to reach.” Is this because we’ve made them hard to reach? From the utility perspective, “small business” is a rate class; however, shared rate class does not equal shared market segment. True market research–driven customer segmentation can take the guesswork out of marketing efforts and has the potential to deliver more cost-effective SBDI programs. This paper demonstrates how proactive investment in market segmentation has given program managers more control over newly launched programs, while helping to revitalize mature and lagging programs. The paper presents a review of program examples that have successfully leveraged segmentation to reach challenging program goals. Different segmentation approaches are explored, detailing the advantages of each and examining which techniques have proven to be the best fit for small businesses, with suggestions for a more advanced approach. The research presented here validates the use of sophisticated targeting approaches to create more informed go-to-market strategies, allowing implementers to approach customers in a logical, planned manner, with the appropriate marketing outreach and materials.

Introduction

According to the U.S. Energy Information Administration (EIA 2012), small businesses spend more than $60 billion a year on energy, and it is estimated they can strategically cut utility costs 10 to 30 percent without sacrifice (ENERGY STAR 2014). While many program models have been developed to target these customers, the small business direct install (SBDI) model provides a low-cost, low-hassle way to deliver energy savings in this rate class.

SBDI programs have typically employed “buckshot” marketing tactics (e.g., billboard advertising, mass mailings, door-to-door cold calling, mass media, etc.) to reach this rate class. This can be effective in newly launched SBDI programs, because there is often ample untapped potential, but it is not sufficient for long-term use, as the market becomes saturated and the pool of remaining eligible participants dwindles. For example, three years into a SBDI program developed by the Ontario Power Authority, 40 percent of eligible accounts had already participated in the program and 65 percent of contractors reported it was becoming much more difficult to identify and retrofit small businesses, while still generating a profit, as early as program year two (Fisher, Moran and Gogte 2013).

Not only does the effectiveness of “buckshot” marketing tactics wane over time, they are also difficult to track, which means it is difficult to gauge their effectiveness. In the Ontario Power Authority SBDI program, for example, “there is a lack of detailed tracking in canvassing and marketing results. We’re not sure if refusals are tracked, or how (Fisher, Moran and Gogte 2013).” “Buckshot” tactics have typically been used because the small business rate class is
diverse and broad, with energy efficiency programs based on an engineering economics framework that doesn’t provide clear marketing pathways for program implementation (Moss and Cubed 2008).

As SBDI energy efficiency programs face increasing goals and static budgets, these “buckshot” tactics should be reconsidered. Programs can efficiently reach eligible customers by focusing their efforts on those most likely to engage. Furthermore, they can employ only those tactics most likely to resonate within defined market segments. According to a report prepared by the California Institute for Energy and Environment (CIEE), “In depth application of market segmentation has only recently emerged within the utility sector as a way to implement demand-side management programs among residential and non-residential ratepayers. Greater use of this marketing approach could help the state achieve its ambitious energy efficiency and conservation goals (Moss and Cubed 2008).”

This type of focused marketing has been refined and advanced dramatically in recent years, largely because of advances in the technology industry. Companies like Google and Amazon have leveraged these advances and taken customer targeting to new levels, ensuring the advertising you see on your computer screen or the marketing emails you receive are customized based on your past online behavior. Not only does this approach integrate your own searches into the marketing outreach you receive, but it also compares your online behavior with that of other potential customers. In essence, these marketers are using your collective data trail to not only understand who you are, but to predict your behavior. Instead of hoping that the buckshot hits a few potential customers out of thousands, marketers from Google and Amazon take direct aim, and hit each person with the right product and the right message needed to get them to act. Unlike these marketers, the energy efficiency industry’s marketing efforts haven’t fully utilized the volumes of data on hand to predict customer action.

Market Research-Driven Segmentation: Theory

Market segmentation is not a new concept. Wendel Smith introduced it in 1956 as “viewing a heterogeneous market (one characterized by divergent demand) as a number of smaller homogenous markets in response to different preferences.”

Segmentation is widely used in other industries, yet in the energy efficiency industry, sophisticated use of segmentation on small business customers is nascent, despite the growing amount of available customer data. According to the CIEE, “development of effective segments has been slowed by a lack of comprehensive data, particularly related to such hard-to-reach but ubiquitous sectors as small business (Moss and Cubed 2008). We have been entirely focused on describing the customer (who they are) and not on their potential (what they do/will do). Although the amount of available customer data is growing, it is still being kept in data silos and not combined and utilized in effective data collection and management systems. For example, we may define customers as residential, low-income, or commercial, but within those rate classes we often assume the same messaging resonates. We assume that all industrial customers want to save on operational costs, but if that’s the case why are certain large use segments still averse to participation in money-saving programs? One possible answer is that our use of segmentation has historically been too basic. While traditional segments might get drilled down further to rate classes like small commercial, hospitality, and healthcare, we are still only speaking to their type and not their likelihood to act (their propensities). Unlike consumer markets, where demand is “direct,” business to business (B2B) market demand is based on “derived demand.” For example,
small businesses do not want energy-efficient LED lighting and case coolers in the same way residential customers want energy-efficient refrigerators and clothes dryers. The demand for energy-efficient LED lighting and case coolers is derived from the demand for the products they help deliver—i.e., a pleasant, safe, aesthetically pleasing place to pump gas at night and purchase a snack on a road trip. A gas station and convenience store might be an excellent potential SBDI program customer, but a gas station/convenience store on a busy highway with aging lighting and refrigeration equipment has a higher propensity to participate in the program than a gas station/convenience store built two years ago in a residential neighborhood. Consumers in B2B markets are looking for products and services that help them produce their own products and services. Market segmentation is one way to help determine what will best help them do so.

The small business rate class poses a unique challenge on this front. Small businesses are disparate—even similar businesses may have very different management styles. In many ways, small businesses and their decision-making process are much more akin to those of residential customers than they are to commercial or industrial customers. In the small business rate class, decisions cannot be predicted simply based on business type. Further, even knowing a small business customers’ beliefs around things that seem to connect to energy, like their views on the environment, foreign oil, or health, still can’t help us predict what they will actually do. This is because attitudes, awareness, and knowledge about energy issues do not necessarily tie to action. For example, we all know that car emissions are a leading contributor to greenhouse gases, but we are still loath to car-pool, take public transit, bike or walk more, despite our awareness of both the issues and these reticent solutions. To target our marketing efforts properly, we need to better understand those who make buying decisions in small businesses. Buying behavior in a typical small business can be unpredictable because of the multiple people and goals involved, and the presence of potentially conflicting decision criteria. To properly target small business customers we have to ask ourselves:

- Who are the major decision makers?
- What decisions do they influence?
- What is their level of influence?
- What evaluation criteria do they use? (Montejo 2013)

From there, we can begin to develop an informed audience persona and utilize market segmentation to reach those customers in the most efficient way possible.

For the purposes of this paper we will examine three commonly discussed types of segmentation that can be used in energy efficiency programs: vertical segmentation, custom segmentation, and micro-targeting. We will then discuss how each approach can be applied to the small business rate class and how, based on the approach and data, we can predict action:

**Vertical segmentation.** This type of analysis relies on data about the business type, which can be garnered through publically available or purchased data sets, and/or directly from utility customer data. Common “business types” within the small business rate class include retail, professional services, daycare centers, restaurants, etc. This data provides segments that are pre-defined by type, which can be geo-coded to help you understand what types of businesses are where in a given market. The data needed to conduct a vertical segmentation study allows for the

1 Note these are specific to the small commercial rate class; other approaches may be more appropriate when looking at other rate classes like residential.
user to identify similar businesses across a region or service territory. Business type data can be cross-referenced with energy usage and demand, which allows for more measured and tailored marketing and outreach by providing insight about who the customers are. It does not, however, provide insight into how they will act.

**Custom segmentation.** Custom segmentation is an analysis approach that allows the user to understand how specific entities in their general market might react to a specific product or service. It goes beyond just looking at business type, location and energy usage, and could include additional customer characteristics derived from demographic data, for example. It often begins with vertical segmentation of the customer base and adds additional segmentation criteria to further narrow the segment, or to cut across existing segments. If done well, it can tell you how a population or demographic might best be engaged with something as specific as an energy product or service. For example, small businesses in a bustling downtown area full of wealthy professionals may be more apt to participate in a small business program offering LED options, since this technology, while more expensive than fluorescents or incandescent, allows dimming and high color quality, which will maintain the upscale “look” of their restaurants and boutiques, while saving energy and money. This approach can be developed to speak to a specific territory or population in a territory, but it cannot provide insight at the individual business level.

**Micro-targeting.** Micro-Targeting is a type of marketing analysis that combines primary and secondary data in order to predict customers’ likelihood of taking specific action. Also referred to as propensity scoring, this analysis uses both primary data (e.g., past participation data, billing data) and secondary data like the vertical segmentation data described above, and marries it to create a score for each potential participant predicting their likelihood to take a specific action. The score could be created via a number of statistical analysis techniques, such as Cluster Analysis, which classifies eligible businesses into relatively homogeneous groups based on the set of variables derived from the primary and secondary data, or Data Envelopment Analysis (DEA), which determines the most efficient eligible small businesses to target, based on best-performing small businesses in the past. These scores can then be used to determine which programs or offerings to offer which small businesses based on their likelihood to act.

Which of these approaches is best suited for a project will depend on a number of variables including available data, available budget, target customers, and the desired goal of the project. Below we provide real-world examples of where vertical and custom segmentation approaches have been successfully applied in practice. We then discuss micro-targeting, its benefits, and what it would take to utilize it as an approach in the context of the small business rate class.

**Market Research-Driven Segmentation: Practice**

According to many researchers in the field, market segmentation can help solve resource allocation problems, i.e. limited budgets for marketing to large numbers of customers. These problems can be solved by allowing marketers to prepare business strategies that satisfy clients with a cost effective ratio of marketing spend versus results, and delivering relevant messages to each customer, thus increasing customer satisfaction. Market segmentation can improve results and enhance the performance of programs. In traditional product sales models, market segmentation can increase the profitability of a firm’s marketing strategy, whereas in energy
efficiency program marketing, it can increase the cost effectiveness of a program delivery model. In hard-to-reach markets like small business, marketing messages tend to be most effective when they are tailored to the specific customer. Broad, “buckshot” style messages and tactics often do not work because they are not tailored; worse, they are often more expensive because they seek to target all eligible customers, as opposed to only the specific subset of eligible customers with a propensity to act.

Traditional marketing theory suggests that in order to reach a customer and make an impact, the customer must hear the message at least seven times. Through the use of general, awareness-based “buckshot” marketing, there is no guarantee that the marketing message will ever be seen and/or resonate with the target customer. Alternatively, “buckshot” marketing provides little to no control, meaning a specific tactic could become too successful, resulting in an overwhelmed program staff and poor customer service. B2B markets traditionally rely upon the development and maintenance of relationships, with an emphasis on long-term customer satisfaction, repeat business and collaboration with customers. According to Mantejo (2013) “Market segmentation is both art and science, requiring an appropriate grouping of customers into manageable and efficient market segments.” Because of this, it is important to take a market segmentation approach that is targeted, personalized, feasible, profitable, and able to be tracked.

The following SBDI program campaign case studies show how successfully using the segmentation approaches above can help programs meet goals, manage demand, and increase customer satisfaction. You’ll note as you read on, these may be equally innovative for their use of segmentation as they are unremarkable. The team, on behalf of their utility clients, worked to develop segmentation research-based, straightforward, cost-effective campaigns that achieved results quickly. This marketing strategy was based on market segmentation techniques that were both “feasible” and “likely profitable.”

Case Studies


National Grid is the second largest electric and gas utility in the United States. National Grid’s Small Business Energy Efficiency Program is meant to help qualifying small business customers with an average demand less than or equal to 100 kW install energy-efficient lighting and non-lighting retrofit measures. Participating businesses receive a free energy audit, a report of recommended energy efficiency improvements, and an offer from National Grid to subsidize qualifying equipment and installation costs.

Within each region, a Regional Program Administrator (RPA) administers the program. SmartWatt Energy was awarded the RPA contracts for the Central New York, Northern New York, and Mohawk Valley New York regions. The program savings goal for these territories is 27,340 MWh per year. RPAs are responsible for marketing the program within their geographic region(s), performing energy audits, selling projects, installing projects, and program reporting. By Commission Order, the program has a cost constraint of not exceeding an implementation cost of $0.237/net annual kWh saved. The average project size within National Grid’s SBDI program is $5,500 and the average savings per participant is 15,000 kWh. The average project size within the Ontario Power Authority’s SBDI program discussed above, in comparison, is $980 and the average savings per participant is 2,300 kWh (Fisher, Moran and Gogte 2013).
Marketing Strategy: Vertical Market Segmentation

To complement the broad-based awareness marketing being done by National Grid throughout the entire service territory, SmartWatt developed an integrated campaign for the gas station and convenience store vertical market within its geographic territories. The motivation to develop a vertical market campaign was based on the mature nature of this program, which was nearing the end of its first program cycle and beginning to show signs of slowing down.

In their 2010 Process Evaluation Report–New York Upstate Small Business Services Energy Efficiency Program, Tetra Tech recommended that National Grid explore new marketing strategies, improve coordination of marketing activities with RPAs and analyze the effectiveness of marketing strategies in order to cost effectively meet aggressive program goals and avoid program inefficiencies in later program years. In 2010, only 26 percent of participants reported learning of the SBDI program through RPAs. No participants reported learning of the program through mass media or other “buckshot” style tactics. SmartWatt wanted to be more strategic with its marketing, to test whether this would yield more efficient and predictable savings in a market that was heavily saturated.

The gas station and convenience store vertical market was identified as having strong savings potential by the program team after LED canopy lights were included in the program offering. “Corner markets” have also been identified by other research teams as a potentially successful segment in the small business market (Moss and Cubed 2008). Market research revealed a potential market in the Central and Northern New York territories of approximately 400 gas stations and convenience stores. The team began its outreach by segmenting the customer list based on the market research, to narrow outreach to those eligible for the program within this vertical market. Vertical market–specific collateral was developed in an effort to create more personalized outreach. The integrated campaign included various targeted tactics, including a case study, vertical market sell sheet, direct mail, cold calling, social media, email, press releases, and events.

Before this integrated vertical market campaign began, the program had completed a total of six LED canopy projects within the vertical market over a period of six months. After only three months of the vertical marketing campaign, they had completed 31 LED canopy projects and saved more than 980,000 kWh. By the six-month mark, the team saw a 417% increase in LED canopy projects.

On the heels of the success of the LED canopy campaign, they began an integrated campaign aimed at their sales pipeline. Third quarter sales totals were 83.5% higher than second quarter sales, with 10% fewer projects proposed. Compared to first quarter, the third quarter sales were 105.4% higher, with 16% fewer projects proposed. These statistics suggest the process was becoming more efficient through targeting.

By working to streamline outreach to the customer base through integrated vertical market campaigns rooted in segmentation research, the team enhanced the overall marketing impact. The effect of these campaigns is that customers within the vertical markets are already familiar with the specific upgrades applicable to their specific facility before the sales auditors begin their energy audits. The outreach is more personal and more effective, resulting in higher close rates for the program team.

The results of this campaign led to revised marketing strategies for the team, which has since expanded to include additional vertical markets in marketing outreach. National Grid has
also begun developing vertical market campaigns for the entire service territory in New York and beyond. The National Grid marketing department has been working with its targeting and insights team to identify customer profile information that can help with segmentation and targeting.

“As we looked to expand our marketing approach, we wanted to address the concerns and energy efficiency benefits specific to individual business types,” explains Janae Jones, senior marketing analyst – energy efficiency at National Grid. “We know that our small business customers are busy and bombarded with decisions to make every day. We believed segmentation would be one way to get our message through a little better.”

National Grid has leveraged its RPAs’ local knowledge and marketing efforts to enhance these campaigns. The company’s first vertical market campaign was based on the restaurant vertical market, identified through market research as the vertical market with the third largest number of establishments in the territories, and one that was identified as a good candidate for higher-savings LED measures.

Custom Segmentation: Black Hills Energy Small & Medium-Sized Business Direct Install Program – Colorado

Black Hills Energy (BHE) is an electric and natural gas utility company headquartered in Rapid City, South Dakota. Colorado Electric is a BHE company providing electric service to customers in Southeastern Colorado and is headquartered in Pueblo, Colorado.

In July 2012, SmartWatt was awarded the implementation contract for BHE’s Small and Medium-Sized Business Direct Install (SMBDI) program in the Colorado Electric service territory. This was a new program included in BHE’s Energy Efficiency Plan for 2012–2015. The program is intended to provide direct installation of lighting, lighting control, and refrigeration measures for small and medium-sized businesses, defined as having an average demand of 350 kW or less on an annual basis. The program goals are to save approximately 3,000,000 kWh per year and provide a kW reduction of approximately 1,200 per year.

Phase 1 Marketing Strategy: Geographic Segmentation

Since this was a new program, there was initial concern that demand from the 12,000 eligible customers would outpace start-up staffing resources, and customer service might suffer. As a result, the initial marketing strategy was focused on limiting program demand by segmenting the service territory on a geographic basis and slowly expanding geographic reach as additional program staff were hired and trained.

The initial approach to geographic segmentation was to focus marketing and sales efforts on select areas of Pueblo and Cripple Creek. Pueblo is the largest and most populated city in the service territory, with approximately 13 percent of the total eligible business customers. This region is largely made up of older buildings, creating a large concentration of high energy savings projects within a small geographical area. Cripple Creek, in contrast, is a concentrated rural area located in Colorado’s “gold country” with a population of just over 1,000. The town is home to a large number of tourist attractions, including gold mines, a railroad, and casinos. The entire town was targeted from program launch, given its small size and concentrated geography.

A marketing strategy based on geographic segmentation continued for approximately the first six months of the program. Savings goals for the first program year were exceeded, and it
remained under budget. Customer satisfaction ratings for energy efficiency upgrades averaged 4.77 out of 5. During this time, additional market research and segmentation was conducted to inform the marketing strategy for Phase 2.

**Phase 2 Marketing Strategy: Demographic Segmentation**

Approximately 50 percent of the city of Pueblo is Latino, making it the single largest demographic. Field staff observed strong community ties within Pueblo’s Latino population. The Pueblo Latino Chamber of Commerce builds on the strong relationships of the city’s Latino community. Primary research revealed that members of the Latino Chamber rely heavily on the resources and knowledge provided by the Latino Chamber to find a trusted company to do business with.

The organization has more than 300 members, which make up 33 percent of the total eligible customer base for the SMBDI program. Members of the Latino Chamber include small and large retail, restaurants, banks, schools, municipalities, and industrial businesses—all vertical market segments identified in market research as attractive for targeted marketing campaigns. These vertical market segments were selected based on the fact that they are easily identifiable, are numerous in the service territory, have had positive past experience with energy savings projects, and they have significant savings potential.

In mid-2012, shortly after program launch, a partnership was developed with the Pueblo Latino Chamber of Commerce. An integrated marketing campaign was developed that included sponsorship of events hosted by the Latino Chamber, email, social media, case studies, earned media, paid media, and a referral program. Where possible, the marketing metrics associated with these individual tactics were shared with program staff to facilitate timely follow-up with interested and engaged customers by sales auditing staff in the field.

As a result of these efforts, the team successfully completed projects for seven percent of Latino Chamber members in the first year of the campaign. This strategic partnership and the resulting integrated marketing campaign yielded 949,660 kWh saved, or $113,636. Another nine percent of Latino Chamber members are in the sales pipeline, meaning they have completed an energy analysis and/or received an energy savings proposal through the program. These projects equal a total of 1,663,723 kWh, or $195,136. The potential savings from the Latino Chamber members in the sales pipeline alone equaled 40 percent of the program’s 2012/2013 savings goal. According to the *Annual Status Report – Energy-Efficiency Programs* BHE prepared for the Public Utilities Commission of Colorado, the overall goal for this program was exceeded in terms of kW (114% of goal) and kWh (151% of goal), and the program came in under budget (85% of budget). In its first year of existence, the program was characterized by BHE as having achieved “great success” in the same report.

**Micro-Targeting**

The case studies above illustrate the usefulness of both vertical segmentation and custom segmentation. Micro-targeting is another important way of maximizing the impact of a marketing campaign. It has been used in small doses in residential programs, and has only been explored marginally in the small business rate class.

Micro-targeting uses the characteristics of past participants to identify traits that are predictive of action and to score potential customers based on their likelihood to participate. It
works by creating a propensity score, using primary data (e.g., past participation data, billing data) and secondary data (e.g., purchased segmentation, assessment data) to create a score for each potential participant, aiming to predict their likelihood to take a specific action. Future program marketing and recruitment efforts are aimed at high scorers. Since these customers are more likely to participate, response rates to campaigns are higher, which translates into lower costs to acquire customers.

This approach has been used in a number of markets to successfully move residential program response rates from one percent to 10 percent or more. Micro-targeting studies have been conducted to support program outreach in the residential sector at varying levels. Specific past efforts have included:

- Program-level marketing, which may include multiple measures
- Measure-level marketing, which identifies the customers most in need of specific measures and those most likely to act on such offerings
- Investment-based targeting, which identifies the customers who are most likely to invest at different levels for major household upgrades

This type of targeting allows programs to limit the messaging and outreach to only those likely to behave in the way the program needs them to. For small and medium businesses, this could be a powerful tool for marrying what we know about the business type and what we know about others who have taken the action desired (regardless of business type) to create a score. This score can then be used to determine which programs or offerings to offer to which customers based on a predicted behavioral outcome. The score can also help fine tune marketing tactics and inform the optimal marketing mix for a given segment. As the industry moves beyond basic targeting approaches, micro-targeting indeed represents the next generation in segmentation for energy efficiency programs.

The following series of questions must be answered in order to develop propensity scores that can be used to identify and target those who are likely to take action. Each of these questions can be addressed through a myriad of data sources.

- Who has taken this action in the past? Who are they? Where are they located?
  - **Data:** Past participation data, usage data, CIS data, premise (purchased data).
- What are the traits or characteristics of the customers who have taken action in the past? What data do we have that describe their traits?
  - **Data:** Business type, building ownership type, usage, number of employees.
- Which of those traits seem to matter most in predicting action?
  - **Data:** Regression analysis to identify the traits that seem to most directly tie to behavior.
- Which others in the population share the same traits?
  - **Data:** Regression analysis of all other customers to identify those with the same traits as the past participants, applied scores based on results.

Using this information, programs can begin to match customers to the programs they are likely to participate in, and more importantly, start predicting behavior, which ultimately ensures that marketing costs are not wasted on those who are unlikely to act. Micro-targeting can also increase the rate of uptake, allowing programs to meet goals more quickly. Conversely, it can
allow you to control the rate of program uptake by staggering the message, making it possible to provide customers only with the messaging that resonates with them. That can lead not only to increased participation, but increased customer satisfaction as well.

Conclusions

Investment in segmentation research can give program managers and implementers more control over programs, allowing teams to more effectively control ramp-ups, manage ratcheting down, and revitalize when early adopters or the easy targets have already been reached.

Successfully leveraging available data and proven segmentation tools and approaches can reduce the cost per acquisition and is a critical component for reaching more challenging program goals. Important to the success of segmentation is picking the approach that will support your end goal. Different segmentation approaches offer their own advantages based on program need, available budget, and target audience. As programs mature, administrators may need to move from vertical segmentation approaches, to more custom approaches, to micro-targeting in order to enable planners and implementers to understand exactly which customers need to be targeted, as well as their likelihood to act.

As an industry we should recognize that while “buckshot” marketing may work well in the early days of programs, we have moved beyond being able to efficiently buckshot our way to savings. Using sophisticated targeting approaches, like those used in many other industries, will lead to more informed “go to market” strategies, which will ultimately lead to more successful, cost-effective, and customer-centric program approaches.

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