

Redefining utility business models: a large-scale assessment of the customers' perspective

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Overview

Germany's energy transition is not only being driven by technical change. The question of how and why consumers wish to participate in the new energy market has gained attention in the literature², but is still open to much debate. Can households take a proactive role in the business of their suppliers, and do electricity suppliers have, as of yet, untapped options for increasing acceptance for their products and services, both on regional and national levels? Which innovative products and services will electricity suppliers in Germany offer in the future given that the "Energiewende" (energy transition) continues to challenge the traditional business model of gas and electricity provision?

Our study addresses these questions in the framework of two nationwide surveys of electricity customers in close cooperation with an electricity retailer. Applying a two-step empirical approach – first with an explorative online survey, second with a multi-modal follow-up survey – we assess the following key questions: (1) What is the customers' attitude towards the incumbent electricity retailers? (2) Which new products and services offered by an innovative utility company would be valued by customers? Which customer needs have remained unsatisfied? (3) To what degree is participation in their electricity supplier's business important to customers?

Methods

An initial explorative study was conducted in March 2014. More than 25,000 customers of *Stadtwerke Tübingen*, a leading municipal utility in southern Germany, were invited to participate in an online survey which covered the participants' satisfaction with their energy supplier as well as their general perception of the energy business, their decision criteria for their electricity supplier and their potential desire for a more active involvement with their electricity supplier. The survey also collected socio-demographic data (age, sex, income, size of household, political preference, postal code) which allows for detailed factor analyses. *Stadtwerke Tübingen* serve local and regional customers as well as nationwide customers from all over Germany, all of which are represented in the survey.

Based on the results from the explorative study, a second survey with a sample of roughly 13,000 customers of *Stadtwerke Tübingen* was carried out in January 2015. The sample was divided into three equal groups which were contacted via post, email, and telephone. Every group was asked the same set of interview questions covering the participants' satisfaction with their energy supplier and their socio-demographic data. The survey then focuses on customers' need for and reaction to new products and services which a municipal utility could provide in the future and which may help ensure customer loyalty and engagement. Arguably, utility companies are likely to develop new business models around energy-related services (energy efficiency, demand side management, e-mobility, etc.), but, through open dialog with customers, additional unexpected opportunities may reveal themselves. The survey, therefore, combines closed-ended questions (using Likert scales) to evaluate existing ideas for new offerings as well as open-ended questions to learn about customers' needs and concerns.

Results

The initial explorative study yielded more than 4,000 completed interviews, i.e., a response rate of more than 16 %. Respondents are almost equally distributed locally (city of Tübingen), regionally (surrounding state of Baden-Württemberg) and nationally (remaining parts of Germany). This pilot survey led to three key hypotheses:

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² E.g.: Flieger, Burghard, *Lokale Wertschöpfung durch Bürgerbeteiligung*, Fachzeitschrift für Verbands- und Nonprofit-Management, 2011, 37 (1), 50-57, and Graebig, Preiß, *How to implement customer participation within distribution system operators (DSOs)*, 2014, presentation at the 14th IAEE European Energy Conference, Rome.

- (1) Regional and nationwide customers differ substantially in their expectations regarding certain performance indicators of a municipal utilities (i.e., price, local engagement and corporate social responsibility, environmental responsibility). Expectations regarding reliability and trustworthiness, security of supply, and service quality are mostly independent of the proximity to customers.
- (2) The classic energy policy triad – security of supply, price, environment – is insufficient for describing customers’ needs and expectations. “Soft factors”, such as participation and acceptance, turn out to be highly relevant, at times even outranking the traditional three dimensions of the classic triad. Customers express a strong interest in becoming personally involved in their electricity supplier’s business.
- (3) Customers do notice the lack of innovative products and services in the energy business. However, the pilot survey could not clearly identify which new offerings would be desired.

The second survey focused on hypotheses (2) and (3) in order to assess which types of participation are desired and which innovative business models could be promising for a municipal utility. The study also aimed at a methodological assessment of stakeholder surveys in the energy business and compared the outcome and quality of three parallel, identical surveys conducted via mail, email, and telephone. Results from this study indicate that:

- (1) The demographic groups reached depend heavily upon which medium was used to contact them. The post and online surveys achieved response rates of 21.3% and 23.5% respectively, and effectively represented the age distribution of customers, respondents via telephone were on average 10 years older than the rest of all respondents and around 9 years older than the average customer. Consideration of the comparative cost effectiveness of the online survey led to a clear cut recommendation to focus on market research via online surveys in the future.
- (2) Respondants’ answers showed a clear rejection of aggressive discount pricing offers for new customers and a significant interest in customer loyalty programs – in both cases independent of the respondents’ geographic locations.
- (3) Of the demographic groups identified, students were shown to be an important target demographic for the region. This group showed particular interest in cross-division regional incentives (e.g., discounts in public pools or public parking) with approx. 40% expressing interest in such offers as opposed to the average of 2% across all respondents. Their high degree of sensitivity to price, however, leaves open the challenge of designing sustainable business models for marketing power to such a highly mobile customer segment.
- (4) Mobility is of general interest to all customer groups, topics concerning which comprised half of all freetext responses concerning innovative products. Both improving service in existing areas (e.g., bus transport) and expanding electromobility offerings were shown to be major drivers of customers’ engagement.

Conclusions

The social dimension of transitioning the German energy economy is multifaceted. Our study has focused on the household customers’ perspective and opinions of their electricity supplier, and presents a novel, practitioner-oriented survey methodology based on discovery of the driving factors of decision making through both open-ended and directed questions. Regionality as a factor of influence in customers’ relationships with their supplier emerges as a major driver in households’ opinions and decision making, as do aspects of acceptance and participation. Results of our second survey provide further insights into possible specific new business models for electricity suppliers from a demand-driven customer perspective. The conclusions drawn from the German market are likely to be transferrable to other international markets where the energy sector is in a similar transition process.

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