# THE ROLE OF CUSTOMER LOYALTY PROGRAMS IN PROVIDING INTEGRATED ENERGY SERVICES TO RESIDENTIAL CONSUMERS

Janez Dolšak, University of Ljubljana, Faculty of Economics, +386 1 5892 550, janez.dolsak@ef.uni-lj.si Nevenka Hrovatin, University of Ljubljana, Faculty of Economics, +386 1 5892 557, nevenka.hrovatin@ef.uni-lj.si Jelena Zorić, University of Ljubljana, Faculty of Economics, +386 1 5892 785, jelena.zoric@ef.uni-lj.si

#### Overview

Energy markets across Europe are currently confronted with the multiple challenges, which arose after the market deregulation. The latter has not only increased market competition, but it has also enriched the suppliers' offers with the variety of additional services including green energy and energy efficient technologies (McDaniel & Groothuis, 2012). Customers are now free to select an energy supplier as well as to choose among various energy products on the basis of several factors such as price, service quality and quality of the service process. With the increased product differentiation and extension of the offer with additional services, customers' preferences are becoming more diverse and their understanding is crucial to remain competitive on the energy market (Yang, 2014). In order to respond to these challenges, energy suppliers have to strengthen their brand image among customers with market activities. It is especially important to gain the customer's loyalty through active cooperation and relationship building for the purposes of long-term cooperation. An example of such activity is a brand loyalty program, which is relatively new on the energy market. In view of the fact that the cost of new customer acquisition can be up to 5-6 times higher than the cost associated with the retention of existing customers (Hartmann, 2007), there is a clear signal for energy suppliers to improve their service quality and service process quality through development of market activities. Most brand loyalty programs include "all-in-one" offer that provides a package offer of different products, which includes ancillary services such as household-tailored offer, energy-related consulting and online consumption monitoring (Wieringa & Verhoef, 2007). Energy markets are thus transforming into active, toward end-customer oriented markets with emphasis on enhancing use of value-added services and simultaneously promoting energy efficiency (Government of the Republic of Slovenia, 2015). The objective of this paper is to explore the role of the brand loyalty programs, particularly of a bonus card system, in providing integrated energy services.

#### Methods

The theoretical framework of consumer behaviour in bonus card system is based on a utility maximization theory. The probability that a consumer chooses a particular option in the bonus card system can be specified as a function of various expectation factors of the supplier's offer and service quality. In the first step, principal component analysis is performed to extract three groups of expectation factors: (1) low price and related savings as well as reliable supply (*reliable and low price services*); (2) extended offer of additional services including an option of green energy and energy efficient technologies (*additional services*); and (3) collaboration between customer and supplier, active market communication, quality of information provided by supplier as well as the supplier's brand reputation (*customer relationship management*). In the second step, multinomial logit model is employed to investigate the impact of expectation factors on willingness to participate in loyalty programs (bonus card system), where the explanatory variables are the above mentioned expectation factors of supplier's service quality obtained from the principal component analysis. To control for other potential factors that may impact the participation in loyalty programs, we added additional explanatory variables such as satisfaction with the supplier, actual usage of additional services, average monthly electricity consumption (i.e. electricity bill), and other socio-economic characteristics of the contract holders (education, monthly income, number of households members).

Our sample consists of customers buying electricity from one of the biggest energy companies in Slovenia, which also operates in more than 10 energy markets in Central and South Eastern Europe. After deregulation, the company extended its offer with a package offer of several energy sources (electricity, LPG, natural gas, heating oil and petroleum products) as well as with other energy related services (online billing system, automatic meter reading, online shopping and energy efficiency consultations). Using its database of electricity customers, 5,466 customers were selected in order to gather the data with an online survey using self-administrated questionnaire in February 2016. The final sample consists of 984 customers (18% response rate) - holders of the electricity supply contract with the supplier. The data were merged with the database containing customers' information included in the supplier's brand loyalty program. Three groups of customers were identified: 25% of the customers with the payment loyalty card (hereinafter PLC), 61% customers with the "regular" loyalty card (hereinafter NC).

### Results

The principal component analysis with Varimax rotation confirms the proposed factor structure. Expectations of the supplier's offer and service quality can be reliably captured in the three-factor solution. The results of the multinomial logit model reveal significant differences in expectations among the three customer loyalty groups. In particular customers that value additional services are more likely to choose PLC program than LC program. Also actual usage of additional services reveals significant differences between different groups of customers. As expected, customers using additional services are more likely to choose PLC group than LC group, while the use of additional services makes it less likely to choose NC group than LC group. When examining the influence of the expectation factor *customer relationship* we observe that there is a strong significant difference between PLC and LC groups. Interestingly, customer relationship is less important to PLC than LC group. This may indicate that PLC group is focused on their benefits and not so much on their relationship with supplier comparing to the regular bonus card holder (LC). The analysis further reveals that the two largest groups, LC and PLC, significantly differ in every dimension of expectations of service quality as well as in actual usage of services. An assessment of their consumption further reveals that the PLC group's average monthly consumption is higher compared to LC group, which indicates higher level of purchasing activity of PLC group.

## Conclusions

Our findings reinforce the theoretical and empirical underpinnings that the understanding and responding to customer expectations is a prerequisite for remaining competitive on the energy market, where customer loyalty programs could be applied to achieve this goal. The results of our econometric analysis reveal that customers have heterogeneous expectations towards the supplier's offer and quality of its services, which is also reflected in different participations in the loyalty programs (i.e. bonus card system). Payment card holders (PLC) prefer additional services to good relationship with the supplier and the low price. These customers are also heavier users of additional services than bonus card customers (LC), are multi-fuel buyers and have also higher average monthly electricity bills. They are also more satisfied with the supplier than the bonus card holders (LC). All these can explain why relationship management is less valued than additional services, for which loyalty payment cards could be more heavily used, bringing them additional benefits (bonus points, discounted services, etc.) On the other hand for bonus card holders (LC) relationship management have proven to be more important, which calls for more active supplier relationship building with this customer segment. These findings suggest that tailoring marketing strategies and customization to respond to different markets segments could better serve in customer retention and customer acquisition strategies than adoption of "one fits all" solution.

#### References

Berry, L. L., & Parasuraman, A. (1991). *Marketing services: competing through quality*. New York: Free Press. Brown, T. A. (2006). *Confirmatory Factor Analysis for Applied Research*. New York: Guilford Press.

- Collins, L. M., & Lanza, S. T. (2010). Latent class and latent transition analysis: with applications in the social behavioral, and health sciences. Hoboken, NJ: Wiley.
- Distefano, C., Zhu, M., & Mîndrilă, D., (2009). Understanding and using factor scores: considerations for the applied researcher. *Practical Assessment, Research & Evaluation, 14*, 1–11.
- Greene, W.H. (2008). Econometric Analysis, 6th ed. New Jersey: Prentice Hall International, Inc.
- Hair, J. F., Black, W. C., Babin, B. J., & Anderson, R. E. (2014). *Multivariate data analysis*. Upper Saddle River, NJ: Pearson Education.
- Hartmann, P., & Ibáñez, V. A. (2007). Managing customer loyalty in liberalized residential energy markets: The impact of energy branding. *Energy Policy*, 35(4), 2661-2672.
- Kaenzig, J., Heinzle, S. L., & Wüstenhagen, R. (2013). Whatever the customer wants, the customer gets? Exploring the gap between consumer preferences and default electricity products in Germany. *Energy Policy*, *53*, 311-322.
- McDaniel, T. M., & Groothuis, P. A. (2012). Retail competition in electricity supply—Survey results in North Carolina. *Energy Policy*, 48, 315-321.
- Government of the Republic of Slovenia (2015). *National Energy Efficiency Action Plan 2014 2020 (NEEAP)* Ljubljana: Government of the Republic of Slovenia.
- Wieringa, J. E., & Verhoef, P. C. (2007). Understanding Customer Switching Behavior in a Liberalizing Service Market. *Journal of Service Research*, 10(2), 174-186.
- Yang, Y. (2014). Understanding household switching behavior in the retail electricity market. *Energy Policy*, 69, 406–414.