From Switching Intention to Switching Behavior.
Towards an Integration of PLS and Logistic Regression.

Customer satisfaction is one key to profitability (Oliver 1997). This well-known statement was a novelty for the German electricity market in 1998, when it was liberalized. Customers, who used to live within regional monopolies, could dissolve their contractual service relationship and switch to a new electricity supplier. However, scientists and managers were surprised to find out that few households (less than 4%) switched, although market research indicated that approx. 35% of the households intended to switch. Most of the research on switching behavior is focused on the context of brand choice. Its results can hardly be applied to contractual service relationships (see e.g. Inman and Zeelenberg 2002) as there is no need for an explicit decision for prolongating the relationship. To shed some light on the switching behavior in contractual service relationship this research aims to model customer switching behavior. Specifically, this paper deals with two research questions:

1) What are the major reasons for customers to stay with or to switch their supplier?

2) What is the relationship between the intention to switch and the actual switching behavior?

First, the customer’s intention to switch (switching intention) – an interval scaled variable – is examined. Second, the customer’s switching action – a dichotomous variable – is regarded. The dichotomy results of the consumer decision to switch or not to switch.

Using PLS, the latent variable switching intention is examined based on the “Theory of Reasoned Action” (Fishbein and Ajzen 1975). This theory hypothesizes that behavior is best predicted by a stated intention to behave in a specified way, at some subsequent point in time. The latent variable switching intention \( y_{int} \) is modeled as dependent variable with several antecedents:

- the satisfaction with the current supplier \( x_{sat} \) as the focal issue that can be influenced by the supplier’s management,

- the expectation toward a new supplier \( x_{exp} \) especially concerning price and quality of their respective offer,

- the involvement \( x_{inv} \) about the product class,
- the perceived risk ($x_{risk}$) of changing the supplier as well as
- social norms ($x_{soc}$).

The resulting PLS model has the following form:

\[ y_{int} = \beta_1 x_{sat} + \beta_2 x_{exp} + \beta_3 x_{inv} + \beta_4 x_{risk} + \beta_5 x_{soc} + \epsilon \]

This model is tested using data gathered in a telephone survey among 409 households in Germany. The results show that the satisfaction with the current supplier is by far the predominant factor. Bootstrapping reveals that the expectation toward a new supplier and the involvement also have significant influence on the intention. However, neither social norms nor the perceived risk have significant impact.

The second question cannot be answered in a straightforward manner using PLS, because the required dichotomous construct switching action is hard to integrate into that model. Following Bastien, Vinzi and Tenenhaus (2002) a logistic regression is applied to the same data to determine the relationship between the switching action and the respective antecedents including the switching intention. The logistic regression is run on both manifest variable level and on factor (construct) level. In accordance with the “Theory of Reasoned Action” the switching intention is the most important predictor for the switching action itself. Again, the satisfaction with the current supplier, the expectation toward a new supplier and the involvement about the product class contribute significantly to the regression function. More surprisingly, the perceived risk of changing the supplier as well as social norms also play a significant role as explanans.
References


Chatelin, Y.-M., Vinzi, V.E., Tenenhaus, M. (2001) State-of-art on PLS Path Modeling through the available software


