ANALYSIS OF CUSTOMER LOYALTY TO THE ELECTRICITY DISTRIBUTORS - THE CASE OF THE HUNGARIAN ELECTRICITY DISTRIBUTION BEING UNDER LIBERALIZATION

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SUMMARY

The paper reports the results of a survey carried out in Hungary about the customer loyalty to the local electricity distributors. The results of the survey prove that the loyalty factors known from the international literature should be dealt with special care in the case of the electricity industry. The ‘quality-satisfaction-loyalty’ chain applied to normal tangible goods and everyday services functions differently in the case of this basic utility.

The survey carried out in a representative sample of 1,000 households shed light to those fields of customer loyalty which should be interpreted differently in the case the electricity industry. They also emphasise the need for different techniques used in the Central and Eastern European region compared to those which have been proved to be successful in the Western European countries.

The results of the survey indicate that the changes in the field of electricity distribution are accelerating in this region. Parallel with the emergence of the competition in this field new tendencies in customer behaviour are to be witnessed similarly to those fields of business where competition used to be a natural characteristic of the market.

THE INDUSTRIAL BACKGROUND

The issue of customer loyalty has been widely discussed in international academic literature [1], [2], [3], [4], [5], [6], [7] the research presented in this paper however has two delicate differences compared to the general satisfaction-loyalty studies. Firstly the given service, electricity as a commodity has a few specialties compared to other services: it is supplied through a rather capital-intensive network, its demand is exposed to high seasonality and it is rather inelastic [8], people believe that electricity a naturally given supply, they rarely compare the benefits of this utility with its price, and they think its quality has not changed since it had been invented. Secondly the research has been made in Hungary where, like to the other countries of Central and Eastern Europe, the liberalization of the electricity supply according to the EU requirements is underway, but is still far from being complete. Although Hungary has produced good example for the measurement of customer satisfaction with the electricity supply [9] [10], the research on customer loyalty is rather fictitious, since consumers still do not have the opportunity to choose among suppliers. In spite of it the authors believe that distributor companies require certain knowledge about possible consumer behaviour to prepare them for the real market opening.

THE CONCEPT OF THE RESEARCH

While studying the factors affecting consumer loyalty the paper has relied mainly on the interrelationships of customer satisfaction and customer loyalty that most academics consider to be proved, at least in part. [11], [12], [13], [14] Due to the specific nature of the industry under investigation and the particularities of the Hungarian environment – some new aspects have also been introduced. The concept of the research project is summarised in the model showed in Figure 1.

The methods used for measuring customer satisfaction were made according to this model: it was also assumed that satisfaction with the service quality increases satisfaction in general which, in turn, has a positive effect on loyalty. Beside

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1 The liberalization in Hungary starts in 2003 with giving the right to the biggest users to select among suppliers, while households will have the same possibility only after 4 – 6 years.
quality the relationship between the consumers and the company was also considered as an important variable to be used in the measurement of consumer satisfaction. Its reason is that the way, consumers are treated is of particular importance in Hungary even in a competitive business, and the same is true for the companies enjoying a monopolistic position. The findings of a separate domestic research completed in 2000 also indicated that although consumers could experience some improvement in customer-orientation, in most cases there was little change for the better [15]. Opinions on communication were also considered necessary for the measurement of satisfaction. Public utilities have hardly communicated with their consumers in the past decades, and efforts to remedy this situation have been made only recently and are still rather limited. As a result, the use of communication tools is an unusual phenomenon for the consumers, which explains the importance attributed to it in the study of consumer satisfaction and loyalty.

A new element - not contained in the well-known international models – was added: the impact of consumer consciousness on loyalty. The importance of customers’ competence, awareness (information), and enforcement of interests may seem unusual and hard to understand in countries that have always lived in conditions of market competition. However, in places where consumers have not had the opportunity to choose among goods and services for decades, issues of this kind emerge with an overwhelming force in the changing environment. There is no doubt that consumers still cannot choose their energy supplier freely. The changes however (privatization, saturation of the markets, development of a relative competition and the continuous increase in prices) make consumers more and more interested in finding out what they get for their money. Their propensity and ability to enforce their own interests is increasing with the amount of information available to them.

The traditionally accepted measurement dimensions of loyalty (repeat purchase, cross purchase, price sensitivity, word of mouth, and general satisfaction) were slightly changed in this model due to the special features of the electricity supply:
- Firstly, the item of cross-purchases had been left out (because in this particular case the consumers have no chance to buy a different service from the same company)
- Secondly: consumer satisfaction was treated as a separate dimension.
- Thirdly, aspects of company abandonment not related only to price were also measured, like changes in the quality of the service (e.g. wider range of services offered, better information, simpler administration).

METHODOLOGY USED

1000 individuals constituting a representative sample of the population living in the supply area of a Hungarian electricity supplier were asked to fill in a questionnaire. The sample was selected with the mechanical simple random method (method of each n). The questionnaires were tested beforehand and the interviewers - who visited households – were given the assistance of guidelines for answering the questions. The representativity of the sample was good in terms of gender, age, education, job, and domicile.

The result of the factor analysis

The scales used for measuring loyalty, satisfaction, and consumer consciousness have been tested and factor analysis has been applied to check whether the individual elements could be grouped in a joint factor. The factor analysis showed that the loyalty scale is not one-dimensional, the individual items were grouped in three significant factors (table 1).

The explained variation of the factors is rather high (1. factor = 36%, 2. factor = 25%, and the 3. factor = 19), especially the first one (with an eigenvalue of 2.54). The first factor is explaining the reasons for switching to new supplier (simpler administration, better communication, wider assortment), the second factor is the price sensitivity, while the third comprises two elements, which were treated separately in other international researches (repeat purchase and recommendation). It means the last two dimensions would have rather similar effect in Hungary.

Table 1. The factor analysis of the loyalty variant

<table>
<thead>
<tr>
<th>The content of the question</th>
<th>Factors</th>
</tr>
</thead>
<tbody>
<tr>
<td>If the new supplier would promise… I would chose it</td>
<td>1</td>
</tr>
<tr>
<td>- simpler administration</td>
<td>0.94</td>
</tr>
<tr>
<td>- better information</td>
<td>0.91</td>
</tr>
<tr>
<td>- wider assortment of offering</td>
<td>0.85</td>
</tr>
<tr>
<td>- lower prices with 10%</td>
<td>0.91</td>
</tr>
<tr>
<td>- lower prices with 5%</td>
<td>0.90</td>
</tr>
<tr>
<td>If the new supplier would offer the same condition I would stay with the old one</td>
<td>0.82</td>
</tr>
<tr>
<td>I would recommend the old one to others</td>
<td>0.79</td>
</tr>
</tbody>
</table>

Note: factor values lower than 20% are not shown

According to this analysis the dimensions of the loyalty variant in the energy supply are different compared to the general loyalty researches, and can be categorized into three dimensions:
- Propensity to switch in case of changing the attributes of the service,
- Price sensitivity
- Repeat purchase and recommendation.
This difference warns that measuring loyalty could be country- or industry dependent.

According to the factor analysis consumers’ consciousness can be measure in four dimensions:
- Competence (knowing their rights and obligations)
- Being informed (knowing the features of the service)
- Enforcement of interest (complaints, etc.)
- Limitation of consumption (in case of high bill)

Measuring the role of quality similar differences were found. While measuring the role of quality the method known as SERVQUEL was used. According to this method the quality
as a latent variable is measured in five dimensions (tangible factors, reliability, ability to react, safety and empathy), altogether with 22 elements. In this research only 15 elements were used, and after the factor analysis, instead of five dimensions, they grouped into two factors only (Table 2.).

Table 2. The factor analysis of the quality variant

<table>
<thead>
<tr>
<th>The content of the questions</th>
<th>Factors</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1</td>
</tr>
<tr>
<td>The employees are professional</td>
<td>0.78</td>
</tr>
<tr>
<td>The supplier always meets its promises</td>
<td>0.75</td>
</tr>
<tr>
<td>Technical level of the service providing is good</td>
<td>0.75</td>
</tr>
<tr>
<td>Communication materials are nice</td>
<td>0.75</td>
</tr>
<tr>
<td>Employees are good looking</td>
<td>0.74</td>
</tr>
<tr>
<td>I feel safe if problem happens</td>
<td>0.74</td>
</tr>
<tr>
<td>The service is provided without any mistake</td>
<td>0.73</td>
</tr>
<tr>
<td>The troubleshooting is professional</td>
<td>0.73</td>
</tr>
<tr>
<td>If I report problems they react promptly</td>
<td>0.70</td>
</tr>
<tr>
<td>The employees show good consideration</td>
<td>0.69</td>
</tr>
<tr>
<td>The supplier always informs me about the time when it is doing the job</td>
<td>0.66</td>
</tr>
<tr>
<td>The staff is always reacts to my problem</td>
<td>0.65</td>
</tr>
<tr>
<td>The material connected to the service are understandable</td>
<td>0.55</td>
</tr>
<tr>
<td>The employees of the supplier always understand my individual needs</td>
<td>0.88</td>
</tr>
<tr>
<td>The supplier always takes into account the interest of the consumers</td>
<td>0.85</td>
</tr>
</tbody>
</table>

These results prove that the analysis of the dimensions of service quality can not be standardized; instead it is useful to adapt the elements of the measurement to the given economic environment (market conditions, consumer’s consciousness) and to adapt to the specialties of the industry being under investigation.

In the case of the ‘relationship’ variant, the factor analysis proved that this variant could be measured in three dimensions:
- The opinion about the customer service personnel.
- The availability of the service, and
- The billing activity.

The first factor explains 39%, and the total variation explained by the three factors is 75%.

In the case of the ‘communication’ variant the elements clustered into two distinguishable factors:
- Communication efforts made by the supply organization (whether the company is doing its best to inform its customers).
- The effectiveness of the communication activity (whether customers follow the information issued by the organization).

FINDINGS OF THE RESEARCH

The results of the analysis investigating the consumer loyalty towards the electricity distributor in Hungary are, in many cases, in line with the international experiences. In certain field there are however differences worthwhile to mention. In Hungary, price sensitivity will also play a very important role in the customers’ decision about switching from one supplier to the other. Improvements of other components of the service package will have a much smaller effect on this decision. Widening of the offer, simpler administration, better information seem to be less attractive for the Hungarian customers. Promises including these elements will most probably fail in gaining market share.

An interesting finding of the research is that the Hungarian consumers, in spite of their former negative experiences with the monopolistic service provider, would stay loyal to their present supplier in case if the new entrants would offer similar conditions. A rather big share of the consumers would even recommend the present supplier to their friends and acquaintances.

Detailed analysis of data resulted in the trends illustrated in figure 2.

The price sensitivity of the Hungarian energy users is rather high. The bigger advantages are offered to them the greater role price will play in their decision to choose among possible suppliers.

![Figure 2. Propensity to switch to the new entrant](image-url)
versa lesser degree of price sensitivity has been observed in the cluster of more qualified and younger population. They were on the other hand more interested in the other features of the service supply (wider assortment, better administration, etc.).

Points measured on a scale of 1 to 100 show that majority of people would not change supplier if the new entrant would offer similar conditions (Figure 3).

![Figure 3. The loyalty of the Hungarian electricity consumers](image)

Their insistence to the present supplier most probably explains with the fact that they do not really understand what the free choice would mean to them. Besides consumer inertia also exists.

**CONCLUSIONS**

The results of the survey helped the electricity distributor companies to understand the future behaviour of the electricity consumers and with that they contributed their preparation for the market opening. The use of research outcomes however has its limitation. This experimental research was carried out in a time when real competition in the field of electricity distribution did not exist. It meant the lots of the respondents just could not imagine the situation when he/she is in the position to select electricity supplier freely. In that respect it will be interesting in the future to make a longitudinal survey, to compare the customers’ present attitude with that of future one.

In spite of its limitation the research on the loyalty of the Hungarian electricity users served as a guideline for future researches by shedding light to a number of fields. Testing the scales and the results of the factor analysis suggest that techniques working well in international, especially in Western European setting must be adapted or modified according to the requirements of the local environment or according to the specialties of industry in question.

The results of the study however prove that the pace of changes is accelerating in the Central and Eastern European region. The emergence of the competition and the growing consumerism will lead, most probably, to a situation very similar to those countries where a market competition already exists.

**REFERENCES**


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