

ASSESSING THE EFFECT OF THE CONSUMER LOYALTY FOR A CHAIN RETAILER

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Numerous researches in the USA and Europe show, that the majority of the leading companies in most branches of economy have a stable customer base. This success factor is also called the loyalty effect. Some researchers believe, that the loyalty effect is a more powerful factor required for ensuring the success of the business, than the market share or cost structure. The level of the customer's loyalty depends on his commitment to a specific product brand and is usually measured in the number of recurring purchases. The highest degree of the consumer loyalty is

$$L_i = L_i(x_{i1}, x_{i2}, \dots, x_{in}), \text{ where}$$

L_i is a loyalty function for the i -client; $L_i \in [0, 1], i \in N$

n – number of total quantitative and qualitative characteristics of a client, where $n \in N$;

x_i – qualitative or quantitative criterion;

x_1, \dots, x_m – qualitative criteria,
 $1 \leq m < n$.

x_{m+1}, \dots, x_n – quantitative criteria, for example, a product's price, which includes terms of payment, credit, delay of payment, financial dependence, discounts, lump-sum bonuses and etc.

a brand fanaticism, when a customer continues to buy the product regardless of the price-quality ratio.

So, it should be emphasized, that loyalty means a possibility for a company to focus its attention on a specific consumer group, and, correspondingly, focus its marketing efforts on clients, who bring the largest payoff, and thus, to conduct target marketing.

Loyalty means adhesion to one's values. A loyal customer does not change the source of his values and recommends it further. The most loyalty-sensitive businesses are those, that require a high level of intelligence and professionalism.

Consumer loyalty management (L_i) should be regarded as formation of a consumer value, which can be presented as a system of functional dependences between some quantitative and qualitative elements:

Let us use the method of paired comparison. Suppose K is the number of clients, i.e. $i = 1, \dots, K$. Let us use elements of a group expert choice to build a model. Let assume, that a company invites a group of experts, consisting of V -experts, who range K -consumers ($V \in N, K \in N$) according to all available m -criteria (according to the intensity level of some qualitative characteristics). Here a condition of expert preference transitivity is to be met. In other words, each expert first ranges the objects, then shares his opinion in form of a paired comparison matrix of. As a result, we receive V -lines of paired comparison vectors as follows:

$$V = \begin{cases} a_{10} \succ a_1 \sim a_8 \succ a_7 \dots \\ \dots\dots\dots \\ a_{78} \succ a_{20} \sim a_1 \succ a_{2\dots} \end{cases}$$

In order to get a consistent group expert opinion, let use the Vega method. As a result, we get, for example, the following line

$$a_1 \succ a_2 \succ a_3 \sim a_4 \succ \dots \sim a_k$$

In other words, for example, the first client has rank 1, the second - rank 2, the third and the fourth get rank $(3+4)/2=3,5$ and so on. But we need, that the most preferable client has the largest loyalty index. Therefore, after some transformations, j -criterion of loyalty for an i -client equals:

$$x_{ij} = \frac{K-i+1}{K} \in [0, 1], 1 \leq i \leq K$$

Let S_j be a quantitative value of a j -characteristics for an i -consumer.

$$x_{ij} = \frac{S_{ij}}{\max(S_{ij}, \dots, S_{kj})} \in [0,1] \quad , j \in [m+1, n]$$

Then, we get a loyalty function vector for an i -client

$$L_i(x_{i1}, \dots, x_{in})$$

Let l_i be the value of the loyalty index for an i -client:

$$l_i = \|L_i\| = \min(x_{i1}, \dots, x_{in}) \in [0,1]$$

Loyalty rate equals a minimal value of all criteria of an i -consumer.

The Russian companies have already realized the fact, that stable relations with profitable clients are of a great importance. But not all of them are able to assess and manage the client loyalty at high level. Effective customer base management can only base on

the reliable, current and relatively full information on the clients.

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