In Search of Values in Internet Shopping–Method and Preliminary Research

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Abstract—Internet shopping becomes more and more popular. One of the most important questions for internet enerpreneurs seems to be how to encourage users to spend money. This is strictly connected with users' motivations. Therefore arises a strong need of learning, what they are and which factors, represented in product's features, are influencing them. One of most promising techniques in this field seems to be Hierarchical Value Maps. This paper describes the method and outcomes from preliminary research.

I. Introduction

As the number of internet shops is growing it is constantly harder and harder to gain customers that would like to do shopping. Many research is trying to find out what are motivations for certain human actions. One of newest methods, considered to be a promising one, are Hierarchical Value Maps. In this paper authors describe them – and present preliminary data, that may be used in the method.

II. Value Maps

The Hierarchical Value Maps derive from the Means-end theory, which assumed that there always are some hierarchies in all human actions – so are in products and services perception and valuation. Users gain them from attribute experiences, which drives (through consequences) to personal values held by an individual. To have them illustrated better, later introduced graphical method, known as laddering, turned to be very helpful. Usually, in this technique, attributes are presented at bottom layer – and they reflect all important, perceived, features, that may influence users attitude to this product or service. Of course most important for users are their personal goals and habits. Therefore they are usually presented on top. Needless to say, in most cases they are different from product's features. But they have to depend (directly or indirectly) on product's features. These dependencies are usually shown in the middle layer – and in value maps are called consequences. The graphical form of these dependencies is known as a Laddering Technique. It became a commonly used form in search of consumers behavior structures and is widely used, especially in marketing research. Its final graphical form is known as Hierarchical Value Map (HVM). An example Hierarchical Value Map is shown on fig. 1 [2]
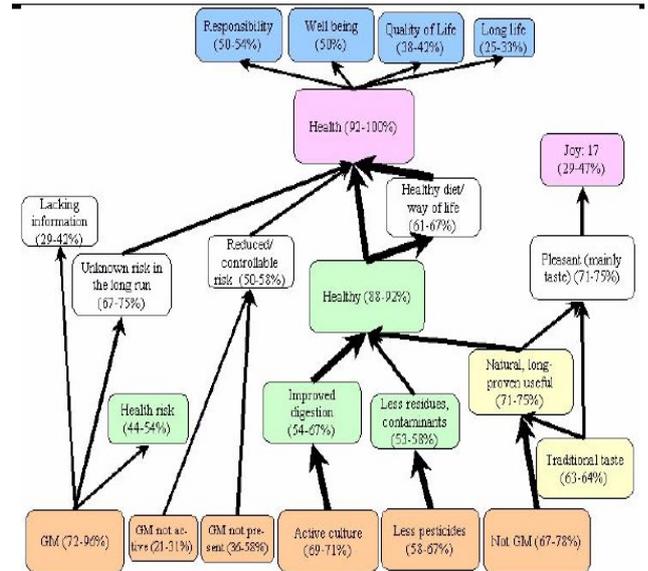

Fig. 1: Sample Hierarchical Value Map

The Laddering Technique process that leads to such diagram, usually begins with semi-standardized, in-depth review series. During review session researcher should ask questions that may discover attribute-consequence-value chains. One of important difficulties is 'transparent' reviewing, which means that researcher can not suggest answers. This requires special training in question formulation, as commonly people tend to ask questions in such a way, that simple confirming is (awaited) positive information. Moreover, researcher needs to drive the review so that reviewed person may take initiative (which helps to find unexpected factors and value chains). It is very import ant, that each time an answer should be a starting point for researcher in search for new attribute-consequence-value chains. Therefore a very important is asking questions in such a way, that all vital associations may be discovered as a part of individual reflection of a person being under research. Achieving that requires all reviews to be individual and conducted by skilled researcher.

Obtained answers are presented as graphical chains between attributes, consequences and values later on. Connections are graphically represented by arrows, showing rela-

tions between linked elements. Usually, attributes come from features of product or service and may be directly observed and measured. Normally, they don't affect users values or preferences in a direct way. But theory assumes, that the product (or service) perceived usability reflects level of accomplishment of user's preferences or values (as users perceive products by satisfying user's needs) – and they come from features that are satisfied by product's attributes.

Consequences create a middle layer – between attributes and values. But what seems to be most important for user is a way in which physical attributes satisfy his/hers needs and respond to user's values (and not physical attributes of products). Therefore physical attributes need to be considered to be secondary in a process of product's definition formulation – and defined as implications of user needs reflected by consequences. Later on, consequences may be additionally described by weights reflecting importance of each consequence in order to fill user's value. The whole net of consequences allow to track which attributes are important in user's needs satisfying.

III. Research

The above described technique is helpful in finding what is important for internet buyers. It is good to have a general outline of internet buyers' positions for having an idea how to conduct individual reviews. Therefore authors have done initial internet review, which outcomes are presented in this paper. They shall be used as a starting point in future, for individual reviews.

The research was done through a dedicated Web-questionnaire. Taking part in this research didn't require entering any personal data, unless person under research wanted to be informed of the current research statistics.

The questionnaire was split into two parts: main and demographic data imprint. 438 answers was collected during this research, of which 437 was accepted for further analysis (after verifying collected answers). On charts 2 to 4 characteristics of colleted group is presented (according to imprint).

The population and characteristics of group under research was not formally constructed to be a general one. However, it is satisfactory coherent with other researches and therefore one can assume its correctness. It was decided, that its outcomes can be used for further conclusions.

The research problem was set to find what factors (or instruments) are important during the process of making a decision on buying in internet shops. The starting point for this research was finding, that 87% of respondents has ever made a purchase in an internet shop. The frequency of internet purchases distribution is shown on fig. 5

Mostly respondents did their Internet shopping in two to four shops (50%) and next quarter of them – in less then 10 shops (26,6%). Only 9,5% of respondents did their shopping in more ten 10 shops.
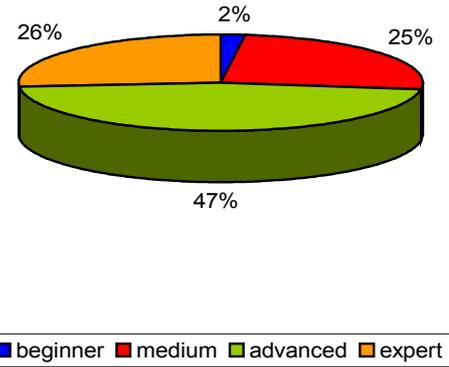

beginner ■ medium ■ advanced ■ expert

Fig. 2: Age structure of respondents

Fig. 1: Age

■ 15-19 ■ 20-24 ■ 25-39 ■ > 40
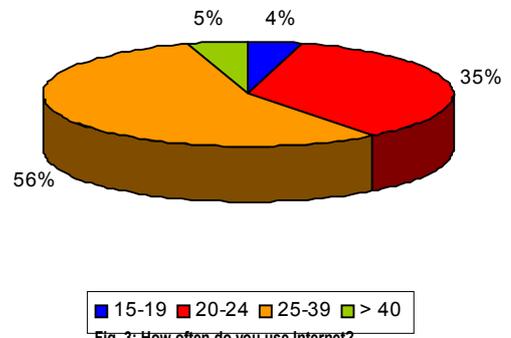
Fig. 3: How often do you use Internet?

Fig. 3: IT competences of respondents

■ Hard to say   □ Daily
■ A couple of times a week   □ Once a week
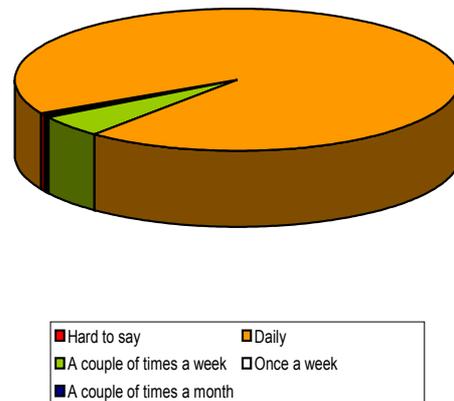■ A couple of times a month
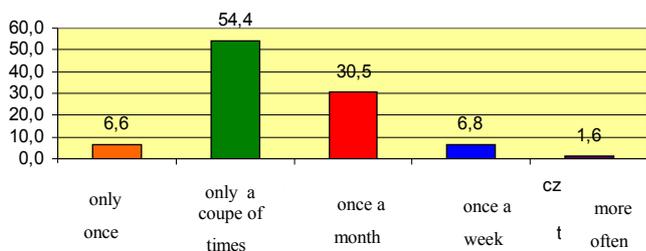
Fig. 4: How often do you use Internet?

Fig. 5: How often do you buy products/services via Internet?

Next, respondents were asked about important features of internet shops. The most important one turned to be its functionality (27,2% of answers). Other important factors are company's offer (18,7%), delivery options (11,2%), price policy (10,6%) or communication with company (10,1%). The loyalty programs gained only 3,9% of votes. This shows that consumer loyalty may be strengthened with other then implicit instruments (like points, rebates, rewards).

It is worth to remind in this point, that internauts tend to build their trust with communication means, including personalization. Of course every internet shop would like customers to get back. So the next question was what is driving clients towards returning to the virtual shops. An answer to this question would be at a time a verification of basic features important for buyers. This verification was done in research a question: 'Indicate factors that may positively influence your decision on next transaction within the web site'. Outcomes are presented in Tab. 1

TABLE 1.
FACTORS INFLUENCING REPETIVE BUYING IN AN INTERNET SHOP.

Factor	%
Price	16,42
Duration of Transaction	12,56
Delivery	9,88
Consumer service	7,87
Satisfactory previous transaction	7,71
Detailed description of the product	5,86
Oferring	5,36
Discounts for long-standing customers	5,36
Functionality	4,52
Communication	4,52
Quality of goods	4,36
Credibility	3,52
Promotions	2,51
Loyalty programs	1,68
Bonuses for customers	1,34
Diversity of payment methods	1,34
Seller 's competences	1,17

As it might be seen in Tab. 1, factors that influence customers' return decision mostly are price, transaction time, conditions and delivery means, customer service and previous experiences. The fact, that four out of five of them were previously pointed as possible means of repetitive shopping, confirms correctness of presented conclusions. Moreover, we

can consider correct consumer service to be a sine qua non condition of any consumer relations.

Considering that all these problems reflect in communication, it should be of great importance to find consumers' opinion on the most important issues of communication. That reflects in answers to the following questions:

1. Do you see need for contact with a seller before buying in an e-shop?
2. Do you expect seller to contact with you after buying in an e-shop?
3. Do you think that seller should investigate if selling process (goods, delivery, payment etc.) was satisfactory?
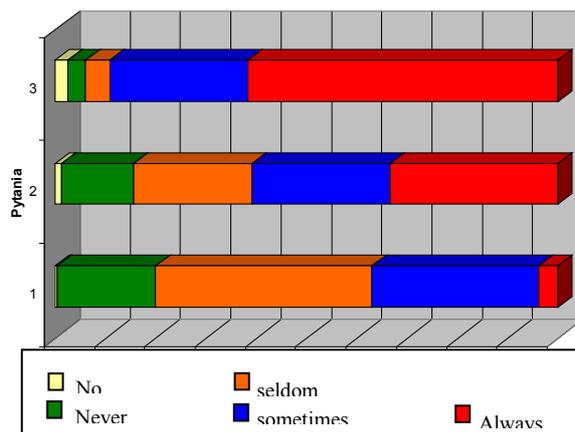
The outcomes are presented on Fig. 6.

Fig. 6: Communication importance In customers' opinions

The outcomes show large consumer communication needs. Probably this is strictly connected with Internet specifics, which is highly of communicational and informational nature. The research shows dependency, which is very often overseen – both in literature and in practice – that communication importance increases as selling process advances. Before buying sees communication rarely (43,03%) or never (19,57%). Only 3,93% of buyers tends to find any form of contact before buying. Analyzing answers to the question about expected sellers contact after sale one can observe a strong shift in consumer attitude. In this case most of internauts (33,48% in every case and sometimes – 27,34%) do expect some form of contact – and therefore importance of communication increases. Moreover next 23,48% of internauts do expect some contact only rarely after sale.

PRELIMINARY MODEL

After preliminary research it may be constructed preliminary Hierarchcal Value Map presenting consequences (relations) between universal web-product's features and abstract buyers values. Its first iteration of HVM is presented on fig. 7.

From this model we can see, that three features – quality, delivery and service seem to be most influential. There is also one identified feature – protection – which was not directly pointed by respondents, but is necessary for building expected by users value, safety namely.
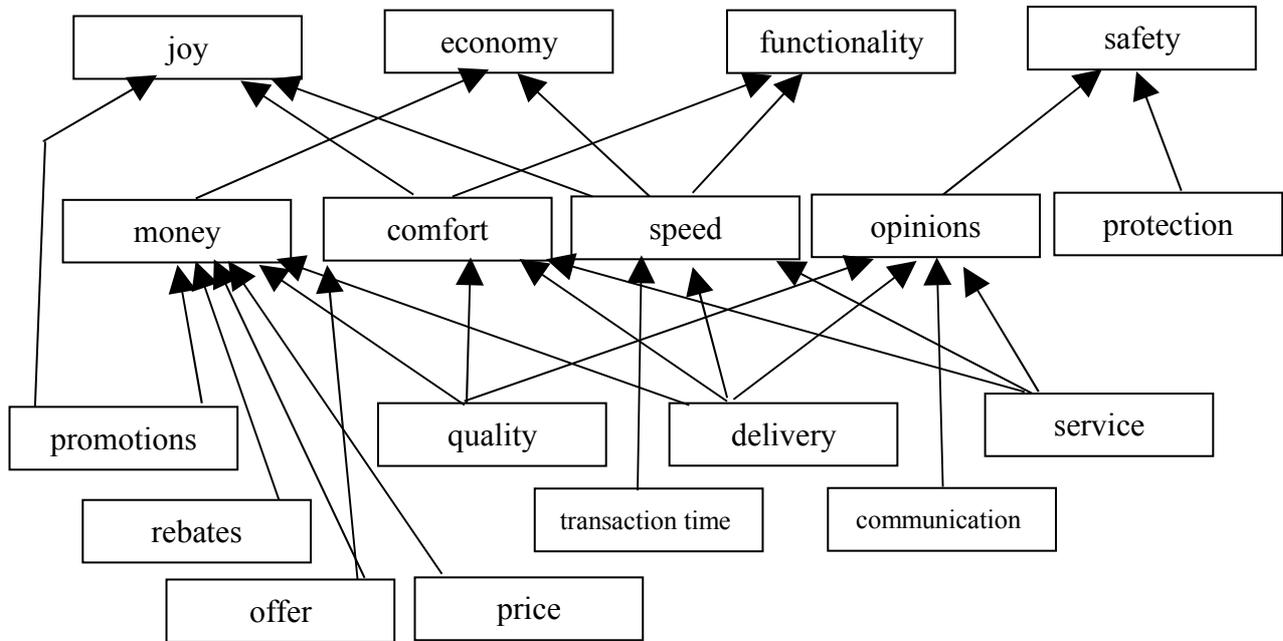
Fig. 7: Preliminary Hierarchical Value Map for web-enabled product or service

Of course this should be verified with a number of individual reviews – and for having them more understandable for people being reviewed – it seems it should be driven for a couple of characteristic web-enabled products and services.

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