

LADDERING: UNVEILING DATA GATHERING AN INTERPRETATION

ABSTRACT

Laddering is a research technique very appropriate when there is a focus on customer value and personal value understanding. It is an in deep one to one interview with content analysis used to develop knowledge on how the attributes of products can be translated to meaningful associations related to it. It is followed by the means-end chains theory, which is a construction of attributes, that take to consequences there are moved by ones personal value. Although it is opportune in marketing studies when investigating human behavior, there is a limited number of publications using it because the practical application may discourage researches. Thus, this study aims to light the marketing activity to discuss the technique and describe the main stages of the research (interviews, data collection and analysis). The description of this process was taken from a real research using the technique. It was found that even exploratory, the technique provides valuable information to support decisions in Marketing.

Keywords: Laddering; Means-end Chains; Customer Value.

LADDERING: REVELANDO A COLETA E INTERPRETAÇÃO DOS DADOS

RESUMO

Laddering é uma técnica de pesquisa bastante apropriada quando o foco está relacionado ao entendimento do valor para o cliente e valores pessoais. Trata-se de uma técnica de entrevista individual e profunda que se ampara na análise de conteúdo para desenvolver conhecimento sobre como os indivíduos traduzem os atributos de produtos em associações significativas em relação a si mesmo seguindo a teoria meios-fim, ou seja, atributos que levam a consequências e que culminam com os valores dos entrevistados. Apesar de oportuna em estudos de marketing, por investigar o comportamento humano, o restrito número de publicações sobre sua aplicação prática podem desestimular os pesquisadores de utilizá-la. Assim, o presente estudo tem por objetivo à luz da atividade de marketing discutir a técnica e descrever as principais etapas da pesquisa (entrevista, coleta de dados e análise). A descrição desse processo foi feita a partir de uma pesquisa real que utilizou a técnica. Constata-se que mesmo exploratória, a pesquisa que se utiliza desta técnica disponibiliza informações valiosas para suporte nas decisões em marketing.

Palavras-chaves: *Laddering*; Cadeia Meios-Fim; Valor para o Cliente.

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1 INTRODUCTION

Laddering is a gerund derived from the verb 'to ladder', which means climbing, since ladder is a type of non-fixed stairs. This term is also used in finance with a specific meaning, but in marketing it is a fairly appropriate technique to be used in academic or market research studies, since it addresses aspects of consumer behavior. The laddering technique allows an evaluation through simple concrete means (attributes) evolving to concepts that can be extremely abstract and difficult to be evaluated. It can be used for the assessment of personal values that consumers associate with an object that is being analyzed, which would not be easily achieved through other techniques of data collection and analysis of exploratory nature, even in those of qualitative approach.

2 MAIN TOPICS AND STUDIES RELATED TO THE LADDERING TECHNIQUE

This technique heavily relies on the concepts of the means-end chain, and therefore this study begins with the presentation of its theoretical framework followed by an explanation of the laddering technique. This theoretical framework is concluded with a list of the main publications found and used in this study.

a) Means-end chain theory. The pioneering publication addressing the means-end chains (and laddering) was written by Gutman, in 1982. Later, in 1988, Reynolds and Gutman introduced a more structured and detailed approach especially addressing the laddering theory, its method, analysis and interpretation, thus significantly contributing to a further analysis of the technique. Gutman (1982) describes that the means-end chain is a model that seeks to explain how the means facilitate the achievement of the final states desired. The means are objects (products) or activities in which people engage and ends are the states of happiness, security and accomplishment. He argues that the means-end chain model is based on two fundamental principles: (i) the personal values defined as final desired states and that play a dominant role in directing individual's choice; and (ii) people deal with the huge diversity of products that are potential to meet their personal values (motivators), grouping them into sets or classes in order to reduce the complexity of choice. The central aspect of the means-end chain model is that the

consumer chooses the actions that produce the desired effects seeking to minimize undesired consequences. According to Gengler and Reynolds (1995), consumers translate the product attributes into the production of benefits (or consequences), and the benefits are ultimately translated to the consumer in a direction oriented to personal values. For them, the means-end chain theory postulates the way by which these physical attributes of the products are related to the personal values of the individuals and define how products gain personal relevance and meaning. Following the same logic, Botschen *et al.* (1999) complement that the chain begins with the components product, service or behavior (attributes) and establishes a sequence of links with the concept of self (personal values) through the consequences perceived or benefits produced by certain attributes of the product, service or behavior. The means-end chain forms the so-called A-C-V (attributes, consequences and personal values), whose basic premises are: (i) personal values are key elements that influence consumers; (ii) consumers are able to create categories based on the roles of the products in their satisfaction and personal values; (iii) all actions have consequences, which can be desired and undesired consequences; and (iv) consumers associate consequences to actions (GUTMAN, 1982).

The means-end chain theory allows going beyond the understanding of the rational properties by reaching an understanding of its meanings in the lives of clients. As people have different values, they will have different means-end chains, and therefore, through this structure, it is possible to understand the decision making process of the consumption/purchase structure analyzed (VALETTE-FLORENCE; RAPACCHI, 1991). In the composition of the chains, there are different levels of abstraction, as shown in Illustration 1, which form a kind of continuum, from the most concrete to the most abstract. These different levels are explained in the following topics. It is worth noting that all levels of abstraction are not always present within the constructed chains.

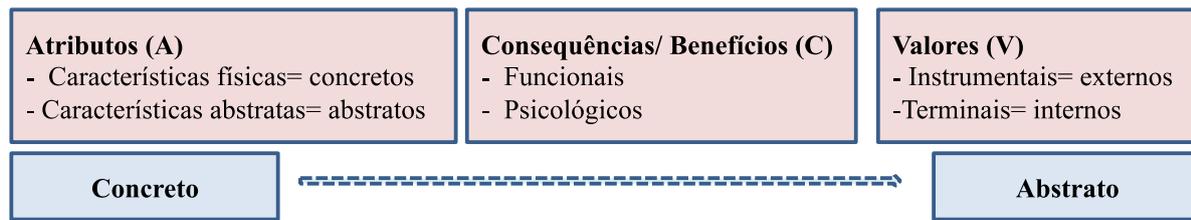


Illustration 1 – Levels of abstraction of the means-end chain

Source: Adapted from VALETTE-FLORENCE; RAPACHI, 1991, p. 31.

The attributes (A) are the characteristics of the products, services or behavior that may be preferred or sought after by consumers, these attributes can have two levels: concrete and abstract attributes, for example, price and good quality, respectively (BOTSCHEN *et al.* 1999). Botschen *et al.* (1999) assert that people expect consequences and benefits from a particular product, service or behavior. According to the authors, from the customer's perspective, it is not the attributes of the product that counts, but the solution of the problem (the recurring benefit) derived from a certain combination of attributes. According to Gutman (1982), consumers make choices and thus learn what attributes will produce the desired consequences. For the author, consumers seek consequences and the situations of consumption provide the opportunity to achieve them. Thus, the consequences (C) are defined as: "[...] any physiological or psychological result directly or indirectly from the consumer (first the behavior and then the consequences) that may be desirable or undesirable for the consumer (GUTMAN, 1982 p. 61)." The consequences can be direct or indirect, and Gutman (1982) exemplifies this difference describing that, by buying a dress, there is a direct consequence that makes the consumer feel better, and for feeling better, people react more favorably to that individual (an indirect consequence). The consequences/benefits can be classified into functional and psychological. Functional consequences directly influence the act of consuming/buying, while the psychological consequences are produced through the functional consequences, such as when using a product can produce a sophisticated image or status (VALETTE-FLORENCE; RAPACHI, 1991). Personal values (V), on the other hand, are defined by Rokeach (1973) as multifaceted and work as a guide in a variety of ways. The author describes them as "[...] an enduring belief that a specific mode of conduct or end-state of existence is personally or socially preferable to an opposite or converse mode of conduct or end-state of existence" (p. 5). And that "values are standards that tell us how to rationalize in the psychoanalytic sense, beliefs, attitudes and actions that would otherwise be personally and socially unacceptable so that it will end with personal feelings of morality and competence, both indispensable ingredients for the maintenance

and enhancement of self-esteem" (p. 13). He identified 36 personal values, classifying them into two groups:

- Instrumental personal value is related to behavior (that is, being honest or open-minded) and is indispensable to achieve the final states. It is the motivation, because they are the idealized behaviors, tools, to achieve the desired end states.
- Terminal personal value is related to the end states of existence (that is, happiness, security, and accomplishment). Terminal personal values are enduring beliefs, specific modes of conduct or end states of existence, the final goals, which, if approved over time, lead to desirable end states, such as a comfortable life, a sense of accomplishment, a world of peace, or racial equality. He concludes that the instrumental and terminal values are related, but organized in a separate manner. Gutman (1982) adds that in the marketing perspective, it is not the end state, but its relationship with the ability to influence the consumer towards the end state that leads to a significant role to the means-end chain model.

b) Laddering Technique. The laddering technique involves an in-depth discussion focused on the connections between personal values and the process of choice (GUTMAN, 1991). The primary meaning of ladder is to move from the lowest level (surface/concrete/tangible/objective) to the highest level (depth/abstract/conceptual/subjective). The technique is mainly associated with studies on consumer values, because it enables the discovery of forming constructs and motivators. The laddering technique was inspired by the study of Kelly (1955) who, in the field of psychotherapy, developed the so-called "Repertory Grid" to identify the ways by which people construct meaning for the objects and interpret their experience. Gutman (1982), Reynolds and Gutman (1988), who are the main authors of the technique, quote Kelly regarding the use of different levels of distinction for interpreting the meaning of something.

Laddering involves a tailored interviewing format using primarily a series of directed questions, characterized by the question “Why is it important for you?”, with the express purpose of determining the set of links between the main elements of perception across the range of attributes (A), consequences (C) and personal values (V) (REYNOLDS & GUTMAN, 1988, p. 12).

According to Wansink (2000), in the survey, the respondents initially answer why they prefer a certain product or service usually being something related to the attribute. Thus, these attributes are related to the personal consequences for them and then the consequences are related to the personal values. Each attribute, consequence and personal value is found through a question based on the previous answer. According to the means-end theory, it is possible to establish a sequential connection in the hierarchy of value, forming the chain called ladder A (attribute) – C (consequence) – V (value). The same author concludes that it is possible to climb the steps to reach the actual reasons, or personal values, and that many consequences can be revealed by the

respondents until the value is unveiled. Each A-C-V sequence forms a means-end chain or a ladder. At the end, there is a several sequences, resulting from the interviews with respondents.

According to Reynolds and Gutman (1988), the elements that make up the means-end chain form elements presented sequentially obtained from the respondents as a function of the technical capacity derived from the laddering, causing the respondent to critically think about the connections between the product attributes and, in this case, their personal motivations; thus allowing the construction of a summary table representing the number of connections between the elements. In this summary table, the dominant connections can be graphically represented in a tree diagram, called Hierarchical Value Map (HVM). The authors state that this type of cognitive map is structural in nature and represents the relationships or associations between different levels of abstraction. The HVM thus summarizes all interviews held or “ways of thinking” with the dominant representations about the subject studied.

Table 1- Articles that address laddering and means-end chain

Year	Title	Authors
1975	<i>Using the benefit chain for improved strategy formulation</i>	Young, S.; Feigin, B.
1981	<i>A means-end model for facilitating analyses of product markets based on consumer judgment</i>	Gutman, J.
1982	<i>Means-end chain model based on consumer categorization processes</i>	Gutman, J.
1988	<i>Laddering theory, method, analysis, and interpretation</i>	Reynolds, T.J.; Gutman, J.
1991	<i>Exploring the nature of linkages between consequences and values</i>	Gutman, J.
1991	<i>Means-end chain: connecting products with self</i>	
1991	<i>Improvements in means-end chain analysis-using graph theory and correspondence analysis</i>	Valette-Florence, P.; Rapacchi, B..
1995	<i>Determination of the dominant means-end chains A constrained clustering approach</i>	Aififeiue, J.M.; Florence, P.V.
1995	<i>Measuring subjective meaning structures by the laddering method: Theoretical considerations and methodological problems</i>	Grunert, K.G.; Grunert, S.C.
1995	<i>Applying laddering data to communications: Strategy and advertising practice</i>	Reynolds, T.J.; Whitlaik, D.B.
1995	<i>Consumer understanding and advertising strategy: analysis and strategic translation of laddering data.</i>	Gengler, C. E.; Reynolds, T.
1995	<i>Measuring subjective meaning structures by the laddering method: Theoretical considerations and methodological problems</i>	Grunert, K. G.; Grunert S.C.
1998	<i>A causal Analysis of means-end hierarchies in a cross-cultural context: methodological refinements</i>	Valette-Florence, P.
1999	<i>Using means-end Structures for benefit segmentation: an application to services</i>	Botschen, G.; Thelen, E. M; Pieters, R..
2000	<i>New techniques to generate key marketing insights</i>	Wansink, B.
2001	<i>Laddering in the practice of marketing research: barriers and solutions</i>	Veludo-de-Oliveira, T.M; Campomar, M.C.; Ikeda, A. A.
2003	<i>Conhecendo o "valor do cliente" de um jornal on-line</i>	Leão, A. L. M. S.; Mello, S.C.B..
2004	<i>Usos e limitações do método laddering</i>	Veludo-de-Oliveira, T.M; Ikeda, A.A.

2005	<i>Explaining choice option attractiveness by belief elicited by the laddering method</i>	Giunert, K.G.; Bech-Larsen, T.
2006	<i>Discussing laddering application by the means-end chain theory</i>	Veludo-de-Oliveira, T.M.; Campomar, M.C.; Ikeda, A. A.
2007	<i>On the hierarchical nature of means-end relationships in laddering data</i>	Rekon, J. V.; Wierenga, B.
2007	<i>The mean-end approach to understanding customer values of a on-line newspaper</i>	Leão, A. L. M. S.; Mello, S.C.B..
2008	<i>Laddering em pesquisas de marketing.</i>	Veludo-de-Oliveira, T.M.; Ikeda, A.A.

Source: developed by the authors

Table 1 shows a list of relevant studies on laddering and means-end chain for those who wish to know the previous studies and detailed aspects of this technique. There are two ways to use laddering, the traditional way, also called soft laddering, and the so-called hard laddering. Soft laddering is the conventional technique, with a semi-structured individual interview, where the flow of the speech of the respondent is more free and with little intervention from the interviewer providing greater freedom of expression, it is usually recorded and requires a more specialized knowledge of the researcher, who will implement it (KACIAK, CULLEN, 2009). On the other hand, hard laddering forces the respondent to produce the ladders in a predetermined sequence using a software, such as LADDERMAP. There is a structuring of information to collect data that requires a lower expertise of the researcher, as it uses more structured interviews and pre-established procedures in data collection. The studies of Kaciak, Cullen and Sagan (2010) and Phillips and Reynolds (2009) explore this aspect. In this study, the approach is the traditional method, soft technique, as it is believed that the manual technique brings greater benefit in learning and absorption of information by the researchers.

3 A FIELD RESEARCH USING LADDERING

Below it was described the use and application of the laddering technique detailing the main stages of a field research conducted aiming to facilitate the understanding of the process as a whole. In this research the main question was: “which personal values underlie the experience of buying toys?”. The research depicted in this study was carried out with 15 mothers according to the qualification of the selected profile. The duration of the interviews ranged from 55 to 110 minutes (74 minutes on average). The steps to be presented are: (i) interviews and data collection, (ii) analysis and interpretation of data.

(i) Interviews and data collection. According to Reynolds and Gutman (1988), it is necessary to explain to the respondent that there are no right or

wrong answers and that the purpose of the interview is simply to understand the ways how the respondents consider a particular set of products or services. The interviewer is a facilitator/conductor who continually makes the question “why is this important to you?” (REYNOLDS; GUTMAN;1988). The constant questions “why?” are one of the outstanding features of laddering, as they motivate deeper reflections about the real motivations, and help entering more subjective questions. Initially, the respondent is asked about what kinds of features would be useful to describe or distinguish different brands or products to then obtain the key attributes. In the case of toy stores, the stimuli were made aiming to evoke the situational context in question. Reynolds and Gutman (1988) recommend three formulas to stimulate this step, working mainly in the distinct characteristics between different offers, which are: (i) triadic sorting: three different options (of brands, for example) are presented and the respondent is asked to indicate differences and similarities of two in relation to the third; (ii) differences of preference: an order of preference to then mention the reasons and (iii) differences of occasion: the customer is inserted in a context (of consumption, for example) where they describe the characteristics relating to this context.

The researcher's knowledge and preparation for the application of the technique is paramount to obtain effective results. To assist in this process, Wansink (2000) describes good practices to be used by the researcher during an interview using the technique and one of the main characteristics of the technique is to avoid the answer yes and no and, through the “whys?” reveal the reasons which are often latent. It was noted that the use of the technique, for exploring deeper and also subjective factors, might motivate an awareness on the part of respondents, who expose their beliefs and deep motivations.

The research protocol assisted in conducting the interviews, which were recorded so that there was no loss of content. In addition to the recordings, there was the use of annotations, for the partial construction of some ladders evidenced during the interviews. There was a greater ease in the creation of the ladders when they were built soon after the interview. The step of analysis proposed in the technique is sensitive because the researcher must interpret in a neutral and

faithful manner the recording, than can then be added to the recordings of the facial expressions and body movements, once it is necessary to adapt the words of the respondents to the constructs identified within the coding of the content without losing the essence of the meaning. In this application, there was a choice to use the mapping of concrete and abstract attributes, functional and psychological consequences and instrumental and terminal personal values.

Out of the total interviews, 155 ladders were built. Each interview generated on average 10 ladders (minimum of 8 and maximum of 14). In general, the ladders emerged naturally during the interviews. The difficulty emerged with the profiles of people who were more objective, rational and with more reserved personalities, as they would "hide" the personal values that motivated them. Through the constant questions "why?", many shoppers expressed doubts, and for this reason, previous explanations were given to avoid simple answers and explain that the constant questions "why?" were part of the methodology that was being applied. In addition, at this moment there was no concern to create linear chains, as some ladders would stop evolving at a certain point, with the possibility of recovering them later, with a different situational stimulus that could or could not emerge naturally. That is, the construction of a single ladder emerged in different moments of the interview. The identification of the personal values was guided by the definitions made by Rokeach (1973).

(ii) Procedure for the analysis and interpretation of data. To assist this step, a partial transcript of the interviews was made, to then proceed with the content analysis for the preparation of the coding of the factors that relate to the research subject, and finally, classify the attributes (A), consequences (C) and personal values (V) identified in the interviews and their dominant perceptions. This stage included the following steps: (a) content analysis, (b) construction of the implications matrix, (c) construction of the hierarchical value map and (d) determining the orientations of dominant perceptions and (e) interpretation of results.

(ii.a) Content Analysis. The material obtained in the interviews from the transcripts of the tapes with the interviews was submitted to content analysis. Reynolds and Gutman (1988) state that it is necessary to register everything in order to develop a general sense of the types of elements followed by a set of keywords selected and coded as a synthesis that reflects everything that was mentioned. According to them, this is firstly done by classifying all the answers according to the characteristics of A-C-V to then turn them into individual summary codes. The point out that the purpose of this analysis is to find the fundamental meanings of the object of study, noting

that the focus is the relationship between the elements. The result of this step is a set of elements (keywords) listed in an A-C-V sequence, which expresses the reasoning of the respondents. It is necessary to select the sections that have a greater relationship with the object of research and stand out due to their meaning. The content analysis was performed through the coding of the elements identified in the value dimensions.

The steps were:

1. Transcript of the interview.
2. Detailed reading of the transcript highlighting the important aspects to help in the construction of the elements forming the chains.
3. Preliminary construction of the chains during the readings, followed by the structured construction of the chains with references to the attributes, consequences and personal values coded and named (performed individually, by interview).
4. At each new interview analyzed, there is a mapping of the need for opening new elements within the coding and nomenclatures already identified in ladders built through the previous analyses.
5. Detailed classification of each element based on the context identified, that is, built to represent the element in all ladders on which it was present.
6. Constant review of the names of the elements, evaluation of overlapping of meanings and renaming when necessary. Retroactive revision, where necessary, considering the ladders already built.
7. Closing of elements, meanings, and individual ladders.

The construction of ladders is a very long process, due to the need for a constant revision including ladders already built, for the analysis of coherence and consistency between them. With certain frequency, elements are created with different names, but with similar meanings and that needed to be integrated subsequently. During the construction of the ladders, a certain degree of generalization of the nomenclature was required, generating, in some cases, a loss of essence, and for this reason it was noted the importance of building an in-depth descriptive content of analysis of interviews. That is, including a descriptive part (in addition to the chains) adding to the interpretation of the means-end chains obtained through the study. The reading and rereading of the contents of the interview helped the identification of relevant parts for the construction of ladders, and from these it was extracted the essence for building the elements. It was sought to keep the focus on the central

meanings of the elements, which appeared to be representative, so some elements were grouped, as they appeared to be less relevant for the analysis of results. Leão and Mello (2003) mention that it is possible to identify how the respondents expressed, even with different terms, the same opinion about something, to allow grouping the quotes in the most representative elements of meaning. This grouping is also described as a good practice by Reynolds and Gutman (1988). There are twists and turns during the construction of the ladders, as there may be, for example, the need to breakdown an element that appeared to be relevant throughout the interviews. The analyses are made and only in the last interview, it is possible to find the final elements of each respondent, because even finalized the elements mapped at the beginning may change. It is a flexible and time-consuming process, where one seeks to avoid giving different names for the same things and grouping in a coherent manner the major topics identified in the survey. There is also a constant questioning about the entry of new elements. If the same researcher interviews and conducts the data analysis and interpretation in full, it has the advantage of having a holistic view of all the information gathered. The next step is to code these elements, based on the allocation of numbers arranged in ascending order and that refer to attributes, consequences and personal values. The final result is consolidated in a summary table containing the main elements derived from the interviews, classified and coded within the value hierarchy. The coding is used to facilitate the placement of each element in a ladder, thus producing a matrix with the ladders of each respondent (thus represented by codes). The standard technique uses a consecutive numerical coding, starting in attributes

and ending with personal values. The coding can only be finalized (and final) after the completion of all analyses through the confirmation that there is no additional element in the formation of ladders. This coding is laborious because when an attribute is inserted, the numbering of the elements that form the consequences or personal values also have to be changed, hindering the use of codes from the beginning of the formation of ladders. Therefore, in the research described it was decided to adapt the proposal of Reynolds and Gutman (1988), putting ahead of the number a letter corresponding to the group to which the element belongs. The letter corresponds to the attributes, consequences and personal values; and the number corresponds to the code present in each one of them; for example:

- Concrete attributes: A (A1, A2, A3, A4, A5...).
- Abstract attributes: B (B1, B2, B3, B4, B5...).
- Functional consequences: C (C1, C2, C3, C4, C5...).
- Psychological consequences: D (D1, D2, D3, D4, D5...).
- Instrumental personal values: E (E1, E2, E3, E4, E5...).
- Terminal personal values: F (F1, F2, F3, F4, F5...).

The result of the content analysis, expressed in a summarized manner in Table 2, allowed the identification of 52 elements (code A1 to F6), as well as the classification, according to the means-end chain model.

Table 2 – Representation of the summary of codes

Code	Element name	Times it appears
Concrete Attributes		
A1	Assortment	71
A2	Low price toys	9
A3	Brand/theme/type of toy	7
A4	Area for children	9
A5	Permission to touch/grab toys	11
A6	Building toys/games	10
A7	Large store	9
A8	Store environment	9
A9	Store location	5
A10	Display	5
A11	Colorfulness	5
A12	Information	11
A13	Price	9
A14	Educational toys and books	14
A15	Toys for outdoor area	6
A16	Store staff	14
Abstract Attributes		
B1	Store Atmosphere	15
B2	Options	27
B3	Known references	15
B4	Entertainment	24
B5	Children's world	13
B6	Quality/benefits	30
B7	Usefulness	30
B8	Novelty	13
Functional consequences		
C1	Requires little time and money	24
C2	Tranquility	18
C3	Raises interest in the child	20
C4	Development of cognitive and behavioral skills	26
C5	Finding different items	18
C6	Magical, playful stimuli	32
C7	Safety in choice	16
C8	Leisure program	13
Psychological consequences		
D1	Freedom of choice	23
D2	Stimuli for education	34
D3	Effective expenditure / valuation of money	23
D4	Leads to the fantasy world	30
D5	Feel good	29
D6	Small treat	11
D7	Brings childhood/nostalgic memories	17
Instrumental Personal Values		
E1	Loving	11
E2	Imaginative	34
E3	Self-control	19
E4	Welfare	14
E5	Helpful	50
E6	Independent	13
E7	Joyful, glad	14
Terminal Personal Values		
F1	Prosperous life	20

F2	Beautiful world	15
F3	Sense of accomplishment	49
F4	Pleasure / Happiness	34
F5	Freedom	9
F6	Exciting/active life	28

Source: Representation proposed by the authors.

As important as the identification of the elements that make up the dimensions of customer value in the shopping experience is the description of the meanings attributed to them. The most tangible level of the elements was classified as concrete attribute, that is, an objective characteristic; as for the abstract attribute, the most intangible elements. The consequences, or benefits, were also classified into two levels, the first being the functional consequences, that is, the most objective benefits; and the second, the

psychological consequences, which are more indirect and address the influence of this consequence in the emotional state or feeling of the respondents. The personal values were separated into instrumental and terminal, as proposed by Rokeach (1973), where the instrumental values are taken as the means to achieve the final states, defined as terminal personal values. The method used for the significance attributed to the elements is illustrated in Table 3.

Table 3 - Example of description of the elements of the value dimensions

CODE	ELEMENT DESCRIPTION
A4	Area for children: Physical area available at the premises of the store where the child can have contact with stimuli of interaction purposefully positioned in the place, such as: differentiated decoration, tables with games, slide, toys open for handling, etc.
B1	Store Atmosphere: Area of the store and its multiple sensory stimuli: sound, sight, smell and touch.
B2	Options: Relates to the quantity, volume. Possibility to purchase, select products and services provided/offered/sold in the store.
C2	Tranquility: Allowing a period of peace, serenity and introspection without the interruption from others, especially children. There are also cases where the benefit is to have the child under emotional control, without crying. There are mothers who seek this tranquility for longer periods and for this they use toys as a means of reward for good behavior. It also relates to the quality of the route in the store (accumulation of people, amplitude of the aisles, no boxes on the way, etc.) and for the store (distance, traffic, access and parking).
C3	Raises interest in the child: Degree of attraction exerted on the child by means of objects and scenarios that delight children, draw attention and create desire. Developing a reflection of the adult or the child about what the child likes.
D1	Freedom of choice: Able to choose individually whatever is deemed interesting to meet their needs or desires. The feeling of freedom of choice of shoppers may arise when they exercise their freedom of choice or when the child does so.
D2	Stimuli for education: Provides additional support to the overall learning process of the child who will receive the toy, thereby assisting in the construction and development of their future.
E2	Imaginative: Bold, creative. Possibility of traveling in the internal creative world, present in the mind. It awakens the imagination, fantasy, creation of mental images, through the creation of stories, contexts, memories and even the construction of physical objects.
F1	Prosperous life: Belief that success in life, of a comfortable life, especially with regard to the financial aspect. Feeling that "now I can."

Source: Representation proposed by the authors.

Based on that, the individual ladders were built, so that they could be consolidated for a joint analysis. The ladders were first created firstly based on the nomenclature adopted to then be transcribed to the coding language, thus facilitating the construction of analysis and counting. Table 4 shows the model of ladders built based on the analysis of a respondent, that

is, it is an individual response coded. The respondent taken as example generated 10 ladders, and many of them included code A1 as their main concrete attribute with respect to the assortment offered in the store. The A1 was either alone as a concrete attribute, or associated with another attribute, as well as the A14 (educational toys and books), A6 (building

toys/games) and A3 (brand/theme/type of toy), and these were related to different components B, C, D, E or F, depending on the context in which the consequences (benefits) were being addressed, these consequences were either functional or psychological.

As a result of the content analysis and identification of the elements, the analyses were developed for each respondent. The creation of coded ladders enabled the analysis that integrates the different results obtained.

Table 4- Model of the ladder creation arising from one interview

Ladder 1	Ladder 2	Ladder 3	Ladder 4	Ladder 5	Ladder 6	Ladder 7	Ladder 8	Ladder 9	Ladder 10
1	2	3	4	5	6	7	8	9	10
A7	A10	A9	A1	A1	A1	A1	A16	A12	A1
			A14	A6					A3
B2	B1	B6	B7	B7	B8	B8	B7	B6	B3
C5	C1	C2	C4	C4	C5	C6	C5	C7	C3
D5	D5	D5	D2	D2	D6	D7	D6	D2	D4
E4	E4	E4	E5	E5	E2	E4	E5	E5	E2
F4	F4	F4	F6	F6	F4	F4	F3	F3	F3

Source: Representation proposed by the authors.

(ii.b) Construction of the implication matrix. After the construction of the individual ladders, codes and construction of the content of elements it is possible to build the analysis integrating the different results, where there is the development of the implication matrix.

According to Reynolds and Gutman (1988), this step involves the construction of a matrix which shows the number of times that each element takes to another element. It is qualified as a square matrix with a size that reflects the number between 30 and 50 elements establishing among themselves direct and indirect relations (when there are other elements between them). The number of relationships between the elements is presented in the matrix in a fractional manner, where the direct relationships (XX) appear to the left of the point and indirect relationships (YY) to the right of the point.

The implication matrix was sought to understand how strong or present are each of the elements, and what are the most present direct or indirect connections between them. That is, there is a construction of integrated and representative ladders, called chains. From that point, the word *ladder* was used referring to the nomenclature of the individual sequences of the respondents, and the nomenclature *chains* to the sequences resulting from the joint analysis of the ladders through the implication matrix. The implications matrix shows the number of times that each element takes to another element, and is qualified as a square matrix establishing direct relationships between them (when directly related, represented by XX) and indirect relationships (when there are elements between them, for example, the connection of concrete attributes with functional consequences, where there is the abstract attribute

between them, represented by YY). If it is taken the example Table 4, in ladder 1, there is an element A7 directly relating with the element B2 (XX) and the same element A7 indirectly relating with the element C5 (YY). During the construction, the elements were placed in the matrix in rows and columns to allow the identification of the relationships. In the rows, there is the element being analyzed and in the column is the number of times it related with each one of the other elements. Since, in this example, the concrete attributes do not relate with others, they do not appear in the columns, except for A1 (assortment), which in this case related with other attributes. To facilitate the construction of the joint implication matrix, it relied on the construction of individual matrices, separated into direct and indirect, to then sum add and join the direct and indirect connections through the semicolon. The matrix forms a relationship XX;YY, where XX (always positioned on the left) represents the direct relationships and YY (on the right) represents the indirect relationships. The direct relationships are those that are between adjacent elements, that is, that are side by side, and the indirect relationships refer to elements that have at least one element between them.

Unlike the implication matrix proposed by Reynolds and Gutman (1988), where there are no breakdowns between elements, and thus a connection of attributes with attributes and consequences with consequences, in the example it was chosen to continue with the breakdowns, but having one way only, as there was no need to connect concrete attributes with specific attributes (except for element A1), abstract attributes with abstract attributes and so on. Thus, there was only one way where each ladder had at least six elements and at most seven (when A1 was connected to another concrete attribute). It

generated an implication matrix where the relationships are either direct or indirect, thus not leading to a direct and indirect connection between the same elements (except for the element A1). Therefore, the only case where XX; YY has nonzero value in both fields is in the element A1; in the others, the connection is either direct or indirect. According to Reynolds and Gutman (1998), the meaning of the element is part of the function of the number of connections that it has with other elements, hence the need for counting.

Another option adopted in the construction of the implication matrix taken as example was the single count of each connection for each respondent, that is, instead of counting each time the element appears relating with another, within the ladders constructed from the same respondent, every relationship between elements of each respondent corresponds to only one count, no matter how many times the respondent

mentioned it, thus avoiding distortion in the representativeness of the results. For example, in Table 4 that shows the ladders created in an interview, even with four connections between element E4 and element F4, this connection was counted only once. The single independent count of the number of times the respondent mentioned is an option cited by Reynolds and Gutman (1988, p. 20). For this, there was a manual assembly of the implications matrix at first by respondent and then adding all respondents. The characteristic of the individual matrix was having the number 1 (when there was a connection between the elements) or zero (when there were no connections). With this,

the number shown in XX or YY refers to the number of respondents that interconnected the two elements.

Table 5 - Implication matrix (XX;YY) with direct (XX) and indirect (YY) representations

	A1	B1	B2	B3	B4	B5	B6	B7	B8	C1	C2	C3	C4	C5	C6	C7	C8	D1	D2	D3	D4	D5	D6	D7	E1	E2	E3	E4	E5	E6	E7	F1	F2	F3	F4	F5	F6		
A1			10;01	04;08	;05	;01	04;02	01;10	12	;01	;02	;06	;13	;09	;11	;04	;06	;05	;15	;05	;09	;01	;04	;13	;05	;13	;02	;04	;12	;03	;05	;08	;04	;10	;08	;02	;10		
A2			03	04	02					;05	;02	;01			;01			;01		;03		;05		;01	;02	;05	;01		;02	;04	;03								
A3	05	01	04	01						;01	;02		;02	;02		;01		;02	;02		;01		;01		;03			;01	;01	;01	;02	;02	;01					;01	
A4		01		07;01	01					;03	;01		;03	;03		;02	;03			;03	;03			;02	;01		;01	;04	;01	;01	;01	;04	;02	;01					;01
A5			01		03	02	05			;01	;04		;01	;02	;01	;01	;04	;01	;02	;03	;01			;01	;02	;01	;04	;02	;01			;02	;06	;01	;02				
A6	10			01	03		01	05				;07				;02		;07					;02	;02		;02		;04	;01			;02						;07	
A7		04	05							;01	;03		;04	;01		;03		;03		;01	;01	;04				;03	;01	;03	;02		;01	;01	;02	;04				;01	
A8		05			01	03				;01	;01	;01			;05		;01			;05	;03		;01	;01	;03		;02	;02	;03	;01	;03	;01	;03	;01	;03			;01	
A9					05					;03	;02										;05					;02	;03			;01	;03	;01	;03	;01					
A10		03			01		01			;02	;02			;01							;01	;04					;02	;02	;01	;01	;01	;01	;01	;02					
A11		02			03										;05						;05					;03				;02	;04							;01	
A12						10				;01		;04	;01			;04		;01	;06	;02						;03		;07		;01			;07	;02				;01	
A13			05				02	01		;06						;02				;08			;01	;01			;08							;07				;01	
A14	13		01	03			01	08					;12	;01	;01				;11		;02			;01	;01	;04			;09					;06			;07		
A15	06			02	02	01						;04					;02		;05		;05				;01			;02	;02	;01								;06	
A16				03					11		;03	;02	;01		;01	;01	;04	;02	;05		;01	;01	;06	;01		;01		;02	;08	;03		;02	;01	;06	;02	;03			
B1										02	02				05						;03	;07		;01		;03	;04	;04	;02	;01	;06	;01	;05					;01	
B2										07	03	04		07	02	02	01	;06	;02	;08	;03	;01	;03	;01	;01	;05	;08	;01	;06	;01	;04	;02	;10	;03	;02				
B3										01	02	03	01	03	02	02	01	;01	;01	;02	;02	;01	;07	;02	;08		;01	;01	;02	;02	;03	;02							;03
B4										02	04	02	02		03	06	;06	;03	;01	;03	;04	;03	;01	;05	;02	;03	;01	;02	;06		;01	;01	;03	;06	;03	;05			
B5										01	02	02	01	01	05				;01	;01	;06		;01			;03		;01	;01	;04	;02	;02		;05	;01	;01			
B6										04	02	06	04	02	02	06		;02	;08	;06	;02	;08			;01	;04	;05	;03	;11	;01	;01		;11	;05				;05	
B7										05	03	02	10	01	01	04		;04	;10	;02	;02	;06	;01			;03	;01	;02	;11	;02		;02	;01	;08	;02	;01	;06		
B8													06	06	01		;02				;04		;01	;07	;02	;06		;02	;01	;05								;02	
C1											02								08		07	03		;02	;01	;07	;02	;05								;11	;03		
C2																		03		01		06	02				;02	;04	;04	;05	;02	;03	;03	;02	;05	;03	;01		
C3																		04;01	05	02	04		01			;05	;01	;04	;01	;03	;03	;01	;03	;05				;03	
C4																			13		01		03	;02	;04		;01	;10							;06			;10	
C5																		06	01	01	02	02	02	02	02	;03	;04		;02	;07		;02	;04		;05	;06	;01	;01	
C6																		01	01	09	01	01	08	;02	;12		;01	;02	;01	;04	;05	;09	;01	;07	;01	;03			
C7																				02	07		04					;04	;02	;07		;01	;04		;07	;01	;01		
C8																				02	02		02	02		04	;03	;04		;01								;02	
D1																											03	02	01;01										
D2																											01	03		02	12	01	01					;10	;01
D3																											01	10		03		01	;03		;10	;03	;01		
D4																											02	10		01	01	04	;03	;05	;02	;08	;01	;03	
D5																											01		03	06	08	02	02	;03	;04	;08	;04	;02	
D6																											03	02	02		02	01	01	;04		;04	;02	;01	
D7																											02	11		02	01	01	;03	;03	;01	;06		;03	
E1																																						02	02
E2																																							06
E3																																							01
E4																																							02
E5																																							07
E6																																							02
E7																																							01

Source: Representation proposed by the authors.

Table 5 shows the implication matrix that shows value XX on the left and value YY on the right. Since zero was deleted to facilitate the visualization of the table, the semicolon was placed before YY to characterize it. For interpreting the table with the implication matrix, it is recommended to start by the line, to understand the relationship of each element with another element shown in the columns; for example, the element A1 has zero connection with B1, 10 connections with B2 and an indirect connection with it and so on. The reading continues this way, thus enabling a way to analyze the summary table of all the connections present in the ladders

constructed. The construction of the implication matrix is a slow and detailed process, but quite revealing after completion. It is the result of the analysis so builds an accurate and consolidated image of the results achieved in the research. Table 6 allows a better visualization of the relationships between the elements, with regard to the number of direct or indirect connections. The element with the highest number of indirect connections from it is A1. As it can be seen, there is no relationships starting from the personal values, because they are at the highest level of the hierarchy of the chains.

Table 6 - Summary of direct (XX) and indirect (YY) relationships forming (XX;YY)

Code	From (XX;YY)	To (XX;YY)	Code	From (XX;YY)	To (XX;YY)
A1	31;216	00;00	C3	16;29	18;20
A2	09;36	00;00	C4	17;34	20;37
A3	11;26	05;00	C5	16;35	18;17
A4	09;36	00;00	C6	21;48	27;32
A5	11;43	00;00	C7	13;27	14;17
A6	20;36	10;00	C8	12;22	10;16
A7	09;36	00;00	D1	17;18	18;44
A8	09;36	00;00	D2	20;21	24;70
A9	05;20	00;00	D3	15;17	19;44
A10	05;20	00;00	D4	18;22	18;57
A11	05;20	00;00	D5	22;22	22;55
A12	10;42	00;00	D6	11;11	09;22
A13	08;34	00;00	D7	17;16	17;36
A14	26;55	13;00	E1	11;00	29;101
A15	12;24	06;00	E2	27;00	12;37
A16	14;56	00;00	E3	12;00	16;54
B1	09;38	15;00	E4	10;00	10;43
B2	26;68	26;01	E5	30;00	32;131
B3	14;40	14;08	E6	08;00	10;34
B4	19;59	24;05	E7	12;00	11;41
B5	12;29	13;01	F1	00;00	16;76
B6	26;73	28;02	F2	00;00	14;58
B7	26;64	28;10	F3	00;00	27;165
B8	13;40	12;00	F4	00;00	27;131
C1	20;31	21;22	F5	00;00	06;32
C2	12;34	17;19	F6	00;00	20;96

SOURCE: Representation proposed by the authors.

(ii.c.) Construction of the hierarchical map of value (HMV). The third step of the analysis of the laddering technique is the construction of the hierarchical map of value (HMV), which visually shows the chains with stronger connections. It is a complex and laborious step to be performed manually. The construction of the map is performed through the implication matrix that supports the construction of integrated chains. The purpose of the HMV is described by Reynolds and Gutman (1998, p. 23) as follows: “mapping the hierarchical relations and interconnect all meaningful

chains in a map in which all relations are exposed [...] resulting in a map that includes all relevant relations, and yet is easy to read and interpret.” Thus, not all direct and indirect relations are considered, only the most representative for the visualization to be facilitated.

This step maps the existing direct or indirect relations between the various elements and shows them in a simple way. The hierarchical map of value is a visual and representative chart, that is why Gengler and Reynolds (1995) argue that the HVM contrasts

current positions and develops scenarios that ultimately may become strategic options. Reynolds and Gutman (1988) argue that to construct an HVM from the implication matrix, it should start from the adjacent relations to a gradual construction, which connect all the chains that are formed by means of elements to a large matrix. They argue that to make the HVM, a series of pairs are connected, and the criteria for evaluating the relations is the number of relations between the elements. Not all relations between attributes, consequences and personal values are considered, but the most important ones, so during the construction of the hierarchical map of value (HVM), it was tracked the direct and indirect relationships with a sample greater than or equal to 4 respondents (minimum of times each element appears in the matrix), causing various cells of the matrix to be

discarded for presenting responses of relations below the cutoff point (weaker relationships). Reynolds and Gutman (1988, p. 20) recommend that the cutoff line is between 3 and 5 respondents for each connection. It was conducted a test with the cutoff in three or more respondents, but the number of relations between the variables generated a hierarchical map impossible to be viewed due to the large number of connections and intersections. With the option of researchers to establish the cutoff line in 4 or more respondents, only 35% of the connections were maintained, which was not seen as a problem since there were many connections with one or two respondents – eliminating those that represented weak connections and that would not significantly contribute to the analysis. The relations that did not reach the cutoff point were excluded from this step.

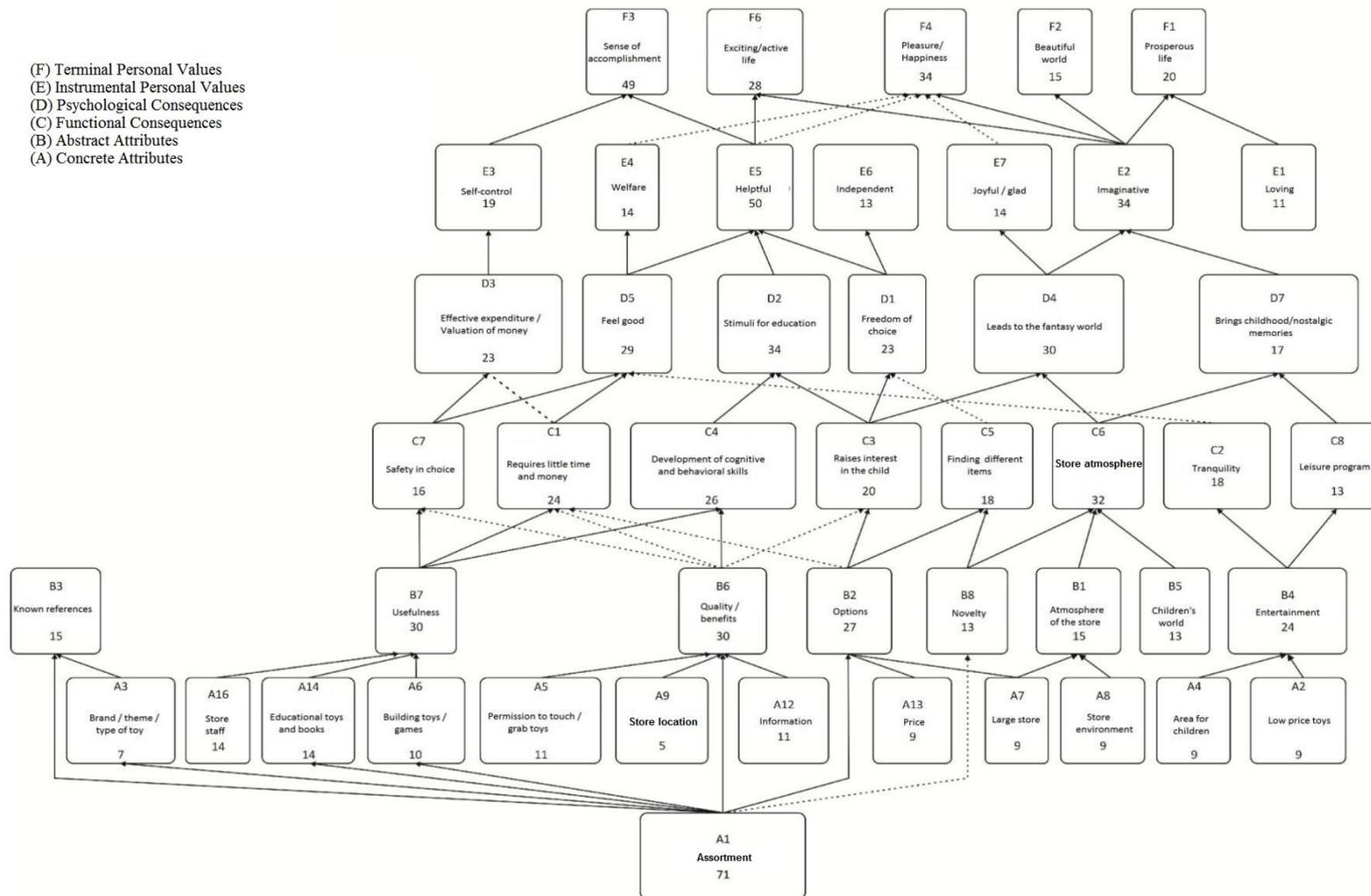


Illustration 2 - Hierarchical map of value (HMV) in the toy shopping experience

Source: Representation proposed by the authors.

Notes: 1. dotted lines = crossed lines 2. The elements A15, A10, A11, D6 and F5 are not present in the chains as they do not have representative connections for their formation. In addition, the elements A3, B3 and E6 do not result in terminal values and are therefore invalid.

After filtering the most significant relationships, the most representative chains were formed based on the implication matrix. These chains were the basis for forming the HMV. The result of the map can be seen in Illustration 2.

The chains resulting from the map are constructed with A1 (line) meeting the first relation above the cut line, which in the case of the research was B2, with the number 10 in the relations, thus initiating the first chain with A1-B2. Shortly after, it was evaluated element B2 to find the first significant reaction in the same line, in which case it is the element C1, thus forming A1-B2-C1. In the line of C1, the first significant relation is D3, and the first significant relations of D3 is E3 (with 10 relations) and with the latter, F3. At the end, the first significant chain is formed, which is A1-B2-C1-D3-E3-F3. It continues up to the end for building the map. The means-end chains obtained through the analysis described are not all existing chains, but representations of the connections for building the hierarchical map of value. For Reynolds and Gutman (1988) the purpose of mapping these relations is the interconnection of the representative chains in the map of relationships. The hierarchical map of value (HMV) in question shows the following characteristics in its quadrants: the numbers shown above the description of the element refers to the element code; and the number below refers to the number of times the element appeared in the individual ladders constructed

based on the answers of the respondents (without cutoff line). Reynolds and Gutman (1988) describe that dotted lines should be avoided as they difficult the visualization of the map. Despite attempting to avoid, the number of data did not allow the construction of the map without crossing the lines, in these cases it is recommended to represent them with dotted lines, thereby facilitating the visualization. In any case, the construction of the map requires intelligence in the allocation of the quadrant to avoid the dotted lines and facilitate the visualization of the existing connections. The reading should always occur from bottom to top, thus starting on concrete attributes and ending in terminal personal values.

Based on the hierarchical map of value, any path between the base (concrete attributes) and the top (terminal personal values) is possible. The HMV is a large summary table that allows many analyses on the subject proposed. For an increased focus on the qualitative analyses of the chains, the next step is to determine the most representative paths (or chains), that is, using another cutoff line. The process of obtaining representative chains is laborious, but provides a special contribution to the methodology used. For this, 259 paths, or possible chains, were outlined within the map. This is a manual process that requires considerable attention and review by the researcher. Some examples are shown in the Table.

Table 7- Example of chains outlined based on the hierarchical map of value

Chain 27	Chain 28	Chain 29	Chain 30	Chain 31
A1	A1	A1	A1	A1
A6	A6	A6	A6	A6
B7	B7	B7	B7	B7
C7	C7	C7	C7	C7
D3	D5	D5	D5	D5
E3	E4	E5	E5	E5
F3	F4	F6	F3	F4

Source: Representation proposed by the authors.

(ii.d.) Determining the orientations of dominant perceptions. Each one of the 259 chains has gone through an individual analysis in order to identify the chains of dominant perceptions, that is, which chains contribute most to the result of the map. For this calculation, the strength of the direct and indirect connections between the different elements present in each individual chain is used based on the implications matrix. Table 8 shows this process, including the detail of the calculations of the strength of the relations between the elements present in the chains. This process was performed 259 times, that is, a calculation table for each possible ladder. The strength of the relations is obtained by analyzing the direct and

indirect connections between single elements. Indirect connections help determine how the set of elements makes sense in the chain, and not only considering the direct connections. To speed up the calculations, it was used formulas in Excel with a table built based on the implication matrix where all connections between the elements were mapped to make it possible to export data from the table XX;YY analysis of connection between the different elements. That is, the XX and YY data is the same available in the implication matrix, but only the connections of the chain under analysis are imported for valuating the strength between the connections.

Table 8 - Calculations for determining the chains of dominant perceptions

CHAIN N. 2												CHAIN N. 25													
	B7		C7		D5		E4		F4		Total XX	Total YY	B7	C4		D2		E5		F3		Total XX	Total YY		
	XX	YY				XX	YY	XX	YY	XX	YY	XX	YY			XX	YY								
A14	8	0	0	0	0	0	0	0	0	0	8	0	A16	11	0	0	0	0	0	8	0	6	11	14	
B7	0	0	4	0	0	6	0	2	0	2	4	10	B7	0	0	10	0	0	10	0	11	0	8	10	29
C7	0	0	0	0	4	0	0	2	0	1	4	3	C4	0	0	0	0	13	0	0	10	0	6	13	16
D5	0	0	0	0	0	0	6	0	0	4	6	4	D2	0	0	0	0	0	0	12	0	0	10	12	10
E4	0	0	0	0	0	0	0	0	4	0	4	0	E5	0	0	0	0	0	0	0	0	12	0	12	0
F4	0	0	0	0	0	0	0	0	0	0	0	0	F3	0	0	0	0	0	0	0	0	0	0	0	0
Total											26	17	Total											58	69

Source: Representation proposed by the authors.

Table 8 describes that Chain N. 2 has both direct and indirect relations significantly weaker than the relationships established through the Chain N. 25. Through the direct (XX) and indirect (YY) connections calculated in the chains, it was possible to compare the strength of the connections between them, thus obtaining the chains of dominant perceptions. The chains with stronger connections are those which have higher values as a result of the sum of the XX;YY connections between the elements. A special attention given was to compare the total numbers summed with the same criteria, that is, there were chains with seven elements instead of eight, due to the connection of A1 with the concrete attributes A3, A6 and A14. Since these attributes, whenever they were present were connected to A1, it was excluded A1 from the calculation (only in these cases), thus leaving an equitable comparison in all chains, always with six elements within the calculations. The chains that have not reached the terminal values were excluded from

the calculation (11 chains with this characteristics), as well as some chains that did not start on attribute (9 cases with the element B5).

The criterion chosen for the identification of the chains of dominant perception was to filter the chains that had a sum of direct and indirect relations above 25% of the average obtained between the relations of all chains. Gengler and Reynolds (1995) state that the sum of the relations between the elements, directly and indirectly, is an indicator of strength of given association of the means-end chain. Through this process, 56 dominant chains were obtained. Table 9 shows a summary of all the elements belonging to the means-end chains that are part of the dominant perceptions. The elements with greater prominence in presence were highlighted, aiming to allow a better visualization. The content analysis of Table 9 already indicates a series of clues regarding the elements that provide value to the customer.

Table 9 - Elements present in the chains of dominant perceptions

Code	Element name	Times it appears
Attributes		
Assortment		36
A5	Permission to touch / grab toys	4
A6	Building toys/games	2
A9	Store location	2
A12	Information	8
A13	Price	1
A14	Education toys and books	5
A16	Store staff	4
B2	Options	10
B6	Quality/benefits	26
B7	Usefulness	11
B8	Novelty	9
Consequences		
C1	Requires little time and money	11
C3	Raises interest in the child	13
C4	Development of cognitive and behavioral skills	15
C5	Finding different items	2
C6	Magical, playful stimuli	9
C7	Safety in choice	6
D1	Freedom of choice	4
D2	Stimuli for education	24
D3	Effective expenditure/valuation of money	6

D4	Leads to the fantasy world	7
D5	Feel good	11
D7	Brings childhood/nostalgic memories	4
Personal Values		
E2	Imaginative	10
E3	Self-control	6
E5	Helpful	39
E7	Joyful, glad	1
F1	Prosperous life	2
F2	Beautiful world	2
F3	Sense of accomplishment	31
F4	Pleasure/Happiness	10
F6	Exciting/active life	11

Source: Representation proposed by the authors.

(ii.e.) Interpretation of results. Understanding the value in the toy shopping experience was made possible through the interpretation of the hierarchical map of value (HMV) and the mapping of the chains of dominant perceptions. The analysis of the meaning of the value focused on the functional consequences or benefits (elements represented by the letter C) which include the key representations that constitute the expression of value, as there is an understanding that this is the central point where the toy store can add value to its potential customer. Thus, the attributes (A and B) are the means to achieve the key-consequences (C and D) and the personal values are their deep motivations (E and F). In this step, the priority chains were mapped and associated with earth other through the element C, which is the functional consequence. In the 56 chains of dominant perceptions, it was identified six elements belonging to the functional consequence (C). The elements of functional consequences present in the dominant perceptions of value then formed six major sets of chains (all related through element C), where there are several other elements that relate and create meaning to them, and these elements are formed by concrete and abstract attributes, psychological consequences, instrumental and terminal personal values. The psychological consequences (elements D) have great importance in the translation of the meaning of the functional consequence (element C), because they add the emotional aspect in the representations of value obtained. Based on six major sets of dominant chains formed by element C, which obtained the representations of value. These representations were characterized by means of sentences that contain the meaning of the elements that configured them, which are: i) the toy store is a means to obtain stimuli that assist in the education of children; (ii) the magical and playful stimuli evoke memories and fantasies; (iii) the time and money are important resources upon purchase; (iv) the toy sought is the one that arouses the desire of the child; (v) the assortment offered is important to support the choice; and (vi) the feeling of making a good purchase is a desired factor. The six chains with the main representations of value were split when necessary in order to obtain subtopics that

detail and enrich the six representations obtained. Each theme included the presentation of the priority chain (through the hierarchical value map) which configured the main elements involved in their characterization. The representations can, therefore, present themes, which are breakdowns of the main representation to attribute a more specific meaning to the set of elements that comprise it. During the representations of value, excerpts of the interview could be added, thus providing a greater reality and tangibilization to the result presented.

4 FINAL CONSIDERATIONS

Laddering is an interesting tool for finding out constructs that provide value to customers and unconscious personal values that the respondents reveal from the successive questionings. It is a process based on more superficial elements to reach the motivating elements, or personal values.

Although its precepts have been discussed in the mid-1950s with the thesis of Kelly (1955), in the psychology field, it was only in the 1980s that the technique started being used in marketing with the studies of Gutman (1982) and then with Reynolds (1988) without necessarily gaining popularity, because the publications addressing the subject is not extensive until today. This study described the different steps using as illustration a real research highlighting its difficulties and recommendations. It can thus be used as a guide for studies that choose to use the method. The conclusion is that despite being an exploratory research and having multiple barriers arising from its own characteristics (tedious, repetitive and laborious), it is a very useful type of research to support marketing decisions for bringing to light important meanings provided by products, brands, objects and people.

REFERENCES

Aufiaille, J.M.; Florence, P.V.. Determination of the dominant means-end chains: A constrained clustering approach. *International Journal of Research in Marketing*, v. 12, n. 3, p. 267-278, 1995

- Botschen, G.; Thelen, E.M.; Pieters, R.. Using means-end structures for benefit segmentation an application to services. *European Journal of Marketing*, v.33, n.1/2, p. 38-58, 1999.
- Gengler, C.E.; Reynolds, T.J.. Consumer understanding and advertising strategy: analysis and strategic translation of laddering data. *Journal of Advertising Research*, v. 35, n. 4, p. 19-33, jul.-aug., 1995.
- Grunert, K.G.; Bech-Larsen, T.. Explaining choice option attractiveness by beliefs elicited by the laddering method. *Journal of Economic Psychology*, v. 26, n. 2, p. 223-241, 2005.
- Grunert, K.G.; Grunert, S.C.. Measuring subjective meaning structures by the laddering method: Theoretical considerations and methodological problems. *International Journal of Research in Marketing*, v.12, n.3, p. 209-225, 1995.
- Gutman, J.. A Means-End Chain Model Based on Consumer Categorization Processes. *The Journal of Marketing*, v. 46, n. 2, p. 60-72, spring, 1982.
- Gutman, J.. Exploring the Nature of Linkages Between Consequences and Values. *Journal of Business Research*, v. 22, n. 2, p. 143-148, 1991.
- Gutman, J. A means-end model for facilitating analyses of product markets based on consumer judgement. *Advances in Consumer Research*, v. 8, n. 1, p. 116-121, 1981.
- Ikeda, A.A.; Veludo-De-Oliveira, T.M..O conceito de valor para o cliente: definições e implicações gerenciais em marketing. *REAd*, edição 44, v. 11, n. 2, p. 1-22, mar.-abr., 2005.
- Kaciak, E.; Cullen, C. W. Cullen. A method of abbreviating a laddering survey . *Journal of Targeting, Measurement & Analysis for Marketing*. v. 17, n. 2, p. 105–113, 2009.
- Kaciak, E.; Cullen, C. W.; Sagan, A. The quality of ladders generated by abbreviated hard laddering. *Journal of Targeting, Measurement & Analysis for Marketing*, v. 18. n. 3/4, p. 159-16, Sep. 2010.
- Kelly, G.A.. *The psychology of personal constructs*. New York: Norton & Company INC, 1955.
- Leão, A.L.M.S; Mello, S.C.B. Conhecendo o “valor do cliente” de um jornal on-line. *REA*, v. 43, n. 3, p. 22-35, 2003.
- Leão, A.L.M.S; Mello, S.C.B.. The means-end approach to understanding customer values of a on-line newspaper. *BAR- Brazilian Administration Review*, edição Jan/Apr , v. 4, n. 1, p. 1-20, 2007.
- Martins, G.A., Theóphilo, C.R.. *Metodologia da Investigação Científica para Ciências Sociais Aplicadas*: 2. ed. São Paulo: Atlas, 2009.
- Phillips, J.; Reynolds, T. J. A hard look at hard laddering: A comparison of studies. *Qualitative Market Research: An International Journal*, v. 12, n. 1, p83-99, Jan. 2009.
- Rekom , J.V.; Wierenga, B.. On the hierarchical nature of means–end relationships in laddering data. *Journal of Business Research*, v. 60, n. 4, p. 401-410, 2007.
- Reynolds, T.J.; Gutman, J.. Laddering theory, method, analysis, and interpretation. *Journal of Advertising Research*, v. 28, n. 1, p. 11-31, feb.-mar., 1988.
- Reynolds, T.J.; Whitlark, D.B. Applying laddering data to communications: strategy and advertising practice. *Journal of Advertising Research*, v. 35, n. 4, p. 9-17, jul.-aug., 1995.
- Rokeach, M. J.. *The Nature of Human Values*, New York: The Free Press, 1973.
- Sánchez-Fernández, R.; Iniesta-Bonillo, M.A..The concept of perceived value: a systematic review of the research. *Marketing Theory*, v. 7, n. 4, p. 427–451, 2007.
- Valette-Florence, P.; Rapacchi, B.. Improvements in means-end chain analysis- using graph theory and correspondence analysis. *Journal of Advertising Research*, v. 31, n. 1, p. 30-45, feb-mar., 1991.
- Valette-Florence, P.. A Causal Analysis of Means-End Hierarchies in a Cross-Cultural Context: Methodological Refinements. *Journal of Business Research*, v. 42, n. 2, p. 161–166, 1998.
- Veludo-De-Oliveira, T. M.; Ikeda, A. A.. Laddering em pesquisas de marketing. *Caderno EBAPE.BR(FGV)*, v. VI, n. 5, p. 1-13, 2008.
- Veludo-De-Oliveira, T. M.; Ikeda, A.. Usos e limitações do método laddering. *RAM. Revista de Administração Mackenzie*. São Paulo, v. 5, n. 1, p. 197-222, 2004.
- Veludo-De-Oliveira, T.; Ikeda, A; Campomar, M.C.. Laddering in the practice of marketing research: barriers and solutions. *Qualitative Market Research: An International Journal*. v. 9, n. 3, p. 297-306, 2006.
- Walker, B.A.; Olson, J.C.. Means-End Chains: Connecting Products With Self. *Journal of Business Research*, v. 22, n. 2, p. 111-118, 1991.
- Wansink, B.. New techniques to generate key marketing insights. *Journal of Marketing*, v. 12, n. 2, p. 28-36, summer, 2000.
- Young, S.; Feigin, B.. Using the benefit chain for improved strategy formulation. *Journal of Marketing*, Chicago, v. 39, n. 3, p. 72-74, 197.