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Scale for testing hedonic-consumerism values – a new measurement instrument in the consumers' behavior analysis and product strategy development

Abstract: The objective of hereby article is to present theoretical assumptions and describe empirical research findings in reference to multidimensional construct, i.e., a developed scale for measurement of the hedonic-consumerism values (HCV). The procedure employed in the course of research was based on widely accepted methods of scale development in consumer research literature. Thus, authors intended to develop a useful and practical scale, one that would be easily applied in marketing practice. It is believed that Hedonic-Consumerism Values (HCV) scale will be of high importance in the consumers' behavior analysis, in the process of new products launching and adjusting product strategies.

In accordance to methodological rules, well-known in literature of psychometrics, in the first stage, we strove to find the exact contents of items that would profoundly cover the meaning and all aspects of the hedonism-consumerism construct. This task was completed with information provided by experts through conducted in-depth interviews and pilot test. Having based on the results derived from qualitative study, HCV scale was then purified and confirmed through the agency of quantitative study, which involved Exploratory Factor Analysis (EFA) and Confirmatory Factor Analysis (CFA) models.

This article is organized into three sections: An overview of the literature is offered, the conceptual framework of HCV scale is then tested via field survey in group of young consumers and finally, a four-dimensional HCV scale is presented. Implications for theory and marketers practice, limitations of the scale and future directions are also considered.

Key words: hedonic-consumerism values, scale, measurement instrument, consumers' behavior analysis, new product strategies

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1. Introduction and objective

Marketers have long acknowledged the importance of attitudes, needs in marketing or more precisely in the consumers research, but the role of **personal values** has received relatively very little attention so far. For this reason, in hereby article we present theoretical assumptions and describe empirical research findings in reference to multidimensional construct i.e., a developed scale for measuring the hedonic-consumerism values (HCV). HCV construct is part of general system of personal values which strongly affect the consumers' final buying needs and behaviors, who look at, compare or choose certain: brands, product classes and their attributes. In our conviction, terminal – individual values are part of very centrally held and enduring beliefs. They belong to internal system of human being, hence they are also part of one's: existence, style of living, culture, formed social relations, experienced feelings, emotions, etc. In fact, these values guide the consumers' main actions and judgments across specific market situations. In consequence, if marketers decide to examine the hedonic-consumerism values in regards to respective target segments, they need also to realize, that such values exist as the most elementary units within the system of values of human being.

The Hedonic-Consumerism Values - HCV scale, being proposed in hereby article, is of high and particular importance in the process of products preparation and adjusting product strategies. Thus, by knowing HCV scale, we obtain knowledge about the consumers' perception and the ways they evaluate and choose certain products. Analytical approach used in the examination of the hedonic-consumerism values, helps to identify the new product opportunities and improve the existing products. For example, by noticing changes and varying importance of value such as "*pleasure*", which belongs to general hedonic-consumerism construct, one may signal the need for change in strategy of products, e.g., their names, package design, etc. The HCV values-based information suggests that certain products can be successfully positioned in the market if we appropriately choose and design their attributes in accordance to values which are expressed by consumers in the course of market research.

The procedure employed in article was based on widely accepted methods of scale development in consumer research literature (Tarka 2015; Gerbing and Anderson 1988; Peter 1981; Churchill 1979). Authors intended to develop a useful and practical scale, one that would be parsimonious and applied easily in marketing practice. This type of scale was formed on the basis of test which was conducted in two stages. In the first stage, in accordance to methodological rules well-known in literature of psychometrics (i.e., classical test theory), we strove to find the exact contents of items that would profoundly cover the meaning and all aspects of the hedonism-consumerism construct. This task was completed on information gathered from experts in in-depth interviews and pilot test. In the next phase, having based on the results derived from qualitative study, hedonic-consumerism scale was purified and confirmed through the agency of quantitative study, which involved Exploratory Factor Analysis (EFA) and Confirmatory Factor Analysis (CFA) model. With all this research procedure, we expected to contribute to the marketing literature by providing a new (HCV) scale at the personal

values level. Obviously we needed to integrate the literature on hedonism, consumerism and marketing as well as to conduct the research focused mainly on personal values aspects. In literature, there is no established operationalization of the scale purely measuring two combined aspects: hedonism and consumerism. The inexistence of such a scale, duly adapted in order to understand and analyze personal values standing behind hedonic-consumerism, exposed the need of a measurement scale.

This article is organized into three sections. First, an overview of the literature is offered. The conceptual framework of HCV scale is then tested via one field survey in group of young consumers at the university level. Finally, a four-dimensional HCV scale is presented. Implications for theory and marketers practice, limitations of the scale and future directions are also considered.

2. Theoretical background – literature review

2.1. Values and their two general types in context of human being's life and marketing

The search for a precise definition of "value" has proved an enduring endeavor for a wide range of philosophers and researchers (Mandler 1993; Zeithaml 1988; Dodds and Monroe 1985; Perry 1926; Sewall 1901). A review of this literature reflects its multifaceted nature. Several authors, for instance, have concluded that value conceptualizations may vary depending on a study's context (Dodds, Monroe and Grewal 1991; Holbrook and Corfman 1985).

According to Schwartz (1992) and Schwartz and Bilsky (1990, 1987) humans are biological organisms, but they also have requirements as actors in social contexts and as group members. These three requirements serve as the antecedents for human values. They have been understood as intrinsic, lasting and relatively steady beliefs in an individual's life, defined as mental representations of needs and used by individuals as a general base for conflict and decision resolution, determining, regulating and modifying relationships between individuals, organizations and societies. Thus, a *value* is 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 (Rokeach 1973, pg. 5). Values are then „desirable transsituational goals, varying in importance, that serve as guiding principles in the life of a person or other social society (Schwartz 1994, pg. 21).

Rokeach (1973) distinguished two general types of values: the *object values* and *individual values*. We will not discuss here some other aspects of theory of human values, that is, contents of particular types of values and the structure of values, as they were already mentioned and profoundly described by Schwartz (1992).

Object values are concerned with the value of an object, gained through a comparison with other objects, and translated into the amount paid when it is acquired. Zeithaml (1988) identified four common uses of the term "value" in context of object. One definition equates value with price: "value is price" (Zeithaml 1988, pg. 13). Two other conceptualizations highlight value's key role in the exchange process by representing the trade-off between costs and benefits. First simply considers

value as "what I get for what I give" (Zeithaml 1988, pg. 13), the other is more specific, expressing value as a trade-off between perceived product quality and price. In this form, value generally takes the role of an important intervening variable - caused directly by consumer perceptions of quality, sacrifice and a product's intrinsic and extrinsic attributes and resulting in product choice (Dodds, Monroe and Grewal 1991; Dodds and Monroe 1985). A fourth yet definition equates value with an overall assessment of subjective worth considering all relevant evaluative criteria. Here, value is "all factors, both qualitative and quantitative, subjective and objective" (Zeithaml 1988, pg. 13). This definition recognizes explicitly value's subjective nature. Value is provided, for example by the "complete shopping experience", not simply by product acquisition.

The second mentioned by Rokeach (1973) type of value has to do with the values owned by individuals. A deeper understanding of them can lead to a better knowledge of object values (Feather 1995; Zeithaml 1988). These values represent a relatively small number of very centrally held evaluative beliefs. They are the cognitive representations and transformations of needs and provide the criteria or standards by which judgments are made (Rokeach 1973). Our values then, are responsible for the selection and maintenance of the ends or goals toward which we strive and, at the same time, regulate the manner in which this striving takes place.

Because discussed in article hedonic-consumerism values are part of the individual values and because they belong to internal system of other types of values (Tarka 2015), they must be also part of the human being's: existence, led style of living, collected experiences, expressed feelings and emotions, as well as they should be integrative part of developed culture and formed social relations. In the human life, individual values are usually accumulated from early birth to present time. They make up the basis and elementary level of the human being existence. In consequence, when we investigate them empirically, we simply need to refer to the latent, general and internal constructs. In this work, the focus is exactly on these values, also termed personal values. However, the empirical expectation and results are hedonic-consumerism oriented values.

Personal values create plenty of opportunities in marketing, because they present one, a kind of "joint picture" of the consumer and its behavior in the end. Such values are standards, from which beliefs, attitudes and consequently, behaviors are formulated (examples are the works of Carlson 2000; Madrigal and Kahle 1994). In this sense, individuals may show their values and life styles through the acquisition of market products (Kahle 1988). Personal values drive and explain consumers' attitudes and behaviors and they bring us more important information than just information about the influence of attitudes on behavior.

2.2. Hedonic-consumerism values as the reflection of object and personal values

Hedonism is derived from Greek word hedone, which reflects "pleasure", "enjoyment" or "delight". As Schwartz claimed (1992), hedonism relates to "comfortable life" and "sensuous gratification for oneself". Moreover, in literature, hedonism values are also shared with "power" and

"*achievement*" values and their emphasis on the interests of „*self*". These values can be simultaneously combined with "*stimulation*" and "*self-direction*" and with some unique emphasis on "*openness to change*".

Admittedly, hedonism, among critics of the consumer society is viewed as pleasure-seeking activity. It is seen as something less than addiction, something more than ideology, something that victimizes consumers, even though they may understand its dysfunctional consequences at the detached intellectual level (Rohatyn 1990). If hedonism dominates the consumer society, its pleasures are often fleeting and uncertain. Thus, hedonism can be highly wasteful and discriminatory pattern of consumption that predominates in current capitalist models. It is the latest evolution in the forms of modern capitalism (Migone 2007, pg. 176)*.

The terms which we will here use, i.e. "*consumerism*" and "*hedonism*" are part of rhetoric of reproof and reprobation suggesting that *selfish, irresponsible pleasure-seeking* activity has come to dominate human's life. In a consumption sense, the term hedonic was first used by Hirschman and Holbrook (1982). In their opinion *hedonic consumption* refers to those: „facets of consumer behavior that relate to the multisensory, fantasies, images and emotive aspects of one's experience with using products. This configuration of effects may be termed hedonic response (Hirschman and Holbrook 1982, pg. 92). Hedonic value or the hedonism concept is referred to the esthetic and experience-based subjective aspects of consumption and means regarding products as symbols. The experiential view associated with hedonism takes a far more holistic approach to the consumption process, right from involvement to post purchase usage. And emotional arousal, seen as a type of consumer response related to hedonic consumption, is considered a major motivation for at least some products and hedonic value as determining the level of involvement with the purchase of the products. It reflects across all stages of decision-making, in the involvement (emotional as opposed to thought based), in the task specification (experience oriented rather than problem-solving), in the motivation to search for information (more affective than cognitive), and finally in terms of how products are perceived and evaluated (symbolic meaning rather than feature based evaluation).

If we now perceive hedonic consumption through the lens of object values, then such values may appear e.g., in the course of purchasing products during shopping. Such a being case, "the purchase of goods may be incidental to the experience of shopping. People buy so they can shop, not shop so they can buy" (Langrehr 1991, pg. 428). In this sense, hedonically rewarding shopping experiences are not akin to a negative sense of "work." Consumers when go shopping, feel increased emotional arousal, heightened involvement, freedom, fantasy fulfillment and escapism. All may indicate a hedonism in

* Both Georg Simmel (1900) and Max Weber (1981) had noted the innovative and dynamic nature of modern capitalism. It structured socioeconomic relations by radically breaking with traditional institutions and behaviors and materially distinguished itself from its antecedents by providing mass rather than luxury goods (Weber 1981). Society became more individualistic and the money became central, permeating all social relations. The process of exchange became impersonal (Simmel 1900) and individuals were disembedded from traditional groups and networks (Polanyi 1944). At the same time as they were alienated, though human beings had an unprecedented opportunity to express their individuality, as capitalist opportunities for consumption created an almost inexhaustible matrix of choices (Sassatelli 2000).

such case. Furthermore, vicarious consumption can provide hedonic value by allowing a consumer to enjoy a product's benefits without even purchasing it (MacInnis and Price 1987). In sum, shopping, with or without purchasing can provide hedonic value in many ways (Markin, Lillis and Narayana 1976).

On the other hand, when we perceive hedonic consumption in context of individual values, they are a first important step, a beginning from which all consumers' future market decisions are shaped and directed. Hedonic-consumerism values, as they belong to personal system, will prevail over the choices made by consumers towards certain products, as well as shopping experiences. In general, personal values make their way in consumers' market decisions and various behaviors in the end. If hedonic consumption promotes itself through the agency of a pleasure, fun, playfulness, potential entertainment and emotional worth, then consumer will recognize its value in the offered product as its own, provided that consumer highly respects these values as its own in the internal system of personal values. Consumers will be then searching mainly for products which will suit their internal system of values and which will be the reflection of all their life experiences, social interactions, etc. Such values will be identified in certain product categories or appropriate shopping situations that emerge in the market. For example, people will go shopping because they will have an urge, a kind of "feeling" to do so, that commands them to act in certain way. They will buy products which will correspond to their system of values and which commands them to either reject or accept products.

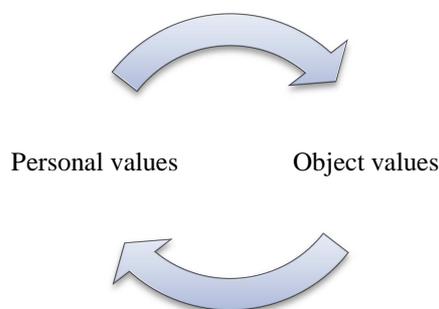


FIGURE 1.
Interaction between personal and object values
Source: own construction

Generally, between individual-personal values and object ones appears interaction. Both types of values remind us a similar situation that exists in pull and push strategy known in marketing literature (Kotler 1991). In this context, personal values can influence, to some extent, the object values (Tarka 2015). For example, people may hold specific life roles and positions in life, sustain social relationships and socio-economic status, possess experiences and knowledge which is accumulated throughout their whole life, and which puts shadows on the product purchases, as well as on preferences to specific market situations - such as above mentioned shopping. On the other side, object values will influence the personal values, especially in younger groups of consumers whose values are

not so strongly (as it is in older groups)* rooted in their life. In this option, object values are compositions of products, which can be purposely designed, e.g., by multinational firms, not just to satisfy existing individual values, but to create prospective, new values. This sort of interactionism was presented on Figure 1.

3. Methodological approaches in measurement of personal values

Personal values can be measured through the conceptualization as mental structures existing at a higher level of abstraction than attitudes (Schuman 1995; Schwartz 1992; Rokeach 1973). It is the highest-level concept. Simultaneously, values' selection and the way they are measured depend on the choice of model (Agle and Caldwell 1999). In existing models, *quantitative approaches* are favored, springing from the principle that a specific set of personal values, established a priori, explains the individual's behavior towards a determined problem. Along this line are included, in a general perspective, the Rokeach Value Scale (RVS) (1973) and the List of Schwartz and Bilsky (1990). From a consumer analysis perspective, we have the Vinson's et al. (1977) means end chain model, Kahle's (1983) list of values (LOV), Mitchell's (1983) values and lifestyles (VALS) typology and Durgee's (1996) list of values. If an advantage lies in the ease of problem approach and analysis, difficulties reside in two issues: first, choosing the suitable scale to use (e.g., either ranking or rating), and then assessing the inaccuracy resulting if the respondent is driven into a set of pre-determined values that cannot be perfectly related with the problem.

Paying at this moment more attention to ranking and rating scales differentiation, we should stress that in ranking approach (as originally developed by Rokeach, that is, the Value Survey) it requires respondents to rank-order the terminal and instrumental values* printed on gummed labels. For the purposes of consumer research, there are a number of problems associated with this technique. First, the ranking procedure forces respondent to indicate differences where none may actually exist. Equally attractive values are forced into separate rankings. In addition, wide gaps in preference are treated as no different from very small gaps. Second, most people cannot adequately evaluate more than a few items (7 plus or minus 2) at a time. In order to avoid these problems, the vast majority of the empirical research employed the direct rating of each value. On rating scale, values are rated by the respondent independently, typically on a Likert scale or some variant thereof. While this offers a number of methodological advantages, it doesn't directly address the issue of clusters of values that are consonant with one another or those which are mutually exclusive. However, as compared to ranking type of scale, rating option possesses a few strong advantages, which made us to choose in order to measure items of HCV scale.

* This situation takes often place in older groups of consumers, where personal values such as "salvation", "peace", "stability" takes the leading role.

* Values to be ranked (listed by Rokeach) reached 36 items.

Schwartz (1994) offered justification for the conceptual superiority of rating over ranking. In his opinion, rating has more useful statistical properties, because it allows researchers to use longer lists of values and to note negative values (important in cross-cultural work), and it does not force respondents to discriminate among equally important values. Schwartz also argued that rating may be more accurate phenomenologically than ranking is in capturing how values enter into situations of behavioral choice. People do not necessarily rank one value over another in action. Different values may be equally compelling. It is an empirical possibility that people may be only vaguely aware of contradictions between values, something that the forced-choice approach of ranking fails to capture. Besides, rating approach obtains greater variance if examinees are asked to first pick their most- and least-important values from the list before rating the items (McCarty and Shrum 2000). It is also suggested that rating offers more validity. In sum, respondents who are forced to rank values, usually make trivial and less valid distinctions between values.

Another approach to measure values (beside the above-mentioned quantitative measurement) is the *qualitative approach* which can be based on the Means End Chain model (Reynolds and Gutman 1984) and respective interview method, Laddering, where the purpose is to find the hierarchy attribute-consequence-value behind a product choice. There are two main advantages to this model. The first is the way values are acquired, because if they are mentioned by the consumer it means they are related with the subject of study. Secondly, laddering prevents the quarrel surrounding rankings or ratings. Laddering has been challenged at two different levels: first, by questioning the way that values' hierarchies function in consumer choice and, second, by questioning the theoretical foundation and validity of the measures (Bagozzi 1999).

In this article we present quantitative approach and model as a measurement approach for hedonic-consumerism values scale to which, particular set of items and collected on their basis answers were analyzed on the Likert rating scale format.

4. Conceptual framework and methodology of multidimensional scale development in reference to hedonic-consumerism values (HCV)

4.1. *Exploratory in-depth interviews and pilot study in the development of initial set of scale items*

Presented-above theoretical assumptions prove the presence of multidimensional construct (in measuring hedonic-consumerism values) rather than unidimensional one. In this section we will describe the process used to establish the content of each dimension and validate the scale psychometrically. For further methodological information see the work of Tarka 2015.

In the first row, throughout a review of a large base of relevant literature, an initial list of scale items was identified. This list was derived from works of the following authors (Griffin, Babin and Modianos 2000; Voss, Spangenberg and Grohmann 2003; Babin, Darden and Griffin 1994; Schwartz 1992; Dodds, Monroe and Grewal 1991; Schwartz and Bilsky 1990; Holbrook and Corfman 1985;

Hirschman 1983; Kahle 1983; Bloch and Richins 1983; Mitchell 1983; Hirschman and Holbrook 1982; Markin, Lillis and Narayana 1976; Rokeach 1973). Having initially explored this list, in the next step they were modified according to domestic requirements i.e., Polish culture, language, etc.* Especially, they were rewritten into short form of statements. Then this list of items was supplemented with newly generated items that resulted from exploratory in-depth interviews which were conducted before the final beginning of quantitative EFA and CFA study.

In consequence, the process of searching for new items was based on the qualitative study - interviews and encompassed the tasks of written components of hedonic-consumerism value (HCV) that would accurately illustrate the HCV concept. As suggested by Churchill (1979), the measures should be refined through interviews with people capable of understanding the nature of the concept being measured. Thus, within the exploratory inquiry, one has conducted in-depth interviews with ten members of university community on the convenient sample. For the respondents there was provided a brief description of the goal of the interview, and they were first asked to think about hedonism in general and then about hedonic-consumerism relationship*.

TABLE 1.
Theoretically-based multidimensional construct of hedonic-consumerism values with respective facets

Construct	Facet	Items
Hedonic-consumerism values	Curiosity development and openness to change	X ₁ , X ₄ , X ₅ , X ₁₃
	Self-enhancement	X ₆ , X ₉ , X ₁₀ , X ₁₁ , X ₁₂
	Entertainment and fun	X ₇ , X ₈
	Consumption style	X ₂ , X ₃

Legend: Characteristics of items were set accordingly: X₁ - I strive always for new experiences; X₂ - I like to earn more and spend more for consumption to enjoy myself; X₃ - Consumption itself is an enjoyable experience in my life; X₄ - I want to be creative and act with imagination; X₅ - I explore new things and aspects of life; X₆ - I care more for myself than others; X₇ - I spend nicely time and have a good time; X₈ - I search for adventurous and exciting life; X₉ - I strive to achieve success in my life; X₁₀ - I respect and believe in those people who possess lots of money; X₁₁ - I make choices in my life for my own; X₁₂ - I like when I am praised and admired; X₁₃ - I learn constantly something that is new.

Source: Tarka 2015, pg. 322

In next stage, in the course of pilot study, we tried to eliminate duplicates or items that would be psychometrically inadequate in the final survey instrument. Besides all items were verified (in terms of their clarity) by randomly selected 30 experts. These experts were selected from across all 5 levels of years of studying at the Poznan Universities located in Poland.

In the end, having based on exploratory and pilot studies, there were found the following categories of hedonic-consumerism values – HCV, which were labeled as follows: *curiosity development and*

* We conducted semantic modification as well as there were introduced some minor alterations in reference to items word formation (especially language and stylistic improvements to obtain identical interpretation while reading by all respondents in a survey – quantitative study).

* For detailed information about this process see the work of Tarka 2015.

openness to change, self-enhancement, consumption style and entertainment and fun. For each category of hedonic-consumerism values, we tried to tap respective items as shown in Table 1 which is representing our theoretical HCV construct.

4.2. The research setting, sample and survey instrument design for HCV scale

The final quantitative study which was intended to assist further EFA and CFA analysis contained a sample of young consumers living in Poland in the region of Wielkopolska. It was prepared on quota criteria. The final sample size with respondents who provided correct answers was $n = 285$. Initially, the sample size was set at 310 level, however, since some respondents were in a hurry or filled in answers without serious consideration, 25 questionnaires were found to have missing data or had illogical answers and so were discarded. Thus, out of the 310 potential respondents contacted, a final sample of 285 units was obtained.

As we can observe, for this sample and simultaneously, a study, the ratio of males to females was nearly 1:1. (see Table 1), however as we can infer, females prevailed over male respondents slightly. The range of respondents was between 19-24 years of age. They were all students of the Polish Universities such as *Poznan University of Economics, Adam Mickiewicz University of Poznan and Poznan University of Technology*. As observed from Table 3, some members of the worked full-time (24%) or worked part-time (38%). Those who were focused only on studying reached 37% in a whole sample. In short, more than a half of them (63%) combined working time activities with studying. Data was collected between May and June 2009.

TABLE 2.

Selected sample characteristics - gender

	Frequency	Percent
Male	118	41,4
Female	167	58,6
Total	285	100,0

Source: Tarka 2015, pg. 324

TABLE 3.

**Selected sample characteristics - involvement of respondents
in additional activities except learning**

	Frequency	Percent
Work full-time and study	69	24,2
Only study	106	37,2
Work part-time and study	110	38,6
Total	285	100,0

Source: Tarka 2015, pg. 325

All answers were obtained on a self-administered paper and pencil questionnaire. Items prepared for survey were rated by all respondents using 5-point Likert scale ranging from: **1** = *totally unimportant value*, **2** = *partially unimportant value*, **3** = *neither unimportant nor important value*, **4** = *partially important value*, **5** = *totally important value*. The choice of the 5-point Likert scale was made due to following reasons: 1) to obtain possible differences (instead of orders) between values, as the particular four dimensions are not mutually exclusive, and 2) to obtain reliable results useful for the implementation of exploratory and confirmatory factor analyses.

There were engaged in this project five interviewers (field workers). They were trained in their skills pertaining to appropriate communication with respondents in a short-term training program before they started research. They were also obliged to conduct the survey in the following way, namely, approach and ask kindly the respondents to complete questionnaires before the beginning of the particular class. Those respondents who filled the questionnaire received a minor souvenir in the end.

Admittedly, giving to respondents a free choice within the process of answering through the agency of self-administered paper and pencil questionnaire helped us to obtain good results in reference to HCV scale. Self-administered instruments confine possible influence of interviewers (during interview – conversation) on respondents' answers, which are more honest, open and close to truth. Direct contact often causes serious suggestions during interviews. Therefore, when field workers contacted with respondents, and when they handed out questionnaires, they were obliged to create a comfortable situation, i.e., leaving respondents in the classes alone, as well as leaving them enough time to complete the questionnaire.

4.3. Measurement analysis and findings: from EFA analysis, through item-to-total correlations to CFA model

Having based on psychometrical approach to the analysis (Churchill 1979), one has conducted principal components exploratory factor analysis (EFA), assessed internal consistency and item-to-total correlations, and then further proceeded with confirmatory factor analysis model (CFA). This procedure and particular stages, which were undertaken in the course of it, were intended in order to develop a reliable and valid multidimensional scale.

4.3.1. Exploratory factor analysis in the initial stage of scale development

In EFA analysis, the dimensionality of data was analyzed, in case if there were any subscales - factors, as theoretically predicted. With this objective in mind, EFA model was used in studying the dimensionality of all thirteen items, focusing on principal components method. On the basis of this method, we extracted four distinct factors. They were generated in accordance to following techniques: proportion of variance, eigenvalue approach and chi-square tests.

First technique *proportion of variance* explained four components* at the level of 61,27%, although it is thought in literature that more than 80% or even 95% should be expected (Thompson 2004). According to next approach, based on *eigenvalues*, we should leave only those factors that would exceed 1,0 (see the last - fourth factor which had 1,64 cumulative value). The fifth factor obtained only 0,82 which is below 1,00 level. Additionally, there were performed chi-square tests. These tests might guarantee that the residual correlations would have got smaller values as more and more common factors would have been increased. Thus, one would have obtained smaller chi-square values relative to the number of degrees of freedom and a number of additional common factors that would increase endlessly. However, such solution (i.e., with more than five or six factors) would lead to non-interpretable factors, which in fact would have a little sense and utility in our study. Hence, four-factor solution is much more useful than two, three or even five and six-factor configuration. The results of these analyses are presented in Table 4, where four-factor option seems to be the best fit to model. In sum, this solution which accounted for 62% of the total variance and exhibited a KMO measure of sampling adequacy at 0,78 level is acceptable. Besides all communalities (not shown in this Table, within the extracted factors) ranged from 0,47 to 0,82.

TABLE 4.

Total variance explained after Varimax rotation and PCA extraction and goodness of fit test

Factor	Total variance explained - rotation sums of squared loadings			Goodness of fit test				
	Total	% of Variance	Cumulative %	No. of hypothesis	Chi-Square	Df	Sig.	No. of factors
1	2,35	18,05	18,05	1 H0: No common factor H1: At least one common factor	209,20	65	,000	1
2	2,04	15,70	33,75	2 H0: Two factors are sufficient H1: More factors are needed	139,64	53	,000	2
3	1,93	14,88	48,62	3 H0: Three factors are sufficient H1: More factors are needed	76,68	42	,001	3
4	1,64	12,65	61,27	4 H0: Four factors are sufficient H1: More factors are needed	36,81	32	,258	4

Source: Tarka 2015, pg. 333

When we estimated factor loadings reflecting correlations of the items with factors, we implemented in EFA analysis, the orthogonal rotation Varimax*. This type of rotation leads to a simpler and theoretically more meaningful structure of factors. Thus, we simply tried to search for

* The percentage of total variance attributable to each component is displayed in the column labeled *% of variance*. Together, the first four components account for 61,27% of the original thirteen items set.

* Kaiser's Varimax rotation tends to produce multiple group factors (Jennrich 2002; Jennrich and Sampson 1966). We did not use alternative rotation technique Quartimax, because it actually gives the same factors structure, regardless of rotation technique being used. Tarka (2015) when compared Varimax and Quartimax rotations obtained the same results for each item which almost equally loaded on each separate extracted factor and where all items were correlated with their respective factors

simple structure, which by Bryant and Yarnold's definition (1995, pp. 132-133): „meets the condition in which variables load at near 1 (in absolute value) or at near 0 on an eigenvector (factor). Variables that load near 1 are clearly important in the interpretation of the factor, and variables that load near 0 are clearly unimportant”.

4.3.2. Item analysis and internal consistency of the extracted factors

Taking now into account the structure of factors with their respective items, and item-to-total correlations we should say that all items loaded as predicted in Table 1. The exception were positions X_5 and X_{13} which obtained the lowest item-to-total correlations (see Table 5) and which did not even exceed the level of 0,40. Hence, they were dropped from factor no 2. This decision was followed after reviewing rules provided in literature by many authors*. In sum, for the explored multidimensional HVS scale, items that did not have higher correlations with the factor to which they were hypothesized to belong, were candidates for deletion.

Additionally, as observed, item X_{10} had cross-loading effect with other factor. Hence it was also removed. The same effects refer to already mentioned items X_5 and X_{13} . These results suggest a four-dimensional scale (HCV) with 10 items rather than 13 which will be representing hedonic-consumerism dimensions. Now then, when we consider pros and cons of this model we should approve of the following factors' content, that is:

- Factor no. 1 - **self-enhancement** will include items: X_6 - *I care more for myself than others*, X_9 - *I strive to achieve success in my professional life*, X_{11} - *I make choices in my life for my own*, X_{12} - *I like when I am praised and admired*,
- Factor no. 2 - **entertainment and fun** will contain: X_7 - *I spend nicely time and have a good time*, X_8 - *I search for adventurous and exciting life*,
- Factor no. 3, called **curiosity and change** has items X_1 - *I strive always for new experiences* and X_4 , - *I want to be creative and act with imagination*,
- Factor no. 4 - **consumption style**: X_2 - *I like to earn more and spend more for consumption to enjoy myself*, X_3 - *Consumption itself is an enjoyable experience in my life*.

* Spector (1992, pg. 31) delivered two general strategies for deciding which items to retain or delete on the basis of item-to-total correlations. He said that, “if it is decided that the scale should have p items, then p items with the largest coefficients should be chosen. Alternatively, a criterion for the coefficients (e.g., 0,40) can be set, and all items can be used together – that is, retaining up to p items, providing they have a minimum-sized coefficients”. Some other yet researchers indicated more rules. For example, Tian, Bearden and Manning (2001) in the item refinement stages of their development of the three-factor construct “*consumer need for uniqueness scale*”, deleted items that did not have item-to-total correlations above 0,50 for each items' appropriate dimension. Obermiller and Spangenberg (1998) deleted items with item-to-total correlations below 0,50 in the development of their scale to measure consumer “*skepticism toward advertising*”. On the other side, Bearden, Hardesty and Rose (2001) used a decision rule greater than 0,35. Also Netemeyer, Boles and McMurrian (1991) considered items for retention that showed initial item-to-total correlations in the 0,50 to 0,80 range.

TABLE 5.
Factor loadings structure matrix after Varimax by PCA method
in reference to HCV multidimensional construct

Items	PCA				Item-total correlation
	<i>F</i> ₁	<i>F</i> ₂	<i>F</i> ₃	<i>F</i> ₄	
<i>X</i> ₁	-,00	,01	,57	-,10	,43
<i>X</i> ₂	-,04	,02	,02	,67	,53
<i>X</i> ₃	-,03	-,01	-,01	,69	,53
<i>X</i> ₄	-,12	,12	,39	,13	,52
<i>X</i> ₅	-,07	-,05	,55	<u>,24</u>	<u>,28</u>
<i>X</i> ₆	,39	-,06	,13	,14	,60
<i>X</i> ₇	,05	,74	-,12	-,03	,42
<i>X</i> ₈	-,02	,62	,12	,02	,51
<i>X</i> ₉	,55	-,05	,12	-,13	,46
<i>X</i> ₁₀	,62	-,06	<u>-,25</u>	,02	,42
<i>X</i> ₁₁	,58	,09	,04	-,10	,51
<i>X</i> ₁₂	,39	,07	-,08	,14	,52
<i>X</i> ₁₃	,12	<u>-,23</u>	,54	-,01	<u>,38</u>
Coefficient Alpha	,74	,64	,53 ^a	,84	

Legend: cut-off level of factor loadings was set on ,50. High loadings were indicated in bold entries. They compose the respective factors (so-called subscales).

^a This coefficient was calculated in factor *F*₂ which in the end included only two items *X*₁, *X*₄ after exclusion the other two unclear statements *X*₅, *X*₁₃ which obtained the lowest item-total correlations.

Source: Tarka 2015, pg. 350

Finally, in order to prove internal consistency estimates of the above factors, one calculated, for each of them, the Cronbach's coefficient Alpha. Assuming now literature guidelines, we should have recommended Alpha coefficients above the level 0,70. However, in practice and in real-life data (as it is in our case) it will be fair if we accept somewhat lower Alphas (e.g., starting from the level of 0,50-0,60). On the other hand, too high Alpha (e.g., greater than 0,90) probably would mean that the items were repetitious or that we had more items in the scale than were really necessary for a reliable measure of the construct. If Alpha coefficients were equal zero, there would be no true score but hypothetically only errors in the analyzed sets of items corresponding to factors (Peter 1979; Kelly 1958). Considering now our data model, we can infer that this problem rather stays beyond the scope of the factors values.

4.3.3. The scale purification with confirmatory factor analysis model

The scale purification stage relied on Confirmatory Factor Analysis (CFA), with the goal to improve the measurement properties of the scale (see for example, the application of CFA: Chin and Todd 1995, Bearden et al. 1989; Anderson and Gerbing 1988; MacCallum 1986; Bagozzi 1980). So when EFA, items analysis and internal consistency were brought to end, the next step was CFA.

CFA is strongly dependent on theoretical assumptions, while EFA in general is grounded on empirical approach to data analysis. CFA models seem to be usually simpler than EFA. The latter (EFA) is sensitive to criteria pertaining to factors extraction, type of rotation, etc. (Fabrigar et al.

1999). EFA may generate factors which underlie the observed variables by statistical, rather than logical means. Thus, factors are discovered and often difficult to name or interpret since the observed variables cannot be grouped a priori on substantive grounds but, instead, are related to all other identified factors to varying degrees. As a result, in EFA we do not always obtain clear scores about how many factors need to be retained for final interpretation (Mueller 1996). In contrast, CFA is much more conservative analysis as compared to more liberal EFA. In CFA we need simply to know a priori theoretical assumption on the factor structure. On the basis on substantive knowledge, CFA allows to a priori specify how a set of items should be related theoretically to a set of underlying factors*. This task was already done, in earlier part of article in the course of qualitative study and pilot test, which result can be observed in Table 1. At that time, we hypothesized four factors along with their respective items. However, when we performed EFA, analysis indicated that some items X_5 , X_{10} and X_{13} did not empirically fit our predicted factors, hence they were candidates for deletion.

In sum, in CFA we decided to use the results obtained from EFA analysis. The reasons supporting this choice were described in work of Tarka (2015) in which author distinguished and compared three types of CFA models with their various configuration of items on presumed factors structure. For example, one has tested model with all original 13 items, then a model with 11 items was tested and finally a model including 10 items was examined. Author could then observe to what extent each of these alternative models, in respect to fit indices, was substantially improved. However, in this article we will use only set of items which provides the best favorable factors structure and final, the most accurate CFA model fit.

Now, as far as the estimation method in the preferable CFA model is concerned, we chose Maximum Likelihood (ML). Although, there is a number of estimators in literature, such as GLS, ULS, ADF, Maximum Likelihood is the most standard, and most often utilized in the vast majority published CFA studies (Kline 2011, Thompson 2004, Fan, Thompson and Wang 1999). All calculations were performed in AMOS software (Arbuckle 2007).

Inspection of the model fit indices showed the levels that were generally above well-acceptable thresholds. For instance, Chi-square (CMIN) value reached in this model level $\chi^2 = 31,14$ at $df = 29$ and $p = 0,36$ which is greater than most commonly tolerated in the research $p = 0,05$ value. Now let's take a look at FMIN discrepancy function, which measures the discrepancy between the observed variance-covariance matrix and theoretical variance-covariance matrix and which is derived from the model and already estimated parameter values. Because FMIN represents a kind of misfit, hence the smaller value is, the better model we obtain. As we can observe from Table 6, values of FMIN are

* We need to specify patterns of each item in the data set a priori. In other words we need to know about how each item would be loaded onto hypothesized factor(s) such that each item would have had its unique pattern of non-zero factor loadings and zero loadings. This, virtually, is one of critical differences between CFA and EFA, because in the latter, all items possibly will load onto all factors (Matsunaga 2010, pg. 104).

0,11. Also value in the column "CMIN χ^2 /DF" for this model does not exceed marginal critical value (CMIN equals χ^2 /DF which is 1,07) i.e., where typical critical values are set at 2 or 5.

CMIN χ^2 statistic (which is based on a comparison of the theoretical variance-covariance matrix with sample variance-covariance matrix) measures how well a given model describes the relationships within a sample, whereas often the purpose of CFA modeling is to describe the relationships in the population. Discrepancy function value between the model variance-covariance matrix and the population variance-covariance matrix is given in AMOS as F0 function. In an ideal model, these matrices should be equal. So if the confidence interval for F0 contains 0, it can be inferred that model reproduces well the population variance-covariance matrix which means it is describing well the true relationship between the variables. As we can observed from Table 6, CFA model has obtained F0 statistic of 0,01 value in confidence interval 0,00 - 0,07 (assuming 90% probability). So it contains the desired by us value of 0.

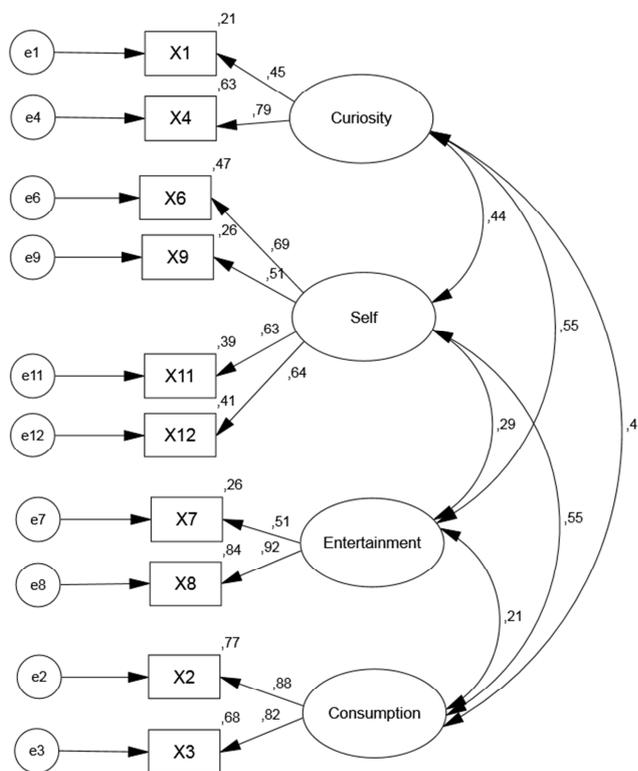


FIGURE 2.
Standardized estimates in CFA model without items X₅, X₁₀ and X₁₃

(CMIN) Chi-square = 31,14, Degrees of freedom = 29, Probability level = ,36

Legend: Squared standardized factor loadings are displayed above the observed variables which represent the *square multiple correlations* for the individual items.

On the other hand, standardized factor loadings are displayed on the single arrowhead lines.

Source: Tarka 2015, pg. 367, own construction based on IBM AMOS

Finally, we should examine the other fit indices. For instance, when we report a confidence interval around the RMSEA value (*root mean square error of approximation*), we can simply check the closeness of fit - PCLOSE (*p of Close Fit*), which defines a "*p value*" for testing the null hypothesis that the population RMSEA is no greater than 0,05: $H_0: RMSEA \leq 0,05$. Actually PCLOSE is used for testing the hypothesis that there is zero, hence $H_0: RMSEA = 0$. Because RMSEA 0,05 or less indicates a "close fit", so when we set this level, it provided us a test of close fit. Jöreskog and Sörbom (1993) suggested "*p value*" at $> 0,50$. In Table 6, RMSEA index reached the level of 0,02, where either upper or lower bound of the 90 confidence interval for this statistic lies between 0,00 - 0,05 and the "*p value*" for the test of closeness of fit equals 0,96.

TABLE 6.
Model fit summary in CFA - selected indexes

Index type	FMIN	F0	LO 90	HI 90	CMIN /DF	RMSEA	LO 90	HI 90	PCLOSE	RMR	GFI	AGFI
Values obtained	,11	,01	,00	,07	29	,02	,00	,05	,96	0,3	,98	,96

Source: Tarka 2015, pp. 374-380, own construction based on IBM Amos

The other good news is RMR (*root mean square residual*) which we derived from the fitting of the variance-covariance matrix for hypothesized model to the variance-covariance matrix of the sample data. For CFA model it was calculated on the 0,03 level (see Table 6). Besides, model has yielded a noncentrality parameter of 2,14 with confidence interval of 0,00 – 19,85. Also on the basis of the GFI (*goodness-of-fit*) one can say that our model explained the variability at 98%. The same AGFI (*adjusted goodness-of-fit*) yielded value 0,96 which also exceeded threshold of acceptability of the model.

Some other yet indices such as NFI (*normed fit index*), IFI (*incremental fit index*), TLI (*Tucker-Lewis index*) and CFI (*comparative fit index*) oscillated on the verge of 0,97 – 0,93. These indices can be assessed, since the chi-square statistic is sensitive to sample size. As we can observed, they also exceeded suggested levels (Bollen 1989a). So now, if we consider these results, we have the evidence that particular measures (items) are unidimensional, i.e., each item is reflecting one and only one underlying factor (dimension) of HCV scale.

4.3.4. Scale reliability and validity

Having achieved the clear and confirmed structure of the factors in reference to multidimensional construct within HCV scale one can now proceed with the construct reliability and validity analysis. The purpose of scale validation activities will be here twofold, i.e., based on discriminant and convergent validity. Just to remind of, construct validity represents the extent to which a set of measured items corresponds to the theoretical latent construct. Issues in reference to composite reliability were also taken into account, after the convergent validity was first proved.

In **convergent validity**, a set of items shows convergent validity if their intercorrelations are at least moderate in magnitude. Hair et al. (2010) classified a few ways to estimate the relative amount of convergent validity among items. However, the most important refer to *size of factor loading* and *average variance extracted* - AVE. In former option, a finding that items have high loadings on the predicted factors indicates convergent validity. A good rule of thumb is that standardized loading estimates should be 0,50 or higher. As we can observe on Figure 2 and Table 7, convergent validity is evidenced by large and significant standardized loadings. Besides, each loading estimate was highly significant at the $p < 0,001$ level (Tarka 2015).

In the latter option, we calculated AVE coefficient which represents the mean variance extracted for the item loadings on respective construct. AVE is computed as total of all squared standardized factor loadings (squared multiple correlations) divided by the number of items. This value can be obtained assuming the following formula (Hair et al. 2010; Fornell and Larcker 1981):

$$AVE = \frac{\sum_{i=1}^p \lambda_i^2}{p}. \quad (1.0)$$

where: λ_i^2 is the standardized factor loading of the i -th item.

If AVE value is of 0,50 or higher, than we have a good - adequate convergence. An AVE less than 0,50 indicates that, on average, more error remains in the items than variance explained by the latent factor structure imposed on the measure.

As illustrated in Table 7, most of the factor loadings exceeded level of 0,50 with the exception of item X_1 . Therefore, on the basis of factor loadings size one can say that we have a good evidence of convergent validity of our measures. However, when one calculates AVE coefficients, this conclusion might be somewhat questioned. As observed, two factors *curiosity* and *self-enhancement* obtained values below 0,50 indicating, on average, that items which were reflected by these two factors had no adequate convergence. In contrast, two other factors such as *entertainment* and *consumption* obtained AVE values above 0,50. Generally, factor *entertainment* was explained on average in just 55% by only two indicators. Much stronger is the factor *consumption* because it considerably exceeds 50-percent rule of thumb, where items account for 72% of variance of that factor.

Considering all these facts, we cannot explicitly claim that there is a very strong evidence of the convergent validity of CFA model, when applying AVE formula. However, one cannot also say that this model is statistically bad, especially when one considers size of some factor loadings. There is certainly no doubt about the half of convergent validity of the measured construct, which refers to factors as *entertainment* and *consumption*. On the other hand, more doubts will arise in factors *self-enhancement* and *curiosity*.

Considering now the composite **reliability indices** of HCV scale, we should mention in literature exist a number of alternative reliability estimates for CFA models (Bacon, Sauer and Young 1995). As Hair et al. (2010, pg. 709) commented different reliability coefficients: "they do not produce

dramatically different reliability estimates, but a slightly different construct reliability values is often used in conjunction with SEM models.” In our case of CFA model, we used one of two commonly reliability coefficients*. This coefficient represents a factor rho coefficient which is a ratio of explained variance over total variance that can be expressed in terms of CFA parameters (Raykov 2004, 1997) and which can be calculated for models with no error covariances that involve their items:

$$\rho_{xx'} = \frac{\left(\sum_{i=1}^p \lambda_i\right)^2 \phi}{\left(\sum_{i=1}^p \lambda_i\right)^2 \phi + \left(\sum_{i=1}^p \theta_{ii}\right)} \quad (1.1)$$

where: θ_{ii} uncorrelated measurement errors, ϕ is the factor variance.

All reliability coefficients presented in Table 7 (with the exception of *curiosity* factor) exceeded the level of 0,70. As compared to Alpha coefficients (Table 5) their composite alternatives have slightly increased. All three factors present desirable (except factor *curiosity*) levels of composite reliability (over 0,70). In general, this model is neither weak nor very strong. It is placed somewhere in the middle.

TABLE 7.
Standardized factor loadings, Average Variance Extracted (AVE)
and reliability estimates in CFA model

Items	Factors			
	Curiosity and change	Self-enhancement	Entertainment and fun	Consumption style
X ₄	,79			
X ₁	,45			
X ₁₂		,64		
X ₁₁		,63		
X ₉		,51		
X ₆		,69		
X ₈			,92	
X ₇			,51	
X ₃				,82
X ₂				,88
AVE	42%	38%	55%	72%
Composite reliability	0,57	0,71	0,73	0,84

Legend: loadings are significant at the $p < 0,001$ level

Source: Tarka 2015, pg. 389, own construction based on IBM Amos

* Some other yet reliability coefficients can be applied when factor is measured on weighted sum of the observed variables (assuming simultaneously that this factor is standardized and measurement errors are correlated (or uncorrelated). These indices are mainly used when observed variables are congeneric, that is, when they measure one latent variable (Bacon, Sauer and Young 1995). If there are observed variables affected by more than one latent variable (factor), we can use proposition suggested by Bollen (1989b).

Although, HCV scale and its facets might be conceptually related within one multidimensional construct, yet these dimensions are also expected to exhibit *discriminant validity*. In this type of analysis we thought that a set of items presumed to measure different factors will show intercorrelations that are not too high. Poor discriminant validity is usually evidenced by high factor correlations.

Turning now to CFA model, a discriminant validity and correlation values were considered between all four factors as presented in Table 8. Reported (below diagonal) correlation values among factors, assuming the following level +/- 0,50, suggest moderate discriminant validity (again, neither strong nor weak). They are present between factors such as: *curiosity <--> entertainment* or *self-enhancement <--> consumption*. Lower levels (i.e., correlations below 0,50) suggest even stronger discriminant validity between factors: *self-enhancement <--> curiosity*; *curiosity <--> consumption*; *self-enhancement <--> entertainment* and *entertainment <--> consumption*). Because we believed that HCV scale would be of multidimensional than unidimensional form, these correlations were of good quality for the measurement model. In short, there was no correlation which included a value of 1 and none of the correlations was sufficiently high to jeopardize discriminant validity (Anderson and Gerbing 1988).

Additionally, when we compared AVE estimates (Table 7) for each factor with the squared interconstruct correlations associated with that factor, we noticed that all AVE* estimates were greater than the corresponding interconstruct squared correlation estimates in Table 8 (above the diagonal). Therefore, there are no problems with discriminant validity for HCV scale in reference to CFA model. In consequence we should approve our model and its ultimate validity in reference to scale based on hedonic-consumerism values – HCV.

TABLE 8.
HCV construct correlation matrix (standardized) – CFA model

Factors	Curiosity and change	Self-enhancement	Entertainment and fun	Consumption style
Curiosity and change	1,00	,19	,30	,17
Self-enhancement	,44	1,00	,08	,30
Entertainment and fun	,55	,29	1,00	,04
Consumption style	,41	,55	,21	1,00

Source: Tarka 2015, pg. 391, own construction based on IBM Amos

Legend: Values below the diagonal are correlation estimates among four factors and values above the diagonal are squared correlations

* When we compare the AVE values for any two factors with the square of the correlation estimate between these two factors, we expect that AVE values should be greater than the squared correlation estimate. The logic used here, is based on the idea that a factor should explain more of the variance in its item measures that it shares with another factor. Passing this test provides a good evidence of discriminant validity.

5. Discussion and research implications for some marketing opportunities

We believe that future research should be focused on empirical information and proof linking hedonic-consumerism values (HCV) scale with specific types of consumers' behaviors as well as the information of how these values will interact (especially in favor of multinational firms) with particular marketing programs associated with the process of marketing-mix planning, in particular: product preparation, promotion and price setting or configuration of the distribution channels. Especially an interesting problem to be researched would be on how and to what extent certain selections of products (their attributes) are influenced by differences (according to market segmentation) in hedonic-consumerism values that are endorsed or rejected by respective groups of consumers. This growing interest in personal values analysis should be of specific concern and welcomed by consumer researchers, product and marketing managers, who recognize the importance of values in order to market their products. Some selected opportunities for marketing and market analysts are briefly discussed below.

5.1. Hedonic-consumerism values and consumer's behaviors

Considering the importance of values, it would be rather difficult now to imagine a single example of any consumer behavior analysis without reference to personal values. As Clawson and Vinson, long time ago suggested (1978, pg. 47): "the study of consumer values shows many signs of becoming a challenging area for research. However, values may prove to be one of the most powerful explanations of and influences on consumer behavior." Williams (1979), assuming both laboratory and survey studies, also addressed the question of whether values influence behavior, concluding that strong evidence shows values do influence behavior. Moreover, in Carman's point of view (1977) values influence the individual's life styles which consist of interests, time-use activities and roles. Thus, both consumer values and lifestyles can be used in market segmentation research (Kamakura and Novak 1992; Novak and MacEvoy 1990; Wells 1975; Plummer 1974). While the traditional market segmentation approach is more focused on the rational aspect of consumer behavior, the hedonic consumption perspective will emphasize emotional and symbolic consumption behaviors. Grouping consumers with similar values will provide information about groups similar choice criteria and final behavior. These variables, in turn, may significantly determine the individual's consumption, shopping and media behavior patterns.

As end-states which give expression to human needs, it is believed that values provide the goals toward which behavior is motivated. The immediate functions of values are to guide human action in daily situations. If we behave in all the ways prescribed by values, we will be rewarded with all the end-states specified by these values. In this sense, behavior is instrumental to the achievement of a particular value state referring, for instance, to hedonic-consumerism. Behavior instrumentality implies that a specific behavior will either enhance or block the attainment of this type of value or

constellation of values in this area. Hence, consumers are motivated to engage in behaviors which will enhance the achievement of values. Similarly, they can be motivated to avoid those behaviors which are perceived to block the attainment of certain value states (Gutman and Vinson 1979). But always the impulse or some sort of command to appropriate behavior comes from internal structure of values.

Since hedonic-consumerism values may guide consumers' actions and behaviors, so if marketers want to adjust or influence favorably their behavior (e.g., towards greater consumption of certain products), they must make inquiries and conduct market research about them at first. They need to collect information about personal values such as hedonic-consumerism in order to effectively pursue consumers' behavior and, in consequence, market consumption of products in all. The problem, however, with measurement of the hedonic-consumerism values and their influence on behavior is the lack of simple causal relationship between values and behaviors. This link is certainly less direct and many who discuss the values concept make the mistake of simply observing a behavior and figuring out which values "caused" such an action. Perhaps then, a good solution would be some kind of indirect measurement and use of observable measures leading to unobservable (latent) constructs linking values with behaviors through the agency of latent variables models such as structural equation modelling.

5.2. Hedonic-consumerism scale in the process of launching products and adjusting product strategies

Attentive analysis of hedonic-consumerism values (through the segmentation processes and use of HCV scale) and observation of emerging value trends enables identification of new product opportunities and the repositioning of existing products. The appearance of values-based information and simultaneously value-based segments may suggest marketer that certain products can be successfully positioned in the market. Thanks to values being expressed by consumers, marketers may selectively choose and design the most desired attributes in the offered products.

HCV scale is an important strategic asset in the development of appropriate promotional material that promotes and positions the products in a way that the target audience finds credible (Kotler 1991). By using the research results of the proposed HCV scale, we can design promotional campaigns maintaining current consumers' perceptions and evaluations of products. That is, the promotional material which is based on such information should be consistent with the ways in which consumers: 1) perceive the product (e.g., its tangible attributes or images saturating their needs from the perspective of hedonistic use of the product) and 2) evaluate the product (e.g., on its symbolic meaning base with affective judgment).

Moreover, hedonic-consumerism scale will be significant in predicting consumers' product preferences as long as there (in the market) still exist various groups of consumers and their values and different categories of products.

6. Limitations and directions for future empirical research

A main goal of the research was to establish reliable, valid and useful measures of hedonic-consumerism scale with its particular dimensions. This goal has been realized. The ten-item HCV scale demonstrated a good level of performance in the psychometrical study. However, when discussing some limitations of the HCV scale, we should stress here one important fact associated with the number of items attributable to a given factor. Probably the most controversy will cause factors which contain only two indicators. This controversial situation applies to factors such as: *entertainment and fun, curiosity and change, consumption style*. In previous yet analyses, that have been conducted, factor *curiosity development and openness to change* was loaded with two additional items (X_5 - *I explore new things and aspects of life*, X_{13} - *I learn constantly something that is new*). Unfortunately, they were dropped, through the agency of EFA and items analyses. Items X_5 and X_{13} had cross-loadings and simply mixed with the other factors. This investigation was further confirmed in CFA model. Similarly, item X_{10} - *I respect and believe in those people who possess lots of money* was suspiciously loaded on factor *self-enhancement*.

Faced with these facts, we can only be sure that *hedonic-consumerism values* - HCV construct, which is proposed here, needs some additional refinement and revision, especially in terms of the items content, which might be one more time investigated in exploratory studies on the basis of wider sample, i.e., taking into account more diverse groups of the respondents from other cities and academic centres. It is worth to consider some additional items to complement these factors consisting of few (only two) items.

Besides the HCV measurement scale was developed on characteristics of the Polish culture and may not be directly applied to other cultures at this stage, thus a continuous effort to validate the measures across cultures is desirable in future research. Moreover, with a focus on young consumers in the academic area, the sample used in this study may not be generalized to the whole population, and caution should be taken in interpreting the findings. In this context, some directions for future empirical research are mentioned below.

First, it is desirable to replicate the scale, e.g., using the confirmatory factor structure on an independent sample(s), thereby reducing error due to capitalization on chance (Chin and Todd 1995; MacCallum, Roznowski and Necowitz 1992). Not only should the model replicate, but we must also show the extent to which this measurement model will be stable across independent samples. For instance, we should assess the factorial stability of the hedonic-consumerism values with a multi-group analysis procedure that allows for the independent estimation of factor loadings, factor correlations, and error variances on the two or more samples (Byrne 1998; Steenkamp and Baumgartner 1998; Jöreskog and Sörbom 1993). These studies should reveal substantial measurement equality across the calibration and validation samples. Especially they should show no significant change in chi-square, assuming equal: factor loadings, factor correlations and error variances.

Second, with the purpose of testing the hedonic-consumerism scale we should use this scale correlating it with theoretically related constructs, thereby establishing evidence of nomological validity. The importance of establishing nomological validity has been well documented in the literature (e.g., Netemeyer, Durvasula and Lichtenstein 1991; Cronbach and Meehl 1955).

Third aspect in order to demonstrate the usefulness of the scale should relate to the degree of predictive validity of the hedonic-consumerism values. Such a being case, there might be performed two validation procedures, relying e.g., on *k*-means cluster analysis and Anova analysis of the extracted factors (so-called sub scales) across the respective number of clusters, along with Tukey post hoc tests. The second step depends on assessment of predictive validity by investigating whether variables that are theoretically related to the hedonic-consumerism values do indeed differ across clusters.

All the above issues, although important, are beyond the scope of this article and authors leave them open to other researchers who would like to pursue this problem.

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