

## Consumer behavior changing: methods of evaluation

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### **Abstract**

The article is devoted to methods of analyses of consumer buying behavior as well as to evaluation of most important factors what influences consumer behavior. This research aims at investigations about the changes in consumer behavior caused by globalization and development of information technologies; it helps to understand the specific factors what should be taken into account in evaluation of consumer behavior. The authors employ well-established quantitative and qualitative methods of research: grouping, analysis, synthesis, expert method, statistic method, etc. Research findings disclosed that there is possibility to introduce new methods for evaluation of changing consumer behavior.

### **Keywords**

Consumer behavior, changes, survey, correlation analysis.

### **Introduction**

Over the past decade the business environment has become increasingly dynamic, reflecting the global trend of economic liberalization. New political geography, gradual removal of international trade barriers, rapid technological advancements are just a few of the factors that have had major effect on the business management practices. The most obvious impact on the practical level of doing business has been intensified competition.

These changes have influenced markets and consecutively - consumer behavior. Consumer behavior is mix of elements from psychology, sociology, sociopsychology, anthropology and economics [2]. It is well known that marketing refers to the management process which identifies, anticipates and supplies customer requirements efficiently and profitably, and we can say that consumer behavior is core element of company success. Under the impact of Information and telecommunication technologies the theory of Holistic marketing has been developed and this theory also is oriented to the customer as a basic value for the company [1]. Therefore the authors would like to find out possible methods for evaluation of changing consumer behavior.

**METHODS OF CUSTOMER RESEARCH IN MARKETING**

There are a lot of different consumer behavior research methods, for example: surveys, focus groups, interviews, storytelling, photography, pictures, diaries, experiments, field experiments, conjoint analysis, observations, purchase panels, database marketing etc. Most popular types of consumer researchers are in-house marketing research departments, external marketing research firms, advertising agencies, syndicated data services, retailers, research foundations/trade groups, government, consumer organizations etc. Currently academics and academic research centers are very interested in consumer researches because there are a lot of changes and challenges, there are changes in theories, theoretical approaches, methods and methodologies.

There are two main approaches to customer research in marketing [3,4,10,11]:

1. Secondary research involves using information that others have already put together.
2. Primary research, in contrast, is research that you design and conduct yourself. Primary methods include surveys, focus groups, personal interviews, projective techniques, observation, online research methods, and psychological methods

Each method has own advantages and disadvantages [3,4]:

3. Surveys are useful for getting a great deal of specific information;
4. Focus groups are useful when the marketer wants to launch a new product or modify an existing one;
5. Personal interviews involve in-depth questioning of an individual about his or her interest in or experiences with a product;
6. Projective techniques are used when a consumer may feel embarrassed to admit to certain opinions, feelings, or preferences;
7. Observation of consumers and their behavior what often is a powerful tool;
8. Online research methods. Currently scanner data is most popular method where the information from the shops are analyzed and compared. At the same time development of information technologies provoke development of new online methods and we are expecting a lot of new methods in the nearest five years;
9. Physiological measures are occasionally used to examine consumer response.

Customer behavior is influenced by different factors and it is important to analyze how these factors are influencing changes in customer behavior and customer behavior in general. Therefore the authors would like to apply correlation methods to the list of methods of consumer behaviors' analysis.

**FACTORS INFLUENCING CONSUMER BEHAVIOR**

Many authors have their own classification of factors what influence consumer behavior. For example, David Jobber recommended such classification – Technical, Economic, Social and Personal. [11]. *Technical* criteria are related to the performance of the product or service and include reliability, durability, comfort and convenience. *Economic* criteria concern the cost aspects of purchase and include price, running costs and residual values (e.g. a trade-in value of a car). *Social* criteria concern the impact that the purchase makes on the persons perceived relationships with other people, and the influence of social norms on the person.[11,74.p] *Personal* criteria concern how the product or service relates to the individual psychologically. Self image is our personal view of us. Some people might view themselves as young, upwardly mobile, successful executives, and wish to buy a product that reflects that conception.

The authors agree with offered classification, but would like to add additional criteria to each group. For example, in technical criteria the authors recommend to add also physical dimensions of a product (like size, weight, hardness, density etc.). To economical criteria authors recommend to add overall economical situation in a country, level of household incomes, and other macro economical parameters. In the social criteria authors are confident to recommend include cultural and national particularities what is dominant in decision making process and action in every national group even in a multicultural market. As a very important personal characteristic the authors can name intelligence quotient. Very well known authors - William O.Bearden, Thomas N.Ingram and Raymond W.Laforge recommended allocating factors in three groups – Social, Individual and Situational [4].

**Influence of the *social environment***

The most important social influences are culture, subculture, social class, family, and interpersonal or reference group influences. Culture refers to the values, ideas, attitudes, and symbols that people adopt t communicate, interpret, and interact as members of society. In fact, culture describes a society's way of life. Culture is learned and transmitted from one generation to the next. It includes abstract elements (values, attitudes, ideas, religion), and material elements (symbols, buildings, products, brands). The process of absorbing a culture is called socialization. It continues throughout ones life and produces many specific preferences for products and services, shopping patterns, and interactions with others. Applied to marketing and consumer behavior, it is referred to as consumer socialization [4].

At the same time according to the author's point of view the global trends are connected with mix of cultures and lost of strict national traditions. Many international events become a part of national celebrations. For example, Halloween day is not Latvian national celebration, but it becomes usual. The concept of culture has two primary implications for marketing: it determines the most basic values that influence consumer behavior patterns, and it can be used to distinguish subcultures that represent substantial market segments and opportunities.

***Individual differences*** A vast number of individual differences can influence consumer behavior. Some of the most important include personality, lifestyles and psychographics, and motivation. Personality reflects a person's consistent response to his or her environment. It has been linked to differences in susceptibility to persuasion and social influence and thereby to purchase behavior. General personality traits related to consumer behavior include extroversion, self-esteem, dogmatism and aggressiveness [4].

In addition to the environment and individual consumer characteristics, situational influences also affect consumer behavior. Situational influences can involve purchase for anticipated situations, such as special occasions, and unanticipated occurrences, such as time pressures, unexpected expenses, and changed plans.

Situational store factors within the retail environment are also important. These store conditions include physical layout, atmospherics, location, the presence of others, the assistance of salespeople, and in-store stimuli [4].

The model offered by William O. Bearden, Thomas N. Ingram and Raymond W. Laforge [4] does not include a lot of very important factors what influences consumer behavior. Unfortunately, there are no economic factors included, therefore authors presume that this model is constructed for market with dominate of middle-class consumers and their incomes are stable in very long period. This model would be difficult to apply directly to the market of Latvia or the Baltic States. But, at the same time, this model is notable, because it contains situational factors what is not mentioned often in scientific elaborations of other authors.

Brassington Frances and Stephen Pettit are grouping all factors in four groups – Individual, Situational, Group influences and Marketing mix [12]. The decision-making process is affected by a number of other more complex influences. Some of these influences relate to the wider marketing environment.

Although marketers try to define groups of potential customers with common attributes or interests, as a useful unit for the formulation of marketing strategies, it should not be forgotten that such groups or market segments are still made of individuals who are different from each other. This section, therefore, looks at aspects that will affect an individual's perceptions and handling of the decision-making process, such as personality, perception, learning, motivation and the impact of attitudes. The authors support idea that personality is very important in consumer behavior.

Generally person with her/his individual characteristics, psychological portrait, experience, attitude, perception, motivation etc. is central element in consumer behavior theory. Therefore, authors just can add that in last decade we can observe a lot of new definitions and meanings who describe a person and its individuality, for example, emotional intelligence, intellectual quotation, psycho-emotional level etc. These are subjects for interdisciplinary studies (psychology and marketing, sociology and economics etc.).

Thomas C.Kinner, Kenneth L.Bernhardt and Kathleen A.Krentler classify factors - Demographic, Marketing mix, Internal/ Psychological, External/Social and Situational [7].

Demographic factors play an important role in the consumer purchase process. Income, age, occupation, and a myriad of other demographics can influence decision making at every step in the process.

Another set of factors that marketers certainly hope will influence consumer behavior is the marketing mix itself.

Much of what we know about how consumers behave is based on theories and research from the field of psychology, the study of individual behavior. When analyzing the process by which consumers make purchase decisions, marketers should understand such psychological factors as motivation, perception, learning, personality, and attitudes because they help explain the *why* of consumer behavior. Psychological factors are sometimes called internal factors, that is, their influence occurs within the individual. Because their influence is internal it cannot be observed, but must be inferred from what people say or do.

Situational factors are all those factors particular to a time and place of observation that do not follow from a knowledge of personal (individual) and stimulus (choice alternative) attributes and that have a demonstrable and systematic effect on current behavior. In other words, these factors are influences on consumer's behavior that aren't related to the individual buyer or the alternatives being considered. Such factors may affect communications situation, purchase situation, or usage situation [7].

Authors composed described factors what influences consumer behavior in table (see table no.1) and according to this theory and their own definition offer their opinion about classification and grouping of these factors.

**Table 1.** Consumer behavior influence factors [12,11,8]

<i>Author</i>	<i>Factor</i>	<i>Samples</i>
Kotler [13]	Cultural	Culture, Subculture, Social class
	Social	Reference groups, Family, Roles and status
	Personal	Age and lifecycle stage, occupation, economic situation, lifestyle, personality and self-concept
	Psychological	Motivation, perception, learning, beliefs and attitudes
Brassington Frances, Stephen Pettit[12]	Individual	Personality, Perception, Motivation, Attitude
	Situational	Sociocultural, Technological, Economic/ Competitive, Political/ Regulatory
	Group influences	Social class, Culture/ subculture, Reference groups, Family
	Marketing mix	Price, Product, Place, Promotion
Thomas C.Kinnear, Kenneth L.Bernhardt, Kathleen A.Krentler[7]	Demographic	Age, Education, Income, Race, Material status, Household size, Gender
	Marketing mix	Product, Place, Price, Promotion
	Internal/Psychological	Motivation, Perception, Learning, Personality, Attitudes
	External/Social	Culture, Social class, Reference groups, Family
	Situational	Physical surroundings, Social surroundings, Temporal perspective, Task definition, Antecedent states

At the same time authors believe that there are a lot of different possibilities to classify factors what influence consumer behavior. Therefore in presented research authors work out their own classification of factors for evaluation of changing behavior.

### **CORRELATION ANALYSIS - METHOD FOR ANALYSIS OF FACTORS INFLUENCING CONSUMER BEHAVIOUR**

According to authors' point of view factors what have influence on consumer behavior is: Social, Personal, Economic, Situational, Cultural, Psychological and Marketing mix communication. Each factor can interact with another and create subgroups of new factors or their combination and effect consumers and as a result can change consumer's behavior. Without six groups of factors there are also marketing mix communication, what can seriously impact each of six factors and change consumer behavior.

All factors can be divided in three groups: direct, indirect and situational. Direct factors are marketing mix and communication, indirect factors are economic, cultural and social factors, besides some of social factors could be applied to both – direct and indirect groups. Under the group „situational factors” the authors presume those who depends on the individual - psychological, personal and situational (with situational factors the authors presume environmental factors, impact of the situation, sales personnel etc).

All these factors the authors recommend analyzing by using method of correlation and correlation coefficients. As we know there are a lot of different methods for analysis of correlation among variables, for example analysis of correlation, correlation coefficient, linear regression, analysis of co-variation etc.

It is proved that one person could have a lot of permanent features therefore for one and the same group of people we can set a lot of changing variables, especially under the impact of external factors. The Authors recommend group of direct factors indicate with  $x_i$  ( $i=1, \dots, n$ ), but situational factors with  $y_i$  ( $i=1, \dots, n$ ). According to the theory with  $y$  we have to indicate changeable factors and the authors emphasize that situational factors corresponds to this group.

Relations between two consumer behavior features we can establish if changes in one factor group affect factors form another group. Interconnections among factors could be different: thoroughgoing and functional or imperfect. In imperfect interconnections one factor form direct factor’s group has impact to two or more situational factors and we can call this situation “imperfect” or correlative. If we can find relationship among those factors, we can easily forecast, for example, what influence the company marketing activities and marketing mix elements will have on consumer behavior.

The authors recommend for evaluation of correlation among factors in impact on consumer behavior use imperfect linear correlation method what is often described through Pearson correlation coefficient. This coefficient shows how changes in one factor impacts other group of factors. Pearson correlation coefficient is described in formula (1):

$$r = \frac{\sum_{i=1}^n (x_i - \bar{x})(y_i - \bar{y})}{\sqrt{\sum_{i=1}^n (x_i - \bar{x})^2 \sum_{i=1}^n (y_i - \bar{y})^2}} \quad (1)$$

where,

$r$  – Pearson correlation coefficient,

$n$  – Number of factors,

$x$  –Direct influence Factors,

$y$  – Situational factors.

We can set following limitations for this coefficient:

- The coefficient should vary from -1 to +1.
- If  $r = \pm 1$ , then it means that between two changing parameters we have linear function, but according to the authors point of view, in evaluation of consumer behavior this situation, is rare.
- If  $r = 0$ , then there are no linear relations among two parameters.
- If  $r > 0$ , then with low values of  $x$  we also can indicate low  $y$  values, and to high  $x$  values corresponds high  $y$  values.
- if  $r < 0$ , then, for low  $x$  values there are high  $y$  values and to high  $x$  values corresponds low  $y$  values.

Also very important question in consumer analysis is methodology applied to the research. According to the authors point of view first of all we have to analyze one factor, forecast its variations and on the basis of values of other changing factor, determine correlation.

But, taking into account that there are more than 2 changing factors what we have to analyze in consumer behavior, the authors recommends to use computer program SPSS what contains program ANCOVA for analysis of co-variations.

However, the field of research is very wide and this study presents just an insight into the large scope of different questions, which have to be tackled in the consumer behavior research and used correlation methods.

### **Conclusions**

The research by applying the method of synthesis of theoretical developments and practical experience has allowed the authors to analyze and evaluate the current situation in consumer behavior theory and come up with insight in complexity of this question.

The research contributes to better understanding of the specifics of factors what influence consumer behavior. The research has allowed the author to formulate the following conclusions and proposals:

1. There are a lot of potential for further analysis of consumer behavior. Therefore it is important to develop new methods and techniques for consumer behavior analysis.
2. Very special role in consumer behavior research should be devoted to consumer profile, its changes and individual particular characteristics of every national market.
3. The study done by the authors showed that it is important for researchers, to clearly define the factors what influences consumer behavior in current market. It will minify difficulty for companies and individuals to work more efficient in distribution of goods and services. It will allow evaluate influences of different factors on changes in consumer behavior.

However, the field of research is very wide and this study presents just an insight into the large scope of different questions, which have to be tackled in the consumer behavior research.



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