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HOW DO PRODUCT'S ATTRIBUTES AFFECT CONSUMER BEHAVIOR: AN EMPIRICAL EVIDENCE OF THE BRAND CHOICE

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Abstract

The aim of this research is to analyze consumer behavior in the selection of food products brands. In this study, samples were selected as consumers in major cities of the Republic of Albania. According to the bulletin of the Institute of Statistics, Albanian household expenditures for food products are about 47.6%. Thus a considerable part of their household budget goes for the purchase of food products. It is important to understand their attitudes and behavior toward the products offered. For this study was used principal-components method of factor analysis to determine how food product's attributes affect consumer behavior in the brands choice of food products. The findings showed that the variables are dimensioned in five components. After analyzing the attributes which includes each component these components are named, product information, packing attraction, product promotion, location based on price and brand image. According to the results it is clear that the attributes of food products play an important role in brand choice. The founding dimensions provide a clear map which is an important point that determines the strengths of consumer's choice. Companies which operate in the Albanian market should be careful towards the dimensions and improve or add to their product's attributes the results of products studied in this research.

Keywords: Product's attributes, brand choice, consumer behavior, food products, Albania

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INTRODUCTION

A radical transformation is occurring in the way how families in Albania buy their consuming products. Now shopping centers are part of the infrastructure provider of food products with a large number of domestic and foreign brands. In Albania supermarket branches invested by foreign investors began in 2005. Now it is part of the culture of the Albanian consumer that they mostly perform their purchases in shopping centers which have influenced the changing purchasing behavior. The number of the food sales is highly extended to consumers near settlements, suburbs and outside the cities. Albania is a developing country where in its business environment operate domestic and foreign companies and it is important that these companies understand consumer's behavior toward food products.

Understanding consumer behavior is good business. A basic marketing concept states that firms exist to satisfy consumers' needs. These needs can only be satisfied to the extent that marketers understand the people or organizations that will use the products and services they offer, and that they do so better than their competitors (Solomon 2006). A key to successful marketing is determining the correct balance of functional and psychological needs that best appeals to the firm's target markets (Grewal, Levy 2008). Today, marketing must be understood not in the old sense of making a sale "telling and selling'' but in the new sense of satisfying customer needs. Selling occurs only after a product is produced. By contrast, marketing starts long before a company has a product. Marketing is the homework that managers undertake to assess needs, measure their extent and intensity and determine whether a profitable opportunity exists. Marketing continues throughout the product's life, trying to find new customers and keep current customers by improving product appeal and performance, learning from product sales results and managing repeat performance (Kotler, Wong, Saunders, Armstrong 2005).

Marketing's broader importance extends to society as a whole. Marketing has helped introduce and gain acceptance of new products that have eased or enriched people's lives. It can inspire enhancements in existing products as marketers innovate to improve their position in the marketplace (Kotler, Keller 2012).

Today's successful companies have one thing in common, they are strongly customer focused and heavily committed to marketing. These companies share a passion for understanding and satisfying customer needs in well-defined target markets. They motivate everyone in the organization to help build lasting customer relationships based on creating value (Kotler, Armstrong 2012).

Brand Choice

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As the recent recession clearly indicated, both product and brand choice are greatly affected by economic circumstances: spendable income, savings and assets, debts, borrowing power, and attitudes toward spending and saving (Kotler, Keller 2012). It is not uncommon to enter a retail outlet with the intention of purchasing a particular brand but to leave with a different brand or additional items. Influences operating within the retail outlet induce additional information processing and subsequently affect the final purchase decision. Six variables that singularly and in combination influence brand decisions inside a retail outlet: *point-of-purchase materials, price reductions, outlet atmosphere, stockout situations, Web site design,* and *sales Personnel* (Hawkins, Mothersbaugh 2010). Consumer behavior science is typically interested in identifying which number of potential factors which has an influence on the sensory attributes and /or the consumer liking within a product category (Næs, Brockhoff, Tomic 2010). According (Kardes, Cronley, Cline 2011) when consumers make choices based on specific brand attribute information, they compare the specific attributes or features of each brand and select the one that performs best on key attributes .

Product attributes

Developing a product involves defining the benefits that the product will offer. These benefits are communicated and delivered by tangible product attributes, such as *quality*, *features, style* and *design*. Decisions about these attributes are particularly important as they greatly affect consumer reactions to a product (Kotler et al. 2005). Products and product's attributes are major stimuli that influence consumer affect, cognition, and behavior. Consumers may evaluate these attributes in terms of their own values, beliefs, and past experiences. Marketing and other information also influences whether purchase and use of the product is likely to be rewarding (Peter, Olson 2010). Attributes are the basic characteristics of goods and services. Attributes can be *tangible and intangible.* Tangible attributes are easily measured. Intangible attributes, although largely abstract, can also be measured. Consumers' attitudes toward quality, comfort, and convenience can be measured by survey instruments such as *Likert* and rating scales (Kardes, Cronley, Cline 2011). A product's *tangible* attributes can be assessed in physical terms, such as weight, dimensions, or materials used and *Intangible* product attributes, including the status associated with product ownership, a manufacturer's service commitment, and a brand's overall reputation or mystique are also important (Keegan, Green 2013). Consumer's evaluations of products are affected by their appearance, taste, texture or smell. We may be influenced by the shape and color of a package, as well as by more subtle factors, such as the symbolism used in a brand name, in an advertisement, or even in the choice of a cover model for a magazine (Solomon, Bamossy, Askegaard, Hogg 2006).

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RESEARCH METHODOLOGY

For this stydy, used is a factor analyses in examining the importance of product's attributes from questionnaires. In total where ditributed 595 questionnaires (n=595) in main cities of Albania. As a measure scale was used the importance rate of product's attributes consisting from 1 to 7 respectively (1 = not at all imprortant to 7 = extremely important). Factor analysis is used largely when the researcher has substantial numbers of variables seemingly measuring similar things. It has proven particularly useful with questionnaires and the purpose of factor analysis was to detect which sorts of mental skills tend to go together and which are distinct abilities (Howitt, Cramer 2011).

According (Zikmund, Babin 2007) factor analysis can be divided into two types: Exploratory factor analysis (EFA) performed when the researcher is uncertain about how many factors may exist among a set of variables. The discussion here concentrates primarily on EFA. And, Confirmatory factor analysis (CFA) performed when the researcher has strong theoretical expectations about the factor structure before performing the analysis. CFA is a good tool to access construct validity because it provides a test of how well the researcher's "theory" about the factor structure fits the actual observations. Thus, EFA provides two important pieces of information. (1) How many factors exist among a set of variables? (2) What variables match up or "load on" which factors?.

According (Kothari 2004) the important methods of factor analysis are. (1) Centroid Method of Factor Analysis. (2) Principal-components Method of Factor Analysis. (3) Maximum Likelihood (ML) Method of Factor Analysis.

For this research, are used principal-components of factor analysis. Principal-components method (or simply P.C. method) of factor analysis, developed by H. Hotelling, seeks to maximize the sum of squared loadings of each factor extracted in turn. Accordingly PC factor explains more variance than would the loadings obtained from any other method of factoring (Kothari 2004). A principal component analysis is concerned with explaining the variance-covariance structure of a set of variables through a few linear combinations of these variables. An analysis of principal components often reveals relationships that were not previously suspected and thereby allows interpretations that would not ordinarily result (Johnson, Wichern 2002). Factors are simply variables. The correlations of factors with the original variables are known as factor loadings, although they are merely correlation coefficients. Hence they range from −1.0 through 0.0 to +1.0. It is usual to identify the nature of each factor by examining the original variables which correlate highly with it. Normally each factor is identified by a meaningful name (Howitt, Cramer 2011).

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ANALYSIS AND FINDINGS

For this research was used SPSS 21 for the studing of 17 variables. The method chosen is Principal Components analyses. Principal Components analyses is used to extract maximum variance from the data set with each component thus reducing a large number of variables into smaller number of components (Tabachnick & Fidell, 2007). Principal Components analyses is a data reduction technique and the issues of whether it is truly a factor analysis technique has been raised (Costello & Osborne, 2005). That is, Principal Components produces *components.*

Table 1. SPSS output of KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.807
Bartlett's Test of Sphericity	Approx. Chi-Square	4014.599
	df	136
	Sig.	.000

For the KMO Statistic Kaiser (1974) recommends a bare minimum of 0.5 and that values between 0.5 and 0.7 are mediocre, values between 0.7 and 0.8 are good, values between 0.8 and 0.9 are great and values above 0.9 are superb (Hutcheson & Sofroniou 1999). For these data the value is 0.807 (table1), which falls into the range of being great, so we should be confident that the sample size is adequate for factor analysis. Second, we will look at the *Bartlett's Test of Sphericity* (see Figure 1; significant level of $p < .05$) to confirm that our example has patterned relationships. Indeed, these tests show that we do have patterned relationships amongst the variables ($p < .001$).

Table 2. SPSS output of the Total Variance Explained for extracted factors

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings[a]
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	Total
1	5.425	31.910	31.910	5.425	31.910	31.910	3.785
2	2.058	12.104	44.014	2.058	12.104	44.014	2.991
3	1.554	9.139	53.153	1.554	9.139	53.153	3.513
4	1.191	7.005	60.159	1.191	7.005	60.159	3.107
5	1.032	6.072	66.231	1.032	6.072	66.231	3.120
6	.855	5.027	71.258				
7	.722	4.249	75.507				
8	.669	3.936	79.442				Table 2….
9	.627	3.686	83.128				

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10	.541	3.185	86.313
11	.472	2.777	89.090
12	.396	2.329	91.419
13	.342	2.010	93.429
14	.327	1.926	95.356
15	.310	1.822	97.177
16	.284	1.668	98.845
17	.196	1.155	100.000

Extraction Method: Principal Component Analysis.
a. When components are correlated, sums of squared loadings cannot be added to obtain a total variance.

Table 2 lists the eigenvalues associated with each linear component (factor) before extraction, after extraction and after rotation. Before extraction, SPSS has identified 17 linear components within the data set. The eigenvalues greater than 1, which leaves us with five factors associated with each factor represent the variance explained by that particular linear component, and SPSS also displays the eigenvalue in terms of the percentage of variance explained, so factor 1 explains 31.910% of total variance, factor 2 explains 12.104% of total variance, factor 3 explains 9.139% of total variance, factor 4 explains 7.005% of total variance, factor 5 explains 6.072% of total variance.

Table 3. SPSS output of Component Matrix

	Component				
	1	2	3	4	5
Product presentation	.684				
Packaging style	.652	-.467			
Production place	.617				
Service quality	.601				
Ingredients information	.596	.464			
Using information	.590		-.481		
Packing design	.588	-.481			
Manufacturer name	.586				.441
Product brand	.586			-.444	.492
Promotional discount	.583				
Location of unit sale	.536		.465	.404	
Type of unit sale	.520		.495		
Publicity	.515			-.433	-.462
Price	.477				
Product quality	.435				
Packing color	.428	-.601			
Information on the time of use	.543	.600			

The output in table 3 shows the component matrix before rotation. This matrix contains the loadings of each variable onto each factor. By default SPSS displays all loadings; however, we

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requested that all loadings less than 0.4 be suppressed in the output and so there are blank spaces for many of the loadings. This matrix is not particularly important for interpretation, but it is interesting to note that before rotation the variables load highly onto the first factor.

Table 4. SPSS output of pattern matrix

	Component				
	1	2	3	4	5
Ingredients information	.879				
Using information	.812				
Product quality	.684				
Production place	.645				
Information on the time of use	.624				
Packing design		.800			
Packing style		.765			
Packing color		.717			
Publicity			.959		
Service quality			.757		
Promotional discount			.509		
Product presentation			.453		
Location of unit sale				.829	
Type of unit sale				.808	
Price				.614	
Product brand					.952
Manufacturer name					.870

Table 4 shows the pattern matrix, which we can identify five components. First component include five variables which are ingredients information, using information, product quality, production place, information on the time of use. Second component include three variables which are packing design, packing style, packing color. Third component include four variables which are publicity, service quality, promotional discount, product presentation. Fourth component include three variables which are location of unit sale, type of unit sale, price. Fifth component includes two variables which are product brand, manufacturer name.

Figure 1. Components influencing brand choice

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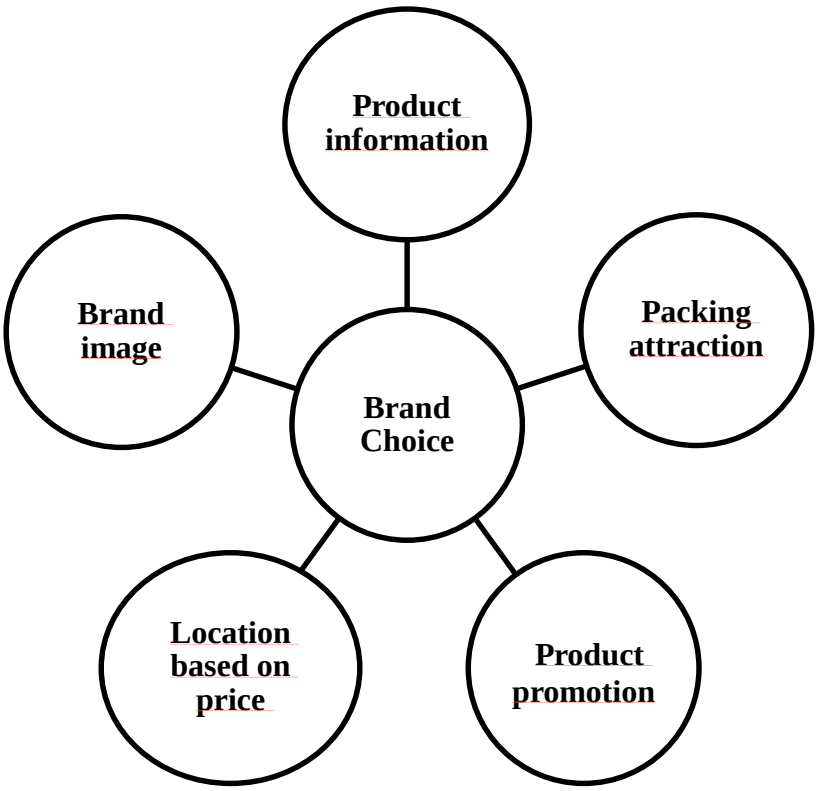

CONCLUSION

According to the research, the findings suggest that when Albanian consumer's choice for food products, is dimensioned in five components which each of them influencing consumer brand choice for food products. All the variables which were taken in the research are important and are dimensioned in five components. Based on the variables (figure 5) which are included in each component we have named the first component *product information*, second component *packing attraction*, third component *product promotion*, fourth component *location based on price*, fifth component *brand image.* The five components give us a dimensions map in which the consumer project the choice of a brand based on product's attributes. The components explain 66.231% of total variance that shows how the particular solution accounts for what all the variables taken together represent. If the variables are all very different from each other, this index will be low.

RECOMMENDATIONS

According to the results it is clear that the attributes of food products play an important role in brands choice and the founding dimensions provide clear map which are important points that determine the strengths in consumers choice. Local manufacturing companies and foreign

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companies operating in Albanian market should be careful towards the dimensions and improve or add to their product's attributes the results of products studied in this research. They should also be careful with the development, distribution, promotion and the price of the products. It is also necessary to strengthen the communication with sales unit operating in Albanian market on the implementation policies and promotion of the product distribution.

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