

THE DETERMINATION OF FACTORS INFLUENCING BRAND CHOICE OF THE UNIVERSITY STUDENTS: A RESEARCH ON THE APPAREL INDUSTRY¹

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ABSTRACT

People's clothing preferences are changing with the rapid development of technology. Success of firms requires knowledge of the target audience in global market. It is necessary to determine the factors that affect consumer attitude and behaviour. The purpose of the study was to determine the factors that influence brand attitude and behaviour among college students for the apparel sector. In this regard, factor analysis was employed to the data acquired from 350 students enrolled at the Ordu University Ünye Faculty of Economics and Administrative Sciences. Exploratory factor analysis, reliability analysis and confirmatory factor analysis were carried out in order to determine the construct validity of the factor analysis. Kaiser – Mayer – Olkin and Bartlett criterion was used to test the suitability of the variables in the factor analysis as well as to test the sample size (KMO; 0.928; $P < 0.01$). Exploratory factor analysis showed a structure of 15 items and 3 factors. These factors explained 66.44 % of the total variance. The Cronbach Alpha coefficients revealing that the tests were consistent. The results of confirmatory factor analysis were 2.335 for CMINDF, 0.062 for RMSEA, 0.932 for GFI, 0.942 for NFI and 0.966 for CFI. All factors were significant and fit indices confirmed that the model had a perfect fit. To sum up, the factors effective in the brand preference of students were collected under three headings. These were brand loyalty, turning to alternative brand and brand sensitivity.

Keywords: brand loyalty, brand preference, factor analysis and university students.

JEL Classification: M10, M31, C44,

¹ This abstract of article was published in 5th World Conference on Business, Economics and Management in 12-14 May 2016. In the same time, this article was presented as oral presentation

1. INTRODUCTION

Young people account for a major part of consumer population and are the main target of apparel sector. As in the whole world, young people in Turkey have started to make more informed shopping in recent years. While deciding to buy a product, consumers might consider the price, packaging, warranty and after-sale services. In addition, perception of brand characteristics and marketing strategies could also play role in consumers' purchasing decision. Firms, on the other hand, evaluate their way of perception by target groups and behavior and attitude of consumers towards their brand and products. Consumer preferences and perceptions are important for apparel firms which have created their own brands. In order to create brands that could meet the expectations of consumers in today's markets where many local and foreign firms compete, apparel firms should consider the attitudes of consumers towards their brands. Therefore, firms should be aware of the expectations of customers and take measures to increase the acceptability by young people.

The purpose of the study was to determine attitude and behaviors effective for brand preference in apparel industry. Data for the study came from a survey and were analyzed using exploratory factor analysis (EFA), reliability analysis and confirmatory factor analysis (CFA).

2. LITERATURE REVIEW

2.1. Factors Affecting the Purchasing Behaviors of Consumers

Marketing aims to ensure the production of goods and services that fit to the needs and desires of consumers. An accurate analysis of consumers' behaviors is the first thing to achieve this aim. Such an analysis will identify where, why and how the consumers buy and use a certain brand as well as why they turn to other brands. Despite changing by the merchandise, consumer behavior remains the same throughout the purchasing process. Process of deciding the purchasing basically consists of five steps: identification (being aware) of problem, data collecting, consideration of options, purchasing decision and evaluation after purchasing (Kotler and Keller, 2006:191). There are many factors affecting the purchasing behavior of consumers. These are social and cultural factors such as culture, subculture, social class, reference groups and family (Grant and Stephen, 2005: 451). There are also psychological factors affecting purchasing behaviors of consumers such as motivation, perception, learning as well as beliefs and attitudes (Miryalala and Aluvala, 2015: 163).

One of the most significant factors affecting consumers' purchasing behaviors is brand. Numerous authors have presented definitions for a brand. Brand is described as a name, term, sign or style and it is a unification of the above and the goods or services of one seller or a group of sellers are identified and differentiated by the competitors (Kotler, 2000). Kapferer (1997) states that a brand is differentiated into two different functions named distinguishing products from each other and indicating its origin. There are some benefits derived from brands by consumers. Brands give confidence to consumers. They do take risks by purchasing unknown products. Brand products are considered to have better quality and preferred compared to other products. Brands make it easy for consumers to recognize the products and, thus, hasten the decision process for purchasing. Brand products mean guarantee for consumers and help to protect them (Blyth, 1998).

2.2. Factors Effective in Brand Preference of Consumers

Today consumers who want to purchase a given product in the market have different

prices and product types. They evaluate different brands and select among a large spectrum of products for their needs, values, expectations and habits. Consumers decide brands under the influence of factors such as demand, demographic features, perception of brand by consumers, brand image consumers have, attitudes towards other brands, marketing policies of producing and selling firms, socio-economic structure and common way of living of the society (Güneri, 1996:69).

Among the leading factors brand loyalty is effective for the brand preference of consumers. One of the most widely shared definitions of brand loyalty was that of Jacoby and Kyner, (1973). It was described as the biased behavioural response expressed over time by some decision making unit with respect with one or more alternative brands out of a set of such brands, it has functions such as psychological (decision-making, evaluative) process (Bozzo et al., 2003). The brand loyalty was described as a “deeply held commitment to rebuy or repatronize a preferred product/service consistently in the future, even though situational influences and marketing efforts have the potential to cause switching behavior” (Oliver, 1999:34). Although most consumers basically remain loyal to a given brand or firm, they may try competing brands or products in time (Walters and Paul, 1970:508). When a previously used and satisfied product cannot meet the expectations, consumers may opt for a brand change. Consumers may also try different alternatives when the price of the product changes, e.g. when the price increases excessively (Assael, 1992:80). A consumer failing to find his first choice brand in point of sale will naturally buy the second preferred one. Another reason to turn to another brand is special discounts and promotions (gift checks, free samples, discount coupons etc.) for various possible alternative brands (Loudon and Della Bitta, 1993:567). In a fast changing world, curiosity towards trying different products in the market, disappointments due to changes in quality and performance of the product and past experiences may force consumers to try other brands (Assael, 1992:84; Walters and Paul, 1970:508).

When the consumers decide buying something for their desires and needs, they may find multiple brand alternatives. It cannot be expected from each consumer to exert the same purchasing behavior. Brand sensitivity has a psychological structure relating brands to a buyer's decision-making process (Lachance et al. 2003). A consumer is said to be brand loyal only under the condition of strong brand sensitivity. This shows the significance of brand sensitivity in the context of brand loyalty (Benning, 2016:6)

The designer apparel brands are perceived by the consumers as prestigious brands encompassing a couple of physical and psychological values perceived as conspicuous value, perceived unique value, perceived hedonic value, perceived quality value and perceived social value (Prendergast and Wong, 2003). Consumption patterns are governed by social value of the product that determines the purchasing intentions, consumer attitudes, or perceptions on brand or advertising slogan largely. Qualitatively distinct psychological motives are created by consumer experience having high socio-economic power perceptions and developed towards buying designer apparel (Rucker and Galinsky, 2009)

Marangoz (2006) studied how the brand concept is perceived especially by college students and effects of brand perception on after-sale behaviors such as buying again and returning the product. Findings of that study revealed that quality of the product plays a crucial role in buying again and returning decisions. Kinuthia et al. (2012) carried out a study among the students being active at swimming as a competitive activity at Kenyan University would be loyal to swimwear brands based on factors such as Size and Brand Reputation; Attractiveness; Price and Variety. According to the results it was found out that there was a positive relationship between brand loyalty and the factors. Lee et. al. (2008) in their study

have indicated that Mexican college students detected U.S. apparel brands higher on emotional value thus having higher purchasing intention towards it.

Ciftci and Cop (2007) carried out a study to determine the factors affecting blue jeans preference of college students and found that product range, capacity to meet the demands of customers, striking product designs, reliability of brand and fabric quality of the products influenced the preference of consumers. In addition, it was revealed that consumers satisfied with a product of a brand were also satisfied with another product of the same brand. Another study by Odin et al. (2001) showed that students with strong brand sensitivity also had strong brand loyalty. Yildiz (2006) investigated the association between the trust young people had in apparel brands and different characteristics of the brand and found that name, affection, satisfaction and image of the brand significantly affected the trust.

3. MATERIAL AND METHOD

Major experimental data of the study were obtained through a questionnaire. Questionnaire form was prepared based on the studies conducted by Demir (2013) and Yarici (2009). In the first part of the questionnaire, there were 10 questions for demographic features of consumers. The second part had 21 expressions to define attitudes and behaviors of students towards brands. A five-point likert scale was used for the questions: strongly disagree (1), disagree (2), neither agree nor disagree (3), agree (4) and strongly agree (5). For the sample, an area restriction was made. The main body was 2580 students enrolled Ünye Faculty of Economics and Administrative Sciences of Ordu University in 2016. Number of questionnaire was determined using the following formula (Akbulut and Yildiz, 1999):

$$n = \frac{NPQZ^2}{[(N-1)d^2 + PQZ^2]}$$

Where 'n' was sample size; 'N' was the number of students in the Faculty (2,580); 'P' was the probability of using brands of students (50% or hypothetical); 'Q' was the probability of brand non-users (1-P); Z was the Z value (e.g. 1.96 for 95% confidence level); and d was tolerance (0.05). Calculated sample size for the study population was 335. In addition, sample size was completed to 350 in case any invalid questionnaire could be appeared.

Questions structured to learn brand loyalty and behavior were evaluated via factor analysis. Data obtained were analyzed using SPSS 20.0 statistical package software. Factor analysis have been frequently used in studies determining attitudes and behaviors. Kaiser-Meyer-Olkin (KMO) method was used to test sample sufficiency (Kaiser, 1974). Then, EFA, Reliability Analysis and CFA were carried out in an order.

4. FINDINGS AND DISCUSSION

Of the participants, 34.9% were male and 65.1% were female students. Weighted average age was within 20 and 23 years interval (71.7%). Business administration majors constituted 68.8% of the participants, while Economic Administration, Labor Economics and Industrial Relations majors constituted 12.6, 10.6 and 8.0%, respectively. Major part of the students (53.5%) had monthly incomes of 1500 TL and over. Considering the area of residence of families, 47.7% lived in central towns of provinces, while 37.4% lived in district towns and 14.9% in villages. Most of the students were from Black Sea region of Turkey (52.6%), followed by Marmara (14.6%), Central Anatolia (11.1%), Mediterranean (8.0%), Aegean (6.0%), Eastern Anatolia (4.6%) and Southeast Anatolia (3.1%). The highest portion of household heads were retired (31.7%), followed by self-employed (27.1%), public sector employees (20.6%), private sector employees (18.6%) and unemployed (2.0%) (Table 1).

Table 1. Demographic features of participating young people

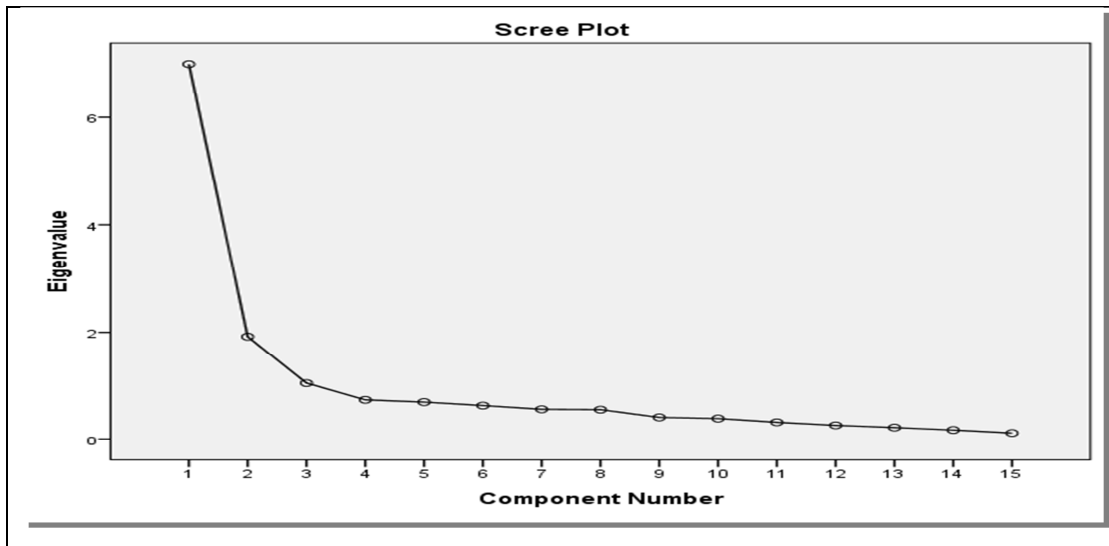
Gender	n	%	Family Residing Area	n	%
Male	122	34.9	Province Central Towns	167	47.7
Female	228	65.1	District Towns	131	37.4
Total	350	100.0	Villages	52	14.9
Age			Total		
16-19	42	12.0	Family Residing Region in Turkey		
20-23	251	71.7	Aegean	21	6.0
24 and over	57	16.3	Black Sea	184	52.6
Total	350	100.0	Marmara	51	14.6
Major of Participating Students			Central Anatolia	39	11.1
Business Administration	241	68.8	Mediterranean	28	8.0
Economic administration	44	12.6	East Anatolia	16	4.6
Labor Economy and Industrial Relations	37	10.6	Southeast Anatolia	11	3.1
Public Administration	28	8.0	Total	350	100.0
Total	350	100.0	Occupation of Household Head		
Average Monthly Income of Family			Retired	111	31.7
0-499 TL	14	4.0	Employed in Private Sector	65	18.6
500-999 TL	60	17.1	Employed in Public Sector	72	20.6
1000-1499 TL	89	25.4	Self employed	95	27.1
1500 TL and over	187	53.5	Unemployed	7	2.0
Total	350	100.0	Total	350	100.0

Factor analysis consists of methods to explain associations among variables in terms of more fundamental variables called factors. In order to test the suitability of the samples, KMO measure of sampling adequacy and Bartlett's test of sphericity were carried out. A KMO value less than 0.50 shows inadequacy of data for the factor analysis. KMO 'values between 0.5 and 0.7 are medium, values between 0.7 and 0.8 are good, values between 0.8 and 0.9 are excellent and values above 0.9 are the best' (Field, 2009: 647). The Bartlett's Test of Sphericity also shows the significance of the study and indicates the validity and suitability of the responses to the problem of interest in the study. For factor analysis, P-values of the Bartlett's Test of Sphericity less than 0.05 are considered suitable. KMO measure of sampling adequacy in the present study was 0.928 and Bartlett's test of sphericity was 3,263.716 ($P < 0.01$) indicating that the sample was adequate for factor analysis.

When there is a strong correlation between variables, multicollinearity and singularity problems involving correlation matrix may arise (Tabachnick and Fidell, 2007). Multicollinearity problem or singularity may appear when the determinant of the correlation matrix is less than 0.00001 (Field, 2009). Determinant of correlation matrix was 0.00740 and it was above 0.00001, indicating that there was no problem of multicollinearity. All 21 items were included into the principal component analysis (PCA) and primary factors were extracted. Afterwards, variables with communality scores of less than 0.5 were extracted (six items) and an EFA with the remaining 15 items were performed.

Based on PCA with varimax rotation, a three-factor solution with eigenvalues greater than 1.0 was found to have the best fit model for sample. Dimensions with factor loadings equal to or greater than 0.30 were retained.

Figure 1. Eigenvalue scree plot



The Cronbach's Alpha coefficient was obtained as a result of the reliability analysis carried out to test the consistency of the EFA. Cronbach's Alpha for brand loyalty, alternative brand and brand sensitivity were 0.943, 0.643, and 0.674, respectively (see Table 2).

Table 2. Results of EFA

Factors and items	Factor loading	Eigen values	Variance Explained %	Cronbach's Alpha
F1: Brand Loyalty				
I am really satisfied with this brand	0.897			
I find this brand consistent	0.890			
I believe I have done a correct thing by preferring this brand	0.884			
I trust in this brand	0.837			
Image of this brand is satisfactory for me	0.835	46.634	44.560	0.943
This brand is known to be good	0.834			
This brand has a good performance	0.786			
The firm owning this brand does not disappoint me	0.762			
This brand has never disappointed me	0.726			
I prefer this brand to others	0.640			
F2: Turning to an Alternative Brand				
Discounts and campaigns by alternative brands	0.805			
Failure to find preferred brand in the point of sale	0.737	12.806	12.666	0.643
Promotional activities	0.671			
F3: Brand Sensitivity				
Seeing a bad advertisement	0.785			
Having a bad experience	0.782	6.999	9.214	0.674

*Rotation Method: Varimax with Kaiser Normalization. Rotation converged in 4 iterations.

Present study determined 3 factors and 15 items effective in brand preference of young people. This 15-item structure explained 66.44 % of the variance in the pattern of relationships among the variables. The order of the factors was in accordance with the highest eigenvalues and amount of variance explained by each one of them (Table 2). These three factors were named as brand loyalty, alternative brand and brand sensitivity. The percentages explained by each factor were 46.634 % (brand loyalty), 12.806 % (alternative brand) and 6.999% (brand sensitivity).

Attitudes of college students towards brands consisted of 10 items. The leading items were "I am really satisfied with this brand" (0.897), "I find this brand consistent" (0.890), "I

believe I have done a correct thing by preferring this brand”(0.884), “I trust in this brand” (0.837) and “Image of this brand is satisfactory for me” (0.835). Others were “This brand is known to be good” (0.834), “This brand has a good performance” (0.786), “The firm owning this brand does not disappoint me” (0.762), “This brand has never disappointed me” (0.726) and “I prefer this brand to others” (0.640). No disappointment by the firm and no disappointment by the brand behavior could be regarded as an indication of the fact that customers equate them.

Three items were determined to affect second factor, i.e. turning to an alternative brand. They were “Discounts and campaigns by alternative brands” (0.805), “Failure to find preferred brand in the point of sale” (0.737) and “Promotional activities” (0.671). Brand sensitivity, the last factor, was influenced by two items, “Seeing a bad advertisement” (0.785) and “Having a bad experience” (0.782).

Lastly, CFA was employed to complete the study. The results of the CFA carried out to understand the fit of the model to the database along with the fit indices were given in Table 3.

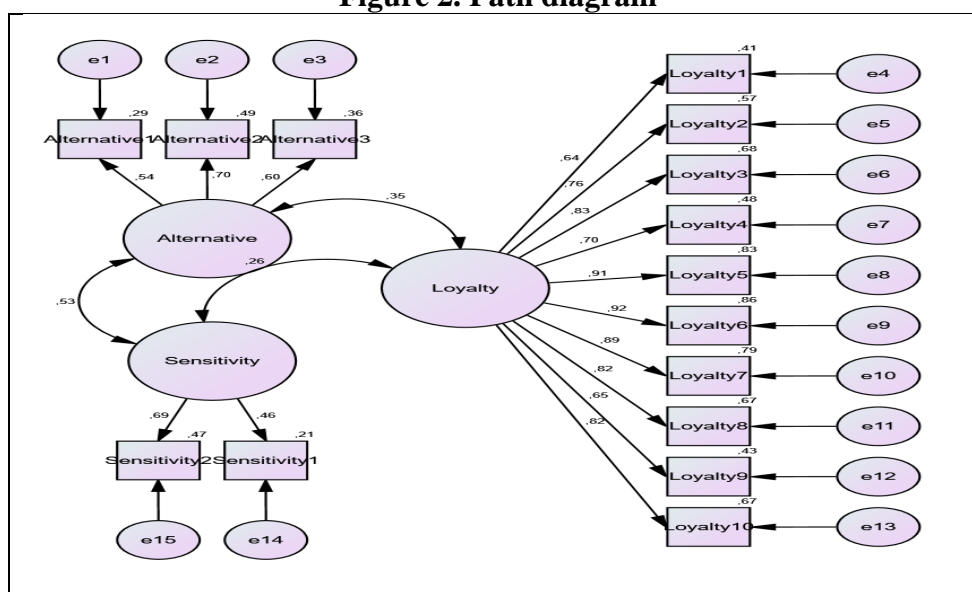
Table 3. Fit Indices for CFA

X^2	DF	P	CMINDF	NFI	CFI	GFI	RMSEA
289,063	87	<0.01	2.335	0.942	0.966	0.932	0.062

The fit indices for CFA: $0.90 < NFI < 0.95$; $CMINDF < 5$; $0.90 < CFI < 0.97$; $0.90 < GFI < 0.95$; $0.05 < RMSEA < 0.10$. (Byrne, 1998; Kline, 1998).

The CFA results showed that the hypothesized model that consists of 15-item structure of the instruments had a perfect fit for the data. The consistency values obtained in confirmatory factor analysis were 2.335 for CMINDF, 0.062 for RMSEA, 0.932 for GFI, 0.942 for NFI and 0.966 for CFI. All factors were statistically significant and results of the fit indices showed that the model had a perfect fit. In addition, a path diagram for CFA was shown Figure 2.

Figure 2. Path diagram



5. CONCLUSION

Factors effective in brand preference of the college students were investigated in the present study. Exploratory factor analysis, reliability analysis and confirmatory factor analysis were performed to determine attitudes and behaviors of the students towards brands. Three major factor influencing the attitudes and behaviors of students towards brands were determined and verified. The first of these factors were 'brand loyalty'. Attitudes of students towards brands consisted of 10 items. The basic aim of firms to create brands is to achieve customer satisfaction. Therefore, the leading attitude was brand satisfaction. Other attitudes in order were consistency of the brand, faith in the brand, trust in the brand, brand image, name of the brand, performance of the brand and advising the brand to other people. The second factor determined was the behavior of 'turning to an alternative brand'. More crucial attitudes are the behaviors that have future dimensions. Therefore, determination of items affecting turning to alternative brands and purchasing behavior is critical. Three items that play role in consumers' turning to an alternative brand were determined in the present study. They were discounts and campaigns by alternative brand, lack of access by consumers in points of sale and promotion sales by alternative brands. Finally, it was found that consumers had some sensitivity towards the brand they used. There were two items affecting 'brand sensitivity.' These were bad advertisements about the brand and bad experiences of users about the brand.

Considering all data as a whole, firms need to know consumers well and respond to their desires in a satisfactory and fast way to strengthen their brand and to create a brand loyalty. In addition, taking care of complaints and suggestions from consumers are crucial for firms. Especially in today's harsh competition conditions, it is getting increasingly difficult for firms to create loyalty to a given brand. The present study revealed that discounts and promotion sales by alternative brands are among the effective reasons for students to change brands. Therefore, firms are advised to increase their various discounts, campaigns and promotion sales.

REFERENCES

- ASSAEL, H. (1992). *Consumer Behavior and Marketing Action*. Boston: PWS- Kent Publishing Company.
- AKBULUT, Ö., YILDIZ, N. (1999). *Basic Formulas and Tables in Statistical Analysis*. Erzurum-Turkey: Aktif Publishing House.
- BENNING, T. (2010). *Brand Sensitivity: A Case for Shoes*, Master's thesis of Rob van Vliet, Erasmus University Rotterdam, 47.
- BYRNE, B.M. (1998). *Structural Equation Modeling with LISREL, PRELIS and SIMPLIS: Basic Concepts, Applications and Programming*. Mahwah, New Jersey: Lawrence Erlbaum Associates.
- BLYTHE, J. (1998). *Essentials of Marketing*, Published by Financial Times/ Prentice Hall, 320
- BOZZO, C., MERUNKA, D., MOULINS, (2003). "Fidélité et Comportement d'Achat : ne pas se Fier aux Apparences", *Décisions Marketing*, 32: 9-17.
- CIFCI, S., COP, R. (2007). *The Terms of Brand and Brand Management: An Investigation About University Students' Jeans Brand Choices*. *Finans Politik & Ekonomik Yorumlar*, 44 (512): 69-88 (article in Turkish with an abstract in English).
- DEMIR, N. (2013). *Young Consumers of the Demographic Characteristics of Brand and Brand Determining Differences in to Choose Causes it generates in Loyalty*, Nigde University Institute of Social Sciences, Master Thesis, Nigde (in Turkish).
- FIELD, A., (2009). *Discovering Statistics Using SPSS for Windows*. Sage Publications, London e Thousand Oaks e New Delhi.
- GRANT, I. J., STEPHEN, G. R. (2005). 'Buying Behaviour of 'Tweenage' Girls and Key Societal Communicating Factors Influencing Their Purchasing of Fashion Clothing', *Journal of Fashion Marketing and Management*, 9 (4): 450-467.
- GÜNERİ, F. B. (1996). "Consumer Attitudes Toward the ad Determining the Role of Brand Preferences" Ege University Institute of Social Sciences. PhD Thesis, İzmir (in Turkish).
- JACOBY, J., KYNER, B. D. (1973). "Brand Loyalty vs. Repeat Purchasing Behaviour", *Journal of Marketing*, 10: 1-9.
- KAISER, H. F. (1974). An Index of Factorial Simplicity. *Psychometrika* 39: 3-36.
- KAPFERER, J. N. (1997). *The New Strategic Brand Management: Creating And Sustaining Brand Equity Long Term*, (Editions of Organization, Paris), p.47.
- KINUTHIA, L., MBURUGU, K., MUTHONI, H., MWIHAKI, M. (2012). Factors Influencing Brand Loyalty in Sportswear, *Asian Journal of Social Sciences and Humanities*, 223-231.
- KLINE, R. B. (1998). *Principal and Practice of Structural Equation Modeling*. New York: The Guilford Press.
- KOTLER, P., KELLER K. L. (2006). *Marketing Management*. (12.baskı). New Jersey, Amerika Birleşik Devletleri: Pearson Education.
- KOTLER, P. (2000). *How to create, win and Dominate Market*, (The Free Press, New York), pp.18-151.

- LACHANCE, M. J., BEAUDOIN, P., ROBITAILLE, J. (2003). "Adolescents' Brand Sensitivity in Apparel: Influence of Three Socialization Agents," *International Journal of Consumer Studies*, 27 (1): 47-57.
- LEE, M. Y. KIM, Y. K., PELTON, L, KNIGHT, D., FORNEY, J. (2008). Factors affecting Mexican college students' purchase intention toward a US apparel brand, *Journal of Fashion Marketing and Management*, 12 (3): 294 - 307
- MARANGOZ, M. (2006). 'Relationship between of Brand-Function Perceptions and Post-Buying Behaviour of Consumers, *Dokuz Eylul University Journal of Economics and Administrative Sciences*, 21(2): 107-128 (article in Turkish with an abstract in English).
- LOUDON, D. L., DELLA BITTA, A. J. (1993). *Consumer Behavior. Concepts and Applications*. New York: McGraw Hill, Inc
- MIRYALA, R. K., ALUVALA, R. (2015). *Trends, Challenges & Innovations in Management - Volume II*, Zenon Academic Publishing, 277.
- ODIN, Y., ODIN, N., VALETTE, P. (2001) Conceptual And Operational Aspects Of Brand Loyalty- An Emprical Investigation, *Journal Of Business Research* 53: 75–84.
- OLIVER, R. L. (1999). Whence Consumer Loyalty? *The Journal of Marketing. Fundamental Issues and Directions for Marketing*, 63: 33-44
- PRENDERGAST, G., WONG, C. (2003). Parental influence on the purchase of luxury brands of infant apparel: an exploratory study in Hong Kong, *Journal of Consumer Marketing*, 20 (2): 157-169
- RUCKER, D. D., GALINSKY, A. D. (2009). Conspicuous consumption versus utilitarian ideals: How different levels of power shape consumer behavior, *Journal of Experimental Social Psychology*, 45 (3): 549-555
- TABACHNICK, B. G., FIDELI, L.S. (2001). *Using Multivariate Statistics* (Fourth Edition). Boston: Ally and Bacon.
- WALTERS, C. G., PAUL, G. W. (1970). *Consumer behavior: An integrated framework*. Homewood, IL: Richard D. Irwin.
- YARICI, M. (2009). *Inoculation Effects Of The Rival Advertisements, Attacking The Leader Brand On The Loyal Customers Of The Leader Brand*, Unpublished Master's Thesis, University of Bahcesehir, İstanbul (in Turkish).
- YILDIZ, O. (2006). *Indicating The Relationship Between The Brand Loyalty And Consumer Trust*, Unpublished Master's Thesis, Cukurova University Institute of Social Sciences, Adana (in Turkish).