

## A CUSTOMER BASED BRAND EQUITY STUDY: PANEL FURNITURE INDUSTRY AND DÜZCE

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**Abstract-** The aim of this study is drawing attention to the brand concept and its importance which is neglected in the Turkish forest products industry. For emphasising its importance, it is necessary to touch upon the brand equity (BE). In this context, customer-based (CB) BE, one of the BE measurement methods was preferred.

The target population is the households in the Düzce centre. Due to their popularity and awareness, the existing brands of large sized domestic panel furniture (PF) manufacturers were subjected. The business related data were taken from TOBB while the households' were taken from TURKSTAT. The used scale was developed by Yoo and Donthu which was based on the Aaker and Keller's BE concept. The findings were analysed with various statistical methods like cross-tabulation and chi-square.

Some of the findings are as follows: 65 questionnaires were filled out. 66,2% of respondents are male and 33,8% of them are female. 35,4% are university graduates and 46,2% have post graduate degrees. It has been found that the favourite brand (FB) of customers does not vary depending on demographic characteristics such as gender, age, marital status, etc.

If judgements were examined, it was found that: the chosen FB varies depending on: being the first remembered brand, being the first brand preferred as PF, having costlier advertising campaigns than the competitors, often having advertising campaigns, having the experience and deeply rooted history, trust on the brand, recognition of the branded products, distinction of the brand from the competitors, rememberability of the some properties of the brand and effective brand advertising. So, For Düzce: the CBBE has been formed by brand awareness and brand associations dimensions. It is suggested that the firms that want to increase the BE and hence the profitability in Düzce should place importance on these points.

**Keywords-** Customer, Brand Equity, Panel Furniture

## BİR TÜKETİCİ TEMELLİ MARKA DEĞERLEME ÇALIŞMASI: PANEL MOBİLYA SEKTÖRÜ VE DÜZCE

**Özet-** Bu çalışmanın amacı, Türkiye orman ürünleri endüstrisinde ihmal edilen fakat pazarlamanın olmazsa olmazlarından biri olan marka kavramına ve önemine dikkat çekmektir. Marka kavramının önemini vurgulamak için marka değerine değinmek gerekir. Bu bağlamda: marka değeri ölçüm yöntemlerinden biri olan tüketici temelli marka değerlendirme metodu bu çalışmada tercih edilmiştir.

*Bu makale, 4. Uluslararası Mobilya ve Dekorasyon Kongresi'nde sunulmuş ve İleri Teknoloji Bilimleri Dergisi'nde yayınlanmak üzere seçilmiştir.*

Çalışmanın araştırma evrenini Düzce il merkezindeki hane halkları oluştururken, piyasadaki yaygınlığı ve bilinirliği nedeniyle de Türkiye'nin büyük işletme sınıfında yer alan yerli panel mobilya üreticilerinin mevcut markaları marka değeri ölçümüne konu edinilmiştir. İşletme verilerine Türkiye Odalar ve Borsalar Birliği (TOBB), hane halkı verilerine ise Türkiye İstatistik Kurumu (TÜİK) üzerinden ulaşılmıştır. Ölçek olarak ise: Aaker ve Kellerin marka değeri kavramını temel alan, Yoo ve Donthu'nun geliştirmiş olduğu tüketici temelli marka değerlendirme ölçeği kullanılmıştır. Ölçeğe dair bulgular ise çapraz tablolar ve ki-kare analizi gibi çeşitli istatistiksel yöntemlerle irdelenmiştir.

Düzce'de yapılan anketlerin analiz edilmesi neticesinde elde edilen bir takım bulgular şu şekilde olmuştur: Toplamda 65 adet anket yapılmıştır. Ankete katılanların %66,2'si erkek %33,8'i kadındır. % 35,4'ü üniversite mezunu iken %46.2'si lisansüstü derecesine sahiptir. Tüketicilerce tercih edilen favori markanın: cinsiyet, yaş, medeni durum, eğitim durumu, iş durumu ve aylık gelir düzeyi gibi demografik özelliklere bağlı olarak değişiklik göstermediği tespit edilmiştir.

Yargılar incelendiğinde ise, seçilen favori markanın: akla ilk gelen markaya, panel mobilyada tercih edilen ilk markaya, reklam kampanyalarının rakiplerinden daha masraflı görünmesine, sıklıkla reklam kampanyaları yapılmasına, markanın deneyimli ve köklü bir geçmişe sahip olmasına, müşterinin markaya çok güvenmesine, markaya ait ürünleri fark edebilmesine, markayı rakiplerinden ayırt edebilmesine, markanın bazı özelliklerini hemen hatırlayabilmesine ve markanın etkili reklamlarına bağlı olarak değişiklik gösterdiği tespit edilmiştir. Yani, Düzce için tüketici temelli marka değeri: marka farkındalığı ve marka çağrışımları boyutlarına göre şekillenmiştir. Söz konusu ilde marka değerini ve dolayısıyla kazancını arttırmak isteyen firmaların bu hususlara önem vermesi önerilmektedir.

**Anahtar Kelimeler-** Tüketici, Marka Değeri, Panel Mobilya

## 1. INTRODUCTION(GİRİŞ)

Brand equity has been one of the most popular and potentially prominent marketing concepts since the 1980s [1].The brand equity concept has interested academics and marketers more than a decade because of its importance on strategic advantage in today's market place [2]. There are various definitions of brand equity in the literature. However, the definitions of brand equity can be broadly classified into two categories. Financial-perspective and consumer-perspective. The financial definitions stress the value of a brand to the firm while the consumer-perspective define brand equity as the value of a brand to the consumer [3]. The first perspective of brand equity is not discussed in this article. The customer-based perspective was focused for two reasons. First, customer-based brand equity is the driving force for incremental financial gains to the firm [4]. Second, the evaluation of customer-based brand equity is also very important for the managers.

In recent literature, there are two prominent theoretical standpoints on the customer- based brand equity which were conceptualised by the gurus of marketing and branding: "Aaker and Keller". In 1991, Aaker defined four basic dimensions of customer-based brand equity: perceived quality, brand awareness, brand associations, and brand loyalty. In 1993, Keller conceptualised his customer-based brand equity model. The basic premise of Keller's customer-based brand equity model is that "the power of a brand lies in what customers have learned, felt, seen, and heard about the brand as a result of their experiences over time". His model is a perceptive way to represent how important is the brand knowledge to create brand equity. In a nutshell, the customer-based brand equity dimensions of both Aaker's and Keller's models are definitely intersecting [5]. Even though the definitions of Aaker and Keller are accepted widely in the literature, still there is not a consensus on the best way for measuring the brand equity. One of the primary reasons for this dissensus is that the aims and objectives of the measurement

of brand equity vary according to the different industry functions of firms and brand equity measuring approaches [6].

In the literature, several brand equity measurement methods have been suggested based on the marketing or consumer perspective [3]. There are two complementary ways of measuring: (1) direct approach, which measures customer-based brand equity by assessing the actual impact of brand knowledge on customer response to different marketing elements, and (2) indirect approach, which assesses potential sources of customer-based brand equity by discovering and tracking customers' brand knowledge structure. Examples of the first approach include the financial or market-outcome-based measures of brand equity. Examples of the second approach comprise the measurement of brand equity that takes an overall picture of the brand and looks at it through its dimensions. Most researchers that have used the indirect approach have developed scales for measuring brand equity at different levels and using different contexts [7] but a universally accepted brand equity measure has not been forthcoming and several different ad hoc measures have been reported [8].

Today, the most robust brand equity scale in the literature belongs to Yoo and Donthu. Their multi-dimensional brand equity scale was developed in 2001. They use the four components of consumer based brand equity put forth by Aaker [7]. For examining the dimensionality of brand equity, they established three sets of measurement models, the four-dimensional model comprises brand loyalty, perceived quality, brand awareness, and brand associations which were conceptualised by Aaker [9] and the Yoo and Donthu's measure is not only valid and reliable but also parsimonious, which means practitioners can track brand equity of individual brands on a regular basis [9]. Originally, the aforementioned dimensions are the source of the created value and they are not four: The fifth one, other proprietary brand assets (patents, trademarks, etc.) is included for completeness and is usually less important in the construction of customer based brand equity [10]. Therefore, it was neglected in this paper.

Perceived quality is considered as a primary dimension in the recent customer-based brand equity literature. Some of the product quality dimensions are performance and features. The main reason behind this importance is that it has a strategic effect on brand equity, by reducing the perceived risk. It also creates a basis for a price premium advantage for the firms [5].

Brand awareness is the ability of a potential buyer to recognise or recall a brand of a certain product category and it represents the strength of the brand's presence in the consumer's mind. Hence, Aaker states that the brand awareness dimension assumes an important part in the consumer decision-making process, people tend to buy brands that they are familiar with and in which they have trust [11].

Brand associations are defined as "anything related to a brand in memory" by Aaker, for instance: product attributes, brand name and relative price. Keller discussed this construct under the brand image and classifies these associations into three major categories: attributes, benefits, and attitudes. [5].

About the brand loyalty: According to Aaker, at the beginning, customers will purchase a brand for trial; if they are satisfied, they will continue to patronise the specific brand. In return, the organization will benefit from increased purchases, reduced costs, positive word-of-mouth and etc. As a result of these, its profitability will boost. Therefore, he often describe the brand loyalty as the core of brand equity [11].

According to the conducted literature review it was found that, even though the aforementioned conceptualisations and several researchers attempts on consumer-based brand equity measurement, nowadays: there is still lack of consensus for a universally accepted measurement instrument [11]. For instance: In 2017, Koçak and friends try to replicate the results of Vazquez et al. (2002) in Turkey. They use exactly the same scale, which was originally developed and tested in Spain, but they find that the original scale did not work for the Turkish sample and so they adapted it. The authors conclude that the differences between Vazquez et al. 's and their study are because of the cultural differences [7]. It should not be forgotten that Aaker suggested that, a brand's assets and liabilities that contribute to its equity may be different from one context to another. In fact, one could argue that brand equity may be

context-specific, it can depend on the product type and the culture under investigation [11]. Therefore, some category and industry specific measures of consumer-based brand equity have also been developed. For example: In 2009, Davis and friends developed a measure of brand equity in the logistics services also in 2008; Rajasekar and Nalina and in 2009; Boo and friends developed models of consumer-based brand equity for tourism services [7].

Nevertheless, with possible exceptions: cross-cultural research, pertaining to the brand equity concept has not been thorough. Also, it should be stressed that culture is so entwined with all facets of human existence and has a significant impact on consumer behaviour. It becomes compulsory to understand the concept of brand equity as perceived by consumers of different cultures [11].

The main purpose of this study is contributing the recent brand equity literature by testing one of the most adopted customer based brand equity measurement instruments: “the scale of Yoo and Donthu” in a different culture and industry which was never done before or not detected according to our deep literature review. Another likely benefit of this study is that it could improve the cross-culture facet of the brand equity literature. As it was already mentioned above, the researchers stated that brand equity could differ from culture to culture and could vary according to the industry. This fact is the starting point of this research. Also, the aim of this study is drawing attention to the concept and importance of brand which is neglected in the Turkish forest products industry, but one of the essentials of marketing.

The target population of the research is the households in the Düzce Province centre. Due to the popularity and awareness in the market, the existing brands of large sized domestic panel furniture manufacturing enterprises were selected as stimuli and subjected to the brand equity measurement. The data pertaining to business were taken from The Union of Chambers and Commodity Exchanges of Turkey (TOBB) while the households data were taken from Turkish Statistical Institute (TURKSTAT).

In Düzce, 65 questionnaires were filled out. According to the calculated sample size the number of needed questionnaires is 55. During the calculation of the sample size this formula was used [12]:

$$n = \frac{Z^2 \cdot N \cdot P \cdot Q}{N \cdot D^2 + Z^2 \cdot P \cdot Q}$$

Where:

n is the required sample size

N is the population size

Z is the confidence level (Typical levels of confidence for surveys are 95%, in which case Z is set to 1.96.)

P and Q are the population proportions (They are both set to 0,5)

D is the accuracy of sample proportions (Set to 5%)

Therefore, the sample size was calculated as:

$$n = \frac{1,96^2 \cdot 629000 \cdot 0,5 \cdot 0,5}{629000 \cdot 0,05^2 + 1,96^2 \cdot 0,5 \cdot 0,5} = 384 \text{ (The total for whole of the West Black Sea Region)}$$

*Normally this study is a part of a more comprehensive project hence the data pertaining to the cities were calculated according to the whole of the West Black Sea Region). Because of heterogenous household amounts: stratified sampling method was applied considering the predetermined sample size and here is the result:*

Table 1. The calculated sample size (Hesaplanan örnek büyüklükleri)

Province	Number of Households (Thousand)	Number of Needed Questionnaires (According to Stratified Sampling)	Number of Answered Questionnaires
Bartın	53	32	42
Sinop	63	38	57
Karabük	66	40	65
Bolu	79	48	49

Düzce	90	55	65
Kastamonu	105	64	91
Zonguldak	173	106	122
<b>West Black Sea (TOTAL)</b>	<b>629</b>	<b>384</b>	<b>491</b>

The following table demonstrates the selected stimuli and their number of employees. As it was mentioned above, only the large sized manufacturers and their brands were investigated.

Table 2. Large sized domestic panel furniture manufacturers (TOBB, 2014) (Büyük işletme sınıfında yer alan yerli panel mobilya üreticileri)

Brand	Number of Employees	Brand	Number of Employees
İstikbal	2174	ABC	419
Bellona	1670	Allegro	414
Doğtaş Kelebek	1008	Konfor	414
Yataş (Enza Home)	942	Adore	400+
Alfemo	750	Weltew	400+
Tepe Home	696	Aldora	385
Çilek Mobilya	588	Yağmur	366
Mondi	512	Meltem	349
Merinos	508	Ergül	338
İpek	483	Gündoğdu Mobilya	279
Kilim	469	Cardin Concept	277
Koleksiyon Mobilya	469	Teleset	250+

## 2. METHOD(YÖNTEM)

For analysing the data, basic statistic methods such as cross-tabulation and chi-square analyses were used. First of all, the data related to demographics and brands were examined and demonstrated with frequency tables and cross tables. Subsequently, the relationship of the chosen brands and the demographics and the judgements were examined with chi-square analysis.

## 3. BULGULAR (FINDINGS)

For interpreting the all of the findings, in the beginning the findings pertaining to demographics were demonstrated at the table below. If the Table 3. was examined it is seen that: Totally 65 questionnaires were filled out in Düzce. 66,2% of respondents are male and 33,8% of them are female. 35,4% are university graduates and 46.2% have post graduate degrees. Most of the respondents are employed while 10.8% of them are unemployed. The more detailed information about other criteria such as age, marital status and etc. are shown at the table below. For further details the interested readers may review the table.

Table 3. Some demographics of consumers (Tüketicilerin bazı demografik özellikleri)

	Gender		Employment Status				
	Male	Female	Public	Private	Self-emp.	Retired	Unemployed
N	43	22	33	23	2	*	7
%	66.2	33.8	50.8	35.4	3.1	*	10.8
	Marital Status		Education				
	Single	Married	Primary school	Middle school	High school	University graduate	Post graduate
N	38	27	*	1	11	23	30
%	58.5	41.5	*	1.5	16.9	35.4	46.2
	Age		Monthly Income(₺)				
	<30	>=30	0-999	1000-1999	2000-2999	3000-3999	≥4K
N	29	34	11	13	11	15	15
%	44.5	55.5	16.9	20	16.9	23.1	23.1

As aforementioned, the domestic panel furniture brands were selected as stimuli for this paper. The respondents were asked to specify their favourite brands and the results were shown at the following table. As stated in the Table 4. İstikbal and Kelebek brands have been identified as the favourite brands of most of the respondents. Also the situation of other brands are shown in the table below.

Table 4. The rate of being customer's favourite brands (Tüketicilerin favori markası olma oranları)

Rank	The rate of being customers' favourite brand		
	Brand	N	%
1	Istikbal	14	21.5
2	Kelebek	14	21.5
3	Bellona	12	18.5
4	Doğtaş	9	13.8
5	Ikea	7	10.8
6	Tepe_Home	2	3.1
7	Adore	2	3.1
8	Yatas_Enza_Home	1	1.5
9	Yagmur	1	1.5
10	Gundogdu	1	1.5
11	Merinos	1	1.5
12	Meltem	1	1.5

For examining the reasons behind being the favourite brands and testing the Yoo and Donthu's scale on Turkish customers, chi-square analysis was used. The judgments and favourite brands and the demographics and the favourite brands were subjected to the chi-square analysis. According to the analysis it was found that: the chosen favourite brand varies depending on: being the first remembered brand, being the first brand preferred as panel furniture, having costlier advertising campaigns than the competitors, often having advertising campaigns, having the experience and deeply rooted history, trust on the brand, recognition of the branded products, distinction of the brand from the competitors, rememberability of the some properties of the brand and effective brand advertising.

Also, it has been found that the favourite brand of customers does not vary depending on demographic characteristics such as gender, age, marital status, educational status, employment status and monthly income level.

Table 5. The chi-square analysis results and the related criteria (Ki-kare analizi sonuçları ve ilgili kriterler)

Chi-Square Tests							
The chosen favourite brand x	Pearson Chi-Square			The chosen favourite brand x	Pearson Chi-Square		
	Value	df	Asymp. sig (2-sided)		Value	df	Asymp. sig (2-sided)
<i>being the first remembered brand</i>	273.679 <sup>a</sup>	132	.000	<i>often having advertising campaigns</i>	66.690 <sup>a</sup>	44	.015
<i>being the first brand preferred as panel furniture</i>	366.261 <sup>a</sup>	154	.000	<i>having the experience and deeply rooted history</i>	55.101 <sup>a</sup>	33	.009
<i>having costlier advertising campaigns than the competitors</i>	66.099 <sup>a</sup>	44	.017	<i>trust on the brand</i>	65.162 <sup>a</sup>	44	.021
<i>recognition of the branded products</i>	102.182 <sup>a</sup>	44	.000	<i>rememberability of the some properties of the brand</i>	75.422 <sup>a</sup>	44	.002
<i>distinction of the brand from the competitors</i>	66.098 <sup>a</sup>	44	.017	<i>effective brand advertising</i>	84.083 <sup>a</sup>	44	.000

#### 4. CONCLUSION AND DISCUSSION (SONUÇ VE TARTIŞMA)

For Düzce: the customer based brand equity has been formed by brand awareness and brand associations dimensions. It is suggested that the firms that want to increase the brand equity and hence the profitability in Düzce, should place importance to these points.

As it was stated above the customer based brand equity may be constructed differently in various cultures. This fact is valid for this paper, unlike the most of the recent studies in the literature; 4 dimensions of customer based equity have not been effective in this study. In our opinion, the reason behind this situation is the cultural differences of Turkish customers and the structure of panel furniture industry. Most of the studies were subjected fast-moving consumer goods when compared to this study. So, if the industry was different the results also may be different. This could be a starting point for future studies.

#### 5. REFERENCES (KAYNAKLAR)

- [1]. Oliveira-Castro, J. M., Foxall, G. R., James, V. K., Pohl, R. H. B. F., Dias, M. B., & Chang, S. W. (2008). Consumer-based brand equity and brand performance. *The Service Industries Journal*, 28(4), 445–461. doi:10.1080/02642060801917554
- [2]. Erdem, T., Swait, J., Broniarczyk, S., Chakravarti, D., Kapferer, J.-N., Keane, M., ... Zettelmeyer, F. (1999). Brand Equity, Consumer Learning and Choice. *Marketing Letters*, 10(3), 301–318.
- [3]. Pappu, R., Quester, P. G., & Cooksey, R. W. (2005). Consumer-based brand equity: improving the measurement – empirical evidence. *Journal of Product & Brand Management*, 14(3), 143–154. doi:10.1108/10610420510601012
- [4]. Lassar, W., Mittal, B., & Sharma, A. (1995). Measuring customer-based brand equity. *Journal of Consumer Marketing*, 12(4), 11–19. doi:10.1108/07363769510095270
- [5]. Atilgan, E., Akinçi, S., Aksoy, S., & Kaynak, E. (2009). Customer-Based Brand Equity for Global Brands: A Multinational Approach. *Journal of Euromarketing*, 18(2), 115–132. doi:10.1080/10496480903022253
- [6]. Koçak, A., Abimbola, T., & Özer, A. (2007). Consumer Brand Equity in a Cross-cultural Replication: An Evaluation of a Scale. *Journal of Marketing Management*, 23(1–2), 157–173. doi:10.1362/026725707X178611
- [7]. Baalbaki, S., & Guzmán, F. (2016). A consumer-perceived consumer-based brand equity scale. *Journal of Brand Management*, 23(3), 229–251. doi:10.1057/bm.2016.11
- [8]. Washburn, J. H., & Plank, R. E. (2002). Measuring Brand Equity: An Evaluation of a Consumer-Based Brand Equity Scale. *Journal of Marketing Theory and Practice*, 10(1), 46–62. doi:10.1080/10696679.2002.11501909
- [9]. Yoo, B., & Donthu, N. (2001). Developing and validating a multidimensional consumer-based brand equity scale. *Journal of Business Research*, 52(1), 1–14. doi:10.1016/S0148-2963(99)00098-3
- [10]. Aaker, D. A. (1992). The Value of Brand Equity. *Journal of Business Strategy*, 13(4), 27–32.
- [11]. Ioannou, M., & Rusu, O. (2012). Consumer-Based Brand Equity: A Cross-Cultural Perspective. *Journal of Promotion Management*, 18(3), 344–360. doi:10.1080/10496491.2012.696462
- [12]. Daniel, W. W. (1999). *Biostatistics A Foundation for Analysis in the Health Sciences* (Sixth.). John Wiley & Sons, Inc.