

**Research Article**

**A Study On Covid-19's Effect On Food and Beverage Companies' Brand Value:  
Evidence From Istanbul Stock Exchange**

*Covid-19'un Yiyecek ve İçecek Şirketlerinin Marka Değeri Üzerinde Etkisi Üzerine Bir  
Çalışma: Bist'ten Bulgular*

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**Öz**

*Bu çalışma BİST'te listelenen gıda ve içecek sektöründeki öncü ve işlem hacmi en yüksek firmaların Hirose metodu kullanılarak elde edilen marka değerlerini ölçerek COVID-19 salgınının firmaların 2020 yılındaki marka değerlerindeki farklılıkları incelemeyi amaçlamaktadır. Çalışmada marka değerlendirme yöntemleri arasında oldukça popüler olan Hirose yöntemi kullanılmıştır. Bu yöntemle çalışmaya dahil edilen firmaların prestij değerleri, yayılma değerleri ve bağlılık değerleri ölçülmüştür. Bunun ardından firmaların marka değerleri prestij değerleri, yayılma değerleri, bağlılık değerleri ve karşılaştırma için kullanılan firmanın iskonto oranının bir fonksiyonu olarak hesaplanmıştır.*

*Çalışmada Anadolu Efes, Tukaş ve Ülker şirketleri kıyaslama için, Kerevitaş ise karşılaştırma firması olarak kullanılmışlardır. Çalışmanın sonuçları 2020 yılı marka değerleriyle 2019 ve 2021 yıllarındaki marka değerleri kıyaslandığında tahmin edildiği gibi alkollü içecek firması olan Anadolu Efes'in 2020 yılında marka değerinde bir kayba uğradığı, gıda markaları olan Tukaş ve Ülker'in ise pandemiye rağmen marka değerlerinin yükselmeyi sürdürdüğünü göstermiştir.*

*Bulgular literatürde tüketicilerin kriz dönemlerinde zorunlu tüketime ağırlık vermeleri ve zorunlu olmayan alkollü içecekler gibi tüketim kalemlerini azalttıklarını tasdik etmekle beraber bu durumun firmaların marka değerlerine de yansımaları göstermiştir. COVID-19 salgını ve benzer "siyah kuğu" olayları sık yaşanmadığından bu gibi durumlarda ortaya çıkabilecek tüketim davranışı farklılıklarının marka değerine etkilerinin araştırılması açısından bilindiği kadarıyla benzer bir çalışma bulunmamaktadır.*

**Anahtar Sözcükler:** COVID-19, Tüketici davranışı, Marka değeri, Marka öz varlığı, Kriz tüketimi.

**Abstract**

*This study aims to examine the differences in the brand values of the companies in 2020 due to the COVID-19 epidemic by measuring the brand values obtained by using the Hirose method of the leading companies in the food and beverage sector listed in Istanbul Stock Exchange. The Hirose method, which is very popular among brand valuation methods, was used in the study. With this method, the prestige values, expansion values and loyalty values of the companies included in the study were measured. After that, the brand values of the companies are calculated as a function of their prestige values, diffusion values, loyalty values and the discount rate of the company used for comparison.*

*Anadolu Efes, Tukaş and Ülker companies were used for comparison and Kerevitaş was used as the benchmark company in the study. Expectedly, the results of the study showed that the brand values of Anadolu Efes, an alcoholic beverage company, suffered a loss in 2020, when the brand values of 2020 were compared with the*

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*brand values in 2019 and 2021, while the brand values of Tukaş and Ülker, the food brands, continued to increase despite the pandemic crisis.*

*Findings of the study is in alignment with the literature, confirming that consumers focus on compulsory consumption during crisis periods and reduce non-essential consumption such as alcoholic beverages, but also show that this situation is reflected in the brand values of the companies. Since the COVID-19 epidemic and similar "black swan" events are not frequent, there is no similar study known to the author that investigates the effects of consumption behavior differences that may arise in such cases on brand value.*

**Key Words:** COVID-19, Consumer behavior, Brand value, Brand equity, Crisis consumption.

## 1. Introduction

COVID-19, affecting everyday lives of billions, claiming more than six million lives, (WHO, 2022) and changing consumption habits and/or rituals of majority of consumers, has been a game changer for academic and marketing research since its beginning. With the majority of the society throughout the globe staying home, using mandatory facemasks when they are not home, and having limited time to leave their homes, the pandemic left its mark on “everyday” lives of almost anyone.

Although crisis consumption was not a popular area of study among marketers before COVID-19, with the availability of data, and visibility of the effects of pandemic in many fields, the subject attracted a lot of attention in recent years. It was already known that a crisis, an unexpected, and a disturbing widespread occasion in health, economy or nature, could change consumption practices (Kennett-Hensel et al., 2012; Ballantine et al., 2014; Kaytaz & Gül, 2014; Koos et al., 2017), COVID-19’s presence gave way to more research within the framework.

Scholars such as Prentice et al. (2020), Türkmen (2020), and Gordon-Wilson (2021) showed that COVID-19 had an impact on how and what consumers purchase. Based on the past literature, it is known that consumers tend to buy more items for their urgent and/or vital needs, yet they lower their consumptions on items that are not for mandatory consumption. Given that companies’ profitability and financial success essentially depend on consumers’ purchasing behavior, it is only logical to expect that companies that sell vital needs such as food, medication, and sanitation products would do better compared to non-essential product companies.

Given that consumption behavior becomes more essential-favored, and less non-essential seeking during crises, this paper aims to show the connection between COVID-19 and its effect on food and beverage companies’ brand value. For that purpose, Hirose method is chosen as the mean of measuring (or rather calculating) the brand value of select food and beverage companies listed in Istanbul stock exchange market. Four companies are used as subjects for conducting the research: Anadolu Efes Biracılık ve Malt Sanayii A.Ş. and Its Subsidiaries (AEFES here forth), Kerevitaş Gıda Sanayi ve Ticaret A.Ş. and Its Subsidiaries (KRVT here forth), Tukaş Gıda Sanayi ve Ticaret A.Ş. and Its Subsidiaries (TUKAŞ here forth), and Ülker Bisküvi Sanayi A.Ş. and Its Subsidiaries (ÜLKER here forth). The companies are selected based on their total market cap. Four highest market caps within the same sector (food and beverage) are selected. Despite ULUUN had the fourth highest market cap, its data did not go further back than 2014, and YYLGD had the fifth highest market cap, their income statements were not available in Turkish public information platform (KAP here forth), they are omitted from the study, and replaced with KRVT as the next highest market cap holder.

### 1.1. Brand Concept

In general, brands are described as “a name, term, sign, symbol, design or a combination of those” to identify the seller or producer of a particular product (Kotler et al., 2020, p. 240). Eventhough brands’ legal definition varies from country to country, it can be said that a brand legally represents “a trademark, or a service mark when the brand is associated with a service” (USLegal, 2022). However, because brands are not only used for identification purposes, it can be said that a brand is larger and more than just a symbol, but also a mean of communication between the company and the customers.

Kotler et al. (2020) argue that brands became so powerful that almost nothing goes without branding, and brands help buyers in a lot of ways including but not limited to identifying a product’s, features, its

consistency, and quality. Also, Aaker (1996, p. 118) suggest that brands have identities and have different components. Brands can be evaluated as products, organizations, persons, and symbols.

As seen from the definitions and explanations, a brand refers to both tangible and non-tangible features of products that empower both the company and the customer for a more meaningful transaction for the act of purchase. With a broader explanation, a brand can be defined as the symbol that emphasizes what a product, organization, and people stand for. Being such an important aspect of trade, it attracted a lot of attention from both practitioners and academics to find a way to monetize it since late 1980s (Beccacece et al., 2006). Jones (2005), for example, report that a survey showed that 72 percent of the market value for top 3500 companies in the USA resulted from their intangible assets, whereas the same amount was only 5 percent in 1978, and argues that it is important to keep in mind that this value refers to the future value and securing that value, as opposed to the present value, which is more relevant for managers.

Given that marketing is an art that concerns with creating relations between customers and companies in a mutually beneficial fashion (Vargo & Lusch, 2004), it is only logical to try to find a way to convert its value into a more measurable, financially applicable form. It can be argued that such attempts gave birth to the “brand value” concept. Currently, there are five mainstream approaches to determine the value of a brand: financial approach, cost based approach, market based approach, income based approach, and mixed approaches (Uslu Divanoğlu et al., 2019).

## **1.2. Brand Value & Brand Equity**

In spite of the fact that it is used interchangeably by those who are less familiar with the fields of marketing and finance, brand value and brand equity are similar, yet different concepts. They are different from one another, because brand value refers to the worth of a brand to managers and shareholders, yet brand equity refers to its worth for customers (Tiwari, 2010). Alternatively, the difference between the brand value and brand equity can be explained by differentiating their target to appeal. Brand equity, therefore, refers to how appealing a brand is for a customer to spend money on, whereas brand value refers to how appealing a brand is for an investor to invest their money on. Also, Salinas and Amber (2022) shortly define brand value as a sum of a brand’s quantifiable tangible and intangible assets that contribute on an organization’s overall financial value.

Given the definition, it can be argued that although they are interconnected, a higher brand equity does not necessarily mean a higher brand value since customers are not always willing to purchase more appealing products, even though they might want to. For example, despite a luxury car might have a higher brand equity, customer’s choice of purchase might be a car with higher fuel efficiency. However, because brand value represents a company’s profitability and monetary value, it is a direct result from the sales made, and therefore it is a derivative of brand equity. In simpler terms, despite brand equity does not guarantee a higher brand value, brand value is obtained by brand equity.

As Doyle (2000) points out, it is hard for managers to keep their jobs unless they increase the profitability of a firm and creating shareholder value. He also argues that in order to create shareholder value, companies need strong brands that create customer awareness and customer satisfaction. Consequently, creating shareholder value is possible with creating customer awareness and satisfaction. Thus, brand value is one of the outcomes of brand equity in this sense. Jones (2005) takes this understanding a step forward saying that brand equity is used for defining the value for a particular brand and he argues that brand equity should be considered as the measure of how customers perceive the brand, and how successful the company will be in long term, financially. He also divides existing literature in three parts: mental brand equity, behavioral brand equity, and financial equity.

Looking at the mental and behavioral equities, they are similar with behavioral and affect customer loyalty definitions. Jones (2005) summarizes behavioral brand equity as the behavioral response from customers, and mental brand equity as a brand’s impact on a customer’s mind. Similarly, behavioral loyalty refers to what brands are being purchased, whereas affect loyalty refers to what brands are being purchased and liked at the same time (Baran & Galka, 2017, p. 277). With more detail, it can be said that behavioral purchase might result from the lack of alternatives but affect loyalty results from customers’ choice among others (Oliver, 2021). Furthermore, another type of loyalty, latent loyalty,

shows that not all types of affections turn into purchase behavior as a customer might feel more connection or affection to a brand but simply cannot afford it.

The third type of equity, financial equity, refers to financial profits, return of investment, price to earning etc. As it can be deducted from the definitions, financial brand equity appears to be a synonym to the “brand value” as explained before. Therefore, brand value can be defined as a result of behavioral and mental equities, and also a part of the brand equity itself as it is similar with what is described as the financial brand equity. This definition makes sense in marketing field as marketing is done for acquiring financial profit and monetary gain. Thus, brand value is what marketers essentially aim to achieve within companies by increasing sales and retaining customers. Therefore, on contrary to the popular belief, brand value is more of a marketing study with financial parts, rather than a financial study resulting from sales numbers only.

## 2. Aim and Methodology

This paper primarily aims to inspect the effects of COVID-19 on Istanbul Stock Exchange food companies' BV. To be able to achieve that, not only 2020 statements of the companies are used in the study, but also two years prior and one year after 2020 are included in the study. Based on the assumptions derived from the existing literature, TUKAŞ, and ÜLKER majorly being food companies, and AEFES being an alcoholic beverage company, AEFES should underperform TUKAŞ and ÜLKER in 2020. Therefore, the research question of the study can be stated as “Does AEFES underperform TUKAŞ and ÜLKER companies in terms of their brand values”. KRVİT, on the other hand, was used as the benchmark company to be compared with the three other companies studied in this paper. Other than consumers are expected to cut their alcoholic beverage consumptions and store or consume more food products during the crisis, it can be expected that TUKAŞ and ÜLKER's see an increase in their brand values in 2020. Thus, the hypotheses below are identified as main hypotheses of this study:

**H1:** *AEFES' 2020 brand value is lower than its 2019 and 2021 brand value*

**H2:** *TUKAŞ's 2020 brand value is higher than its 2019 brand value*

**H3:** *ÜLKER's 2020 brand value is higher than its 2019 brand value*

It should be kept in mind that although both TUKAŞ and ÜLKER being food companies, their 2020 brand value is expected to be higher than 2019, it is not necessarily expected to be higher than their 2021 brand value since consumers' behavior during the pandemia can be sticky in terms of what they consume afterwards. Also, overseas sales being an ingredient used for calculating the brand value using Hirose method, and calculating the subject companies' brand values in U.S. dollars make sense in terms of judging their performances based on the reserve currency, another set of hypotheses are produced to check if the results look similar in U.S. dollars as well:

**H4:** *AEFES' 2020 brand value in U.S. dollars is lower than its 2019 and 2021 brand value*

**H5:** *TUKAŞ's 2020 brand value in U.S. dollars is higher than its 2019 brand value*

**H6:** *ÜLKER's 2020 brand value in U.S. dollars is higher than its 2019 brand value*

### 2.1. Hirose Model

Hirose method has been quite popular in the academic field because of its straightforward nature and the fact that it relies on accounting figures that are easy to find and process. Although many of the studies either ignored or oversaw the marketing applications and solely concentrate on sorting the calculated brand values of companies, literature using Hirose method to compare Istanbul Stock Exchange companies' brand values (BV here forth) can be considered rich.

Zengin and Güngördü (2015) were among those who studied both financial and marketing aspects of BV for food retail companies listed in Istanbul Stock Exchange. They used the Hirose method for calculating brand value and then applied a survey for customers to find out a “consumer-based brand value”. Their results show that although similar, methods returned to different ranking of the five companies studied. Another notable study conducted using the Hirose method on Istanbul Stock

Exchange companies can be shown as Uygurtürk et al.'s (2017) paper where they compare 2015 BV for two ceramic companies listed in Istanbul Stock Exchange.

Çam et al. (2018) attempted to improve the model by adding an alpha coefficient to calculate “distance to bottom” and improve its accuracy. They used figures from six automotive companies listed in Istanbul Stock Exchange to compare their BV and compared their results with Brand Finance. Their results were similar, but slightly different than Brand Finance. The main reason behind their attempt to improve the model is that Hirose model does not include a risk factor based on their assessment. Ceylan (2019), on the other hand, used a panel causality analysis to shed light on the connection between active profitability and BV. She found out that there is a one-way relation between profitability and BV.

Eyiler (2019), in her work where she kept the names of the companies she worked with disclosed, she found out that DOI has a high linear relationship with BV. It should be deemed as an important finding, since she compared how internationalization is related with the BV of a subject company, as she studied jewelry companies that operate in at least five countries in past five years. Uslu Divanoğlu et al. (2019) used the Hirose model for sorting Turkish banks listed in Istanbul Stock Exchange, then Karaömer and Oypan (2020) studied the same subject with comparing their results from Hirose method with Brand Finance.

Ünlü and Çıtak (2020) pointed out another significant implication of BV as they showed that BV is largely correlated with high stakeholder benefits, in their study that examines metal main category firms listed in Istanbul Stock Exchange.

As seen from the past studies conducted using firms listed in Istanbul Stock Exchange, although there is a varied and rich literature on the subject, there is no paper on how or if COVID-19 affected BV of companies in 2020. This paper aims to fill the gap by shedding light over the phenomena by providing evidence on the subject.

## 2.2. Model Application

The study is conducted using Hirose brand valuation method. Hirose method deals with three aspects of a company for estimating its brand value: price advantage, customer loyalty, and brand expansion power. They are referred to as prestige driver (PD here forth), loyalty driver (LD here forth), and expansion driver (ED here forth) (Salinas, 2009). The model describes a company's brand value (BV) as a function of PD, LD, and ED as shown in the formula below:

$$BV = f(PD, LD, ED, r)$$

Where “r” refers to the discount rate, or “risk-free rate” as described in the model. In this study, “r” value represents the benchmark company's discount rates for each year.

PD, LD, and ED are separately calculated before they are used with “r” to estimate the BV.

Calculated PD indicates how profits from sold products compare to their competitors. The calculation can be described as the multiplication of “excess profit ratio”, “brand attribution rate”, and “cost of sales”, which can be found in each company's income statements. Excess profit ratio is calculated by taking the difference between the subject company's profit from sales to cost of sales ratio, and same value of the benchmark company:  $S_i/C_i - S^*/C^*$ . Brand attribution rate is calculated by dividing advertising expenses to total operating expenses:  $A_i/OE_i$ . The general formula for PD is presented as: *PD = Excess profit ratio \* Brand attribution rate \* Cost of sales.*

Secondly, LD is calculated by dividing the five-year average cost of sales ( $\mu$ ) minus five-year standard deviation ( $\delta$ ) to five-year average cost of sales:  $LD = 1 - (\delta/\mu)$

Third, ED is calculated by measuring the company's geographical expansion capability, and company's expansion capacity into non-related industries. To do that, first geographical expansion capacity is calculated by overseas sales (SO) from previous year is deducted from the studied year and divided to past years overseas sales, and secondly non-related industry expansion capability is calculated by deducting previous year's non-core business sales from current year's figures and dividing the result to previous year's non-core business sales numbers. The mathematical formula is represented below:

$$ED = 1/2 \left\{ 1/2 \sum_{i=-1}^0 \left( \frac{SO_i - SO_{i-1}}{SO_{i-1}} + 1 \right) + 1/2 \sum_{i=-1}^0 \left( \frac{SO_i - SO_{i-1}}{SO_{i-1}} + 1 \right) \right\}$$

Lastly, BV is calculated using the formula below:

$$BV = (PD/r) * LD * ED$$

In this paper, Hirose method is used to find out if any evidence on global measures to deal with COVID-19, and public reaction to it can be found by studying four food and beverage companies from Istanbul Stock Exchange. Because literature suggests that consumers tend to lean towards spending more on their vital needs (such as food and shelter) and less on non-essential products (such as alcoholic beverages), it is expected to detect its traces on their 2020 brand values.

Select four companies' PD, LD, ED, and BV values are calculated with the equation described above to find out if there are any differences between their BV within the years between 2017 to 2021. The studied companies are AEFES, ÜLKER, and TUKAŞ with using KRVY as the benchmark company.

### 3. Findings

Based on the figures produced by using Hirose method, it was observed that AEFES' brand value through the studied years differentiate itself from other two subject companies. It is clear that both TUKAŞ, and ÜLKER experienced a brand value spike in 2020, AEFES' brand value did the opposite. Calculated PD, LD, ED, and BV values are shown in separate tables for further and more detailed examination. Table 1 below shows the values calculated using Hirose method for TUKAŞ:

**Table 1: PD, LD, ED, V, and % Change Values for TUKAŞ**

Year	PD	LD	ED	BV	% Change
2021	95677090	0.50	0.73	165215212.4	77
2020	43390631	0.46	0.98	92947236.4	46
2019	18473548	0.45	0.89	63853609.9	96
2018	9811875	0.63	0.78	32477347.3	N/A

As seen in Table X, brand value of TUKAŞ consistently rose between the years of 2018 to 2021. Also, as per its brand value rose nominally, the percentage change in TUKAŞ's brand value stayed in positive range. Judging from the numbers, it can be said that COVID-19 restrictions did not have a negative effect on TUKAŞ's brand value based on the calculations using Hirose method. However, the same cannot be said for the second studied company, AEFES. Table 2 below shows PD, LD, ED, BV, and percentage change values of AEFES between the years of 2018 to 2021:

**Table 2: PD, LD, ED, V, and % Change Values for AEFES**

Year	PD	LD	ED	BV	% Change
2021	5649708	0.58	0.77	13537368.8	65
2020	3238522	0.62	0.54	8194602.1	-23
2019	2971646	0.6	0.71	10603228.2	44
2018	1846820	0.66	0.89	7340329.1	N/A

AEFES's brand value, calculated by using Hirose method took a hit in year 2020. As shown in the table, AEFES' brand value rose from 2018 to 2019, but given that BV for 2020 is a smaller number (by 23%), it can be said that AEFES' brand value diminished within the year when COVID-19 restrictions were more widespread in the world, and Turkey alike. Although the numbers already support the main hypothesis of the paper, they are discussed in more detail in discussion part of the paper.

The third company studied in this paper, ÜLKER, showed similarities with TUKAŞ in terms of how their brand value developed during the studied years. Table 3 below shows the PD, LD, ED, BV, and percentage change in BV for ÜLKER.

**Table 3: PD, LD, ED, V, and % Change Values for ÜLKER**

Year	PD	LD	ED	BV	% Change
2021	1042471409	0.64	1,33	4204746990	153
2020	349504235	0.67	0.94	1660936691	161
2019	216346280	0.66	0.52	634813307	-0,06
2018	170311970	0.72	0.82	678359212	N/A

As seen from Table 3, there is no drawback in ÜLKER's brand value in 2020. Although their brand value slightly lowered from 2018 to 2019, it can be ignored as the percent change in brand value is below 0,1%. It is seen that ÜLKER's brand value more than doubled from 2019 to 2020.

However, it can be argued that such numbers might result from foreign exchange rates, and global exchange fluctuations. For further analysis, brand values based in terms of U.S. dollars have been included as well, in hopes of providing more insight into the phenomena. Tables 4, 5, and 6 show how the studied companies' brand values changed against U.S. dollar value on the last day of the previous fiscal year. Table 4 below shows TUKAŞ's brand value in U.S. dollars, and the percentage change within the studied years:

**Table 4: BV in USD, USD/TRY end year value, and % Change Values for TUKAŞ**

Year	BV (in USD)	USD/TRY	% Change
2021	12412863.44	13.31	-1,5
2020	12611565.33	7.37	17
2019	10731699.15	5.95	74
2018	6149848.008	5.281	N/A

Inspecting Table Y, based on U.S. currency, TUKAŞ did not suffer a brand devaluation based on the calculations made using Hirose method. It shows that TUKAŞ's brand value did not experience a negative effect from COVID-19 presence within the market. Although a fall is observed from 2020 to 2021 in their brand value in U.S. dollars, it was 1.5% only, and it was after the year 2020.

On the other hand, AEFES' brand value based on U.S. currency looks different from TUKAŞ, and ÜLKER. Table 5 shows details on AEFES' brand value in U.S. dollars, and how their brand value in U.S. dollars changed throughout the studied years:

**Table 5: BV in USD, USD/TRY end year value, and % Change Values for AEFES**

Year	BV (in USD)	USD/TRY	% Change
2021	1017083	13.31	-8
2020	1111886	7.37	-37
2019	1782055	5.95	28
2018	1389951	5.281	N/A

Table 5 shows that, as similarly observed in Table 2, AEFES' brand value fell from 2019 to 2020 in U.S. dollars as well. AEFES' brand value in U.S. dollars fell by 37% in year 2020 compared to the previous year. The results support the insights derived from Table 2, and consequently the initial hypothesis is supported too.

Table 6 below shows ÜLKER's calculated brand value in U.S. dollars, and percentage change:

**Table 6: BV in USD, USD/TRY end year value, and % Change Values for ÜLKER**

Year	BV (in USD)	USD/TRY	% Change
2021	315908864	13.31	40
2020	225364544	7.37	111
2019	106691312	5.95	-17
2018	128452795	5.281	N/A

As seen in the table, let alone having a negative impact in their brand value in 2020, ÜLKER more than doubled their brand value compared to the previous year. The results show that COVID-19 precautions and restrictions did not have (or were not enough to have) a negative effect on the company.

### 3.1. Discussion and Limitations

As the results suggest, AEFES did not only underperform TUKAŞ and ÜLKER in 2020 in terms of BV, but its BV was also calculated lower than 2019 and 2021 too. These figures show that AEFES, an alcoholic beverage company's brand value reduced during the crisis times, whereas other two food companies' BV kept rising in 2020 as well. These results are in alignment with the theory, and expectations of the study as well. How each company's BV reacted to 2020 similarly based on both Turkish liras and U.S. dollars conclusively suggest that alcoholic beverage company's brand value took a hit whilst food companies' brand value was not negatively affected by the pandemic crisis.

Table 7 below shows the accepted and rejected hypotheses given in introduction:

**Table 7: Tested hypotheses**

Hypotheses	Result
H1	Accepted
H2	Accepted
H3	Accepted
H4	Accepted
H5	Accepted
H6	Accepted

Accepting all hypotheses of the study points out that during crisis times, COVID-19 pandemic in this case, brand values of food companies do not diminish, whereas alcoholic beverage companies' brand value are more negatively susceptible during crises. Although the study is conducted on two food companies and one alcoholic beverage company, they can be deemed conclusive as there is no other extraordinary event known to the author that could have an impact on consumer behavior, and consequently their brand values.

There can be three dimensions of implications that can be drawn from the results of the study. First and foremost, because COVID-19 is considered a "black swan" event, and it is not clear when such an event can occur globally again, it is essential for academics to draw as many insights as they can. This approach might be a valuable contribution considering such a dark event might at least can be used to learn more on how companies and consumers react during crises.

Secondly, marketers could use the insights provided by this paper as their basis for future events given that similar but hopefully less drastic crises occur. In the paper, it is shown that not only the consumer behavior changes during crises, but it is also reflected on financial BV as well. Thus, marketers can try and help both customers and their respective companies to fare out during more difficult and uncertain times in the market.

Third, investors can benefit from the results of the paper as the paper suggest that non-essential products' sales, and consequently, their companies' brand values fall during crises. However, it is also shown that



food companies are not as drastically affected (both companies in this study even increased their brand value) during crises. Investors can allocate their resources more profoundly given similar crises occur.

Like every study, this study has its own limitations. It is essential to keep in mind that the results are only as accurate as the records available to the author. Numbers acquired from KAP are considered accurate and correct for this study. Second limitation is that this study, although covers the highest market caps, include only four food companies to demonstrate what might be the case for brand value during a year of crisis. It is known that planned behavior theory is not a factor during such times. However, accuracy and reliability of this study can be enhanced by follow up studies that cover similar aspects of the phenomenon, or same study can be done with involving more companies to have a better understanding of the situation.

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## **Araştırma Makalesi**

### **A Study On Covid-19's Effect On Food and Beverage Companies' Brand Value: Evidence From Istanbul Stock Exchange**

*Covid-19'un Yiyecek ve İçecek Şirketlerinin Marka Değeri Üzerinde Etkisi Üzerine Bir  
Çalışma: Bist'ten Bulgular*

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#### **Genişletilmiş Özet**

Altı milyondan fazla insanın ölümüne yol açan ve milyarlarca insanın yaşantısında önemli izler bırakan COVID-19 salgını aynı zamanda tüketicilerin tüketim alışkanlıkları üzerindeki etkisinden dolayı akademi ve pazarlama dünyasında da etkisini hissettirmiştir. Dünya çapında önemli bir nüfusun evlerine kapandığı, uzaktan çalışmaya geçtiği, zorunlu maskeler taktığı bu dönemde tüketicilerin satın alma davranışlarının da etkilenmiş olması kaçınılmaz gibi görünmektedir.

COVID-19 pandemisine kadar “kriz tüketimi” çok görünür bir çalışma alanı olmamakla birlikte pandemiden sonra özellikle verilerin düzenli tutulması ve geniş çapta ulaşılabilir olmasıyla akademinin ilgisinin yoğun olarak bu alana kaydığı gözlemlenmektedir. Her ne kadar geçmiş yazından sağlık, ekonomi ve doğal krizler gibi beklenmeyen, ani ve rahatsız edici durumların ortaya çıkmasının tüketicilerin satın alma ve tüketme pratiklerini etkilediği bilinse de (Kennett-Hensel et al., 2012; Ballantine et al., 2014; Kaytaz & Gül, 2014; Koos et al., 2017), pandemiyle birlikte bu alanda daha fazla yayın görülmeye başlandığı söylenebilir.

Prentice vd. (2020), Türkmen (2020) ve Gordon-Wilson (2021) gibi yazarların da daha önce gösterdiği gibi COVID-19 tüketicilerin neyi ve nasıl tükettiği bu dönemde değişiklikler göstermiştir. Bu çalışma COVID-19 pandemisinin tüketim davranışı üzerinde yaptığı değişikliklerin firmaların marka değerleri üzerindeki etkisini anlamak için tasarlanmış olup çalışmada temel olarak gıda şirketlerinin pandemiye marka değerlerini yükselttikleri veya olumsuz anlamda çok fazla etkilenmedikleri, alkollü içecekler gibi zorunlu olmayan tüketim içeren ürünler satan markaların değerinin azalacağı görüşünü test etmektedir.

Çalışma marka ve marka değeri gibi unsurları içerdiğinden çalışma içerisinde bu kavramların daha net anlaşılması ve çalışma bağlamıyla ilişkilerinin sergilenmesi amacıyla bu iki kavram hakkında bilgiler verilmiş, özellikle marka değeri ve marka öz varlığı kavramları arasındaki farklılığa vurgu yapılmıştır. Burada özellikle üzerinde durulması gereken konu, marka öz varlığının marka değerinin oluşmasında oynadığı rol ve marka değerinin marka öz varlığının bir parçası olduğu gerçekleridir.

Pazarlama ve finans alanlarına daha az aşina olanlar tarafından birbirinin yerine kullanılmasına rağmen, marka değeri ve marka öz varlığı benzer, ancak farklı kavramlardır. Birbirlerinden farklıdırlar, çünkü marka değeri, bir markanın yöneticiler ve hissedarlar için değerini ifade ederken, marka öz varlığı, müşteriler için değerini ifade eder (Tiwari, 2010). Bir başka deyişle, marka değeri ile marka öz varlığı arasındaki fark, her iki kavramın hedeflerini ayırıştırarak açıklanabilir. Buna göre marka öz varlığı, bir müşterinin para harcaması için bir markanın ne kadar çekici olduğunu ifade ederken, marka değeri, bir yatırımcının parasını yatırmaması için bir markanın ne kadar çekici olduğunu ifade eder.

Tanım gereği, birbirleriyle bağlantılı olmalarına rağmen, müşteriler isteseler bile daha çekici ürünleri satın almaya her zaman istekli olmadıklarından, daha yüksek bir marka değerinin daha yüksek bir marka

değeri anlamına gelmediği bilinmektedir. Örneğin, lüks bir otomobilin marka değeri daha yüksek olmasına rağmen, müşterinin satın alma tercihi yakıt verimliliği daha yüksek bir otomobil olabilir. Ancak marka değeri, bir şirketin karlılığını ve parasal değerini temsil ettiğinden, yapılan satışların doğrudan bir sonucudur ve bu nedenle marka öz varlığının bir türevidir. Daha basit bir ifadeyle, marka öz varlığı daha yüksek bir marka değerini garanti etmese de, marka değeri marka öz varlığı sayesinde elde edilir. Bu açıklamalardan sonra Hirose yönteminin işleyişiyle ilgili bilgiler verilmiştir.

Hirose yöntemi kullanılarak firmaların prestij değerleri, yayılma değerleri ve bağlılık değerleri ölçülmüştür. Bunun ardından firmaların marka değerleri prestij değerleri, yayılma değerleri, bağlılık değerleri ve karşılaştırma için kullanılan firmanın iskonto oranının bir fonksiyonu olarak hesaplanmıştır. Hirose yönteminde kullanılan formüller aşağıda sıralanmıştır:

$$PD = \text{Excess profit ratio} * \text{Brand attribution rate} * \text{Cost of sales (Prestij Değeri)}$$

$$LD = 1 - (\delta/\mu) \text{ (Bağlılık Değeri)}$$

$$ED = 1/2 \left\{ 1/2 \sum_{i=-1}^0 \left( \frac{SO_i - SO_{i-1}}{SO_{i-1}} + 1 \right) + 1/2 \sum_{i=-1}^0 \left( \frac{SO_i - SO_{i-1}}{SO_{i-1}} + 1 \right) \right\} \text{ (Yayılma Değeri)}$$

$$BV = f(PD, LD, ED, r) \text{ (Marka Değeri)}$$

Hirose Yöntemi bu çalışmada satış, yurt dışı satış ve prestij gibi unsurları da ele aldığından tercih edilmiştir. Bu yöntem kullanılarak BİST'te listelenen gıda ve içecek firmalarından işlem hacmi en yüksek olanlar belirlenmiş ve bunlar arasında KAP'ta 2013 yılına kadar verileri bulunabilen dört firma seçilmiştir. Bu firmalar Anadolu Efes, Tukaş, Ülker ve Kerevitaş olmuştur. İşlem hacmi Kerevitaş'tan büyük olmasına karşın verileri KAP'ta 2013 yılına kadar gitmeyen Ulu Un ve Yayla Gıda şirketleri çalışmanın dışında bırakılmıştır. Seçilen firmalar arasında işlem hacmi en düşük olan Kerevitaş ölçek (veya karşılaştırma) firması olarak belirlenmiş, diğer üç firmanın son dört yılki marka değerleri Hirose yöntemiyle ölçülmüştür. Elde edilen sonuçlarla aşağıdaki hipotezler sınanmak istenmiştir:

**H1:** AEFES'in 2020 marka değeri 2019 ve 2021'den düşüktür

**H2:** TUKAŞ'ın 2020 marka değeri 2019 yılındaki marka değerinden yüksektir

**H3:** ÜLKER'in 2020 marka değeri 2019 yılındaki marka değerinden yüksektir

Bu hipotezlerin yanı sıra özellikle bu durumun Türk lirası karşılığı olarak mı yoksa Amerikan doları bazında da geçerli mi olduğunu test etmek için üç ek hipotez türetilmiştir:

**H4:** AEFES'in 2020 Amerikan doları cinsinden marka değeri 2019 ve 2020 marka değerlerinden düşüktür

**H5:** TUKAŞ'ın 2020 Amerikan doları cinsinden marka değeri 2019 yılındaki marka değerinden yüksektir

**H6:** ÜLKER'in 2020 Amerikan doları cinsinden marka değeri 2019 yılındaki marka değerinden yüksektir

Yapılan hesaplamalar sonucundan Anadolu Efes'in hem Türk lirası hem de Amerikan doları cinsinden 2020 marka değerinin hem 2019 hem 2021 yıllarından düşük olduğu saptanmış, dolayısıyla COVID-19 salgınında önlemlerin en yoğun olduğu yılın bu markanın değerini düşürdüğü kanısına ulaşılmıştır. Tukaş ve Ülker'e bakıldığında bu şirketlerde 2020 yılında her iki para cinsinden marka değerlerinde bir düşüş gözlemlenmemiş olup bu sonuç da tüketicilerin kriz dönemlerinde gıda tüketimlerinde kısıntıya gitmedikleri, hatta belki de panik stoklamasından dolayı daha çok satın aldıkları sonucuna ulaşmanın mümkün olduğunu göstermektedir.

Bu sonuçlara göre daha önce sıralanan altı hipotezin tamamının kabul edilmesi gerekmekte olup çalışmanın yola çıkışında test edilmek istenen durumun doğruluğu ortaya çıkarılmıştır. Çalışmanın tüm hipotezleri kabul edildiğinden, sonuçlar kriz dönemlerinde COVID-19 pandemisi şartlarında gıda şirketlerinin marka değerlerinin azalmadığına, buna karşın alkollü içecek şirketlerinin marka değerlerinin krizler sırasında daha olumsuz etkilendiğine işaret etmektedir. Çalışma her ne kadar iki gıda firması ve bir alkollü içecek firması üzerinde gerçekleştirilmiş olsa da, yazarın bilgisi dahilinde

tüketici davranışlarına ve dolayısıyla marka değerlerine etki edebilecek başka olağanüstü bir olay olmadığı için isabetli olarak kabul edilebilir.

Çalışma sonuçları üç boyutta ele alınabilir. Öncelikle, COVID-19 bir "siyah kuğu" olayı olarak kabul edildiğinden ve böyle bir olayın küresel olarak tekrar ne zaman gerçekleşebileceği belli olmadığından, akademisyenlerin mümkün olduğunca çok bilgi edinmesi gerektiği açıktır. Bu çalışma, böylesine karanlık bir olayın en azından şirketlerin ve tüketicilerin krizler sırasında nasıl tepki verdiği hakkında daha fazla bilgi edinmek için kullanılabileceğini düşünürsek değerli bir katkı olabilir.

İkinci olarak, pazarlamacılar, buna benzer ancak daha az şiddetli krizlerin meydana gelebileceği göz önüne alındığında, gelecekteki olaylar için temel olarak bu belgede sağlanan içgörülerini kullanabilirler. Makalede, krizler sırasında sadece tüketici davranışlarının değişmediği, aynı zamanda finansal marka değerinde de değişimler olduğu gösterilmektedir. Çalışmanın sonuçları pazarlamacıların hem müşterilerin hem de ilgili şirketlerin pazarda karşılaşabilecekleri zorlu ve belirsiz dönemlerde başarılı olmalarına yardımcı olabilir.

Üçüncü olarak, çalışmada temel tüketim maddesi olmayan ürünlerin satışının ve dolayısıyla bu ürünleri satan şirketlerin marka değerlerinin düştüğü gösterildiğinden, yatırımcılar benzer senaryolarda bu çalışmanın sonuçlarından faydalanabilirler. Çalışmada aynı zamanda gıda şirketlerinin benzer krizlerden pek etkilenmedikleri (hatta bu çalışmanın sonuçlarına göre marka değerlerinde artış olduğunu) gösterdiğinden benzer dönemlerde yatırımcılar için alternatif oluşturabilecek firmaları belirlemelerinde yardımcı olabilir.

Her çalışma gibi bu çalışmanın da bir takım kısıtları bulunmaktadır. Birincil olarak çalışmada kullanılan değerlerin doğruluğu şirketlerin değerleri doğru vermesine bağlıdır ve bu durum üzerinde araştırmacının bir kontrolü olmadığı gibi bir insiyatifinin olması da mümkün değildir. İkinci olarak, bu çalışmada iki gıda firması ve bir de alkollü içecek firmasını konu edinerek teoride beklenen bir durumun marka değerine yansımaları gösterilmiştir. Çalışmanın genellenebilirliğinin ve gücünün artırılması için benzer çalışmaların başka pazarlarda ve/veya daha çok firmayı konu alarak gerçekleştirilmesi gerekmektedir.