

The Effect of the Brand on the Company's Value and an Empirical Study on the BIST 100

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Abstract:

Brand; includes any signs that may be displayed or expressed in a similar manner, such as words, figures, letters, numbers, format or packaging of goods, including person names, provided that one entity distinguishes goods or services from another entity's goods or services .

Firm value is the sum of the value of the firm's tangible assets and intangible assets. Generally, the value of a firm is greater than the sum of its physical assets and the most important contribution to this is the intangible assets. Today, when assets are mentioned, in addition to physical assets, intangible assets such as brand, brain power, knowledge accumulation come to mind.

Key Words: Brand, Firm Value, Contribution of Brand to Firm Value, Factor Analysis

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I. INTRODUCTION

The brand is a firm's trademark and the fact that it is mentioned with a valuable firm has an effect that increases the firm value. Firm value is the sum of the value of the firm's tangible assets and intangible assets. Generally, the value of a firm is greater than the sum of its physical assets and the most important contribution to this is the intangible assets. Today, when assets are mentioned, in addition to physical assets, intangible assets such as brand, brain power, knowledge accumulation come to mind.

These distinctive signs are important brands for businesses. For brands it can be said that it is the fingerprint of an enterprise. The brand is a distinctive sign that introduces, representing all the assets of a business. The whole infrastructure of an enterprise including factory land, factory buildings, machinery is represented only by this concept. The brand shows the source of the product to the consumer, is a quality symbol and advertising tool. It allows the person to freely choose a product he / she wants to buy.

Firm value is the sum of the value of the firm's tangible assets and intangible assets. Generally, the value of a firm is greater than the sum of its physical assets and the most important contribution to this is the intangible assets. Today, when assets are mentioned, in addition to physical assets, intangible assets such as brand, brain power, knowledge accumulation come to mind. The International Accounting Standards Committee (IASC) treats the brand as a trademark of intellectual capital and defines these assets as assets that meet accounting criteria (Emrem, [http:// www.iosrjournals.org/ arc_view.php? Ex = 35](http://www.iosrjournals.org/arc_view.php?Ex=35)).

Since the brand value reflects the power of the brand in the market in a way that provides competitive power in general, it has been evaluated as a very important issue recently (Kavas, 2004: 16). The calculation of brand value is handled in different ways according to the different functions of the enterprises and varies according to the purpose (Keller, 1993: 4). This difference is generally divided into two as enterprise level and consumer level. In the calculation of the value of the enterprise-based brand, investments in the brand, therefore, can be defined as the income that the brand will earn in the future (Koçak and Özer, 2004: 192). Consumer-based brand value requires a calculation to reveal the value that consumers give to the brand personally (Yoo & Donthu, 2001: 2).

In another definition, brand value is the assets and liabilities associated with the brand, brand name or symbols that are added or subtracted from the value provided by goods and services in relation to an enterprise or customers of the enterprise (Koçak and Özer, 2004: 192). Trademark by American Marketing Association; is defined as a name, word, symbol, term, letter, shape, sign, or a combination of products or services for identifying, distinguishing, providing information, creating an image, identifying and distinguishing from a competitor (Serhater, 2004). 206).

While products can be easily imitated, it is difficult to imitate the brand. There are values that the brand expresses for the user (quality, reliability, elegance, etc.) (Paker, 2003). The impact of these factors on customers requires a certain process and it is very difficult to imitate or suddenly weaken and eliminate. Therefore, this factor will also make a significant contribution to the sales level of the product in the market,

promotion and formation of market value. In fact, as a result of the pledge of the brand of the institution or product for a certain period of time may be the solution to the funding needs of the enterprise. With the contribution of the image created in the market, with the contribution provided to the credibility of the enterprise, both the borrowing and capital increase and the contribution of the brand in the supply of resources cannot be underestimated.

In today's conditions where competition is increasingly intense, it is very important to ensure the maximization of the values of the enterprises and to provide the liquidity needs of the enterprise without difficulty when necessary. One of the areas that can be used to create financial value for the enterprise is the brand of the institution. A well-managed brand helps a company gain and maintain its competitors (Baydaş and Çakmak, 2004: 221).

Financial brand valuation models generally; cost, market value, capital markets, relief from royalties, based on the brand's plus earnings (price premium, compound analysis, hedonic brand valuation, Crimmins method, valuation considering what they supply) and price / sales ratio can be classified into consideration.

In this study, the contribution of the brand to the value of the firm was tested with an empirical study in BIST 100 index.

II. THE EFFECT OF THE BRAND ON THE COMPANY'S VALUE AND AN EMPIRICAL STUDY ON THE BIST ISE 100 INDEX

Purpose of the research; financial ratios obtained from financial statements by using multivariate statistical techniques to determine the contribution of the brand to the firm's value. The study generally consists of two parts. The first part includes theoretical information, the second part contains practical information.

Firms other than the financial sector and holding companies within the ISE 100 index were included in the study. The reason for this is that the accounting systems of these enterprises are different. Therefore, it is not possible to produce similar ratios. In the study, the data of 2013-2017 were used and the ratios obtained from the financial statements of the firms were used as independent variables. The analysis was carried out separately for each year and a total of 4 models were created based on their financial statements for one period (12-month financial statements).

Many statistical techniques are used in such analyzes and these techniques are generally divided into multivariate and univariate. Multivariate analyzes allow a large number of features or variables to be analyzed collectively. It reveals the relationships, similarities, distinctions or important points between dependent and independent variables. On the one hand, it allows similar features or observations to be divided into the same classes, on the other hand sorts a large number of data in order of importance, sorting out trivial and reducing them to a smaller number. In the technique, the mutual relationships between independent variables are analyzed at the same time (Tanrıöven, 2003: 196).

Factor Analysis (FA) and statistical techniques to assist this method were used in the study. The main purpose of factor analysis is to reduce the data set to make it easier to explain. Sometimes there are many interrelated variables in the hands of the researcher. The variables may be a set of variables with measurements in various forms of a factor or general variable. Factor analysis is the technique of collecting many variables under several headings. For example, you get 100 items in a survey. As a result of the survey, the subjects were; assess verbal, mathematical and analytical abilities. By applying factor analysis, a factor score can be obtained for each of these capabilities. The analysis may reveal whether there are more than three different factors (Akgül, 1997: 569).

Principle Components are the most commonly used techniques for revealing factors in SPSS, although different methods are used. The principal components method calculates the factor that explains the maximum variance in all variables. To explain the maximum remaining factor, the second factor is calculated. However, there is a limitation that the first factor does not correlate with the second factor. This process continues until the explanation of all variance in the variables. Normally, this point is reached when the number of factors equals the number of variables. However, when dealing with simplicity, such a result is not useful. Having as many factors as the number of variables does not simplify everything. The majority of researchers, using eigenvalue (eigenvalue) statistics to decide how many factors to use in their analysis (Akgul, 1997: 569).

The purpose of factor analysis is to determine factors that are not directly observed based on directly observed variables. Mathematical structure of factor analysis is similar to multiple regression. Each variable is expressed as a linear combination of factors that cannot actually be observed.

Observation groups formed in statistical analyzes are called as main mass. Observation is the smallest unit forming the main mass. The quantitative and qualitative data obtained from these observations are "independent variables Büyük (Büyüköztürk, 2002: 3). The main purpose of statistical studies is to determine the statistical criteria of the main mass and to make the relevant decisions. This process is done by testing the data of the observations with statistical techniques and methods. With the findings obtained, the decision is made about the main mass (Tanrıöven, 2003: 202).

The model to be used in the application is largely based on ratios. While ratios are generally a means of obtaining analytical information about the current financial statements, they are also suitable for making forecasts for the future. This is because the balance sheet items in the denominator and denominator are closely affected by inflation even if they are not equal. Various studies carried out in the United States and other countries, some rates, the existence of the firms, liquidation or bankruptcy firms have revealed that distinguish between each other (Tanrıöven, 2003: 203).

Some problems arise from working with financial ratios. These problems; Lack of constant variance, instability, high correlation between ratios and negative value effect (Aktaş, 1997: 79-81). In addition, the benefits can be listed as follows (Tanrıöven, 2003: 204);

Companies of different sizes, different industries and different risk classes can be examined in the same example.

It is the reduction of extreme values in the estimation of parameter values.

Fiscal ratios can eliminate the possible trend element in financial data.

The selection of the independent variables used in the study was determined as 36 as a result of the national and international literature review, including the widely preferred ratios. The list of these ratios is given in Table no 1.

Table no 1: The Ratio and Codes Which Ones Are Used in Research

	Ratio Name	Calculation	Ratio Code
1	Current rate	CA / Short Term Foreign Resources(STFR))	L1
2	Acid Test Ratio	(CA-Stock) / Short Term Foreign Resources	L2
3	Inventory Dependency Ratio	(STL-Cash Values) / STFR	L3
4	Net ES / Operating Healthy Fund Ratio	Net WC / Rate of funds provided from operations	L4
5	Financial Leverage Ratio	Foreign Resources / Total Assets	M1
6	Self Source / Collect Act	Equity / Total Assets	M2
7	Payables / Total Assets	Payables / Total Assets	M3
8	KVB / Total Liabilities	STFR / Total Liabilities	M4
9	UVYK / Total Liabilities	Long Term Foreign Resources / Total Liabilities	M5
10	KVB / Total YK	STFR / Total Foreign Resources(LTFR)	M6
11	UVYK / Total YK	LTFR / Total Foreign Resources	M7
12	Current Assets / Total Assets	Current Assets / Total Assets	M8
13	Stock Giant Speed	Sales/ ((Before Term Stock + End Term Stock) / 2)	F1
14	Net Play Ser Giant Speed	Sales / Net Working Capital	F4
15	Return Varl Giant speed	Sales / Current Assets	F5
16	Active Cycle Speed	Sales / Total Assets	F8
17	Gross Sell Profit / Net Sell	Gross Sales Profit / Net Sales	K1
18	Operating Profit / Net Sell	Operating Profit / Net Sales	K2
19	Profit / Net Sell	Profit / Net Sales	K3
20	Net Profit / Net Sell	Net Profit / Net Sales	K4
21	Operating Expense / Net Sell	Operating Expenses / Net Sales	K5
22	Earnings Ratio	Net Profit / Shareholders' Equity	K8
23	Return Values	Return Values	B1
24	Total Assets	Total Assets	B2
25	Short Term Foreign Resources	Short Term Foreign Resources	B3
26	Long Term Foreign Resources	Long Term Foreign Resources	B4
27	Operating Expenses / Total Expenses	Operating Expenses / Total Expenses	D1
28	General Management Expenses/Total Expe	General Management Expenses / Total Expenses	D2
29	Mrkting Sales Distribution Exp / Total Exp	Marketing Sales Distribution Expenses/Total Exp	D3
30	General Management Exp/ Total Assets	General Management Expenses / Total Assets	D4
31	Mrkting Sls Distribution Exp/Total Assets	Marketing Sales Distribution Expens/Total Assets	D5
32	General Management Exp/ Operating Exp	General Management Expenses/Operating Expens	D6
33	MrktingSlsDistribution Exp/Operating Exp	Marketing Sales Distribution Exp / Operating Exp	D7
34	Market Value / Book Value	Market Value / Book Value	D8
35	Price Cash Flow	Price Cash Flow	D9
36	HB Snow	Earnings Per Share	D10

In order to apply factor analysis, the following basic assumptions must be taken as a basis. These assumptions (Akgul, 1997: 496-570);

Variables with correlations should be explained with as few factors as possible.

Subjects should be randomly selected.

Samples must be paired

At least one variable should have independent observations. That is, all sample values of at least one variable must be independent. At least one of the independent variables should have a normal or near normal distribution.

Linearity. If there is a relationship between two variables, it should be linear.

The assumptions of the model to be established are listed as follows;

Publicly disclosed financial statements reflect reality.

Financial ratios reflect the financial strength of enterprises.

The success of the model should be interpreted not only by the results of factor analysis but also by adding quantitative data. The financial statement data used in the model impose certain limitations arising from the financial statements. These limitations are; financial statements are static but not dynamic, they cover historical data, they are not clear and clear, they are prepared in general terms, they present data in summary, they contain different evaluation methods, they do not reflect purchasing power (Akdogan and Tenker, 1998: 36). Other limitations of the model are as follows;

- In order to use the data in the financial statements to a large extent, the assumption that the environmental conditions and the internal structure of the enterprise remain almost the same. In reality, these conditions are variable.

- In the data provided for the model, the validity of the data should be retested in a stable environment, as the economic situation does not include stability.

- With the model, a hint is given for the classification of firms' loans, but should not be taken as precise data.

- The delay in financial statements is another limitation.

The basic assumption of some multivariate analyzes is that the independent variables are normally distributed. However, in the studies conducted with financial ratios, the distribution of the ratios was found to be skewed to the right. This is normal. Because, the smallest value of a ratio is limited to zero, while there is no upper limit (Bolak, 1987: 47). Quantitative valuation models reveal some limitations arising from the structure of the economic system or the conjuncture or the structure of the model itself. The most important data used in quantitative valuation is the data obtained from financial statements. However, in an environment of constant high inflation, there are differences between real values and recorded values. This situation reduces the chance of a healthy analysis of enterprises (Akdogan and Tenker, 1998: 677-678). Inadequacies encountered in the analysis of financial statements can be listed as follows (Tanrıöven, 2003: 210);

Inflation distorts the entity's financial statements,

Showcase decoration techniques show the business better than it is.

Seasonal factors distort financial ratios,

If the company operates in different fields, it becomes difficult to compare with the help of rates,

Different accounting techniques distort financial statements,

The financial statements do not show the current data of the enterprises,

It is difficult to transfer non-numeric data to financial statements. This results in unhealthy performance measurement.

In the application, annual data of 47 enterprises randomly selected between 2013-2017 were used. Data were collected from the web page of Borsa İstanbul. It also consists of the ratios calculated from these compiled data. After obtaining the ratios and financial statements of the enterprises, necessary calculations and arrangements were made and transferred to SPSS statistical program. 8.460 ratios were calculated for the financial statements of 47 enterprises which were examined in order to form a model covering five periods (2013-2017).

Before proceeding with the model creation stage, the suitability of the ratios forming the independent variables in the analysis to the statistical technique to be applied was investigated. For this purpose, it was first tested by Jarque Bera test on the basis of each variable. The Bartlett Test was used to determine whether all variables had multiple normal distributions. Jarque Bera test results for some variables are as follows;

Table no 2: Jarque Bera Test Results

Series:L1	Values	Series: M1	Values	Series: F1	Values
Average	00,6714211	Average	0,6852984	Average	258,7932
median	0	median	0,64815	median	3,95455
Maximum	4,8946	Maximum	4,4814	Maximum	13156,4804
Minimum	0	Minimum	-4,6435	Minimum	0
J. Bera	0,454	J. Bera	0,110	J. Bera	0,503
Possibility	0,136	Possibility	0,853	Possibility	0,088

According to the Jarque Bera test, the probability value should be greater than 5%. The majority of the variables included in the analysis show normal distribution according to this analysis. The Bartlett (sphericity) test tests whether the correlation matrix is equal to the unit matrix. Bartlett's test statistic is very large and the

probability α is less than the significance level. The rejection of the H_0 hypothesis shows that the variables included in the analysis have multiple normal distributions (Aydın, 1999: 153).

The results of the Bartlett test revealed that P value was $P = 0.000$. In the study, the probability value of Bartlett's test statistic is 0.000, which requires rejection of the H_0 hypothesis. This indicates that the variables have multiple normal distributions.

The model developed and the data to be obtained are only suggestions. The path to be followed in the analysis is listed below. After these steps, after evaluating the results by constructing a Factor Analysis model, a new model will be tried to be created with variable reduction. The second step is the determination of independent factors using the observed independent variables. The factor loads (ajp) calculated for each factor also represent the correlation between that factor and the variable. Thus, a variable indicates that a variable is highly correlated with which factor, and that variable can explain a phenomenon together with the variables in that factor. Factor rotation can be expressed as translating the obtained factors into new factors for better interpretation. The final step is to name and interpret the factors. Finally, once the models are created, the companies traded on Borsa Istanbul will be ranked according to the data obtained as a result of the separation.

The reason for the high correlation between the ratios is that the values used in the denominator and denominator are used as denominator or denominator in some other ratios. In the following sections, a model will be created by using methods that eliminate high correlated variables.

The Box's M test is used to test that the group covariance matrices are not equal. This test is also one of the assumptions of the technique of "covariance matrices of the groups are equal to each other" is the answer. The Box's M test is based on determinants of group covariance matrices. The small probability value (P) covariance matrices are not equal, the most likely (P) value indicates that the group covariance matrices are equal (Akgul, 1997: 265).

Inadequate degree of freedom

The high correlation between some variables approaching the full dependence is likely to lead to calculation errors. Therefore, the correlation matrix, which enables to see the direction and level of the relationships between the variables, allows to reduce the number of variables to a more meaningful level.

The correlation matrix showing the relationship between the variables showed that the distributions were normal. The most important assumption for factor analysis is that the variables used are normally distributed multivariate. Once the necessary conditions for factor analysis are fulfilled, factors can be uncovered. SPSS statistical package program was used for this process. As a result of the test, 36 factors for 2013, 36 for 2014, 37 for 2015, 38 for 2016 and 39 for 2017 were obtained.

The most commonly used method for obtaining the number of factors is the Kaiser Criteria. This criterion requires the selection of factors with an eigenvalue greater than 1. These factors are; 10 factors for 2013 and 2014, 11 for 2015, 12 for 2016, and 9 for 2017 were selected. These factors are in the order of total variance; 82,534%, 87,499%, 90,022%, 84,409% and 82,730% respectively. Other factors with eigenvalues less than 1 can be neglected because their percentages of variance are low.

Factor load values are the correlation coefficients showing the relationship between factor and variable. Variables in structure matrices are randomly distributed among factors. In this case, the interpretation of the factors will not be meaningful. One of the conditions of successful factor analysis is the requirement of conceptual significance. In this way, in case of lack of conceptual significance, the rotation of factor structure matrices is necessary. Equamax technique was used in the rotation process and the structure matrix was made more meaningful.

After determining the factor scores of each factor separately, it comes to the calculation of the overall factor score. The overall factor score is calculated by dividing each factor score by multiplying the sum of the factor's variance by explaining it, then dividing it by the total variance.

$$GFS = ((F1 * VA1\%) + (F2 * VA2\%) + (F3 * VA3\%) + \dots + (Fn * VAn\%)) / TVA\%$$

GFS= General factor score

F= Factor score

VA%= Percentage of variance description

TVA%= Percentage of total variance description

Only the data calculated for the last year will be given in the study. The General Factor Score (calculated for Kardemir D stock for 2017) is calculated as follows.

$$GFS1 = ((0,029 * 16,66762) + (0,054 * 15,32491) + (-0,062 * 10,91618) + (10,48 * 8,454123) + (0,012 * 7,783721) + (-0,373 * 6,632175) + (-0,167 * 5,773687) + (-0,341 * 4,573997) + (0,246 * 3,414071) + (1,0 * 3,19001)) / 82,7305 = 1,202800297$$

has emerged as.

In the tables below, the ranking of the enterprises according to the general factor ranking is given.

Table no 3: The Rating Rank of the Enterprises per Year

Firms	2013 Year General Factor Ranking	Firms	2014 Year General Factor Ranking	Firms	2015 Year General Factor Ranking	Firms	2016 Year General Factor Ranking	Firms	2017 Year General Factor Ranking
ttcell	1,3402	ttuprs	1,1651	ttcell	1,3347	tnthol	1,6479	tkrdmd	1,2028003
ttuprs	0,8712	ttcell	0,9825	tayen	0,8600	ttcell	1,1705	ttcell	1,12302986
tayen	0,8136	tayen	0,7017	ttuprs	0,6450	tptofs	0,9601	ttuprs	0,85656554
tptofs	0,5380	teregl	0,6262	teregl	0,3692	ttuprs	0,8932	tptofs	0,82565104
tfroto	0,3724	takenr	0,5657	tptofs	0,2930	taksa	0,6119	tnthol	0,68052246
tvestl	0,3340	taksa	0,4484	takenr	0,2912	ttrcas	0,5679	ttrcas	0,67272949
tarclk	0,3319	tptofs	0,4231	tadana	0,2900	tvestl	0,4353	taksa	0,61245001
tzoren	0,3185	tarclk	0,3948	tarclk	0,2838	tarclk	0,2544	tcarsi	0,50472626
taksa	0,2940	thurriyt	0,3564	tpetkm	0,2350	ttoaso	0,2347	tfroto	0,42721214
teregl	0,2869	tfroto	0,3187	talkim	0,2319	tfroto	0,2285	tvestl	0,36522467
tdokts	0,2503	talkim	0,2508	thurriyt	0,2203	takenr	0,1947	tdokts	0,3517004
ttrcas	0,1624	ttrkcm	0,2377	ttoaso	0,2097	teregl	0,1883	tarclk	0,34957093
tpetkm	0,1531	tpetkm	0,2267	tvestl	0,1639	tkrdmd	0,1614	tmigrs	0,30340347
tcarsi	0,1327	tagida	0,2000	ttrkcm	0,1545	tmigrs	0,1517	teregl	0,27775167
tasels	0,1066	tadana	0,1693	tfroto	0,1404	tcarsi	0,1278	ttoaso	0,23408142
tbeko	0,0827	tvestl	0,1507	tmrddin	0,1371	tpetkm	0,0641	tbeko	0,23071194
tmigrs	0,0574	tcimsa	0,1110	tzoren	0,1029	tiheva	0,0510	tbrsan	0,15489927
taefes	0,0566	tmrddin	0,0979	tcytas	0,0869	tbeko	0,0445	ttatks	0,14731759
tiheva	0,0433	tzoren	0,0760	tmmart	0,0812	tecilc	0,0093	totkar	0,13972792
thbanvt	0,0326	ttoaso	0,0625	tcimsa	0,0754	totkar	-0,0305	tecilc	0,10265409
tadana	0,0204	tecyap	0,0353	tecyap	0,0692	tasels	-0,0369	tsasa	0,08864343
tcimsa	0,0057	taefes	0,0350	tasels	0,0583	tbrsan	-0,0395	taefes	0,06817984
takenr	-0,0086	thbanvt	0,0268	tboluc	0,0523	tsise	-0,0545	tizmde	0,04641508
tecyap	-0,0264	ttrcas	0,0172	tmigrs	0,0519	taefes	-0,0660	tbossa	0,01990735
tbossa	-0,0340	tizmde	0,0161	ttrcas	0,0439	tmrddin	-0,0780	tmndrs	0,01804502
tbrsan	-0,0344	tmigrs	0,0089	takcns	0,0393	tsasa	-0,0864	thbanvt	0,00360354
ttoaso	-0,0403	tasels	0,0072	tbossa	0,0391	tzoren	-0,1065	tpetkm	-0,00761979
ttrkcm	-0,0554	tnetas	-0,0100	thbanvt	0,0380	tmndrs	-0,1165	tecyap	-0,02593213
tsasa	-0,0654	tbeko	-0,0118	tdokts	0,0121	ttrkcm	-0,1223	tagida	-0,03208324
tnetas	-0,0753	tsasa	-0,0179	tmndrs	0,0118	ttatks	-0,1414	ttrkcm	-0,04214059
ttatks	-0,0877	tecilc	-0,0304	tagida	0,0002	tbossa	-0,1425	tasels	-0,0456396
tagida	-0,0889	tboluc	-0,0332	tizmde	-0,0069	tizmde	-0,1505	takenr	-0,06765141
totkar	-0,0921	tmndrs	-0,0446	tbrsan	-0,0341	thurriyt	-0,1533	tcimsa	-0,07438106
tecilc	-0,0935	tbossa	-0,0618	tsasa	-0,0373	tagida	-0,1554	tsise	-0,07560745
thurriyt	-0,0968	ttatks	-0,0906	ttatks	-0,0385	talkim	-0,1768	tadana	-0,08118384
tmrddin	-0,1069	tcarsi	-0,0972	tbeko	-0,0477	tboluc	-0,1853	tmrddin	-0,08268897
tizmde	-0,1176	tbrsan	-0,1358	taefes	-0,0522	thbanvt	-0,1889	tnetas	-0,09588153
talkim	-0,1445	takcns	-0,1424	tkrdmd	-0,0902	tadana	-0,1892	takcns	-0,0965671
tnthol	-0,1505	tiheva	-0,1609	tcarsi	-0,0936	tcimsa	-0,1940	tboluc	-0,11166238
takcns	-0,1740	tnthol	-0,1621	tsise	-0,0957	tnetas	-0,2067	tmmart	-0,12924361
tmmart	-0,2142	totkar	-0,1808	totkar	-0,1315	tdokts	-0,2073	talkim	-0,13288389
tboluc	-0,2438	tdokts	-0,2043	tnetas	-0,1347	takcns	-0,2111	thurriyt	-0,14454878
tkrdmd	-0,2495	tmmart	-0,2062	taksa	-0,1527	tcytas	-0,2161	tzoren	-0,14691143
tcytas	-0,3956	tcytas	-0,2925	tecilc	-0,1607	tecyap	-0,3070	tayen	-0,15217362
tsise	-0,4259	tsise	-0,4092	tnthol	-0,2024	tmmart	-0,3254	tiheva	-0,15456129
		tkrdmd	-0,4443	tiheva	-0,2356	tayen	-0,3471	tcytas	-0,16044323

In order to test the brand awareness for these enterprises, conducting a survey will also provide more satisfactory results. However, these enterprises have created memorable values in terms of brand in the market.

III. RESULTS AND EVALUATION

Since the end of the 19th century, the assessment of the situation of the enterprises with the help of financial ratios and making decisions accordingly have been carried out. Since the end of the 18th century, the importance of the financial ratios and financial statements of the enterprises increased with the increasing importance of the partnership. The reason for this is that operating activities can be explained in standard financial statements and ratios can be obtained from these tables. Another reason is that only in this way can the masses be provided with sufficient and healthy information about the business.

In the study, firstly brand and firm value were emphasized, and then a ranking was formed by factor analysis showing the brand effect for 37 companies selected among the companies outside the financial sector in Borsa Istanbul 100 index.

The aim of the study is to develop a model that will analyze the contribution of brand values to the firm value by using financial statements and selected companies from the financial sector other than the data sector

lacking data in the BIST 100 index between 2013 and 2017 and using the Factor Analysis method. Subjective evaluations were tried to be avoided.

Although the statistical methods used use a large number of independent variables, it cannot be said that only these variables are effective in determining success and failure. Apart from these variables, there may be other effective variables. Although the analysis yields net score values, considering qualitative variables as well as quantitative variables will lead to a more accurate and healthy interpretation. The use of statistical models in business performance appraisal methods will undoubtedly increase success.

All these findings show that the use of statistical methods is useful in making the right decision, will ensure efficient and efficient use of resources and will help enterprises to measure market values and thus will be useful in the elimination of the worsening debt structure. In order to make healthier and more reliable predictions, it is useful to consider the following recommendations;

- Acting as the exact data of the analysis results can bring about unwanted results for the parties. Instead, evaluating these data as helpful and guiding data will yield more healthy results.

- The studies about the enterprises should be renewed with current data. The success of the system will be possible with the stabilization of enterprises and economic situation. In this way, healthier analysis results can be obtained from stabilized ratios. However, uncertainty and slippery in the economic conjuncture make this difficult. It is clear that normal economic conditions and economic conditions during the crisis will affect businesses differently. These differences will also be reflected in the econometric models developed during these periods. For this reason, the data needs to be renewed.

- We believe that the inclusion of some important qualitative factors, such as management quality, company structure and competitiveness, which cannot be expressed in numbers, will yield healthier results in the new studies to be conducted in this field.

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