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**EVALUATION OF BRAND EQUITY USING BALANCED
SCORECARD: EVIDENCE FROM PRIVATIZED TURKISH
FIRMS**

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Abstract

Recent studies generally approach brand equity from a consumer oriented paradigm. Based on previous researches, the aim of this paper is to evaluate brand equity by a multidimensional perspective based on balanced scorecard approach. Besides consumer based aspect; financial, organizational, competition dimensions of brand equity are evaluated within a sample of privatized firms listed in Borsa Istanbul. For measuring brand equity, the study offers an original methodology of a hybrid multi-criteria decision making model designed for fuzzy environment. Thereby, the brand equity performances of the selected privatized firms are analyzed by using Fuzzy DEMATEL and Fuzzy VIKOR methods. The results of the analyses present that consumer based dimension is the most influential determinant of brand equity performance. Likewise, financial based dimension is found out to have effects on other brand equity dimensions. Finally, the study findings prove that firms privatized with a high-public-offering-share have the best brand equity performance compared to others.

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Keywords: Brand equity, Brand equity performance, Balance scorecard, Fuzzy method, Privatization.

1. Introduction

Developed by Kaplan and Norton (1992, 1996), the balanced scorecard (BSC) has been acknowledged as one of the most referred performance assessment systems (Marr and Schiuma, 2003; Perkins et al., 2014). For a stronger performance evaluation, Norton and Kaplan (1992) combine both



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financial and non-financial measures together with a strategic orientation. The authors claim that relying only on financial dimensions would create past oriented and one-dimensional control mechanisms. Accordingly besides financial perspective, Norton and Kaplan (1996) introduce three other measures which are namely; customer, internal processes, and learning & growth. Providing a richer framework with these supporting dimensions, Norton and Kaplan's (1996) BSC presents a future-oriented value creation system developed in line with the strategic vision of the organization. Following Norton and Kaplan (1996), empirical studies have supported that firms with a BSC system is associated with improved performance (Hoque and James, 2000; Davis and Albright, 2004; De Geuser et al, 2009).

Correspondingly depending on Norton and Kaplan's (1996) BSC approach, this paper argues that it would be incomplete to evaluate firms' brand equity performance only from the consumer angle. For a comprehensive analysis of strategic positioning of the brand in the competition, a holistic view comprised of various perspectives is needed (Davis 2000; Baker et al., 2005; Christodoulides and de Chernatony, 2010). Thereby for developing a more strategic approach to brand equity performance, the current study combines consumer, financial and organizational measures with a supplement dimension of competition inspired by BSC's learning and growth perspective.

In line with the given aim, the paper continues with relevant literature on the dimensions for measuring brand equity performance. Following literature, the research methodology and the application of this methodology on Turkish Firms privatized by public offering shares is discussed. Finally, the findings together with future implications are given.

2. Literature Review and Theoretical Framework

Managing brands becomes a strategic issue because they have the potential to be the most valuable asset of an organization. Having the potential of creating a competitive superiority, brand equity is defined as "a set of assets and liabilities linked to a brand, its name and symbol that add to or subtract from the value provided by a product or service to a firm and/or that firm's customers" (Aaker,1991:15). Similarly, Srivastava and Shocker (1991) define brand equity as "a set of associations and behaviours on the part of a brand's consumers, channel members and parent corporation that enables a brand to earn greater volume or greater margins that it could without the brand name and, in addition, provides a strong, sustainable and differential advantage." Besides these definitions, Keller (1993:2) adopting a marketing perspective defines brand equity as "the differential effect of brand knowledge on consumer response to the marketing of the brand".

Companies with strong brand equities have the advantage of having customers who are willing to pay price premiums and who are loyal to the given product (Keller, 1993). Aside customer level benefits, brand equity also has the positive outcomes of increased revenue, stable cash flow and higher profits on the firm level. Another advantage of strong brand equity is to overcome the negativities of possible crises or service failures (Matilla, 2001). Therefore, both strategies developed for brand equity and brand equity performance evaluation are of critical importance to firms for achieving a superior financial performance and a competitive advantage in the market.

2.1. Multidimensional evaluation of brand equity

Brand equity literature provides three main perspectives in terms of its dimensions. The first and the widely adopted perspective is consumer-based perspective. This dimension refers to consumer related issues such as brand knowledge, perceived brand quality, brand loyalty and brand trust (Aaker, 1996, Keller, 1993; He, & Wang, 2014). The second dimension, the financial-based perspective evaluates brand equity as a financial asset (Mahajan et al, 1994). From this perspective brand equity is defined as “the incremental cash flows which accrue to branded products over unbranded products” (Simon and Sullivan, 1993:30). Accordingly, the consumer and financial perspectives constitute the main tenets of BE studies.

The two other dimensions of the study, organization-based and competition-based are borrowed from BSC approach. The organization-based dimension of BSC is related with the efficiency of “organizational processes such as product cycle time, productivity, cost, and time to market amongst others” (Perkins et al, 2014:156). Adopting this perspective to brand equity framework, organizations’ innovation, marketing and networking capabilities together with the use of sophisticated information technology systems come to the fore as critical dimensions. The other dimension adopted from BSC approach is competition-based and it is related with introducing new products or forming new brand extensions supported by marketing strategies and research, & development investments. All these four perspectives, their definitions and related studies are summarized at Table 1.

Table 01. Balance scorecard-based dimensions of brand equity

BSC Dimensions	Dimensions of the Study	Definitions	Supported Literature
Financial	Financial-based	Financial indicators of brand equity	Simon & Sullivan, 1993, Mahajan et al., 1994 , Budac, & Baltador, 2013., Mizik&Jacobson , 2008
Customer	Consumer-based	Consumer perceptions related with brand awareness, brand image perceived quality together with their loyalty towards the brand	Aacker,1996; Keller 1993; Yoo&Donthu,2001; Chaudhuri & Holbrook, 2001; Nam et al, 2011.
Internal Business Processes	Organization-based	Organizational attributes enhancing brand equity	Ngo and O’Cass 2012; Sok, O’Cass, and Sok 2013; J. Zhang et al. 2015; Seggie et al, 2006.
Learning & Growth	Competition-based	Capability in creating a competitive advantage in the market	Bontis and Fitz-Enz 2002;Matear et al. 2004; Sharma et al,2016;Sriram et al, 2007.

3. Research Method

3.1. Sample

Firms privatized with highest public offering shares listed in Borsa Istanbul (BIST) are selected for the sample of the study. The rationale behind this sample relies on the relationship between brand equity and privatization. From the perspective of brand equity, the expected results of the privatization would be to increase brand value and achieve competitive advantage in the market. Correspondingly, the

most influential method for privatization is to offer company shares to the public. Through public offerings, it is aimed to create an increase in demand for the shares of the firm. Furthermore, capital of the companies becomes accessible even to the smallest investors by this privatization method. Similarly, an important reason for the increasing demand of individual and institutional investors to the shares is the perception that through privatization, the brand value would increase.

Table 02. The details of the privatized firms by public offerings listed in BIST*

Firms	Index Traded	Rate of Public Offering	Date of Initial Public Offering	Value of Public Offering (million \$)
A1	Transportation	49.90%	1990	403
A2	Financials	48.90%	2007	4357
A3	Chem.Petrol Plastic	42.30%	1990	424
A4	Non-metal Mineral Product	39.87%	1991	8.4
A5	Wholesale and Retail Trade	36.40%	1991	5.6
A6	Non-metal Mineral Product	34.32%	1991	30
A7	Chem.Petrol Plastic	32%	1991	1110
A8	Non-metal Mineral Product	31.13%	1990	17.5
A9	Financials	30%	1993	15.2
F10	Non-metal Mineral Product	25.46%	1990	9.2

* Source: Doğan, M.N. (2016). Türkiye’de Özelleştirmenin Son 30 Yılı, T.C. Başbakanlık Özelleştirme İdaresi Başkanlığı.

From the first privatization by public offering in 1988 to 2016, the highest public offering shares in privatization is %49.9 (Doğan, 2016) and four (A4, A6, A8, A10) out of ten firms with highest public offering shares operate in cement industry. Two firms are from banking industry and two firms are from energy industry. More to that, one is functioning in the air transportation and the last one is in the retail sector. The details of the firms are presented at table 2.

In the further sections, brand equity performances of these firms will be evaluated and discussed.

3.2. Analyses: Fuzzy DEMATEL

The DEMATEL (decision making trial and evaluation laboratory) is a method originated by the Geneva Research Centre of the Battelle Memorial Institute (Baykasoğlu et al. 2013). The use of the technique with the fuzzy sets theory provides the flexibility from the lack of knowledge under the uncertainty, imprecision and subjective information in case of the relationship of systems are generally presented with the crisp values in building a structural model. More to that, the Fuzzy DEMATEL is known as an extended technique for making better decisions under the fuzzy environment (Büyüközkan and Çifçi, 2012; Kuo, 2011; Abdullah and Zulkifli, 2015; Khorasaninejad et al. 2016). The Fuzzy DEMATEL technique can be detailed as follows (Uygun et al. 2015; Kuo, 2011; Baykasoğlu et al. 2013; Najafinasab et al. 2015; Yeh and Huang, 2014):

Step 1: Assign the ratings of relation between criteria with linguistic terms. The evaluation criteria is designed using the fuzzy linguistic scale.

Step 2: Compute the initial direct-relation fuzzy matrix. Direct relation matrix is constructed using the evaluations of the decision makers for each dimension and criterion. The decision makers' scores can be obtained to present the pairwise comparisons of the dimensions and criteria with the fuzzy numbers. The initial direct-relation fuzzy matrix \tilde{Z} is constructed from the convergence of the linguistic terms provided by the experts scores where $\tilde{Z}_{ij} = (l_{ij}, m_{ij}, u_{ij})$ presents the degree of the influence using triangular fuzzy numbers with the equation (1).

$$\tilde{Z} = \begin{bmatrix} 0 & \tilde{z}_{12} & \cdots & \cdots & \tilde{z}_{1n} \\ \tilde{z}_{21} & 0 & \cdots & \cdots & \tilde{z}_{2n} \\ \vdots & \vdots & \ddots & \cdots & \cdots \\ \vdots & \vdots & \vdots & \ddots & \vdots \\ \tilde{z}_{n1} & \tilde{z}_{n2} & \cdots & \cdots & 0 \end{bmatrix} \quad (1)$$

The average fuzzy scores are used to obtain the initial direct-relation matrix with the equation (2).

$$\tilde{Z} = \frac{\tilde{Z}^1 + \tilde{Z}^2 + \tilde{Z}^3 + \cdots + \tilde{Z}^n}{n} \quad (2)$$

Step 3: Normalize the direct effect matrix. The values are attained by normalizing the initial influence matrix with the following equations.

$$\tilde{X} = \begin{bmatrix} \tilde{x}_{11} & \tilde{x}_{12} & \cdots & \cdots & \tilde{x}_{1n} \\ \tilde{x}_{21} & \tilde{x}_{22} & \cdots & \cdots & \tilde{x}_{2n} \\ \vdots & \vdots & \ddots & \cdots & \cdots \\ \vdots & \vdots & \vdots & \ddots & \vdots \\ \tilde{x}_{n1} & \tilde{x}_{n2} & \cdots & \cdots & \tilde{x}_{nn} \end{bmatrix} \quad (3)$$

where

$$\tilde{x}_{ij} = \frac{\tilde{z}_{ij}}{r} = \left(\frac{l_{ij}}{r}, \frac{m_{ij}}{r}, \frac{u_{ij}}{r} \right) \quad (4)$$

$$r = \max_{1 \leq i \leq n} \left(\sum_{j=1}^n u_{ij} \right) \quad (5)$$

Step 4: Construct the total influence fuzzy matrix. The total influence fuzzy matrix is calculated by the equations (6)-(12). Three crisp matrices are employed and $\tilde{x}_{ij} = (l'_{ij}, m'_{ij}, u'_{ij})$ is defined as:

$$X_l = \begin{bmatrix} 0 & l'_{12} & \cdots & \cdots & l'_{1n} \\ l'_{21} & 0 & \cdots & \cdots & l'_{2n} \\ \vdots & \vdots & \ddots & \cdots & \vdots \\ \vdots & \vdots & \vdots & \ddots & \vdots \\ l'_{n1} & l'_{n2} & \cdots & \cdots & 0 \end{bmatrix} \quad X_m = \begin{bmatrix} 0 & m'_{12} & \cdots & \cdots & m'_{1n} \\ m'_{21} & 0 & \cdots & \cdots & m'_{2n} \\ \vdots & \vdots & \ddots & \cdots & \vdots \\ \vdots & \vdots & \vdots & \ddots & \vdots \\ m'_{n1} & m'_{n2} & \cdots & \cdots & 0 \end{bmatrix} \quad X_u = \begin{bmatrix} 0 & u'_{12} & \cdots & \cdots & u'_{1n} \\ u'_{21} & 0 & \cdots & \cdots & u'_{2n} \\ \vdots & \vdots & \ddots & \cdots & \vdots \\ \vdots & \vdots & \vdots & \ddots & \vdots \\ u'_{n1} & u'_{n2} & \cdots & \cdots & 0 \end{bmatrix} \quad (6)$$

The total influence matrix is defined as:

$$\tilde{T} = \lim_{k \rightarrow \infty} \tilde{X} + \tilde{X}^2 + \cdots + \tilde{X}^k \quad (7)$$

$$\tilde{T} = \begin{bmatrix} \tilde{t}_{11} & \tilde{t}_{12} & \cdots & \cdots & \tilde{t}_{1n} \\ \tilde{t}_{21} & \tilde{t}_{22} & \cdots & \cdots & \tilde{t}_{2n} \\ \vdots & \vdots & \ddots & \cdots & \vdots \\ \vdots & \vdots & \vdots & \ddots & \vdots \\ \tilde{t}_{n1} & \tilde{t}_{n2} & \cdots & \cdots & \tilde{t}_{nn} \end{bmatrix} \quad (8)$$

where

$$\tilde{t}_{ij} = (l''_{ij}, m''_{ij}, u''_{ij}) \text{ and} \quad (9)$$

$$[l''_{ij}] = X_l \times (I - X_l)^{-1} \quad (10)$$

$$[m''_{ij}] = X_m \times (I - X_m)^{-1} \quad (11)$$

$$[u''_{ij}] = X_u \times (I - X_u)^{-1} \quad (12)$$

Step 5: Compute the defuzzified total influence matrix. The defuzzification of process is employed to obtain the influential network relation map with the values of $(\tilde{D}_i + \tilde{R}_i)^{def}$ and $(\tilde{D}_i - \tilde{R}_i)^{def}$ by the following equations. \tilde{D}_i^{def} indicates the the sum of all vector rows while \tilde{R}_i^{def} represents the sum of all vector columns. $(\tilde{D}_i + \tilde{R}_i)^{def}$ denotes the total degree of the influence among criteria, and the higher its value, the closer the criterion is to object's central point. $(\tilde{D}_i - \tilde{R}_i)^{def}$ is the degree of causality among criteria. When $(\tilde{D}_i - \tilde{R}_i)^{def}$ is positive, it means that criterion i influences other criteria. Otherwise, the criterion is influenced by other criteria.

Converting fuzzy data into crisp scores defuzzification method is applied to convert the triangular fuzzy numbers $\tilde{f}_{ij} = (l_{ij}, m_{ij}, u_{ij})$, $j = 1, \dots, J$, the crisp value of the i -th criterion is determined by the equations (13)-(21) (Opricovic, and Tzeng, 2003).

$$u_i^{max} = \max u_i, l_i^{min} = \min l_i \quad (13)$$

$$\Delta_{min}^{max} = u_i^{max} - l_i^{min} \quad (14)$$

$$x_{lj} = (l_{ij} - l_i^{min}) / \Delta_{min}^{max} \quad (15)$$

$$x_{mj} = (l_{ij} - l_i^{min}) / \Delta_{min}^{max} \quad (16)$$

$$x_{uj} = (u_{ij} - l_i^{min}) / \Delta_{min}^{max} \quad (17)$$

$$x_j^{ls} = x_{mj} / (1 + x_{mj} - x_{lj}) \quad (18)$$

$$x_j^{rs} = x_{uj} / (1 + x_{uj} - x_{mj}) \quad (19)$$

where *ls* and *rs* are the left and right normalized values respectively.

$$x_j^{crisp} = [x_j^{ls}(1 - x_j^{ls}) + x_j^{rs}x_j^{rs}] / [1 - x_j^{ls} + x_j^{rs}] \quad (20)$$

$$f_{ij} = l_i^{min} + x_j^{crisp} \Delta_{min}^{max} \quad (21)$$

The defuzzification procedure is applied for all criteria $\tilde{f}_i, i \in \tilde{n}$, where \tilde{n} denotes the set of criteria evaluated with fuzzy numbers.

3.3. Analyses: Fuzzy VIKOR

Opricovic developed the method called as The VIKOR (Vlsekriterijumska Optimizacija I Kompromisno Resenje) in 90's for the complex systems and compromise solution defining the closest one to the ideal solution and provides an agreement reached by mutual concessions (Yücenur and Demirel, 2012; Ju and Wang, 2013; Fu et al. 2010; Shaverdi et al. 2011; Wu et al. 2009; Ramezaniyan et al. 2012; Mohaghar et al., 2012). The method is employed for selecting a set of alternatives, and defining compromise solutions for the decision making problem with conflicting criteria to reach a final decision (Opricovic, 2011; Opricovic and Tzeng, 2007). The decision matrix of multi-criteria problem is presented as:

$$D = \begin{matrix} & \begin{matrix} C1 & C2 & C3 & \dots & Cn \end{matrix} \\ \begin{matrix} A_1 \\ A_2 \\ A_3 \\ \vdots \\ A_m \end{matrix} & \begin{bmatrix} X_{11} & X_{12} & X_{13} & \dots & X_{1n} \\ X_{21} & X_{22} & X_{23} & \dots & X_{2n} \\ X_{31} & X_{32} & X_{33} & \dots & X_{3n} \\ \vdots & \vdots & \vdots & \ddots & \vdots \\ X_{m1} & X_{m2} & X_{m3} & \dots & X_{mn} \end{bmatrix} \end{matrix} \quad (22)$$

where A_1, A_2, \dots, A_m are possible alternatives, C_1, C_2, \dots, C_n are criteria X_{ij} is the rating of alternative A_i with respect to criterion C_j .

The VIKOR method under the fuzzy environment can be detailed in the following steps (Chen and Klein, 1997):

Step 1: Determine the linguistic variables for evaluating alternatives. Linguistic terms and triangular fuzzy numbers are used for assessing alternatives.

Step 2: Construct the fuzzy decision matrix. The aggregated fuzzy ratings \tilde{x}_{ij} of alternatives and a fuzzy decision matrix are determined using linguistic evaluations provided by the decision makers with the equation (23)

$$\tilde{x}_{ij} = \frac{1}{k} \left[\sum_{e=1}^n \tilde{x}_{ij}^e \right], i=1,2,3,\dots,m \quad (23)$$

Step 3: Calculate the fuzzy best and worst values. The fuzzy best value \tilde{f}_j^* and fuzzy worst value \tilde{f}_j^- for all criterion functions are computed by the formula (24)

$$\tilde{f}_j^* = \max_i \tilde{x}_{ij}, \text{ and } \tilde{f}_j^- = \min_i \tilde{x}_{ij}, \quad (24)$$

Step 4: Compute mean group utility and maximal regret as:

$$\tilde{S}_i = \sum_{j=1}^n \tilde{w}_j \left(\frac{|\tilde{f}_j^* - \tilde{x}_{ij}|}{|\tilde{f}_j^* - \tilde{f}_j^-|} \right) \quad (25)$$

$$\tilde{R}_i = \max_j \left[\tilde{w}_j \left(\frac{|\tilde{f}_j^* - \tilde{x}_{ij}|}{|\tilde{f}_j^* - \tilde{f}_j^-|} \right) \right] \quad (26)$$

where \tilde{w}_j are the fuzzy weights of criteria, \tilde{S}_i is A_i with respect to all criteria calculated by the total of the distance for the fuzzy best value, and \tilde{R}_i is A_i with respect to the j -th criterion, calculated by maximum distance of the fuzzy best value.

Step 5: Compute the value of \tilde{Q}_i . The value is calculated for final ranking by the equation (41):

$$\tilde{Q}_i = v(\tilde{S}_i - \tilde{S}^*) / (\tilde{S}^- - \tilde{S}^*) + (1-v)(\tilde{R}_i - \tilde{R}^*) / (\tilde{R}^- - \tilde{R}^*) \quad (27)$$

where $\tilde{S}^* = \min_i \tilde{S}_i$, $\tilde{S}^- = \max_i \tilde{S}_i$, $\tilde{R}^* = \min_i \tilde{R}_i$, $\tilde{R}^- = \max_i \tilde{R}_i$ and v is presented as the weight of the strategy of maximum group utility, whereas $1 - v$ is the weight of the individual regret (Kaya and Kahraman, 2010). In this study, v is assumed to have the value of 0.5.

Step 6: Sort the values of S,R,Q. After the defuzzification process of the \tilde{Q}_i by the maximizing set and minimizing set method (Chen, 1985), the values S, R and Q in decreasing order are sorted for the alternatives. In addition, to check the final ranks, two conditions must be carried out:

Condition 1: Acceptable Advantage is:

$$Q(A^{(2)}) - Q(A^{(1)}) \geq 1/(j-1) \quad (28)$$

where $A^{(2)}$ is the second position in the alternatives ranked by Q (minimum).

Condition 2: Acceptable stability in decision making is:

The alternative $A^{(1)}$ must also be the best ranked by S or/and R. This compromise solution is stable within a decision-making process, which could be the strategy of maximum group utility (when $v > 0.5$ is needed), or “by consensus” $v \approx 0.5$, or “with veto” ($v < 0.5$).

“If one of the conditions is not satisfied, a set of compromise solutions is selected. The compromise solutions are composed of (1) alternatives $A^{(1)}$ and $A^{(2)}$ if only condition C2 is not satisfied, or (2) alternatives $A^{(1)}, A^{(2)}, \dots, A^{(M)}$ if condition C1 is not satisfied. $A^{(M)}$ is calculated by the relation $Q(A^{(M)}) - Q(A^{(1)}) < 1/(j-1)$ for maximum M (the positions of these alternatives are close)” (Dincer and Hacıoglu, 2013:1078).

4. An Application on Privatized Firms listed in Borsa Istanbul

Using Fuzzy method, the alternative sample firms are ranked through a two-phased analysis. First phase defines the relative importance of the dimensions with the fuzzy DEMATEL and the following phase continues with the fuzzy VIKOR to rank the alternatives.

Table 03. Total influence matrix and impact-relationship degrees of the dimensions

	D1	D2	D3	D4	\tilde{D}_i^{def}	\tilde{R}_i^{def}	$\tilde{D}_i^{def} + \tilde{R}_i^{def}$	$\tilde{D}_i^{def} - \tilde{R}_i^{def}$
D1(F)*	0,91	1,26	1,13	1,18	4,48	3,83	8,31	0,65
D2(C)	1,11	1,03	1,08	1,12	4,34	4,50	8,84	-0,17
D3(O)	0,82	1,03	0,73	0,91	3,49	3,92	7,41	-0,43
D4(CM)	1,00	1,18	0,98	0,87	4,03	4,09	8,12	-0,05

*F stands for financial, C stands for Consumer, O refers to organizational and CM refers to competition dimensions.

The importance of the dimensions and the cause and effect relationships could be presented by using the Fuzzy DEMATEL method. As seen in table 4, D2 is the most important factor while D3 has the weakest importance in the brand equity. Additionally, D1 is the most influential factor in the balanced scorecard-based brand equity factors as D2, D3, and D4 are all influenced by D1.

Table 04. Values of S_i , R_i , and Q_i

Alternatives	S_i	R_i	Q_i	Ranking
A1	0	0	0	1
A2	0,327	0,132	0,424	5
A3	0,191	0,114	0,315	3
A4	0,679	0,227	0,791	6
A5	0,052	0,028	0,080	2
A6	0,837	0,254	0,929	9
A7	0,318	0,130	0,414	4
A8	0,911	0,271	1	10
A9	0,673	0,254	0,839	7
A10	0,797	0,254	0,907	8

The alternatives are ranked via the Fuzzy VIKOR method. Table 4 illustrates that A1 is the best firm in the performance while A8 has the worst performance in balanced scorecard-based brand equity. The performance results of the brand equity for the privatized firms listed in BIST are ranked as A1, A5, A3, A7, A2, A4, A9, A10, A6, and A8 respectively.

5. Conclusion and Discussions

As a financial and value creating asset, brand equity has a strategic importance for firms regardless of industry. In evaluating brand equity, relying only on consumer or financial measures would only provide a single perspective. By adopting a BSC mind set, the current study evaluates brand equity performance of the Turkish firms privatized by public offerings based on financial, consumer, organizational and competition perspectives.

The study findings provide evidence that in evaluating brand equity, consumer-based is the most important dimension followed by financial-based dimension. The explanation behind this finding can be traced in the numerous consumer-based brand equity studies based on the basic premise that the perceptions, attitudes or behaviours of consumers is the main determinant of brand equity (Aacker, 1996; Keller 1993; Yoo, & Donthu, 2001; Chaudhuri, & Holbrook, 2001; Nam et al, 2011). Furthermore, financial-based dimension is found out to be influential on the other dimensions. Also, organization-based perspective is found out to be least influential factor on brand equity when compared with other dimensions of the study. Thereby, it can be stated that study results confirm brand equity literature by presenting consumer and financial perspectives as the most significant determinants of brand equity performance.

The brand equity performance ranking list presents that A1 has the highest whereas A8 has the lowest brand equity performance. Although there are some deviations, the list shows that firms with high rate of public offering shares also have high brand equity performances. The exceptions of A7 and A5 can be explained through these companies' organizational features. Both firms are the oldest and the most influential corporations in their industries; and hence, they have already developed a strong brand equity performance regardless of the privatization. Similarly though having a high level of public offering shares, A2 is perceived as one of the old-fashioned, bureaucratic corporation by most Turkish consumers.

These findings once again indicate that brand equity should be evaluated through a multiple set of dimensions rather than one measure.

As a final note to the managers, it can be recommended that a special attention should be paid to consumer perceptions, attitudes and behaviours in terms of branding strategies. Correspondingly the financial indicators as market capitalization and cash flows should be taken into consideration both for brand equity performance and sustainable business success. Further to that, introducing new products or services that could create an influence in the market and adopting marketing strategies for brand growth and extensions should be supported by R&D activities.

As for the limitations of the study, it can also be stated that the findings of the study can't be generalized to all firms. Thereby for future studies, it can be advised to focus on other forms of privatization, on industrial differences and on cross-country analyses through different models and methods to provide a richer grasp of brand equity measurements.

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