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The linguistic analysis of brand names with the analytic hierarchy process and an application in Turkish biscuit market

Abstract
The first step of branding is the process of deciding its name. The name of a product is an important factor in determining its popularity in the market. In the globalizing world the common language is English. Therefore to choose a name in English is more logical for companies that export their products. On the other hand, the chosen brand name must be understandable, memorable, it must contain a suitable meaning and it must not cause misunderstandings. Turkish consumers have a stronger desire for foreign brands. This condition forces the producers to choose a foreign word as a name in the naming process. In this study, the authors compared some brand names of Ülker and Eti, in the linguistic field according to certain criteria that are the two leader companies for the Turkish consumers in the biscuit and chocolate market.

Keywords: brand, brand names, brand connotations, brand identity, linguistic analysis, Ülker, Eti.

Introduction
The frequently mentioned concepts in this study like brand, brand names and brand connotations, brand name and its language are defined below.

Brand is a name, word, symbol, design, mark, shape, color or a kind of these components that is used to define, introduce or distinguish the product or service of one or a group of producers or sellers from another.

Brand connotation is everything that is related to brand. For example, Mc Donald’s reminds children as a customer category, quick service as a specification of product, and golden belts as a logo (Aaker, 1991, p. 109).

Brand connotation may be defined as information pieces that include the meaning of the brand in the perspective of customer and it connects the ties related to the brand with the other relative information in the mind of consumer.

Brand name must be harmonious with the product. A similar condition is seen in Turkish epic. To have a name you must deserve it. A child is given a suitable name in respect to his character, talents.

In the Boğaq Khan, the son of Dirse Khan epic which is one of the Turkish epics, children are not named as soon as they are born. To have a name the child must show his talents. A name is given according to his skills. In the Boğaq Khan epic, which is one of Dede Korkut stories, Boğaq Khan knocks down and kills a bull with his single fist while the other boys were afraid of the bull and running away. Thanks to his bravery he deserves having a name. In relation to his bravery he was named as Boğaq by Dede Korkut that means bull killer (Yılmaz, 2006, p. 232).

It is known that owing to a good brand name, the brand has a better place in the minds of customers. A good name creates a unique and strong symbol in the hearts and minds of customers. Name creation process may contain linguistic factors (language structure factors), sound symbolism factors (basic meanings), phonetics factors (speaking sounds), gained meanings (the meaning accumulated by the time), pure meaning (the meaning derived from the word stem), ethological factors (behavioral factors). Brand essence must be taken into account while deciding the brand name. Brand name affects organization identity and the perception of public about the product and services (Knapp, 2003, pp. 93-94).

Language has two important characteristics one is semantics and the other is calligraphy system. For example, Chinese has a lot of dialects like Mandarin dialect that is spoken in many places in China, Singapore and Taiwan. Not only writing but also speaking these dialects create problems. Another point that must be paid attention is calligraphy systems. The contradictions among these systems are so important for global companies. In Chinese alphabet there are signs and ideographs that consist of strokes and they are used for every word. It is estimated that there are approximately 50000 ideographs in Chinese. The difference between spelling and writing of a word may give the impression that it is a foreign brand. For example, even though Haagen-Danz is an American ice-cream brand, its spelling gives the impression of a Scandinavian brand (Taşkin, 2007, pp. 5-6).

In a study named as the Cultural Tendencies Reflected on the Names of Workplaces that has a similar basis with brand names, the reasons of using foreign words for the names of workplaces stand out with being different (21%) and being interesting (17%). The workplace owners find the foreign words more valuable. Bellona was a brand name chosen to associate with Italian aesthetic and accretion. The excessiveness of brand names and workplace names in foreign language shows us the existence of workplace owners and advertisers that recognized the customers who are after
the ideal of being western-modern-contemporary. There is no doubt that using the brand names in foreign languages has the purpose of associating with quality (Uztuğ, 2005, pp. 260-261).

On the conditions according to which the origin of the product is important, it is useful to have a communication strategy that emphasize the brand name. In the counter conditions the company and the brand might be separated from its origin. Sometimes a good brand name may bring in the real value to the product and may simplify the other processes (http://www.brandchannel.com/images/papers/86_Indian_Brands_FMS_Samit_Punet.pdf, 2008).

The names of the popular drugs like Prozac, Viagra, Lipitor do not have a defined meaning. To find the right sound and image millions of dollars were spent. According to a survey the letters with a hard edge like P, T and K are impressive. X is considered as scientific. The letters of L, R, S give calming and relaxing feeling. Z is associated with speed. The brand name must have a message. Viagra evokes the power of Niagara Falls. Viagra hits the bull’s-eye on virility as a name for a drug (Murphy, 2008, pp. 31).

1. Methodology

Two different methods are used in this study. First, SPSS is used to comprehend the perception of the brand personality of Ülker and Eti, among the students of Business Administration faculty. Secondly, analytical hierarchy process AHP is used to compare the brand names of two rival companies with a linguistic view. For the SPSS method, questionnaire technique is used as a data collection technique. The questionnaire study is carried out by face to face meeting method with 384 students of Business Administration Faculty, Dumlupinar University. In the questionnaire, questions were asked about brand identity dimensions and the sub-dimensions that form the identity of Ülker and Eti companies. The questionnaire that was prepared to prove the hypothesis of the study was formed according to the Likert scale. The data gathered via questionnaire forms was analyzed with SPSS XE “SPSS” for Windows 15.0 programme. In the data analysis I definitely agree is 5 points, I agree is 4 points, I am undecided is 3 points, I do not agree is 2 points, I definitely do not agree is evaluated as 1 point. In the survey t-test and ANOVA analysis are used.

1.1. Analytic hierarchy process. The analytic hierarchy process is used in this study since the criteria and their importance are determined by linguists. Intangible and subjective information can be used via AHP. The criteria and their importance differs from person to person. In the hierarchy, the elements on each level is bound to the elements on a higher level. On the top there is an aim. The aim is affected by the elements on the lower levels. The elements on the lower level are affected by the elements that are lower than them. On the bottom there are choices. Thanks to the hierarchy all these elements are arranged and the aim is reached in a logical way (Saaty, 1990, p. 3).

Thanks to the analytic hierarchy process while making a decision among the confusing choices, the decisions with many determiners, many criteria and aims can be made. With this method, the users can include both their objective and subjective thoughts, the approximately estimated and carefully measured, hardly understood and well understood aspects of the decision to the decision making process. In this way the information, experience, thoughts and precognition of the individual are united in a logical way (Kuruüzüm and Atsan, 2001, p. 84).

First, to form a hierarchy, the decision problem is resolved in the hierarchy to more easily understand sub-problems and later these sub-problems are analyzed separately. After building the hierarchy, elements are compared to one another two by two, in this way they affect the element above them in the hierarchy (Kuruüzüm and Atsan, 2001, p. 84).

Table 1. The basic scale of analytic hierarchy process

<table>
<thead>
<tr>
<th>Degree of importance</th>
<th>Description</th>
<th>Explanation</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Equally important</td>
<td>The two activities contribute the aim equally</td>
</tr>
<tr>
<td>3</td>
<td>One is a little more important</td>
<td>Experience and judgement give a little preference to an activity</td>
</tr>
<tr>
<td>5</td>
<td>Strongly important</td>
<td>Experience and judgement give a strong preference to an activity</td>
</tr>
<tr>
<td>7</td>
<td>Very strongly important</td>
<td>An activity is strongly preferred and its dominance can easily be seen in the application</td>
</tr>
<tr>
<td>9</td>
<td>Extremely important</td>
<td>The proofs for preferring one activity to another have a high reliability</td>
</tr>
<tr>
<td>2, 4, 6, 8</td>
<td>Average values</td>
<td>The values among the judgements listed above are going to be used when an agreement is necessary</td>
</tr>
<tr>
<td>2, 4, 6, 8</td>
<td>Average values</td>
<td>Reverse comparisons</td>
</tr>
</tbody>
</table>

Source: Saaty (1990, p. 54).

Thanks to this basic scale it can be understood how important are the criteria when compared to each other. While the odd numbers are showing the importance degree of criterias even numbers are used as agreement value.

1.2. The aim of the study. The scope of the study is restricted by students of Business Management Faculty, Kütahya Dumlupinar University. In this study, the perception of the brand personality of Ülker and Eti, among the students of Business Administration Faculty was tried to be comprehended.
1.3. Limitations of the study. University students are chosen as a sample. This is because the university students consume biscuits and chocolate too often and the ratio of young population in Turkey is much more than European young population. There are no restaurants in the campuses of newly-founded universities. There are canteens and kiosks where students may buy food. Most of the universities in Turkey are recently founded. There is an oligopoly structure in the chocolate and biscuit market in Turkey. Ülker and Eti are two big rival companies in chocolate and biscuit market. Therefore, Ülker and Eti, are compared with the brand names of the similar products in the same group, in the perspective of superiority. The compared brand names are: Eti Burçak & Ülker Başak, Eti Çay Keyfi & Ülker Hammell, Eti Bumbada & Ülker Coco Star, Eti İkidebir & Ülker Ikram, Eti Kaymaklım & Ülker Rondo, Eti Maximus & Ülker Rodeo, Eti Prens & Ülker Probis. The brand names are not evaluated in different areas and that are not rival.

1.4. The method of the study. Questionnaire technique, the data collection technique, used in the study, consists of personal information form and the scale of brand personality dimensions and the sub-dimensions that form the brand personality. In the study to measure the brand personality of Ülker and Eti, the brand personality scale of Aaker was used. Besides, the study of Ömer Torlak and Cevahir Uzkurt named the perception of the brand identity of colas among the university students (Torlak and Uzkurt, 2005, pp. 15-31). The reliability of the brand personality scale is calculated as 0.9348. We can understand that the result is remarkably reliable since the Cronbach t-value of the general research scale is found as 0.9348. If 0.80 ≤ α ≤ 1.00 then the scale is extremely reliable (Özdamar, 2004, p. 633).

1.6. Hypothesis of the study.

H₁: There is a meaningful relationship between the gender and the thoughts about the brand personality and the sub-dimensions that form the brand personality.

H₂: There is a meaningful relationship between the superiority of the meaning of the brand name over the rival product’s brand name and having a better brand name.

H₃: There is a meaningful relationship between the better brand name and superiority of the stress of the brand name over the stress of the rival product’s brand name.

H₄: There is a meaningful relationship between the better brand name and superiority of the types of the characters of the brand name over the types of the characters of the rival product’s brand name.

H₅: There is a meaningful relationship between the better brand name and superiority of the syllable number of the brand name over the syllable number of the rival product’s brand name.

H₆: There is a meaningful relationship between the better brand name and superiority of the word number of the brand name over the word number of the rival product’s brand name.

2. Results

67.7% of students who took part in the questionnaire are female, 32.3% of students are male. 70.2% of these students are in 20-22 age group, 16.1% of them are in 23-25 age group, 11.8% of them are in 17-19 age group and 1.9% of them are above 26.

Table 2. The frequency values of brand personality dimensions and the sub-dimensions that form the brand personality

<table>
<thead>
<tr>
<th>Brand personality dimensions, the sub-dimensions that form the brand personality</th>
<th>Ülker</th>
<th>Eti</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mean</td>
<td>Standard deviation</td>
<td>Mean</td>
</tr>
<tr>
<td>Sincere</td>
<td>3.8733</td>
<td>1.02044</td>
</tr>
<tr>
<td>For family</td>
<td>4.0187</td>
<td>0.96233</td>
</tr>
<tr>
<td>Honest</td>
<td>3.8934</td>
<td>1.02994</td>
</tr>
<tr>
<td>Respectful</td>
<td>3.9911</td>
<td>0.93996</td>
</tr>
<tr>
<td>Realistic</td>
<td>3.7765</td>
<td>1.05226</td>
</tr>
<tr>
<td>Original</td>
<td>3.9829</td>
<td>1.16514</td>
</tr>
<tr>
<td>Cheerful</td>
<td>3.7345</td>
<td>0.97565</td>
</tr>
<tr>
<td>Emotional</td>
<td>3.1453</td>
<td>1.08899</td>
</tr>
</tbody>
</table>
In the scale that is formed by Aaker the words written in bold, sincere, nutritious, exciting, expert and exclusive are brand personality dimensions. The other expressions are the sub-dimensions that form the brand personality. As it is seen, among the participants, the view about brand personality dimensions and the sub-dimensions that form the brand personality of Ülker is more positive than Eti. According to the students who took part in the study as participants Ülker is more sincere, honest, original, expert, successful, leader, confidential, self-confident, reliable, talented, exclusive, captivating, nice-looking, fascinating, for family and has a stronger image and than Eti.

In t-test related to the hypothesis of “There is a meaningful relationship between the gender and the thoughts about the brand personality and the sub-dimensions that form the brand personality”, the view of male and female students about the dimensions of brand personality and the sub-dimensions that form the brand personality was compared and the results seen in the Table 3 were obtained.

According to the gathered results of the t-test, female students find Ülker more respectful, realistic, fashionable, young, for upper class, nice-looking, fascinating, calming, western and tech-savvy than male students. The expressions that did not have a meaningful result in the t-test applied for the brand personality dimensions and the sub-dimensions that form the brand personality were not presented in the table.

After the data analysis, it is seen that the female students have a more positive view about Ülker and Eti when compared to male students. On the basis of this information, it can be said that female students are more impressed by advertisement than male students. Besides, for female students being respectful, realistic, fashionable, young, for upper class, nice-looking, fascinating, calming, western, tech-savvy is more important than it is for male students.
Table 4. T-test results that measure the perception levels of brand personality dimensions and the sub-dimensions that form the brand personality of Eti company (n = 384)

<table>
<thead>
<tr>
<th>Brand personality dimensions, the sub-dimensions that form the brand personality of Eti company</th>
<th>Gender</th>
<th>Mean</th>
<th>t</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nice-looking</td>
<td>Male</td>
<td>3.5000</td>
<td>-2.149</td>
<td>0.031</td>
</tr>
<tr>
<td></td>
<td>Female</td>
<td>4.2110</td>
<td>-2.008</td>
<td>0.046</td>
</tr>
<tr>
<td>Calming</td>
<td>Male</td>
<td>2.5385</td>
<td>-2.036</td>
<td>0.047</td>
</tr>
<tr>
<td></td>
<td>Female</td>
<td>3.3211</td>
<td>-1.848</td>
<td>0.042</td>
</tr>
</tbody>
</table>

In the t-test related to the hypothesis of “There is a meaningful relationship between the gender and the thoughts about the brand personality and the sub-dimensions that form the brand personality”, the view of male and female students about the brand personality dimensions and the sub-dimensions that form the brand personality of Eti company was searched. As a result of the t-test, it is understood that the female students find Eti more nice-looking and calming when compared to male students. There are no meaningful results related to other brand personality dimensions and the sub-dimensions that form the brand personality. Therefore only the meaningful results are shown in the Table 4.

2.1. General results of the comparison of factors and the sub-factors. This Section presents the comparison of the brand names (Figures 2-8).

Fig. 2. The comparison of the names Eti Burcak & Ülker Basak

The overall inconsistency ratio is 0.01 which is extremely reliable. According to the general assessment results Basak is 10% superior than Burcak. Thanks to its superiority with the criteria of meaning and the number of letters Basak is a name that is better than Burcak.

Fig. 3. The comparison of the names Eti Caykeyfi & Ülker Hanimeller

The overall inconsistency ratio is below 0.10. The assessment results are reliable. To consider the overall inconsistency ratio of the assessment results of the factors Cay Keyfi is a better name.

In the t-test related to the hypothesis of “There is a meaningful relationship between the superiority of the meaning of the brand name over the rival product’s brand name and having a better brand name” by comparing the criteria of meaning and related sub-criteria via the AHP method, it is understood that Eti Cay Keyfi is a superior brand name when compared to Ülker Hanimeller.

Fig. 4. The comparison of the names Eti Cay Keyfi & Ülker Coco Star

After the comparison of two brand names the general inconsistency ratio is found as below 0.10. According to this result the comparison is reliable. As stated by the overall inconsistency the name Coco Star is 4% superior. Coco Star is evaluated as a superior name due to its advantage on the meaning factor, the number of words factor and pronunciation ease sub-factor, meaning riches sub-factor, word origin sub-factor, etc. The number of syllable factor on which Bumbada is superior affects overall inconsistency only 11%. But the meaning factor on which Coco Star is superior affects overall inconsistency 41%.

Fig. 5. The comparison of the names Eti Ikidebir & Ülker Ikram

By comparing the words Ikidebir and Ikram the overall inconsistency turned out to be 0.01 which is much less than 0.10. It is understood that the comparison is extremely reliable. Ikram is 14% superior in terms of being a better name.

Having analyzed Figure 5, it can be seen that Ikidebir is not superior on any of the factors. The first two letters of name is the same with Ikram and there is an –r in both names, this brings in to mind that originality is not the purpose of naming process. The strategy of Eti maybe finding a similar name that will have connotation with Ikram instead of finding a better name. Ikidebir is a much newer product in the market.

In relation to the hypothesis of “There is a meaningful relationship between the better brand name and superiority of the word number of the brand name over the word number of the rival product’s brand name” by comparing the criteria of word number via the AHP method, it is understood that Ülker Ikram is a superior brand name when compared to Eti Ikidebir. Meaning and stress are the factors that affect overall inconsistency most. Ikram is a better brand name since it is superior on these factors.

Fig. 6. The comparison of the names Eti Kaymaklim & Ülker Rondo

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The required upper limit for the overall inconsistency is 0.10. The ratio of 0.01 in this comparison is extremely reliable. It is understood that the result of the overall inconsistency is close to each other. If this result is not enough to make a decision the other figures should be studied for further information. According to the result of the overall inconsistency Kaymaklim is 2% superior than the name Rondo. Eventhough the name Rondo has 2 syllables and the name Kaymaklim has 3 syllables, according to general assessment of the other criteria Kaymaklim is a better name. The word Kaymaklim is in Turkish, this makes it a better name in respect to the criteria of meaning and stress. The name Kaymaklim is superior on the criteria of meaning and stress, criteria of meaning affects overall inconsistency 41% and the criteria of stress affects 24%. Rondo is superior on syllable number factor that affects overall inconsistency 11% and this is not enough to make it a better name.

### Fig. 7. The comparison of the names Eti Maximus & Ülker Rodeo

The ratio of overall inconsistency is extremely reliable as it turned out to be 0.01 which is much lower than 0.10. Rodeo is a word that is in English but the meaning of it is also known in Turkish. Maximus is a name for males and has a Latin origin. As a result Rodeo is 6% superior. In the study related to the hypothesis of “There is a meaningful relationship between the better brand name and superiority of the syllable number of the brand name over the syllable number of the rival product’s brand name” by comparing the criteria of syllable number via the AHP method, it is understood that Rodeo is a superior brand name when compared to Maximus.

In the study related to the hypothesis of “There is a meaningful relationship between the better brand name and superiority of the stress of the brand name over the stress of the rival product’s brand name by comparing the factor of stress of the brand name and associated factors by means of AHP method, it is understood that Rodeo is a better brand name when compared to Maximus. The superiority of Maximus on the meaning factor could not make it a better brand name. Rodeo is superior on all the other factors. The factor of meaning affects overall inconsistency 41%, which is a high ratio. Maximus is superior on the factor of meaning and this prevents from outscoring.

### Fig. 8. The comparison of the names Eti Prens & Ülker Probis

The names Probis and Prens are compared and ratio of overall inconsistency is 0.01. When we compare this ratio to the upper limit which is 0.10 it is seen that the result is remarkably reliable. It is understood that Probis is a better name with the difference of 4%. Probis is superior on the meaning and the number of word factors. Despite the superiority of Prens on the other three factors according to the overall inconsistency Probis is a better name. It is seen that Probis is superior with a great difference on the meaning factor. The factor of meaning affects overall inconsistency 41% and Probis is much superior in respect to meaning this makes Probis a better brand name.

### 3. Building up the hierarchy used in the survey

In this study, the criteria, sub-criteria and the weights of criteria that took place in the MBA thesis named “A Survey and an Analysis on the Brand Names Used in Turkey” that belongs to Sehnaz Okkiran was used. The aim is to find out which brand name is better. The criteria and their weights are listed below.

- **Aim.**
- **Five criteria (meaning, stress, types of the characters, syllable number, word number).**
- **12 sub-criteria (positive meaning, associating the sector, genuineness, strikingness, emotional value, sound length, sound intensity, the use of a, e, n, r, s letters, the use of brand names with two syllables, ease of pronunciation, richness of meaning, word origin).**
- **Two alternatives.**

These criteria and the sub-criteria were determined by the Turkish linguists.

With the program Expert Choice 11.5 AHP (analytical hierarchy process) decision-making process was carried out in computer environment in a reliable and practical way. The criteria and the sub-criteria seen in the figures were saved in Expert Choice program. Finally, brand names were compared according to the criteria and the sub-criteria.

When comparing all the criteria and the sub-criteria is over the overall incoisstancy is found as a result. By finding the result we can understand which brand name is superior over the other. The reliability of the result can be seen if the ratio of incon or inconsistency is less than 0.10. When the ratio of incon or inconsistency is higher than 0.10 it is understood that the comparison is unreliable and till finding a reliable result the evaluation must be repeated.
Conclusion

A brand admired by consumers may reach high sales numbers. A brand may continue its existence thanks to the demand of consumers. In the globalizing world the competition conditions get harder. The development of communication technologies and the ease of transportation brings harder competition conditions. Brands may have rivals even from the furthest places on Earth like China and India. Most Turkish brands do not expand overseas. Naming a brand is a complex and technical process. Thanks to a good brand name, a product will stick in the mind of consumers. The first and most important step of forming a brand is naming it. A good name forms a basis for the future impression of advertisement and packing and creates a unique and strong symbol.

The harmony of brand name and product, the positive meaning and positive image of the brand name provides a great advantage. The name must be warm to customers and it should have an emotional tie. It is a good strategy to look for names that make a good explanation, that are visually rich and potentially rich. The name of a company should express its personality. The brand promise must be taken into consideration since the brand name affects corporate identity, perception of people about the products and services. In addition to being harmless in respect to its connotations, the chosen brand name should be easily pronounced, legally convenient and catchy. The possibility of enlarging field of business in the future must be taken into account and restrictive names like “pantolsan which means trouser industry” must not be chosen.

The target of naming process should be reinterpreting the known concepts and words in an innovative way. A useful technique is cutting names and pictures from a magazine that are appropriate for your product and then fitting the words in a way which customers will love. Another technique is listing the words top-down that appeal to customers and listing the certain specifications that distinguish the product from left to right and finding the connections among the two lists and words and concepts that describe the connections.

In the survey part, a questionnaire study about the perception of brand personality of Ülker and Eti companies among the students of School of Business Administration was carried out. Meaning is the most important factor about the superiority of a brand name, the names that can cause connotation over the customers should be chosen. The reason why some of the results are close to each other is the use of so similar names for the products by the producers. Just like the example of Browny and Browni. Before introducing a new product into the market which is similar to the product of rival company, a name is chosen that resembles the rival product. Genuineness is not regarded as important in the naming process. In this condition, what should be done is finding a name that is hard to imitate.

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