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EXPLORING COMPETITIVE GAPS TO CREATE A “TURKISH” LOCAL SEARCH ENGINE

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ABSTRACT

Purpose- In today’s world, organizations, brands and even countries compete in an information-rich global market in which the main competitive factor is technology. One of the business models that came with the development of technology is an Internet portal including several features such as search engines. Within this context, the present study aims to explore the gaps that can create competitive advantages for a new local search engine in Turkey that will be established in the global marketplace and to determine how to position a local search engine brand in today’s information market.

Methodology- To carry out this study, 20 people who use both Google and Yandex were interviewed in accordance with the Zaltman Metaphor Elicitation Technique (ZMET) steps. 20 collages were prepared for each participant based on the pictures collected by them to represent the brands’ image in their minds; these collages were interpreted by the researchers using the universal metaphors proposed by Professor Zaltman.

Findings- The collages and the interviews were discussed in line with the following metaphors: container, resource, control, balance and connection. The research findings help us to understand the images about Google and Yandex embedded in users’ minds. According to the participants, Google has a good and simple design, so the user does not have to spend time learning about the portal to use it. Another important point is international recognition. People trust Internet portals that are internationally accepted as valid. The ability to translate to different languages may help an Internet portal be considered more international and gain a larger market share worldwide. In addition, it is important to provide a lot of resources, for doing so helps searches be more credible. A good and successful Internet portal should focus on privacy. Users want to feel safe, especially on the Internet, so a good protection system would gain users’ trust.

Conclusion- The original contribution of this research is that people who use these search engines not only see them as search engines but also perceive them as an intelligent friend, a tempting home or even a universe full of information. According to the research findings, Turkey would be able to create a competitive advantage by investing in a local Internet portal rather than focusing only on search engines.

Keywords: Information technology, search engines, brand image measurement, qualitative research

JEL Codes: M31, M39, O31

1. INTRODUCTION

In a more and more globalized world with highly competitive business and trade environments, Turkey is trying to stand out from the crowd and has decided on an ambitious reform program to improve its global position. With the 100th anniversary of Turkish Republic forthcoming in 2023, the Turkish government has set out a vision to be among the top ten economies of the world by that time (Turkish Asian Center for Strategic Studies).

As a key to achieve the 2023 vision, Turkey is trying to make a positive impact on the domestic economy by establishing its own local Internet portal. An Internet portal offers a wide range of business opportunities, which are enabled through the growing sector of information technology. For these reasons, the information technology sector is one of the most important sectors that Turkey should invest in for development.

Starting from mainly agricultural production and passing through an age of industrialization, Turkish society is now transforming into a so-called *information society*. This term describes the shift to an economy that is based on information technology and the changes of lifestyle this shift entails. Information societies, and especially the later term of knowledge society, describe the impact of information technology on the economy and various sectors like culture, politics (democratization) and environment (Webster, 2014). In today's world, people can do everything with their technological devices such as smart phones, laptops, tablets and so on. It is possible to collect data, analyze it with information technology tools and evaluate the results. On a more basic level, it is possible to shop online, search online, listen online, educate online and so on. Due to the omnipresence of information technology in our daily life, one can imagine the impact of being able to influence this sector in the future, and it is therefore important for a developing country like Turkey to become a player in this field. In a reality where information is an important resource, Internet portals are the most practical way to gather this important resource. Recent researches show that almost half of the world's population uses search engines in their daily life. Based on these records, the popularity of a search engine and the benefits that popularity may bring—such as globalization and profits—can be guessed. All in all, Turkey should invest in creating a local "Turkish" search engine. Such a search engine would also help Turkey to shift from an industrial economy to a networked information economy (Benkler, 2006), like most developed countries. In order to be successful in this task, one should consider what can be learned from global leaders and which mistakes should be avoided. To determine how best to establish a successful Internet portal, research is conducted on two important players in the sector: Google and Yandex.

In the first part of this study, the importance of information technology, the Internet portal as an e-commerce model and the background of Google and Yandex were discussed. In the methodology part, the ZMET is introduced as a qualitative research technique, and then the research findings are presented. The implications and limitations of the study take place in the conclusion part.

2. LITERATURE REVIEW

2.1. Information Technologies

Information can be defined as the data that is valuable to users for their current or future actions. Based on this definition, information technology refers to technologies that find and process information for the users' purposes (March & Smith, 1995, pp. 1–34). Regarding the fast development of information technology worldwide, people can rearrange, select and transform information as well as store, retrieve and communicate about it (Forester, 1985, p. 4). Emerging technologies are getting used by almost all countries, firms, institutions and individuals to adapt the social and economic environments and benefit from it. According to Gartner (2017), in 2016 worldwide IT spending was \$ 3.375 billion, and it is guessed that this spending will grow 2.7% in the year of 2017. On the other hand, information technologies are now a big part of people's daily life through computers, laptops and smart phones for personal relations, online transactions and banking, communication, mail services and so on. Hence, out of all advances in information technology, Internet portals are used by the most people and bring the most benefits and profits to countries.

2.2. Internet Portals

In today's world, the Internet is evolving swiftly, and this fast progress leads to new trade circles such as e-trade, online banking, online ads and so on. These developments that are happening in the Internet sector lead people to use the Internet for almost everything, like shopping, listening to music, watching videos and even for some basic daily jobs. Recently, with the widespread usage of mobile devices, new platforms have had to be developed and companies have had to adapt their systems to new dynamics to be successful. Not only firms but also countries can gain multiple benefits by investing more in technology.

One of the business models that came with the development of e-commerce is an Internet portal. Literally, portal means door, entrance. Thereby, an Internet portal can be defined as a door to the Internet. Users set the portals as the first page they see when they open the Internet. A portal offers users services such as e-mail, online discussion groups, search engines and online shopping. Most well-known Internet portals are Google, Yahoo, Yandex, Bing, AOL and MSN.

2.3. Background Information about Google and Yandex

Larry Page and Sergey Brin at Stanford University, United States founded Google in 1996 as a research project. In the year 2000, it became the most popular search engine worldwide. In 2003, Page and Brin bought Blogger, the famous blog service company. In the meantime, Google's e-mail service passed the beta-testing process, and it was released in 2004. In 2005,

visual search and Google Maps are added to the main services. In 2006, they bought the most well-known video search engine, YouTube, which made a tremendous impact on the market. After these spectacular accomplishments, they also added translation, calendar and picture search services along with many more (Yesilyurt, 2014).

Yandex was founded in 1997 in Moscow, Russia. It decided to provide contextual advertising with a program named "Yandex.Direct" at the first time in Russia and this spurt became their breakeven point. After this spurt, they created "Yandex.Maps". In 2005, it decided to step outside of Russia and started to expand the services in Ukraine and, in 2011; they also got into the Turkish Internet portal market (Yandex History, 2017).

Both of these companies offer some services, and hence these two brands have some differences from brand point of view. For example, both firms offer map services (Google Maps, Yandex.Maps), paying systems (Google Wallet, Yandex.Money), e-mail services (Gmail, Yandex.Mail,) translation services (Google Translate, Yandex.Translate), browser services (Google Chrome, Yandex.Browser), shopping services (Google Shopping, Yandex.Market), storage services (Google Drive, Yandex.Disk) and so on.

The reason individuals use Internet portals mostly have to do with the search engine services they provide. Users select an Internet portal through which they can connect to other websites. According to Greenlight Digital, Google is the market leader in most countries, including Spain, Italy, France, United States, and Germany. On the other hand, in emerging countries like Russia and China, the local engines are the market leaders.

As with most other countries, Google is the leader in the Turkish market. According to Gemius, Google had 94.40% of shares in the market by the end of 2016 in Turkey. In other respects, Yandex's market share is growing compared to year 2014, but dropping compared to 2015. Some political disagreements should be considered to explain this fall.

2.4. Definitions of Brand Image

Since the 1950s, brand image has become an important topic for researchers (Dobni. & Zinkhan, 1990). According to Dobni and Zinkhan (1990), there are five different definition categories of brand images:

(1) General Definitions: "total of the impressions" (Herzog, 1963) or "everything that consumers link with the brand" (Newman, 1957) are examples for this type of definition.

(2) Symbolism-Stressed Definitions: A symbol is something that represents another thing (Levy, 1958). This definition supports the idea that consumers buy the brand only if the brand empowers consumers' ideas of themselves and if the individual and social meanings are intentionally attributed to the brand.

(3) Definitions Stressing the Meaning and the Message: Support the idea that brands are differentiated according to the meanings that consumers attribute to them.

(4) Individualization-Stressed Definitions: It was popular to individualize the brands with human characteristics. These definitions have two approaches. One approach is about a brand as a human construct, and the other approach is about the characteristics that consumers associate with the brand.

(5) Psychological and Cognitive Factors-Stressed Definitions: Refer to the mental or psychological processes and focus on the mental effects that are called "emotions," "thoughts," "mental structures," "perceptions," "expectations" and "attitudes."

All of these definitions have a couple of points in common. First, brand image is a term that relates to the consumer's perspective. A brand image originates in the emotional or rational perceptions of consumers. It is more affected by the environment, marketing efforts and the consumers themselves than by the technical or physical attributes of the brand. Perception of the reality is more important.

3. DATA AND METHODOLOGY

3.1. Understanding the Brand Image of Google and Yandex Using the Zaltman Metaphor Elicitation Technique (ZMET)

The research is conducted using ZMET, as suggested by Prof. Zaltman. ZMET was chosen for several reasons. First, qualitative research is considered a most suitable research type because of its exploratory and unstructured nature (Malhotra, 2010). According to Myers (1997), in studying social and cultural topics, qualitative research methods have to be used, since they provide opportunities to observe people, conduct interviews and understand people's reactions. On the other hand, it is hard to understand people's thoughts and feelings using quantitative methods (Catchings-Castello, 2000). Therefore, exploratory research designs seek to understand consumers' insights as well as relevant factors and courses of action. Such designs allow researchers to be more flexible and their research to be unstructured (Malhotra, 2010). Lastly, a

lot of quantitative research seeks to understand consumers by collecting and analyzing data, trying to figure out the main points and evaluating them. According to Zaltman, 95% of thinking takes place in the subconscious (Zaltman G., 2003). Therefore, ZMET, which aims to represent the human mind, was chosen for use.

One of the important steps in ZMET is the aim to obtain the deep metaphors in consumers' minds. Deep metaphors are for understanding objects, making sense of cases and deciding on which path to pursue (Zaltman & Zaltman, 2008). Hence, the aim is to conduct detailed interviews with the participants and get deep metaphors. The most important thing for the interviews is the proficiency of the interviewer, because in one interview or one picture there can be more than one metaphor. Seven metaphors are proposed by ZMET (Zaltman & Zaltman, 2008):

(1)Balance: Balancing, adjusting, maintaining or offsetting the forces is relevant to the metaphor of balance.

(2)Transformation: Transformation, as the name states, refers to a change in situation or status.

(3)Journey: This metaphor can relate to certain stages of life, whether they are long or short, known or unknown, fast or slow.

(4)Container: A container helps to keep objects inside or outside. It includes psychological, physical or social situations. It can be positive or negative.

(5)Connection: The metaphor of connection refers to belonging or to opposite emotions.

(6)Resource: It is about what is necessary to survive, such as family or friends, products or services, information.

(7)Control: This metaphor is related to having control over processes.

The research followed the following steps:

Participants were each asked to bring 8 pictures from the Internet, magazines or other resources that expressed their feelings or thoughts. There was a limit to the number of photographs, but the important thing was how representative of their feelings they were. Participants were then given 7–10 days to clarify their feelings and thoughts about Google and Yandex carefully. Later, participants brought the images that most reflected their feelings and thoughts. The other important point in this step is that participants were not allowed to choose any commercial images of the brands that were subject to the research.

After the photographs were ready, interviews were conducted with each participant privately. In these interviews, the participants explained their reasons for choosing their pictures. The interviewers tried to understand the participants more deeply by asking open-ended questions. After asking what, when, how, where and who questions, more private questions were asked. The interviewers asked participants to talk about their good or bad memories that were linked with the pictures. The interviewers also took note of the participants' gestures and expressions.

In this step, some surface metaphors came out, and based on these some deep metaphors could be guessed. However, it was difficult to understand the deep metaphors at this stage. Catching key words during this step makes it much easier to understand the relationships later on. Zaltman mentions the importance of key words and their relations with deep metaphors in his book *Marketing Metaphoria*. For example, the word family is linked to the connection metaphor.

In the following step, the interviewers asked participants whether they forgot to bring or could not bring any other images. By asking why participants did not or could not bring additional images, the relationship between participant and brand could be revealed.

For the following step, the participants were asked to group their pictures based on their meaning. For example, they could put the pictures related to trust in the same group. Starting with this step, participants evaluated their thoughts until this step. In this step, the main directions of the mind map are revealed.

Based on the meanings of the pictures and the relationships between them, some inferences were made. For example, the interviewer would choose three pictures and ask about the differences or similarities between them.

Then, the participants would choose the most representative pictures for Google and Yandex. After choosing the pictures, the participant would explain the similarities between the pictures and the brand.

Participants were asked to describe the pictures that represented the opposite of their thoughts about the brand. They were also asked to explain their associations with the images in terms of taste, smell, touch, color, sound and emotion. What color, taste, sound, smell or feeling came to mind when they thought about Yandex or Google? What would the opposite sensations be?

Based on the connections that were revealed, the interviewers created a mental map with the help of the participants. Creating a mental map and illustrating it also entertained the participants. Missing or wrong connections had to be added or fixed by asking the participants.

Next, with the help of a technician, the participants described the summary image, a collage work to explain their associations with the images in terms of taste, smell, touch, color, sound and emotion. The pictures had to be placed in the exact spots the participants wanted.

Finally, the interviewers created a map, which showed the ideas that were mentioned most.

3.2. Sampling and Descriptive

For this research, a convenience sampling method was used. This method was used in case there was a need to obtain further data, which could be achieved easily by contacting the interviewers. According to Zaltman and Coulter, generally 20 participants are enough to conduct a study with ZMET (Zaltman & Coulter, 1995). This research had a sample of 20 individuals. It has been observed that, after a certain point of observation, research repeats itself and gives the same results. Therefore, 20 interviews were sufficient to find out the core.

Participants were currently active Internet users aged 18–32. All of the participants had either graduated from a university or were continuing their studies. More specifically, 11 of them had graduated and 9 were studying at a university; 10 of them were female and 10 were male. As people from different backgrounds were chosen, the diversity helped to gain a comprehensive overview of Internet portal usage.

As a starting point, after a detailed literature analysis of how to conduct ZMET analyses, the researchers participated in a real-time ZMET interview in Istanbul that was conducted by professional ZMET researchers from ZMET Turkey. This experience helped the researchers gain an understanding of the process and the nature of the ZMET. Hence, the main points and the steps of ZMET were followed.

4. RESEARCH FINDINGS

At the end of each interview conducted, the participants were asked to think about what was covered during the interview and to create a collage for each brand, considering their thoughts and feelings about Google and Yandex. The collage, a set of images created by a participant, was necessary to reveal linkages between images. Furthermore, the collages created by the participants provided visual images that integrated important constructs (Zaltman & Coulter, 1994). In our research, a total of 40 collages (20 collages for each brand) were analyzed.

In order to understand the participants' thoughts about Google and Yandex, the analyses of research findings were based on seven universal metaphors, as proposed by Zaltman (Zaltman & Zaltman, 2008). Beside the fact that each participant mentioned his or her own thoughts and feelings, all of the participants ended up pointing to common deep metaphors. Undoubtedly, the way a deep metaphor appears may depend on person's life experiences (Zaltman & Zaltman, 2008). Regarding the stories told by participants, the researchers concluded that certain frequently repeated metaphors reflected majority of the participants' thought and feelings.

To illustrate the findings better, one of the participants' digital collages is shown in Figure 1. The participant is an adult man who was working as an accountant in a service company. As expected, he used multiple Google services on his phone and computer. He also mentioned that he used the Google search engine to learn more about both the sector he works in and to read up on new topics. On the other hand, the participant added that he finds "Yandex.Maps" a very successful application, but he feels suspicious of other Yandex services. His statements helped us to understand which deep metaphors he associates with Google and Yandex. For example, as he used Google to find information about what he needed, he got excited and felt pleased. His story linked to deep metaphors such as container, resource and journey. He created a collage consisting of a galaxy in the background and a road going to the center of this galaxy. He placed a university building near the road. When the participant was asked what the images he used in his Google collage meant for him, he stated the following:

"The universe we live in is endless and limitless. It is completely obscure, yet it is not explored. If I consider the tremendous amount of information that Google stores, I liken Google to a universe. Google is our universe of information in some way. This universe contains never-ending information in itself. For example, when you look at the sky at night and see a celestial body that you have not previously noticed, you get excited and wonder what it is. This is what exactly happens to me when I search on Google and learn something that I did not know before. [...] Google is a road that helps people to find information. Anyone can follow this road. [...] Moreover, it seems to me that Google is very sincere in its business. Just like the sun on left side of the picture, it's warming the cockles of the heart, and it is a source of happiness. [...] Google reminds me of a university where I can go for life-long learning and helps me to learn all the time. Sometimes, I even find myself on web pages about topics I know nothing about, so that I learn even more, and that makes me happy."

Figure 1: Participant’s Collage about Google



The deep metaphors elicited about Yandex were completely different from the ones elicited about Google. The interviews led to the discovery of two strong deep metaphors: control and balance. The participant created a collage, placing a picture of two men wearing black suits with guns in the background. He placed the Russian flag between the two men and the shadow of another man behind them. When the participant was asked what the images used in the Yandex Collage (please see Figure 2) mean for him, he reported the following:

“I think Yandex is doing well; they are doing a promising job. However, I can’t say that Yandex features are remarkable except for Yandex maps. [...] ‘Men in Black’ represents the character of Yandex. It seems to me that Yandex makes a mysterious and dangerous impression. It is always alert, and yet inexperienced. I’m afraid they may end up in ridiculous situation making a mistake anytime. Thus, I can’t trust them. [...] The Russian flag reminds me of where Yandex comes from. I know Yandex was established in Russia, and it did not become popular in the rest of the world. It seems like they are not even trying to serve to all people. What’s more, Yandex’s features are limited. [...] Recently, Yandex and Fenerbahçe have contracted a commercial agreement. In my opinion, there is a negative point here; “this partnership is cause for concern. I think their intent is not to support football but to earn money. It casts a shadow upon sincerity and frankness. [...] Yandex does not tell much about itself. Its advertisements do not mean much to me, thus I am not familiar with it. It seems to me that nobody knows what exactly Yandex is doing. I feel like I may get hurt anytime. It is good to be mysterious, but this is too much. Yandex is always hiding in the shadows.”

Figure 2: Participant’s Collage about Yandex



At this point, it is important to draw on sensory images that may reflect yet unrevealed insights about brands. A sensory image may also help researchers to understand participants’ thoughts and feelings (Anghelcev, Chung, Sar, & Duff, 2015).

One participant’s sensory images are listed in Table 1. His statements pointed to a few deep metaphors and thematic metaphors about Google and Yandex. These elicited metaphors are listed in Table 2.

Table 1: Participant’s Sensory Images

Five Senses	Google	Yandex
Touch	Hard as a rock	An old map that shows everything
Smell	A strong smell, but not irritating	Natural gas leakage – from Russia
Taste	A cake garnished with fruits	Something that looks sweet but is actually bitter
Sight	Bright black, elegant	Black/Darkness
Hearing	Voices of white-collar workers	A shooting gun

After ensuring that the collages that were designed reflected the participants’ thoughts and feelings ideally, all the interviews were analyzed considering the participants’ sensory images, constructs and collages. At the end of the research, the most repetitive themes were grouped into different thematic metaphors. These thematic metaphors were then linked to common deep metaphors in accordance with their subjective meaning to each participant. Consequently, the strongest deep metaphors elicited from the interviews were clearly identified. These thematic metaphors and deep metaphors are listed in Table 2.

Table 2: Deep and Thematic Metaphors Elicited for Google and Yandex

Google		Yandex	
Deep Metaphors	Thematic Metaphors	Deep Metaphors	Thematic Metaphors
• <i>Container</i>	<ul style="list-style-type: none"> • Universe of information • Endlessness • Limitlessness • A modern house • A tidy room • A cool/comfortable room 	• <i>Control</i>	<ul style="list-style-type: none"> • Mysterious and dangerous impression • Men in black • Afraid of a mistake • Problem of trust • Lack of information about the company • Hiding in shadows • Afraid of being hurt • Wrong way • Follower
	<ul style="list-style-type: none"> • Never-ending information • Source of happiness • The sun • Road to information • An assistant for learning • A sea of plenty 		<ul style="list-style-type: none"> • Fail to appeal to all people in the world • Lack of universality • Negative impact of commercial partnership with Fenerbahçe • Unfairness • Monochrome • Casting a shadow upon sincerity • Features are perceived as being limited
• <i>Control</i>	<ul style="list-style-type: none"> • Door opening to China • Being up to date • Continuous perfection • Leader 	• <i>Balance</i>	<ul style="list-style-type: none"> • A small dark room • A cold and gloomy city • Reminder of bad memories
• <i>Balance</i>	<ul style="list-style-type: none"> • Feeling of fullness • Acceptance of diversity • Colorful • Universality • Global service • A guitar with a well-tuned chord 	• <i>Container</i>	<ul style="list-style-type: none"> • Friend in need • Caring of others
		• <i>Connection</i>	

Most interviewers perceive Google as a *container*, since they think that Google is a universe full of information without any limitation. Alternatively, when they are using Google services, they feel like they are at home, which is very tidy and comfortable, meaning that they can find whatever they are looking for. For many participants, the second metaphor for Google is *resource*, which reminds them of a sea of living creatures like fishes and marine plants. Further, some participants believe that Google is the sector leader, and they feel like they have control over their daily life and business life if they use Google services. Google’s brand image reflects its universality, so that this brand image satisfies sense of their *balance in*

life. Finally, a few participants stated that Google helps humanity to develop and lead technological advances in the world. In that sense, Google is a means of *transformation*.

On the other hand, participants think that Yandex has a mysterious/dangerous/cold impression and may harm them anytime. This may result from insufficient information about the company or misleading advertisements. However, Yandex gives most participants the feeling of *lack of control* over their life. In contrast to Google, Yandex draws more national imagery, but it is *not universal*. Moreover, some participants think that Yandex's partnership with Fenerbahçe will have a negative impact, and this partnership creates a feeling of *unfairness* in their mind. Some associated Yandex with a small dark room, a cold and gloomy city or bad memories they have experienced. Nevertheless, a few participants think of Yandex as a *good friend*, since they think that Yandex's applications may be helpful in hard times.

5. CONCLUSION

This research aimed to find out consumer's perceptions of Google and Yandex, and hence to get an idea of what makes an Internet portal successful. The main limitation of this study is related to its exploratory nature. Therefore, generalizing the findings should be done with caution. As this research attempts to discover insights from consumers, some recommendations can be formulated for creating a local Turkish Internet portal.

First, the focus should be on an Internet portal, and not only on a search engine, since people who use Internet portals not only see them as search engines, but also perceive them as an intelligent friend, a tempting home or even a universe full of information. In addition, it has been revealed that a good, user-friendly Internet portal should focus on the layout to get the attention of the users. On the other hand, it should also be simple for everybody to understand. According to the participants, Google has a good and simple design so that the user does not have to spend time learning about the portal to use it. Another important point was being international. People trust Internet portals that are internationally accepted as valid. Ability to translate to different languages may help an Internet portal be more international and to gain a larger market share worldwide. In addition to being international, it is important to provide a lot of resources, which help searches to be more credible. A good and successful Internet portal should focus on privacy. Users want to feel safe, especially on the Internet, so a good protection system would gain the trust of users.

In the interviews, participants spoke about the transformative effect of search engines much less compared to other metaphors. However, transformation can refer to the ever-changing state of a person or a group of people or even a nation. In general, technological innovation happens faster in societies where there is greater positive feedback regarding technology as they develop closer relationships with innovative new technologies (Castells, 2011). Additionally, previous research (Varsakelis, 2001) indicates that the intensity of a nation's research and development is determined by the national culture. In other words, a transforming national culture that is open to development is a prerequisite for innovation and the adaptation of new technologies, which in turn provides economic growth and a competitive advantage to that nation. Taking all of this into account, and in order to realize its long-term economic goals, Turkey should prioritize creating a local Turkish search engine, which could actually lead to a *cultural transformation* in the nation.

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