THE CONTENT ANALYSIS OF BANK WEBSITES FROM THE PERSPECTIVE OF EFFECTIVENESS

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Abstract

As a result of the high-speed improvements in technology and the diffusion of internet, the world is rapidly transforming into a digital one. The increasing importance of digital presence makes effective digital marketing a necessity for organizations, and it is evident that the website is among the main elements of digital marketing for an organization. In this context, the layout and content of websites are extremely important for banks, which generally operate in a highly competitive and complex market. To identify the attractiveness of bank websites for visitors, the websites of 31 banks are submitted to content analysis. The banks that operate in the Turkish banking sector and that are listed as deposit banks by *The Banks Association of Turkey* are included in the analysis. In accordance with the literature, the elements of the bank websites are coded according to the cognitive map theory. The cognitive map theory explains the environments that people like to explore with four dimensions, which are coherence, complexity, legibility, and mystery. As a result of the content analysis, the authors aim to prevail the major components and the general layout of bank websites and evaluate their findings from an effectiveness and attractiveness perspective according to the theory.

1. Introduction

Internet has changed the ways companies interact with one another (business-to-business (B2B) marketing) and with customers (business-to-consumer (B2C) marketing) (Parasuraman & Zinkhan, 2002). The diffusion of the Internet and its interactive capabilities have made it an important marketing channel for companies (Ranganathan & Ganapathy, 2002). As a result of the fast pace of the development in digital technologies and the wide spread of the internet, new business models and big global companies such as Google, Amazon, Alibaba and eBay have emerged (Kannan & Li, 2017).

The increasing importance of digital presence has led to the digital marketing efforts of companies. Digital marketing can be defined as "*an adaptive, technology-enabled process by which firms collaborate with customers and partners to jointly create, communicate, deliver, and sustain value for all stakeholders*" (Kannan & Li, 2017). One of the most important components of digital marketing is the corporate website. In the fast pace of digital environment, switching from one website to another is quite easy for consumers. In addition, the features of websites determine consumers' willingness to visit the website again, willingness to spend time in the website, willingness to buy, and willingness to interact with the company (Yeh & Li, 2014). Therefore, it is important for companies to understand the factors that make one website better than another (Rosen & Purinton, 2004).

Websites can be viewed as physical landscapes, which people want to make a sense of and want to get involved in (Yeh & Li, 2014). Developing an effective website is generally discussed in the context of design and usability, and some researchers have adopted Kaplan & Kaplan's (1982) work in environmental psychology field to marketing, by using it in the development of a website preference scale (Rosen & Purinton, 2004). In accordance with the literature, this study uses cognitive map theory in assessing the effectiveness of websites. In addition to its contribution to the literature by supporting the relationship between the cognitive map concept of environmental psychology and website effectiveness in the digital marketing concept, the second contribution of this study is the application of the cognitive map framework that are offered by Lepkowska-White & Imboden (2013) in the banking sector and illustrating the general structure of the websites of Turkish banks. The paper is organized as follows; the theoretical base for adapting cognitive map theory to digital environments is supported by a brief and comprehensive literature review, which highlights the nature of cognitive map theory and its relation with website effectiveness in the marketing context. The methodology section includes the details of the content analysis that is conducted by evaluating the web sites of Turkish banks, which operate in a highly competitive market. The study is concluded with the discussion of analysis results.

2. Literature Review

2.1 Cognitive Map Theory

In 1948, Tolman suggested the idea that there might be an internal representation of space in the brain, which he called a "cognitive map" (Tolman, 1948) (Grieves & Jeffery, 2017). Cognitive map can be defined as the spatial information about the environment that is stored in human brain to facilitate wayfinding, including the spatial location and unique identifiers such as landmarks (Manning, et al., 2014). Researchers have conceptualized cognitive map as a mental representation or a spatial representation of an environment (Iaria, et al., 2007) (Arnold, et al., 2013). A cognitive map can be interpreted as a summary of experiences, on which people draw on in finding their ways through an environment (Rosen & Purinton, 2004). In addition, cognitive maps influence what people notice or ignore in an environment and also how people feel about the environment (Kaplan & Kaplan, 1982, p. 6).

The theory of cognitive map is supported by a combination of behavioral and electrophysiological research, and it is stated that there is a neural basis in the brain to form and use a spatial representation (Grieves & Jeffery, 2017). Although there are some psychologists who assume that only the relative space, response learning style or a mental list of instructions account for wayfinding; the cognitive map approach of Tolman (1948) has been

supported by research, which indicated that a cognitive map or a mental representation of absolute space just like a hand-drawn map must be assumed (Russell & Ward, 1982).

A cognitive map is built up by exploring the environment and used as a mental representation while navigating through the environment (Iaria, et al., 2007). People may form cognitive maps as a result of a learning phase (Iaria, et al., 2007) by mentally illustrating specific landmarks (Arnold, et al., 2013). In forming cognitive maps, landmarks act as cognitive reference points that play an important role in wayfinding (Russell & Ward, 1982). These cognitive maps are retrieved during the usage phase, namely during navigating; and cognitive maps of individuals evolve as individuals navigate and gain experience within an environment (Manning, et al., 2014). When people are motivated to use information about an environment, they can expand their previous knowledge in the cognitive maps (Rosen & Purinton, 2004).

When encountered to a new environment, people generally learn specific routes first and then form a cognitive map, or a representation of the absolute space (Russell & Ward, 1982). Environments provide information to people through all sensory systems and environments are usually experienced in terms of their social and symbolic meaning (Russell & Ward, 1982). Psychologists have studied the environmental meaning, or in other words, the meaning of places for people (Russell & Ward, 1982). Environmental meaning can be composed of symbolic meaning, such as the meaning attributed to religious places, or the meaning of a house as a "home" that represents self, family and social relationships (Russell & Ward, 1982).

In addition to symbolic meaning, studies have pointed out that environmental meaning is a complex mix of affective and denotative meaning, such as the preferences for places (Russell & Ward, 1982). Preferences for places, or in other words, environmental preference may be independent from the physical setting itself, and stem from cognitive variables that are related to the psychological dimensions that are attached to the environment (Kaplan, et al., 1989). The theory of cognitive map implicates that these cognitive dimensions are related to the organization of the environment, because the way an environment is organized is strongly associated with the information of the viewer about how to function in it (Kaplan, et al., 1989). Using a cognitive map provides a mental representation that facilitates sorting information from the environment (Rosen & Purinton, 2004).

Basing their study about cognitive map on the research of psychologists, architects and planners; and conducting a series of research about landscapes, Kaplan & Kaplan (1982) have shown that people's need for information regarding an environment loads on two dimensions: Understanding (making sense) and exploring. The cognitive map theory is based on the notion that when encountered with an environment, people immediately perceive the elements in the scene by asking two prominent questions; "Can I understand the elements in this setting?", which represent the comprehension dimension; and "Is there enough going on to maintain my interest in this environment?", which represents the complexity dimension (Rosen & Purinton, 2004). Neither complexity nor coherence dimension are sufficient alone to motivate a person and evoke his or her cognitive map (Rosen & Purinton, 2004).

The organization of the space provides signals for understanding the environment and also signals for exploring it further (Kaplan, et al., 1989). The studies of Kaplan & Kaplan (1982) have revealed the sub-dimensions of understanding dimension as *coherence* and *legibility;* and the sub-dimensions of exploring dimension as *mystery* and *complexity.* Therefore, the four cognitive dimensions that are related with the environmental organization have been stated as complexity, coherence, legibility and mystery (Kaplan, et al., 1989). In this framework, complexity refers to the richness and variety of elements, mystery refers to the promise of new and related information, coherence refers to the order and the presence of repeated elements and specific regions, and finally legibility refers to the distinctiveness and the ease of finding one's way there and back in an environment (Kaplan, et al., 1989).

The studies in environmental psychology conducted by Kaplan & Kaplan (1982) have shown that informational needs influence preferences for landscapes (Rosen & Purinton, 2004). People want to be involved in and make sense of the environment; and this can be facilitated by applying the principles of cognitive psychology (Rosen & Purinton, 2004). Researchers have stated that designing a web site is similar to designing a landscape because computer interaction enables perceiving, entering into and also experiencing the web landscape (Rosen & Purinton, 2004). In this context, researchers have evaluated the effectiveness and usability of web sites by utilizing the principles of cognitive psychology, or more precisely, the cognitive map theory of environmental psychology (Lepkowska-White & Imboden, 2013). The principles of cognitive psychology are applicable in the online context, because environments that incorporate individuals' use of environmental cues are easier for processing information (Rosen & Purinton, 2004). Thus, in accordance with the literature, this study elaborates a website as a cognitive landscape (Rosen & Purinton, 2004).

2.2. Website Effectiveness in the Context of Digital Marketing

Internet has commercialized in 1990s, leading to a substantial increase in the number of business-to-consumer (B2C) websites, from which a consumer can buy a product or service (Ranganathan & Ganapathy, 2002). Not only digital marketing efforts but also the new business models introduced by the internet have made it inevitable for companies to establish a well-structured and appealing website. As a result, not only online presence but also building an appealing and successful website has become an important issue for many companies (Rosen & Purinton, 2004). The key dimensions of the effectiveness of B2C websites are derived as content, design, security and privacy (Ranganathan & Ganapathy, 2002). Website design is a prominent factor for consumer satisfaction and loyalty because consumers are influenced from the design of a website in their decisions about using a website (Yeh & Li, 2014). The diverging points of website design from conventional print media are debated since 1990s, and it is generally stated that simplicity is the key factor in website design (Rosen & Purinton, 2004).

Websites are interpreted as visual representors of corporate identity (Bravo, et al., 2012). Websites are seen as the "company-customer interface", which is the primary element of digital marketing (Constantinides, 2002). In addition to its presence as a sales channel, corporate website is a communication channel between the organization and its stakeholders, so it also acts as an element of corporate communication (Bravo, et al., 2012). A corporate website provides company information to stakeholders and customers, includes information about the products and services, communicates the recent events and campaigns regarding the company, and allows customers to interact with the company (Constantinides, 2002). Moreover, websites enable consumers to interact with the companies and facilitate reaching the required information (Casalo, et al., 2008).

Porter claims that Internet has removed proprietary advantages since almost all companies use the web and the key to success is integrating online activities with overall company strategy and operations in order to achieve an inimitable competitive advantage (Porter, 2001). In order to integrate digital presence with conventional business activities, authors argue that companies must fully integrate their virtual activities into their marketing strategy and organizational processes (Constantinides, 2002). Digital environments enable value creation through customer experience and interactions with customers (Kannan & Li, 2017). According to Porter, Internet can contribute to a company's goal of achieving competitive advantage, such as by offering superior service via web, and so increasing the value offered to customers (Porter, 2001).

In the online context, value and consequently consumer satisfaction may be increased by improving usability, which is "the effort required to use a computer system" and also by designing the website effectively (Casalo, et al., 2008). As the usability of a system or website improves, the intention of people to use it also increases (Casalo, et al., 2008). Since marketers aim to achieve and retain customers, the usability and design of a website is extremely important because usability of the website positively influences customer satisfaction and loyalty (Casalo, et al.,

2008). Research has shown that customer satisfaction with previous experience on a service provider's website has a positive influence on customer loyalty and a positive influence on the initiation of positive word-of-mouth (Casalo, et al., 2008). Maintaining customer loyalty and having positive word-of-mouth are generally aimed by companies, but it is worth stating that maintaining customer loyalty in the online context is relatively difficult, because consumers can switch to another site easily by just one click (Parasuraman & Zinkhan, 2002).

The factors that make a customer visit a website may be different from the factors that would provide his or her return (Parasuraman & Zinkhan, 2002). An econometric modeling of actual data has shown that creative factors such as banner size, animation, message length and other factors such as media budget and use of offline media influence the response of the target audience on the Internet (Baltas, 2003). In general, it is revealed that banners that are larger, that include short messages and that do not include company logos are more effective in capturing the interest of the audience (Baltas, 2003). From the marketing strategy perspective, companies try to attract visitors to their websites and the key to success is converting these visitors to customers (Yeh & Li, 2014). To enable this conversion, which is customer acquisition, website usability and design is a basic factor (Yeh & Li, 2014). Moreover, website design is a prominent challenge for marketers because it is a primary factor that determines the quality and attractiveness of a website (Rosen & Purinton, 2004). Researchers have shown that the design of a website is important in attracting and retaining the interest of consumers (Ranganathan & Ganapathy, 2002). Thus, following the design perspective and approaching the web from the landscape preference view (Yeh & Li, 2014; Lepkowska-White & Imboden, 2013) websites are interpreted as landscapes or environments that people try to interpret and give meaning to. In this context, websites, which are digital environments, can be evaluated according to the four dimensions of cognitive map theory, which are; complexity, coherence, legibility and mystery (Lepkowska-White & Imboden, 2013).

2.3. Complexity of a Website

Complexity of an environment, which includes the richness and variety of elements in the environment, is an important factor in aesthetic judgement (Kaplan, et al., 1989). Complexity refers to the richness in a setting or the variety of elements in a website (Rosen & Purinton, 2004). Complexity increases as the number of elements or the dissimilarity between the elements increase; so, in order to make a complex environment appealing for people, elements must form coherent whole (Lepkowska-White & Imboden, 2013). Therefore, complexity in a website attracts the attention of users and maintains their interest, ensuring that the elements that make up the complexity are presented in coherence (Lepkowska-White & Imboden, 2013).

The study of Ranganathan and Ganapathy (2002) have shown that the presence of visual ads such as videos and graphics increases the online purchase intent of consumers, so marketers use these visual components in order to attract consumers and maintain their interest on the website. On average, larger websites are richer in content; which means that when the number of pages in a website increases, the amount of information increases significantly (Huizingh, 2000). Similarly, Rosen and Purinton (2004) point out that the richness of elements, variety of images and sophisticated visual components are generally included in larger, or high content websites. However, research points out the importance of the harmony between the colors of the website and the company logo, somewhat limiting the rich color options in the complexity dimension (Bravo, et al., 2012). The content analysis conducted by Bravo et al. (2012) revealed that 93% of banks use their logo colors in their website.

2.4 Coherence of a Website

Coherence refers to the simplicity of elements and textures in a setting and the degree to which the elements stand together in a consistent manner (Rosen & Purinton, 2004). A coherent website groups similar content under recognizable headings (Lepkowska-White & Imboden, 2013). To provide coherence for the web users, websites

usually consist of pages that are similar in layout and frames (Yeh & Li, 2014). The layout of the site, together with design, source, and content, act as a factor of information credibility for the website (Lee & Pang, 2017). Users engage in predictive judgement about the credibility of the websites when they are navigating on the web, and they evaluate websites' credibility by using cues such as design, layout and content (Lee & Pang, 2017). The study of Yeh & Li (2014) has shown that coherence and complexity have a great influence on consumer trust and satisfaction, and consequently coherence and complexity of a website positively influence the consumers' willingness to buy in an e-shopping setting. Research also shows that well-organized information and content increases the credibility of the website as an information source (Lee & Pang, 2017). Users interpret websites that use an effective categorization as professionally designed (Lee & Pang, 2017).

2.5 Legibility of a Website

Legibility refers to distinctiveness such as possessing a memorable component that facilitates wayfinding, which is utilized by a sitemap that makes navigation easier in a website (Rosen & Purinton, 2004). Authors also have interpreted legibility as the ease of navigation on a website and the existence of search options within the website (Yeh & Li, 2014). Researchers have shown that the website design is important in retaining the interest of users, and a design which includes easy navigation for information search is valued by consumers in online setting (Ranganathan & Ganapathy, 2002). It is argued that the apparent efficiencies in user navigation, such as landmarks and appropriate links are essential for the legibility of a website (Yeh & Li, 2014). The usage of landmarks, colors and other easy navigation tools increases the website visit duration of users and ensure that users find what they are searching for (Yeh & Li, 2014).

2.6. Mystery of a Website

Mystery refers to the ability of an environment to evoke desire to explore more, by transferring the feeling that there is much more to find in the environment, which can be utilized as the linkage of pages or buttons that motivate users to click to read more (Rosen & Purinton, 2004). People who seek for information on the Internet often rely on hyperlinks that help them in navigation (Lee & Pang, 2017). Websites that create curiosity and motivate users to click on some buttons or links will be interpreted as more appealing by users. Internet users simply leave the website when they are bored in an online shopping context (Yeh & Li, 2014). Complexity of a website, such as including vivid visuals; and the mystery of a website, such as buttons and links that motivate users to explore further, are important factors for maintaining the interest of users (Yeh & Li, 2014). When users want to explore more, they stay longer on the website; which, in turn, increases the interaction of the consumers with the company, and positively affects consumer trust and satisfaction (Yeh & Li, 2014). A website with rich paths that consist of text, images and hyperlinks optimally assist consumers in their online search for information (Lee & Pang, 2017). Research based on eye-tracking has shown that the elements of pictorial and text hyperlinks act as strong informational cues that lead internet users in their navigation (Lee & Pang, 2017).

3. . Methodology

Rosen and Purinton (2004) have pointed out the importance of converting surfers to repeated visitors through effective web design and have used the cognitive map concept of environmental psychologists (Kaplan & Kaplan, 1982) as a means of understanding and facilitating the interactive experience of internet users. Cognitive map theory is also used by other researchers as a base for measuring web site effectiveness, such as the analysis of art museum web sites in terms of usability and interaction (Lepkowska-White & Imboden, 2013). In this study, the web sites of 31 Turkish banks that are listed as deposit banks by The Banks Association of Turkey are submitted to

content analysis. Content analysis is conducted based upon the literature, and the elements of the bank websites are coded according to the dimensions of cognitive map theory; which are complexity, coherence, legibility and mystery.

Cognitive map is an appropriate base for evaluating websites because it is a tool for people to cope with processing information in an environment, and furthermore websites are similar to physical landscapes in terms of human information processing (Rosen & Purinton, 2004). Li and Yeh (2014) have also utilized the dimensions of cognitive map theory in their study, in which they have evaluated the e-shoppers' willingness to make online purchases. In accordance with the literature, this study has adopted the cognitive map dimensions from the study of Lepkowska-White and Imboden (2013), and has conducted a content analysis. The elements in bank websites are coded by the authors by ensuring that inter-coder agreement is provided and the differences in coding are resolved. Data is analyzed by using frequency distribution.

4. Results of the Content Analysis

The websites are evaluated according the dimensions stated in the literature (Lepkowska-White & Imboden, 2013), calculating simple counts and the frequency distribution. The results are grouped into two; first the frequencies for all banks are calculated. Second, 6 banks that provide only corporate banking services (will be named as "corporate banks" hereafter) are exempted from the analysis and the remaining 25 banks are analyzed. The distribution of banks is shown in Figure 1. The rationale for this separation is that in general banks that have individuals in their target audience give more importance to usability and effectiveness in their websites, because web is one of the distribution channels for retail banking. On the other hand, corporate banking services are provided from more conventional channels, mainly from branches. Personal selling offered by client representatives is the generally accepted way of doing business in the Turkish corporate banking sector. So, data is analyzed by taking this phenomenon into consideration.

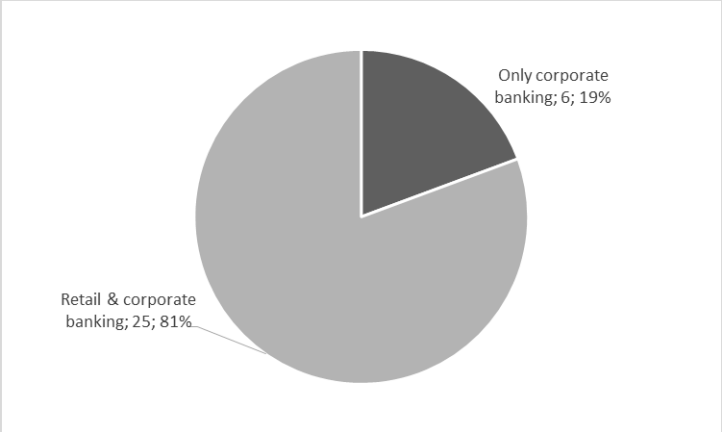

Figure 1. Banks grouped by the nature of services offered

The findings of the content analysis are summarized in Table 1. The overall findings indicate that bank websites are coherent. Grouping of information, categories and category titles are well-organized. Hyperlinks, content, attention-grabbing buttons and links make bank websites properly mysterious. However, bank websites score relatively lower in complexity and legibility dimensions.

Dimension	Item	Total Number	Percentage
Coherence	Information grouping of similar content	31	100%
Coherence	Categories present in navigation	31	100%
Coherence	Appropriate and accurate category titles	30	97%
Coherence	Easy-to-read header/sub header	28	90%
Mystery	Hyperlinks in body text	27	87%
Coherence	Working links	26	84%
Legibility	Design that stands out, distinct layout	25	81%
Mystery	Pages linked by content	22	71%
Coherence	Consistency in subtitle and secondary links placement	21	68%
Complexity	Proportionality: Image vs. text balance	21	68%
Legibility	Link colors change when interacted with	20	65%
Mystery	Attention-grabbing buttons and links	19	61%
Mystery	Interactive elements	18	58%
Complexity	Variety in types of images	17	55%
Legibility	Colors that stand out	17	55%
Coherence	Consistency in image placement between pages	14	45%
Coherence	Consistency in page layout throughout the site	13	42%
Mystery	Iconic images used for category titles	12	39%
Legibility	Content that stands out	9	29%
Legibility	Memorable icons and images	8	26%
Complexity	All sub links visible at once rather than under a category	7	23%
Complexity	Variety of colors across website	7	23%
Complexity	Complex language, difficult to understand	5	16%
Legibility	Distinctive logo typography	4	13%
Complexity	Variety of font styles across website	1	3%

Table 1. All dimensions of the cognitive map theory, sorted according to frequency (Lepkowska-White and Imboden, 2013)

4.1. Complexity in Bank Websites

The findings related to the complexity dimension is illustrated in Table 2.

Complexity	All Banks		Except Corporate Banks	
	Number of Banks	% of Banks	Number of Banks	% of Banks
Proportionality: Image vs. text balance	21	68%	19	76%
Variety in types of images (photo, illustration, icon)	17	55%	17	68%
All sub links visible at once	7	23%	7	28%
Variety of colors across website	7	23%	7	28%
Complex language	5	16%	3	12%
Variety of font styles across website	1	3%	1	4%

Table 2. Complexity in the websites of Turkish deposit banks (prepared by the researcher)

In the complexity dimension, banks did not score as well as they did in the coherence dimension. In terms of image vs. text balance, banks generally included more text than images on their websites. Only 68% of the banks have used text and image proportionally throughout their website. Types of images varied in 55% of the banks, and many banks have lost points because they did not use appropriate icons. Some banks have switched to a uniform usage of only photographs or only illustrations, which can be interpreted as the pursuit of simplicity in design. Only 23% of the banks present sub links visible at once, and most of the banks have preferred to present them in hidden menus or under related headings. Only 23% of banks used various colors across the website, which can be interpreted as conformity with the brand identity. It is seen that in general banks prefer to use a combination of their logo colors and associated secondary colors in their website, in order to preserve their brand identity. This is also the case in Spanish banks, which design their websites using their logo colors (Bravo, et al., 2012). Similar to colors, only 3% of the banks are coded as using various font styles across website. This is also interpreted as positive, because as financial institutions banks prefer to maintain conformity within their general website design. 16% of the banks have used a complex, specialized and difficult to understand language in their websites.

When corporate banks are exempted from the analysis, the scores for proportionality in image vs. text balance item and image variety item have improved. Authors have seen that corporate banks have a tendency to include excessive information, and consequently a subsequent amount of text on their webpages. On the other hand, banks who target retail consumers show a greater effort in improving their websites in terms of proportionality between images and text, and also in variety of images. Corporate banks tend to use more complex language in their webpages, where retail banks use a relatively simpler and easier-to-understand language.

4.2. Coherence in Bank Websites

The findings related to the coherence dimension is illustrated in Table 3.

Coherence	All Banks		Except Corporate Banks	
	Number of Banks	% of Banks	Number of Banks	% of Banks
Information grouping of similar content	31	100%	25	100%
Categories present in navigation	31	100%	25	100%
Appropriate and accurate category titles	30	97%	24	96%
Easy-to-read header/sub header	28	90%	23	92%
Working links	26	84%	21	84%
Consistency in subtitle and secondary links placement	21	68%	16	64%
Consistency in image placement between pages	14	45%	10	40%
Consistency in page layout throughout the site	13	42%	10	40%

Table 3. Coherence in the websites of Turkish deposit banks (prepared by the researcher)

In terms of coherence, the websites of banks are evaluated as relatively well-organized. Similar content is grouped in all of the websites, and they are categorized for easier navigation. Only one website has failed to have appropriate and accurate category titles. 90% of banks have used an easy-to-read header with appropriate colors, fonts and contrast with background. 5 banks had some non-working links in their websites, so the overall score for working links item is calculated as 84%. Since websites are dynamic digital media that are subject to frequent modification (Bravo, et al., 2012), the authors interpret the non-working links as temporary failures on the websites. In general, bank webpages are evaluated as having inconsistencies in subtitles and secondary links placement. This is mainly because of the richness of elements and diversity of products and services that are offered in the Turkish banking sector. Although websites are coherent in terms of grouping similar content, the layout of pages differ among different product or service groups, i.e. the placement of links in retail loans webpage can be completely different from the credit cards webpage.

The layout of the pages differs especially between corporate and retail banking webpages. For this reason, the analysis is repeated after eliminating 6 banks that provide only corporate banking services. The remaining 25 banks, which provided services for retail customers and firms simultaneously are checked again. The findings show that page layout is more consistent in banks which give banking service to retail customers. This can be interpreted as an effort to increase the usability and effectiveness of websites, which is more important for retail banks because corporate banking services are mainly provided by personal selling efforts of sales representatives.

4.3. Legibility in Bank Websites

The findings related to the legibility dimension is illustrated in Table 4.

Legibility	All Banks		Except Corporate Banks	
	Number of Banks	% of Banks	Number of Banks	% of Banks
Design that stands out	25	81%	22	88%
Link colors change when interacted with	20	65%	17	68%

Colors that stand out	17	55%	16	64%
Content that stands out	9	29%	9	36%
Memorable icons and images	8	26%	8	32%
Distinctive logo typography	4	13%	4	16%

Table 4. Legibility in the websites of Turkish deposit banks (prepared by the researcher)

For legibility dimension, it is observed that banks give importance to use a distinct layout that will help them differentiate from other banks, so 81% of banks have a distinct layout in their websites. 65% of banks have used changing link colors in at least one section of their website. 55% of banks use colors that attract attention of the users and differentiate the bank in terms of its brand identity. The content of websites showed similarity across main product groups, such as the content of retail loans in a bank's webpage is approximately the same as the content of another bank; however, 29% of banks include relatively richer and sophisticated content such as legal texts, outstanding product information and frequently asked questions. 26% of the websites include memorable icons and images, on the other hand the remaining banks include only a few icons or no icons. In terms of distinctive logo typography, only 4 banks are seen as eligible for this characteristic.

All of the scores in legibility dimension improve when corporate banks are exempted from the analysis. This can be interpreted as that the distinctiveness of the design, changing link colors, and distinctive content are more important for retail banks than corporate banks. Since websites are one of the sales channels of retail banks, retail banks may have focused on improving their website. Authors have also taken opinions of experts and this point is supported by the fact that retail banks employ a larger number of people that are responsible for distribution channels, one of which is the website. Consequently, retail banks websites appear to be more legible than corporate banks' websites.

4.4. Mystery in Bank Websites

The findings related to the mystery dimension is illustrated in Table 5.

Mystery	All Banks		Except Corporate Banks	
	Number of Banks	% of Banks	Number of Banks	% of Banks
Hyperlinks in body text	27	87%	22	88%
Pages linked by content	22	71%	21	84%
Attention-grabbing buttons and links	19	61%	19	76%
Interactive elements	18	58%	18	72%
Iconic images used for category titles	12	39%	12	48%

Table 5. Mystery in the websites of Turkish deposit banks (prepared by the researcher)

In the context of cognitive map theory, hyperlinks are interpreted as the mystery elements that invite the reader to discover more. For the mystery dimension, it is seen that 87% of the websites, which sum up to 27, use hyperlinks in the body text. In 71% of the bank websites, pages are linked by content, and in 61% of the bank websites, there are attention-grabbing buttons and links that invite users to click. 58% of the banks use interactive elements on their webpages, such as loan installment calculators and future investment amount simulators. 39% of them use iconic images for category titles.

The scores for mystery dimension improve when the banks that give only corporate banking services are eliminated from the analysis. Retail banks tend to link pages in their websites and use a greater number of attention-grabbing buttons and links. There is a greater number of interactive elements on the websites of retail banks. These banks also use to prefer iconic images for category titles more than corporate banks. This finding is in accordance with the findings regarding other dimensions; that is, retail banks' websites are more mysterious than corporate bank websites.

5. Conclusion

This study has focused on the importance of websites for companies, in the context of the high-pace development of the technology and the wide spread of internet. Websites are assessed as landscapes, so the cognitive map concept of the environmental psychology is used in the content analysis of bank websites. The rationale for adapting the cognitive concept is that by using the dimensions of the cognitive map, which are complexity, coherence, mystery and legibility, web designers may aim to develop user-friendly, easy-to-understand and also interesting websites (Rosen & Purinton, 2004). Bank websites are chosen as the field of study because especially Turkish retail banking is a fast-growing sector that has attracted the attention of foreign investors. The industry is highly competitive and the website is one of the most important distribution channels for banks. Content analysis results have revealed that bank websites are coherent and well-organized. The grouping of information and category titles are organized in a coherent way. Bank websites have been designed in a way that score high in the mystery dimension. This means that banks have included hyperlinks and attention-grabbing buttons that invite the users to discover more. On the other hand, bank websites have been evaluated as relatively weaker in complexity and legibility dimensions. Websites have been designed mainly in accordance with logo colors and the variety of images are relatively poor, so the banks have been scored lower in terms of complexity. Since the content of websites may resemble one another, and the sites have lacked memorable icons and visuals, they scored low in legibility dimension. These findings suggest that bank websites may be improved in terms of usability and effectiveness. The scope of this research has been limited with Turkish banks, which constitute the limitations of this study. Further research can be conducted by expanding the research with other service providers in Turkey or in different countries.

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