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The Case of a Retail Furniture Store**

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ABSTRACT

The aim of this study is to determine the visual design components of store interiors that provide in-store pleasantness and to identify the effects of these design components on shopping behaviors through a case study of the furniture industry. This will provide guidance on the interior design components that need to be taken into consideration for furniture stores. A combination of qualitative and quantitative methods was employed. First, the interior design components that create pleasurable in-store experiences were identified to determine the connection between interior design components and shopping behaviors. Field research included observational strategies, photo-shootings, survey studies and face-to-face interviews. The analysis revealed that it is important to use visual design components to create appealing store atmospheres that provide customers with in-store pleasantness. This in turn has a good effect on customers' shopping behaviors experiences.

Keywords: *store atmosphere, interior design in retail stores, visual merchandising, furniture store design, shopping behaviors*

Introduction

In today's competitive environment, characterized by advanced industry and enhanced technology, companies must develop new strategies alongside differentiation by quality and pricing policies to attract the attention of customers, maximize the time they spend in the store and convince them to make purchases. One such strategy is visual merchandising. Bastow-Shoop, Zetocha and Possewitz (1991) define it as "everything the customer sees, both exterior and interior, that creates a positive image of a business and results in attention, interest, desire and action on the part of the customer". Designing pleasurable stores is a part of visual merchandising. Creating a pleasant shopping experience increases customer satisfaction, time spent in the store, the number of items purchased, and the amount of money spent (Kop, 2008).

According to the model developed by Mehrabian and Russell (1976) in environmental psychology, environmental stimuli steer behaviors by affecting emotional states. Subsequent studies confirmed the validity of this model in retailing environments. In addition to offering products and services, stores are physical environments that send stimulating messages to customers through interior design variables. To create these experiences, companies can design store environments by using single or multiple stimuli.

There have been numerous studies of the effects on customer satisfaction, behavior and loyalty of the controllable physical variables that create store atmosphere. These studies cover a range of store types, including food retailing, fashion retailing, luxury retailing, department stores, e-stores and virtual stores, and focus particularly on customer product and service perceptions. The findings show that visual merchandising and shop atmosphere, created using interior and exterior store design components, affect consumers' emotional states and shopping behaviors. In particular, there is a relationship between in-store pleasantness and purchasing behavior. Consumers prefer stores that meet their expectations while pleasurable store interiors affect their emotional states (Spies, Hesse and Loesch, 1997). Customers' emotional states or moods while inside the store affect their purchasing behaviors (Mathur and Goswami, 2014). Some studies also show that store atmosphere and design components influence customers' store selection, drive them to make unplanned purchases, and affect the time spent in the store and the products selected. Overall, designers can use environmental factors like store atmosphere to ensure that consumers leave the store having had a satisfying shopping experience.

Given these findings, this empirical study focuses on stores in the furniture industry specifically to identify which visual design components create in-store pleasure for customers and determine how these components affect customer shopping behaviors. In doing so, this study aims to contribute to the retailing and interior design literature by drawing on a retail environment framework. Guided by the literature, the study identifies the design components that create in-store pleasantness to identify the relationship between these components and consumer behaviors, particularly purchasing. First, the design components are identified that create the pleasant in-store experiences that in turn influence affecting general

shopping behaviors. Next, a survey is used to measure consumers' importance ratings of these components and their relationship with consumer shopping behaviors.

Furniture is undeniably important in designing residential interiors. As Lihra and Graf (2007) note, "next to the purchase of the house itself, the purchase of furniture is generally the second largest household personal consumption expenditure in the United States (as cited in Yoon, Oh & Cho, 2010). "Doğtaş" was selected as a significant Turkish furniture company, which has since 1972 addressed a wide upper-middle-class audience that includes teenagers, adults and elderly, especially in home furniture. Doğtaş is a franchising retail company that implements common design standards and visual approach in its stores, focused on its target audience in both Turkey and abroad.

In 2014, Doğtaş concluded that the design standards implemented in its retail stores were inadequate. The company therefore decided to develop a new concept with new design standards. The store renovation decisions taken in 2016 to change the visual merchandising concept provided a research opportunity when they were implemented in 2017 to examine how interior design components can affect customers. More specifically, this study tests the hypothesis that customers who are satisfied with their in-store shopping experience are more likely to purchase something.

Methodology

Following a comprehensive literature review, the study was carried out on seven Doğtaş stores using mixed methods, including qualitative and quantitative analyses. Observation, photo shooting, surveys and face-to-face interview methods were used to collect data. In addition, documents (store plans, a corporate architectural guide, and statistical data) were obtained from the company's archive. Each store was visited within certain periods while its natural environment was observed during working hours.

The general interior atmosphere was archived through photographs taken in each store during observations. Audio-recorded face-to-face interviews were conducted with employees and then transcribed. The old and new store designs were compared through survey questions administered to store customers. Before starting the field research, a pilot study was performed to prove the reliability and validity of the survey. The data obtained from the finalized survey were analyzed using various statistical techniques (descriptive statistics, Mann-Whitney-U test, hypotheses tests). The results were then evaluated, and suggestions made based on them.

The fieldwork was conducted in Izmir on Turkey's Aegean coast because Doğtaş was trialing its new brand concept in the city. Most stores were located near Izmir's city center (Karşıyaka, Balçova, Bornova, Bayraklı, Gaziemir and Karabağlar). Kısıkköy was the only site outside the city, which was chosen because it has many furniture companies. The new design concept had only been

implemented in two stores (Kısıkköy and Gaziemir). The others retained the old exterior and interior design components, implemented in 2009.

The 29-item customer survey had three parts about the atmospheric components of the exterior (location, facade, entrance, and window display) and interior (store layout, separator/panel partitions, materials, colors, and lighting).

The first part of the customer survey had five questions to gather demographic information (sex, age and marital status), and ask about the store district that they had chosen to visit and the reason for this store choice. There were 81 male and 118 female participants; 46.2% were aged 18-30, 28.1% were aged 31-40, 7% were aged 41-50 and 18.6% were aged 50 or over; 46.2% were single, 37.6% were married and 8.1% were widowed.

The largest proportion of participants visited the Doğtaş store in Mavişehir (41.1%), followed by Bornova (18.8%), Kısıkköy and Balçova (11.7%), Gaziemir (8.6%), Karabağlar (6.6%) and Manavkuyu (1.5%). The most common purpose for visiting the store was to get information about products (46%), followed by visiting to do shopping (39.9%), spend leisure time (9.6%) and “Other” (4.5%). The demographic information was used just to provide information about the customer profile and excluded from the subsequent analyses.

The second part of the survey presented 10 statements developed from the literature review to determine which design components affected the participants’ general shopping behavior. Each item was evaluated on a five-point Likert scale.

The third part presented 14 statements about the characteristics of the store they had just visited. Participants showed their level of agreement on a five-point Likert scale (1=strongly disagree, 2=disagree, 3=neither agree nor disagree 4=agree, 5=strongly agree). For the subsequent analyses, statements scored either 4 or 5 were combined as ‘positive’. The effects of the visual components measured in the survey were tested after converting the data to percentage frequencies.

To prove the reliability and validity of the survey, a pilot study was conducted on a sample group of 30 with the same characteristics as Doğtaş’ customer population. The participants answered the questionnaires by face-to-face method to ensure they were completed. The reliability and validity of the survey were tested by Cronbach’s Alpha score using SPSS V.2200, yielding a value of 0.987, which represents an acceptable level.

To calculate the required sample size, customer numbers for the 6 stores selected in Izmir (2 new concept and 4 old concept stores) were obtained from Doğtaş Head office. The total number of customers for one year was 4,303. Kısıkköy was excluded from the study because it lacked the necessary data as a new store. Simple random sampling was used since the population size required to obtain the sample size was known (Formula 1).

Formula 1. *Required sample size from known population (Taherdoost, 2016)*

$$n = \frac{Nt^2pq}{d^2(N * 2) + t^2pq}$$

In this study, N (population size) = 4303, t (table value for 5% margin of error) = 1.96, p (frequency of occurrence) = 2/6=0.33, q (frequency of absence) =

$4/6 = 0.67$, d (margin of error) = 0.05. Applying these values, the sample size was determined to be 194. Using digital media (e-mail and social media), 164 surveys were collected alongside the 30 pilot surveys since the data had been proved reliable and valid. A further 5 more surveys were obtained. Thus, the final sample size was 199 people with 95% reliability.

The results were evaluated at a statistical significance level of 0.05. That is, results less than 0.05 (typically ≤ 0.05) were considered statistically significant and higher than 0.05 (> 0.05) were considered not statistically significant. If the result was statistically significant, the statements evaluated positively by the sample group were not accepted positively by the total population size. If the result was not statistically significant, the statements evaluated positively by the sample group were accepted positively by the total population size. On the other hand, if the result was statistically significant, the statements evaluated negatively by the sample group were not accepted negatively by the total population size. If the result was not statistically significant, the statements evaluated negatively by the sample group were accepted negatively by the total population size.

Analysis

Exterior Components

Before entering a store, customers firstly see the store front and communicate with the facade components so that they are affected by the store's appearance. Exterior components can also affect consumers' store preferences. Accessible location is the first key factor. Being easy to find, visibility, distance from a reference point, accessibility by public transport and being close to main arteries are important for consumers (Kachaganova, 2008; Eroğlu Pektas, 2009). Exterior appearance is another key factor. The external signs, awnings, materials, entrance/exit, colors, shapes, and other components that contribute to the facade also provide clues about the store to the consumers (Novak and Tolman, 1977; Levy and Weitz, 2006; Berman and Evans, 2010; Sachdeva and Goel, 2015).

In this study, participants stated that, store location was "important" for 62.4% of participants, exterior appearance/facade for 56.1%, store signage for 54.6% and spaciousness of store entrance for 52.7% on their store choice. Thus, given their importance, these exterior components seem likely to affect the general shopping behavior of consumers.

As shown by previous research, the storefront is a sales/marketing tool that attracts consumers and drives them to buy. Consumers can get information about a store through the window displays to decide if it is appropriate for them, and thus decide whether to enter (Novak and Tolman, 1977; Barr and Broudy, 1990; Çivitçi and Küçükikiz, 2010; Bayraktar, 2011; Morgan, 2016).

Regarding the window displays, the old-concept Doğtaş stores had open window displays to benefit from daylight whereas the new-concept stores had closed, or semi-closed window displays to create small living spaces (See Figure 1).

Figure 1. *Doğtaş Store Window Displays, Old and New Concept Comparison*



Source: Authors' archive.

In the new-concept stores, the window display frames were horizontal and vertical with minimal frequency. While new products were exhibited in the window display areas in both old and new stores, the products displayed varied from store to store due to a lack of product groups in some store. The window displays in new-concept stores also included more accessories, which were chosen specifically to harmonize with the furniture. Finally, as one of Doğtaş' interior designers pointed out (Şenel, 2018), new-concept stores used platforms to create boundaries between the displays and make the products more attractive while the red carpeting differentiated the storefront from the interior's general atmosphere.

According to the result of the survey, nearly half (46.6) of the customer participants rated the store window display as "very important" (see Table 1).

Table 1. *The Importance of Store Window Display on Shopping Behavior*

	Frequency	Percentage	Total Percentage	Cumulative Percentage
1	4	2.0	2.1	2.1
2	4	2.0	2.1	4.2
3	14	7.0	7.4	11.6
4	79	39.7	41.8	53.4
5	88	44.2	46.6	100.0
Total	189	95.0	100.0	
Missing data	10	5.0		
Total	199	100.0		

Key: 1 Not Important, 2 Slightly Important, 3 Moderately Important, 4 Important, 5 Very Important

Overall, participants strongly agreed that the room settings in the window display areas attracted their attention. When the old concept is compared to the new concept, while there is an increase in the rate of those who strongly agree with the statement "Window display was drawing attention", there is a decrease in the rate of those who agree with the statement entirely (see Table 2).

Table 2. “Window Display Was Drawing Attention.” (Old and New Concept Stores)

	OLD CONCEPT				NEW CONCEPT			
	Frequency	Percentage	Total Percentage	Cumulative Percentage	Frequency	Percentage	Total Percentage	Cumulative Percentage
1	8	5.1	5.6	5.6	-	-	-	-
2	13	8.3	9.0	14.6	-	-	-	-
3	21	13.4	14.6	29.2	3	7.5	7.5	7.5
4	60	38.2	41.7	70.8	16	40.0	40.0	47.5
5	42	26.8	29.2	100.0	21	52.5	52.5	100.0
Total	144	91.7	100.0	-	40	100.0	100.0	-
Missing data	13	8.3			-	-		
Total	157	100.0			40	100.0		
*1 Strongly Disagree, 2 Disagree, 3 Neither Agree, Nor Disagree, 4 Agree, 5 Strongly Agree								

The Mann-Whitney U test result shows that this difference was significantly different ($p < .001$) (see Table 3). According to this result, this statement evaluated as positive by the sample group is not accepted as positive by the total population size.

Table 3. Mann-Whitney Test Results for Old versus New Concept Design Differences

“Window display was drawing attention”	
Mann-Whitney U	1930.500
Wilcoxon W	12370.500
Z	-3.384
P Value	.001

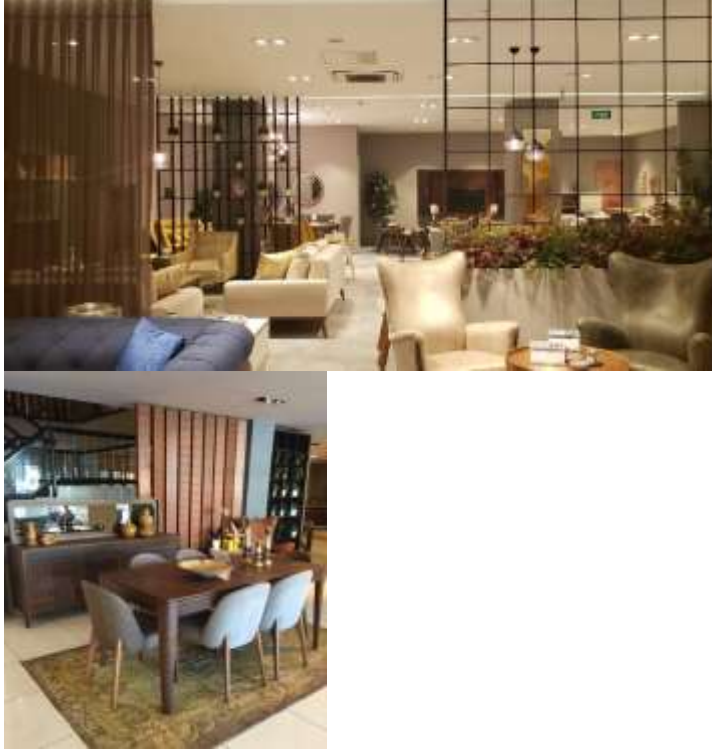
Retail Store Planning and Space Allocation

Space allocation generally refers to the division of the store into sales and non-sales areas and planning the store layout. The store plan is important for customers to have an effective shopping experience by making all departments and sections easily accessible. In addition, it is important for customers to be able to stroll around, find what they are looking for and browse products easily (Levy and Weitz, 2006:514; Arslan, 2011:101).

Sales area divisions can be made with plain gypsum board panels or various decorative partition elements. Especially in furniture stores, these walls and panel partitions enable products to be hung, such as console mirrors, television units or accessories while also concealing the unattractive backsides of products like wardrobes, bed heads and consoles. Finally, they can be used to separate collections and products. In the case of Doğtaş stores, gypsum walls were mostly avoided to maintain uniformity, not obstruct the general view within the store and benefit from daylight (Doğtaş store construction guide, 2017). Instead, old-concept stores used bookcases and wood dividers for area divisions whereas new-concept

stores used gypsum board walls and three different types of partition panels: semi-transparent curtains, metal frame separators and MDF flowerpots (See Figure 2).

Figure 2. *Doğtaş Store Interior Partition Elements: Old and New Concept Comparison*



Source: Authors' archive.

Old-concept Doğtaş stores followed the basic principle of placing furniture for dining room, bedroom and sitting room of the same collection close to each other. In contrast, new-concept stores, dining rooms, bedrooms and sitting rooms from the same collection are positioned side-by-side. One of the Doğtaş' interior designers (Köse, 2018) suggested that displaying furniture collections in different areas and floors distracts the customers and sometimes makes them give up from buying the product. A Doğtaş sales consultant (Gönen, 2018) suggested that exhibiting product groups belonging to the same collection together attracted the customers' attention while seeing the entire collection at once made it easier to perceive the products and increases sales.

The layout of the old-concept stores was free form, with aisles arranged asymmetrically and a 'racetrack' around the edge. New-concept stores arranged the collections on a horizontal axis aligned to the store entrance/exit, which made the circulation path clearer and the store layout more symmetrical. In both concepts, the main corridors surrounding the floor directed customers to walk through the store from start to finish while browsing and exploring all the collections (See Figure 3).

Figure 3. *Doğtaş Store Layout and Furniture Positioning; Above: Old Concept; Below: New Concept*



Source: Authors' archive.

Another issue in store planning is the checkout (Demirci, 2000:53). In Doğtaş stores, this area, where sales consultants serve, should give an overall view of the store area, including the entrance/exit doors, while not impeding the furniture displays. Checkouts should not be located so close to doors or in blind corners (Şenel, 2018). Besides being the place where customers pay, the checkout is also used for waiting, resting, making decisions, or even bargaining before paying. To highlight the checkout area and make it more noticeable, Doğtaş used a different color on the wall behind the checkout desk and carpeting to mark the boundary. In the new-concept stores, the color behind the checkout desk and the styles of the seating groups had been changed along with extra pendant lighting (Doğtaş store construction guide, 2017).

In all the Doğtaş stores, the distances between the products were wide enough so that customers can easily walk around the store to reach and examine products. Şenel (2018) indicated that Doğtaş store customers want to touch, examine, and experience the products. Therefore, with the new design, the company wanted to bring out furniture and bring customers closer by sharply divided and semi-closed spaces.

Regarding the importance of these factors, 46.6% of participants believed exhibiting styles of furniture in the store was “very important” while 56.1% rated spaciousness between products as “important” (See Tables 4 and 5).

Table 4. *The Importance of Furniture Exhibition Styles (Room Settings) on Shopping Behavior*

	Frequency	Percentage	Total Percentage	Cumulative Percentage
1	3	1.5	1.6	1.6
2	5	2.5	2.6	4.2
3	15	7.5	7.9	12.2
4	78	39.0	41.3	53.4
5	88	44.0	46.6	100.0
Total	189	94.5	100.0	
Missing	11	5.5		
Total	200	100.0		

***1 Not Important, 2 Slightly Important, 3 Moderately Important, 4 Important, 5 Very Important**

Table 5. *The Importance of Spaciousness between Products on Shopping Behavior*

	Frequency	Percentage	Total Percentage	Cumulative Percentage
1	5	2.5	2.6	2.6
2	6	3.0	3.2	5.8
3	23	11.6	12.2	18.0
4	106	53.3	56.1	74.1
5	49	24.6	25.9	100.0
Total	189	95.0	100.0	
Missing data	10	5.0		
Total	199	100.0		

***1 Not Important, 2 Slightly Important, 3 Moderately Important, 4 Important, 5 Very Important**

Participants liked interior partitions that created room settings and small habitats within the store. Moreover, more new-concept than old-concept store participants strongly agreed with the statement “Through the space allocation, products were being perceived easily” while percentage agreeing with it strongly decreased (See Table 6).

Table 6. *“Through the space allocation, products were being perceived easily.” (Old and New Concept Stores)*

	OLD CONCEPT				NEW CONCEPT			
	Frequency	Percentage	Total Percentage	Cumulative Percentage	Frequency	Percentage	Total Percentage	Cumulative Percentage
1	5	3.2	3.4	3.4	-	-	-	-
2	12	7.6	8.3	11.7	1	2.5	2.5	2.5
3	17	10.8	11.7	23.4	2	5.0	5.0	7.5
4	63	40.1	43.4	66.9	8	20.0	20.0	27.5
5	48	30.6	33.1	100.0	29	72.5	72.5	100.0
Total	145	92.4	100.0	-	40	100.0	100.0	-
Missing data	12	7.6	-	-	-	-	--	-
Total	157	100.0	-	-	40	100.0	-	-
*1 Strongly Disagree, 2 Disagree, 3 Neither Agree, Nor Disagree, 4 Agree, 5 Strongly Agree								

Participants liked pacing furniture sets (dining room, bedroom and sitting room) belonging to same collection together. More new-concept store participants than old-concept store participants strongly agreed that “The layout of the store made shopping easier” while the number agreeing strongly decreased (See Table 7).

Table 7. *“The Layout of the Store Made Shopping Easier.” (Old and New Concept Stores)*

	OLD CONCEPT				NEW CONCEPT			
	Frequency	Percentage	Total Percentage	Cumulative Percentage	Frequency	Percentage	Total Percentage	Cumulative Percentage
1	6	3.8	4.2	4.2	-	-	-	-
2	8	5.1	5.6	9.8	-	-	-	-
3	17	10.8	11.9	21.7	2	5.0	5.1	5.1
4	68	43.3	47.6	69.2	7	17.5	17.9	23.1
5	44	28.0	30.8	100.0	30	75.0	76.9	100.0
Total	143	91.1	100.0	-	39	97.5	100.0	-
Missing data	13	14	8.9	-	1	2.5	-	-
Total	157	157	100.0	-	40	100.0	-	-
*1 Strongly Disagree, 2 Disagree, 3 Neither Agree, Nor Disagree, 4 Agree, 5 Strongly Agree								

Participants agreed that there was enough space between furniture items, although more agreed or strongly agreed in the new-concept group than the old-concept group (See Table 8).

Table 8. “Distances between Furniture are enough to be Able to Try.” (Old and New Concept Stores)

	OLD CONCEPT				NEW CONCEPT			
	Frequency	Percentage	Total Percentage	Cumulative Percentage	Frequency	Percentage	Total Percentage	Cumulative Percentage
1	5	3.2	3.5	3.5	-	-	-	-
2	11	7.0	7.7	11.3	1	2.5	2.5	2.5
3	14	8.9	9.9	21.1	-	-	-	-
4	57	36.3	40.1	61.3	23	57.5	57.5	60.0
5	55	35.0	38.7	100.0	16	40.0	40.0	100.0
Total	142	90.4	100.0	--	40	100.0	100.0	-
Missing data	15	9.6	-	-	-	-	-	-
Total	157	100.0	-	-	40	100.0	-	-

*1 Strongly Disagree, 2 Disagree, 3 Neither Agree, Nor Disagree, 4 Agree, 5 Strongly Agree

According to the data obtained, instead of there is no extra addition to the amount of the furniture inside the store, store is found overcrowded by the sample group. When the old concept is compared to the new concept, there is an increase in the rate of those who agree with the statement, “The amount of product on display inside the store had created an overcrowded environment”, there is a decrease in the rate of those who strongly agree with the statement entirely (See Table 9). Considering “strongly agree” and “agree” are positive assessments, it can be said that the ratio of participants who agree with this negative statement is increased for the new concept.

Table 9. “The Number of Products on Display Inside the Store Created an Overcrowded Environment.” (Old and New Concept Stores)

	OLD CONCEPT				NEW CONCEPT			
	Frequency	Percentage	Total Percentage	Cumulative Percentage	Frequency	Percentage	Total Percentage	Cumulative Percentage
1	22	14.0	15.5	15.5	9	22.5	22.5	22.5
2	27	17.2	19.0	34.5	5	12.5	12.5	35.0
3	24	15.3	16.9	51.4	2	5.0	5.0	40.0
4	41	26.1	28.9	80.3	20	50.0	50.0	90.0
5	28	17.8	19.7	100.0	4	10.0	10.0	100.0
Total	142	90.4	100.0	-	40	100.0	100.0	-
Missing data	15	9.6	-	-	-	-	-	-
Total	157	100.0	-	-	40	100.0	-	-

*1 Strongly Disagree, 2 Disagree, 3 Neither Agree, Nor Disagree, 4 Agree, 5 Strongly Agree

Participants agreed with positioning the checkout away from the entrance while remaining easily visible and accessible. More of the new-concept store participants agreed than old-concept participants that “The checkout was in a

proper position in the store.” while the number who strongly agreed was lower (See Table 10).

Table 10. “The Checkout Was in a Proper Position in the Store.” (Old and New Concept Stores)

	OLD CONCEPT				NEW CONCEPT			
	Frequency	Percentage	Total Percentage	Cumulative Percentage	Frequency	Percentage	Total Percentage	Cumulative Percentage
1	2	1.3	1.4	1.4	-	-	-	-
2	10	6.4	7.2	8.6	-	-	-	-
3	19	12.1	13.7	22.3	-	-	-	-
4	62	39.5	44.6	66.9	29	72.5	74.4	60.0
5	46	29.3	33.1	100.0	10	25.0	25.6	100.0
Total	139	88.5	100.0	-	39	97.5	100.0	-
Missing data	18	11.5	-	-	1	2.5	-	-
Total	157	100.0	-	-	-	-	-	-

*1 Strongly Disagree, 2 Disagree, 3 Neither Agree, Nor Disagree, 4 Agree, 5 Strongly Agree

Participants liked the functional and aesthetic use of decorative panels. More new-concept store participants agreed than old-concept store participants that “Decorative panel partitions positively contributed to store atmosphere” although the percentage agreeing strongly decreased (See Table 11).

Table 11. “Decorative Panel Partitions Positively Contributed to Store Atmosphere.” (Old and New Concept Stores)

	OLD CONCEPT				NEW CONCEPT			
	Frequency	Percentage	Total Percentage	Cumulative Percentage	Frequency	Percentage	Total Percentage	Cumulative Percentage
1	7	4.5	5.0	5.0	-	-	-	-
2	16	10.2	11.4	16.4	1	2.5	2.5	2.5
3	22	14.0	15.7	32.1	3	7.5	7.5	10.0
4	58	36.9	41.4	73.6	7	17.5	17.5	27.5
5	37	23.6	26.4	100.0	29	72.5	72.5	100.0
Total	140	89.2	100.0	-	40	100.0	100.0	-
Missing data	17	10.8	-	-	-	-	-	-
Total	157	100.0	-	-	40	100.0	-	-

*1 Strongly Disagree, 2 Disagree, 3 Neither Agree, Nor Disagree, 4 Agree, 5 Strongly Agree

The Mann-Whitney U test results (See Table 12) showed that the level of agreement of participants from old-concept and new-concept stores was significantly different ($p < 0.000$) for the following statements: “Through the space allocation, products were being perceived easily”; “The layout of the store made shopping easier”; “Decorative panel partitions positively contributed to store atmosphere”. However, there was no significant differences for the following statements: “Distances between furniture are enough to be able to try them”; “The

number of products on display inside the store creates a cramped environment”;
“The checkout was in a proper position in the store”.

Table 12. *Mann-Whitney Test Results Comparing Old and New Concept Designs*

	“Through the space allocation, products were being perceived easily.”	“The layout of the store made shopping easier.”	“Distances between furniture were enough to be able to try them.”	“The number of products on display inside the store had created an overcrowded environment.”	“The checkout was in a proper position in the store.”	“Decorative panel partitions positively contributed to store atmosphere.”
Mann-Whitney U	1705.000	1447.000	2492.000	2780.500	2463.000	1441.500
Wilcoxon W	12290.000	11743.000	12645.000	3600.500	12193.000	11311.500
Z	-4.273	-4.956	-1.279	-.208	-.953	-4.927
P Value	.000	.000	.201	.835	.341	.000

Materials

Specific store environments are created by using different materials for floors, walls and ceilings. These materials should not only contribute to store design but also be durable and affordable (Green, 1986:84). The most significant change in Doğtaş’ new store concept was the floor tiles. Previously, the stores used bright, square, ivory-colored, 60x60 cm ceramic tiles whereas the new-concept tiles were neutral-colored, 81x81 cm ceramic tiles that suit all furniture styles and colors (See Figure 4).

Figure 4. *Doğtaş Store Floor Materials, Old and New Concept Comparison*



Source: Authors’ archive.

Except for the wall behind the checkout, new-concept stores did not use any decorative materials other than plain paint. In the old-concept stores, the wall behind the checkout was dark grey with the Doğtaş logo in chrome letters. The new-concept stores had brown patterned wallpaper from a specific brand and code behind the checkout with the logo in bronze and backlit (See Figure 5). Besides

signaling the boundary of the checkout area, the carpeting in the new-concept stores was intended to give a special feeling to the customers. In addition, a dark patterned carpet that would not reveal dust and dirt was preferred. Finally, new-concept stores added curtain partition panels as another new material.

Figure 5. *Doğtaş Store Cash Desks, Old and New Concept Comparison*



Source: Authors' archive.

Regarding the store flooring material, 39.0% of participants rated it as “moderately important” (See Table 13).

Table 13. *Importance of Store Flooring Material on Shopping Behavior*

	Frequency	Percent	Total Percent	Cumulative Percent
1	8	4.0	4.3	4.3
2	15	7.5	8.0	12.3
3	73	36.7	39.0	51.3
4	60	30.2	32.1	83.4
5	31	15.6	16.6	100.0
Total	187	94.0	100.0	
Missing Data	12	6.0		
Total	199	100.0		

***1 Not Important, 2 Slightly Important, 3 Moderately Important, 4 Important, 5 Very Important**

To highlight the furniture, the new-concept Doğtaş stores avoided too much material diversity. Participants generally found the in-store materials satisfying, with more new-concept store participants than old-concept store participants strongly agreeing that “The materials used inside the store created a warm and sincere atmosphere” while the number who agreed strongly decreased (See Table 14).

Table 14. *“The Materials Used Inside the Store Created a Warm and Sincere Atmosphere.” (Old and New Concept Stores)*

	OLD CONCEPT				NEW CONCEPT			
	Frequency	Percentage	Total Percentage	Cumulative Percentage	Frequency	Percentage	Total Percentage	Cumulative Percentage
1	6	3.8	4.2	4.2	-	-	-	-
2	15	9.6	10.5	14.7	1	2.5	2.5	2.5
3	19	12.1	13.3	28.0	2	5.0	5.0	7.5
4	58	36.9	40.6	68.5	7	17.5	17.5	25
5	45	28.7	31.5	100.0	30	75.0	75.0	100.0
Total	143	91.1	100.0	-	40	100.0	100.0	-
Missing data	14	8.9	-	-	-	-	-	-
Total	157	100.0	-	-	40	100.0	100.0	-

*1 Strongly Disagree, 2 Disagree, 3 Neither Agree, Nor Disagree, 4 Agree, 5 Strongly Agree

The number of new-concept participants was also higher than the number of old-concept participants who agreed that “The materials used inside the store created an upper-class atmosphere” while the number who agreed was lower (See Table 15).

Table 15. *“The Materials Used Inside the Store Created an Upper-class Atmosphere.” (Old and New Concept Stores)*

	OLD CONCEPT				NEW CONCEPT			
	Frequency	Percentage	Total Percentage	Cumulative Percentage	Frequency	Percentage	Total Percentage	Cumulative Percentage
1	8	51	5.7	5.7	1	2.5	2.5	2.5
2	20	12.7	14.2	19.9	-	-	-	-
3	18	22.5	12.8	32.6	4	10.0	10.0	12.5
4	53	33.8	37.6	70.2	26	65.0	65.0	77.5
5	42	26.8	29.8	100.0	9	22.5	22.5	100.0
Total	141	89.8	100.0	-	40	100.0	100.0	-
Missing data	16	10.2	-	-	-	-	-	-
Total	157	100.0	-	-	-	-	-	-

*1 Strongly Disagree, 2 Disagree, 3 Neither Agree, Nor Disagree, 4 Agree, 5 Strongly Agree

More new-concept than old-concept store participants agreed that “The materials used inside the store created an elegant atmosphere” while the number agreeing strongly decreased (See Table 16).

Table 16. “The Materials Used Inside the Store Created an Elegant Atmosphere.”
(Old and New Concept Stores)

	OLD CONCEPT				NEW CONCEPT			
	Frequency	Percentage	Total Percentage	Cumulative Percentage	Frequency	Percentage	Total Percentage	Cumulative Percentage
1	4	2.5	2.8	2.8	1	2.5	2.5	2.5
2	18	11.5	12.8	15.6	-	-	-	-
3	18	11.5	12.8	28.4	3	7.5	7.5	10.0
4	55	35.0	39.0	67.4	8	20.0	20.0	30.0
5	46	29.3	32.6	100.0	28	70.0	70.0	100.0
Total	141	89.8	100.0	-	40	100.0	100.0	-
Missing data	16	10.2	-	-	-	-	-	-
Total	157	100.0	-	-	40	100.0	--	-
*1 Strongly Disagree, 2 Disagree, 3 Neither Agree, Nor Disagree, 4 Agree, 5 Strongly Agree								

The Mann-Whitney U test results (See Table 17) show that there was no significant difference between the two groups of participants for the statement “The materials used inside the store created a warm and sincere atmosphere” ($p=0.282$) whereas the difference was significant for “The materials used inside the store created an upper-class atmosphere” and “The materials used inside the store created an elegant atmosphere” ($p<0.000$).

Table 17. Mann-Whitney Test Results for Old and New Concept Design Differences

	“The materials used inside the store created a warm and sincere atmosphere.”	“The materials used inside the store created an upper-class atmosphere.”	“The materials used inside the store created an elegant atmosphere.”
Mann-Whitney U	2523.000	1547.500	1701.000
Wilcoxon W	12534.000	11843.500	11712.000
Z	-1.076	-4.713	-4.063
P Value	.282	.000	.000

Color

Color is another component contributing to store atmosphere though its psychological and physiological effects on perceptions of size, shape, temperature, luxury, etc. (Martel, 2000; Hashempour and Sapchi, 2015; Cho and Lee, 2017). Retailers therefore have to consider the effects on customers when choosing colors.

The old-concept Doğtaş stores used natural brown-gray colors for the interior walls to adapt to different wood and fabric shades while the ceilings used a standard beige paint (Doğtaş store construction guide, 2017). While the ceiling and general wall colors were generally unchanged in the new-concept stores, different combinations of warm and cool colors were added to the new design to improve

visual merchandising. Different colors were used to create distinct room settings to make them more clearly defined. This new design implementation was intended to capture customers' attention and direct them toward these areas (See Figure 6).

Figure 6. *Doğtaş Store Interior Paint Colors, Old and New Concept Comparison*



Source: Authors' archive.

The color harmony of the store interior was rated as “important” by 50.8% of the participants (See Table 18).

Table 18. *Importance of Color Harmony of Store Interior on Shopping Behavior*

	Frequency	Percent	Total Percent	Cumulative Percent
1	2	1.0	1.1	1.1
2	10	5.0	5.3	6.4
3	26	13.1	13.9	20.3
4	95	47.7	50.8	71.1
5	54	27.1	28.9	100.0
Total	187	94.0	100.0	
Missing Data	12	6.0		
Total	199	100.0		
*1 Not Important, 2 Slightly Important, 3 Moderately Important, 4 Important, 5 Very Important				

More participants from the new-concept than old-concept stores agreed that “I liked the colors used on the store walls” while the number who agreed strongly was lower (See Table 19).

Table 19. *“I Liked the Colors Used on the Store Walls.” (Old and New Concept Stores)*

	OLD CONCEPT				NEW CONCEPT			
	Frequency	Percentage	Total Percentage	Cumulative Percentage	Frequency	Percentage	Total Percentage	Cumulative Percentage
1	5	3.2	3.6	3.6	2	5.0	5.0	5.0
2	14	8.9	10.1	13.7	-	-	-	-
3	19	12.1	13.7	27.3	2	5.0	5.0	10.0
4	52	33.1	37.4	64.7	8	20.0	20.0	30.0
5	49	31.2	35.3	100.0	28	70.0	70.0	100.0
Total	139	88.5	100.0	-	40	100.0	100.0	-
Missing data	18	11.5	-	-	-	-	-	-
Total	157	100.0	-	-	40	100.0	-	-

*1 Strongly Disagree, 2 Disagree, 3 Neither Agree, Nor Disagree, 4 Agree, 5 Strongly Agree

Table 20 shows that the two groups were significantly different for the statement “I liked the colors used on the store walls” ($p < 0.000$).

Table 20. *Mann-Whitney Test Results for Old and New Concept Design Differences*

“I liked the colors used on the store walls.”	
Mann-Whitney U	1780.000
Wilcoxon W	11510.000
Z	-3.690
P Value	.000

Lighting

Lighting has a crucial role in retail stores to enable customers to see, examine and evaluate products easily. Lighting temperature and intensity both influence consumers (Kutlu, Manav and Kilanç, 2013; Sachdeva and Goel, 2015) while lighting can affect store image and customer perceptions. Finally, lighting can encourage consumers to enter the store by attracting their attention.

Doğtaş’ old-concept stores, used PLC bulbs, halo spots and slim LEDs for general lighting. Because of the market impression from this intense and homogenous lighting, the lighting types, color and intensity were changed in the new-concept stores so that customers could examine products better and see the colors more clearly (See Figure 7).

Figure 7. *Doğtaş Store Lighting Types, Old and New Concept Comparison*



Source: Authors' archive.

The new concept used lighting contrasts. The circulation paths were dimly lit while brighter lighting emphasized the products and made them more easily visible. One of the architects of Doğtaş (Şahan, 2018) said that product-oriented lighting increased sales. In the new-concept stores, 2700-3000K warm white light color and recessed LED lighting was used for general lighting. Furthermore, target lighting in the checkout area and cove lighting throughout the store was added (Doğtaş store construction guide, 2017), along with greater use of decorative lighting, such as chandeliers, pendants, floor lamps or lampshades (See Figure 8).

Figure 8. *Doğtaş Store Decorative Lightings, Old and New Concept Comparison*



Source: Authors' archive.

Store lighting was rated as “important” by 47.6% of participants (See Table 21).

Table 21. *Store Lighting Importance on Shopping Behavior*

	Frequency	Percent	Total Percent	Cumulative Percent
1	3	1.5	1.6	1.6
2	5	2.5	2.6	4.2
3	12	6.0	6.3	10.6
4	90	45.2	47.6	58.2
5	79	39.7	41.8	100.0
Total	189	95.0	100.0	
Missing Data	10	5.0		
Total	199	100.0		
*1 Not Important, 2 Slightly Important, 3 Moderately Important, 4 Important, 5 Very Important				

In the renovated Doğtaş stores, fixtures like recessed spotlights, cove lighting and decorative lights were used to provide warmer and dimmed ambient lighting. The participants approved of the general lighting used inside the stores. More participants in the new-concept stores than old-concept stores strongly agreed that “Ambient lighting in store was sufficient” while the number who agreed strongly was lower (See Table 22).

Table 22. *“Ambient Lighting in Store Was Sufficient.” (Old and New Concept Stores)*

	OLD CONCEPT				NEW CONCEPT			
	Frequency	Percentage	Total Percentage	Cumulative Percentage	Frequency	Percentage	Total Percentage	Cumulative Percentage
1	5	3.2	3.5	3.5	1	2.5	2.6	2.6
2	9	5.7	6.4	9.9	-	-	-	-
3	20	12.7	14.2	24.1	1	2.5	2.6	5.3
4	54	34.4	38.3	62.4	7	17.5	18.4	23.7
5	53	33.8	37.6	100.0	29	72.5	76.3	100.0
Total	141	89.8	100.0	-	38	95.0	100.0	-
Missing data	16	10.2	-	-	2	5.0	-	-
Total	157	100.0	-	-	40	100.0	-	-
*1 Strongly Disagree, 2 Disagree, 3 Neither Agree, Nor Disagree, 4 Agree, 5 Strongly Agree								

More new-concept than old-concept participants agreed that “Decorative lighting positively contributed to store atmosphere” while the number who agreed strongly was lower (See Table 23).

Table 23. *“Decorative Lighting Positively Contributed to Store Atmosphere.” (Old and New Concept Stores)*

	OLD CONCEPT				NEW CONCEPT			
	Frequency	Percentage	Total Percentage	Cumulative Percentage	Frequency	Percentage	Total Percentage	Cumulative Percentage
1	2	1.3	1.4	1.4	1	2.5	2.5	2.5
2	13	8.3	9.3	10.7	-	-	7.5	10.0
3	27	17.2	19.3	30.0	3	7.5	15.0	25.0
4	51	32.5	36.4	66.4	6	15.0	75.0	100.0
5	47	29.9	33.6	100.0	30	75.0	100.0	-
Total	140	89.2	100.0	-	40	100.0	-	-
Missing data	17	10.8	-	-	2	5.0	-	-
Total	157	100.0	-	-	40	100.0	-	-
*1 Strongly Disagree, 2 Disagree, 3 Neither Agree, Nor Disagree, 4 Agree, 5 Strongly Agree								

More new-concept than old-concept participants agreed that “Store lighting was soft and not straining the eyes” while the number who agreed strongly was lower (See Table 24).

Table 24. *“Store Lighting Was Soft and Not Straining Eyes.” (Old and New Concept Stores)*

	OLD CONCEPT				NEW CONCEPT			
	Frequency	Percentage	Total Percentage	Cumulative Percentage	Frequency	Percentage	Total Percentage	Cumulative Percentage
1	5	3.2	3.6	3.6	1	2.5	2.5	2.5
2	5	3.2	3.6	7.2	1	2.5	2.5	5.0
3	18	11.5	13.0	20.3	3	7.5	7.5	12.5
4	58	36.9	42.0	62.3	7	17.5	17.5	30.0
5	52	33.1	37.7	100.0	28	70.0	70.0	100.0
Total	138	87.9	100.0	-	40	100.0	100.0	-
Missing data	19	12.1	-	-	-	-	-	-
Total	157	100.0	-	-	40	100.0	-	-
*1 Strongly Disagree, 2 Disagree, 3 Neither Agree, Nor Disagree, 4 Agree, 5 Strongly Agree								

Table 25 shows that there was a significant difference between the groups for the statements “Ambient lighting in store was sufficient” and “Store lighting was soft and not straining the eyes” ($p < 0.000$) and “Decorative lightings positively contributed to store atmosphere” ($p = 0.002$).

Table 25. *Mann-Whitney Test Results that Show Old and New Concept Design Differences*

	“Ambient lighting in store was sufficient.”	“Decorative lightings had been positively contributed to store atmosphere.”	“Store lightings were soft and not straining eyes.”
Mann-Whitney U	1584.000	1918.000	1613.500
Wilcoxon W	11595.000	11509.000	11483.500
Z	-4.159	-3.166	-4.340
P Value	.000	.002	.000

Evaluation

Since Kotler (1973) showed that buying environments can be consciously designed to influence customers, it has been clear that companies can create psychological and physiological effects through internal and external store atmosphere and design components. Consumers first interact with the exterior environment while interior design components become involved when after they enter. Accordingly, this study examined both environments and the relevant design components to create interior and exterior atmosphere.

In this study, participants were asked to rate the importance of atmospheric components of the store exterior, such as location, exterior appearance/facade, signage and store entrance are rated as “important” influencers of customers’ shopping behavior while window displays are rated as “very important”. Regarding the store interior, spaciousness between products, color harmony and lighting were rated as “important” while exhibiting furniture within room settings was rated “very important”. Participants had a neutral view of store flooring material. Overall, the results suggest that designers must consider these interior and exterior components to create a pleasing shopping environment and store atmosphere and thus affect customers’ shopping experiences.

When it comes to product and service retailing, retail store planning strategies are also included in the marketing mix (7P) that companies use to reach consumers (target audience). These strategies involve decisions regarding store planning and store atmosphere within the “place and physical evidence” components of 7P (Tek ve Özgül, 2013). Production this study, another 7P component – Product – was furniture. Because customers want to experience furniture physically and make comparisons, they may spend a long time in the store. Therefore, the store’s interior design the interior design components that form the atmosphere are critical for influencing the mood of the customers and increasing the time they spend inside the store.

Regarding the changes in the new-concept stores, the new window display designs created customer satisfaction. Furniture store companies can attract consumer interest by creating decorative room settings in furniture store display cases.

Participants also noticed and appreciated the interior planning of the new-concept stores. Specifically, the floor plan and space allocation (area division,

layout, distance between products) were sufficient for customers to see and examine products, which encourages them to buy.

In addition, displaying furniture from the same collection together helped customers perceive collections more easily and increased sales. Displaying furniture groups in a room setting with distinct wall coloring and appropriate accessories attracts the attention of customers and enables them to approach the products. With these room settings, customers can easily visualize the appearance of the furniture in their homes (Gönen, 2018; Şahan, 2018; Velioglu, 2018; Özkan, 2018).

Both store employees and customer participants approved of the decorative panel partitions in the new concept. These foregrounded the furniture (Şahan, 2018; Özkan, 2018). Participants also found the checkout location appropriate.

On the other hand, participants felt that the number of products on display created a cramped environment, and more so with the new concept than old concept. Although the aisles allowed circulation, this sense of over-crowdedness may relate to the amount of furniture and accessories. Thus, there is also a link between product quantities in the store and customer satisfaction.

Although flooring material is one of the components that creates store atmosphere, participants in this study viewed it as a neutral component that does not affect shopping behavior. Participants agreed that the materials used in the new-concept stores were warm and friendly, and stylish and upper-class. Store employees also evaluated the new materials positively (Gönen, 2018; Velioglu, 2018; Özkan, 2018). Thus, making the materials congruent with the target audience can help reflect the brand image appropriately.

The company was using the right materials in the sense of creating interiors that suggest feelings like warm, friendly, and stylish when promoting its products. That is, the company communicates correctly by giving customers the right message about the brand. The warm and cool colors in the new-concept stores along with the harmonization of wall and product colors were appreciated by the customers. They even asked the sales assistants about the brands and paint codes to use the same colors on their own home walls (Gönen, 2018; Velioglu, 2018; Özkan, 2018). In short, by using colors that complement products visually and contribute to the store environment psychologically, the new concept made the store more pleasant for the customers.

The new lighting types and implementations also provided a pleasant shopping experience in the new-concept stores. Participants reported that the lighting was sufficient while also soft and not straining the eyes. The decorative lighting fixtures chosen to complement the product displays attracted the attention of the customers and oriented them towards the products. Bringing customers closer to the products increases the likelihood of purchasing them (Özkan, 2018).

Overall, the results show that customers are influenced by visual design components in furniture stores and that store atmosphere can make the shopping experience more pleasant. The study compared old and new Doğtaş store concepts by asking customers to evaluate the visual interior components. Although display window design is an exterior store atmospherics component, it was evaluated

along with the other interior components because it window displays are a transit area between the interior and exterior store atmosphere.

Conclusion

Overall, this study demonstrated that customers of this furniture store company noticed and approved of changes to the interior design components that contribute to store atmosphere. These included the store floor plan and space allocation (area division, layout, circulation, and distance between products, panel partitions and checkout), materials, color scheme and lighting. Based on the field study results, the new store concept made the in-store environment more pleasant, improved the mood of customers, provided a more joyful shopping experience and affected their shopping behaviors. Customers also indicated that they would consider revisiting the stores and recommend them to others. The new concept improved the sales consultants' mood, too (Gönen, 2018; Şahan, 2018; Velioğlu, 2018; Özkan, 2018). The new in-store design foregrounded the furniture and attracted more attention. Customers therefore came closer to the products and spent more time than they realized in the store. The face-to-face interviews showed that the new interior design components increased the number of unplanned purchases.

These results can assist academicians, interior designers, architects, designers, visual merchandising specialists, retailers, store managers and sales consultants. Although this study specifically analyzed home furnishings retail stores, the evaluations may also guide the design of other types of retail stores. Future studies can investigate different product groups among durable goods. In addition, studies of shops selling different types of furniture (office, kitchen, children, garden furniture, etc.) could contribute to the literature.

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