

An Investigation of the Effect of in-Plane Atmospheric Elements on Customer Satisfaction and the Effect of Customer Satisfaction on Behavioral Intention

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Abstract

The purpose of this study is to investigate the effects of in-flight atmospheric elements on customer satisfaction, and behavioral intentions on customer satisfaction. In this respect an online questionnaire was implemented with the participation of 436 participants who have previous travel experience with an airline in Turkey. It was revealed that the in-plane atmospheric elements have a positive effect on customer satisfaction; the spatial layout and employee factor, and vehicle aesthetics have a positive effect on customer satisfaction, while the dimensions of ambience and the view from the window affected customer satisfaction negatively. Moreover, it was found out that customer satisfaction has a positive effect on the behavioral intention dimensions of revisit intention, recommendation intention, and willingness to pay more. According to these results, it was concluded that many factors in the plane affect the customer's preference to use the company again.

Keywords: *In-plane Atmosphere; Customer Satisfaction; Behavioral Intention*

Introduction

In the service sector, customer satisfaction is important for the sustainability of the company. To achieve this satisfaction, it is necessary to know what the customers' expectations are and to adapt to them. In relation to airlines, customers' expectations are generally expressed as safety, on-time departure, comfort, and speed. In addition to these criteria that customers expect from airlines, other factors can be added as well. Some of these may be expressed as the uniforms of airline employees, the in-plane visual design, the width of seats, the reasonableness of ticket prices, and the quality of catering. Such factors enable people to revisit the same airline and improve the airline's customer portfolio through word of mouth. The DINESCAPE scale developed by Ryu and Jang in 2005 was used in the study. DINESCAPE is defined as a man-made physical environment and an area consisting of

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individuals (Ryu and Jang, 2005: 5). In this scale which is developed by Ryu and Jang, the relationship between restaurant customers and atmospheric elements was studied and it was found that there is a direct relationship between customer satisfaction and atmospheric elements (Ryu and Jang, 2007; Ryu and Jang, 2008). The relationship between the perceived physical environment and behavioral intention has been studied in another study by Chang (2000). The scale used in Chang's study consists of six dimensions: Lighting, ambience, service staff, table arrangement, and spatial layout. The relationships between these dimensions and consumer behavior were investigated and it was found that the physical environment has a direct and positive influence on consumer behavior (Chang, 2000; Chebat & Michon, 2003). In this respect, the current study aimed to investigate the effect of in-flight atmospheric elements on customer behavioral intentions. The in-plane atmospheric elements include criteria such as ambience, employee factor, view from the window (scenery), vehicle aesthetics, and spatial layout. It can be said that these criteria have an impact on whether customers will visit the same airline again or recommend it to others. It can even be argued that customers can be willing to pay more for such features of an airline. In accordance with the purpose of the study, the DINASCAPE scale was developed and the sub-dimensions were determined as aesthetics, lighting, ambience, layout, table arrangement, and employees. The effect of this newly developed scale on behavioral intention was studied and the findings obtained from the analyzes were interpreted. In light of these findings, certain suggestions were made.

Conceptual Framework

Atmospheric Element

Spatial layout and visual services have positive and negative effects on customers (Lin, 2004: 163). Atmosphere, in other words, the physical environment can have psychological, emotional, or behavioral effects on customers (Simeh, Simeh, Abdul-Nasiru and Amponsah-Tawiah, 2011: 120). Atmospheric elements are considered as the environments that are specifically designed and prepared for customers to create a re-visit effect. Similarly, the physical environment aims to enrich and influence the customer's perception of the service. Environmental conditions consist of elements such as music, lighting, smell, and temperature (Ryu & Jang, 2008). Rosenbaum and Massiah (2011:473-474) describe the atmosphere in four different dimensions. These are the physical dimension, the social dimension, the social-symbolic dimension, and finally the natural dimension. The physical dimension refers to the environment, the social dimension refers to the employees, the social-symbolic dimension refers to symbols and signs, and the natural dimension refers to attractiveness and compatibility. On the other hand, Turley and Milliman (2000:194) indicate that atmosphere consists of five different components. These are external variables, general internal variables, layout variables, and buying and human variables. Atmospheric elements seem to be expressed differently by different authors. But it can be assumed that the common point is to impress the customers. Many researchers state that environmental conditions are important in terms of influencing people's five senses (Lam, Chan, Fong, & Lo, 2011:560). There exist many studies about atmospheric elements in the literature. Some of them are as follows: Countryman and Janh (2006:534) investigated whether the atmosphere in hotel lobbies has an impact on customers and found out that color, lighting, and design have an impact on customers. Heide and Gronhaug (2009:29) conducted a study with hotel customers



in Norway and found that atmospheric factors play a role in revisits and recommendations. Simpeh et al. (2011:119) conducted a study on hotels in Accra in Ghana and found that there is a positive effect between customer loyalty and the atmospheric elements such as environmental conditions, spatial layout, and symbols. Liu and Jang (2009:494) conducted a study on Chinese restaurants in the U.S. and stated that atmospheric factors have an impact on the values perceived by customers. Lin and Mattila (2010:819) conducted a study on a group of restaurant customers and found that atmospheric elements influence customer satisfaction. In a study conducted by Ariffin et al. (2012:385) on restaurant atmosphere, he concluded that design, lighting, and colors have an impact on young customers' behavior. When it comes to the studies conducted in Turkey, Ayazlar and Artuğer (2015) tried to find out which atmospheric elements are important for hotel customers and whether there is a difference according to customers' demographic characteristics. The results of the study revealed that spatial layout and symbolic-artistic signs were important for customers (Ayazlar and Artuğer, 2015: 32). It was also found that there are some differences according to demographic characteristics. Çavuşoğlu and Kılıç (2019) studied the effects of restaurant atmosphere on customer satisfaction and concluded that restaurant atmosphere has a positive impact on customer satisfaction (Çavuşoğlu and Kılıç, 2019: 37). Kazançoğlu (2011) studied the effect of corporate image and perceived service quality on creating customer loyalty in airlines. In the study, a one-on-one survey was conducted with 450 domestic passengers, and it was found that perceived service quality affects the corporate image more than customer loyalty and that there is a positive relationship between corporate image and customer loyalty (Kazançoğlu, 2011: 130). There exist similar studies in the literature. As a result of the review of the literature, many studies that investigate the effects of atmospheric elements on customer satisfaction in areas such as the tourism sector, hotels, and interiors were found. In this study that was aimed to be conducted as an original study on aviation, which is one of the complementary sectors, the effects of in-plane atmospheric elements on customer behavior were investigated and some suggestions were made. It is considered that these suggestions can contribute to the literature in terms of both theory and practice in this field.

Customer Satisfaction

Customer satisfaction can be described as meeting customer requests and needs. In other words, it can be considered as the positive effect a product makes on the customers. It is explained as the customer's evaluation of the product as a result of purchasing a particular product (Itsarintr, 2011: 39). Customer's level of satisfaction as a result of the evaluation can increase the probability of revisiting the same company. In addition, the customer does not waste time searching for a new place (Yang and Peterson, 2004: 802). In general, customer satisfaction has been approached from two different perspectives in the literature. One of these approaches focuses on the sales experience and another one takes the process as a whole and considers before and after sales processes as well. It is argued that the approach that looks at pre-sales and post-sales is more effective in today's conditions. (Egan, 2001: 57). Eggert and Ulaga (2002) also stated that the evaluation of the result after the purchase of the product with the expectations of the customers determines the level of satisfaction. In this study customer satisfaction was defined as the degree of disappointment or satisfaction resulting from customer expectations.

Behavioral Intention

When companies enable positive customer satisfaction, their portfolio expands. The quality of the product or service they receive leads the customers to visit the same store again. In addition to the visit, this also has a positive impact on the perception of people who have not yet shopped at that store. This allows the company to accelerate the promotional dimension and attract new customers (Kement, 2019:372). Liu, Marchewka, Lu, and Yu (2005) explained the dimensions of behavioral intention as repurchase, revisit, referral, and positive observation. In this respect, it can be said that customer satisfaction has a significant impact on behavioral intention. Word of mouth and customer loyalty can be considered as some of these outcomes. On the other hand, this advertising network and customer loyalty are also effective for customers' willingness to pay more (Varinli and Çakır, 2004). The most important element in behavioral intention is testing the service received. In this way, companies can receive feedback on the services they provide and obtain information about their own shortcomings or the perception they have created among customers (Güven, 2012; Zeithaml et al., 1996). In fact, this situation can be thought of as a chain network. Each part complements the other and thus is reflected as a positive or negative impact on the company. Considering these, the hypotheses were determined as follows.

H1: In-plane atmospheric elements have a positive impact on customer satisfaction.

H_{1a}: Spatial layout and employee factor, which are among the dimensions of the in-plane atmospheric element, have a positive impact on customer satisfaction.

H_{1b}: Ambience, which is one of the dimensions of the in-plane atmospheric elements has a positive impact on customer satisfaction.

H_{1c}: The aesthetics of the vehicle, one of the atmospheric dimensions of the aircraft, have a positive impact on customer satisfaction.

H_{1d}: The view from the window, which is one of the atmospheric dimensions of the aircraft, has a positive effect on customer satisfaction.

H2: Customer satisfaction has a positive impact on the dimensions of behavioral intentions.

H_{2a}: Customer satisfaction has a positive effect on revisit intention, which is one of the dimensions of behavioral intentions.

H_{2b}: Customer satisfaction has a positive impact on recommendation intention, which is one of the dimensions of behavioral intention.

H_{2c}: Customer satisfaction has a positive effect on willingness to pay more, which is one of the dimensions of behavioral intentions.

Method

In this section, the effects of the dimensions of in-plane atmospheric elements (spatial layout and employee factor, ambience, aesthetics, and view from the window) on customer satisfaction and the effects of customer satisfaction on behavioral intention were investigated. In this study, information about in-plane atmospheric elements is given first, and then information about behavioral intention and customer satisfaction is given. From this point of



view, the purpose of the study, the limitations, the method, the population, the sample, and the research model were determined. Also, descriptive statistical analysis, correlation, and regression analyzes were performed using SPSS 23.0. In addition, the statistical program SMART PLS3 was used to determine the validity and reliability of the scales used in the study.

Research Method, Population, and Sample

Data were collected using a questionnaire to explore the opinions of the people who have previous experience with airlines. The questionnaire consists of four sections, the first section contains five questions about the demographic characteristics of the participants. The second section of the questionnaire contains questions about atmospheric elements, while the third section of the questionnaire contains statements about customer satisfaction, and the fourth section contains questions to determine behavioral intention. A 5-point Likert scale was used in the questionnaire (1: strongly disagree, 2: disagree, 3: neutral, 4: agree, 5: strongly agree). The questionnaires were distributed to people who travel by air. These individuals were asked to complete the questionnaires on a voluntary basis. This study consists of passengers who have used some airlines operating in Turkey. Accordingly, the population for our study is known to be unlimited. Therefore, to determine the sample size the number of participants in the sample was calculated at a reliability level of 95% and an acceptable error of 0.05%. As a result, the sample size was determined as 322 for the 2000 people in the population (Gürbüz and Şahin, 2018: 130). Accordingly, it was concluded that the 436 responses were sufficient. The scales used in the study are listed below. The DINESCAPE scale of Ryu and Jang (2008) was used to determine the in-plane atmospheric elements in the study. To measure customer satisfaction, the customer satisfaction scale of Wang et al. which was adapted to Turkish by Çavuşoğlu and Demirağ's (2021) in their study titled "An Investigation of the Relationship Between Customer Experience, Customer Satisfaction and Customer Loyalty: A Study of Ready-made Clothing Industry" was used. For the behavioral intention, the scale translated into Turkish and adapted by Kement et al. in their study titled as "The Effect of Green Attitude on Behavioral Intention" was used (Kement et al. 2021). The study used a five-point Likert scale ranging from 1- strongly disagree to 5 - strongly agree (1-5). In the current study, reliability analysis of in-plane atmospheric elements, customer satisfaction, and behavioral intention scale was conducted. It was found out that the results of the analyses were above the threshold values, therefore it can be claimed that the scales used in this study can produce valid results. Also, factor analysis was performed to determine the relationship between the expressions of the study. The purpose of factor analysis can be articulated as bringing together a large number of interrelated variables and obtaining fewer new variables (Çetin, 2007). In this respect, the scale of in-flight atmospheric elements used in the study consists of four dimensions (spatial layout and employee factor, ambience, vehicle aesthetics, and view from the window). The factor distributions of each dimension were stated in detail. While the customer satisfaction scale consists of one dimension, the behavioral intention scale is composed of three dimensions (revisit intention, intention to recommend, and willingness to pay more) and the factor distributions can be seen in Table 2 in detail. In line with these results, a correlation analysis was performed to determine the relationships between the scales used in the study, and then, a regression analysis was performed to determine their effects on each other.

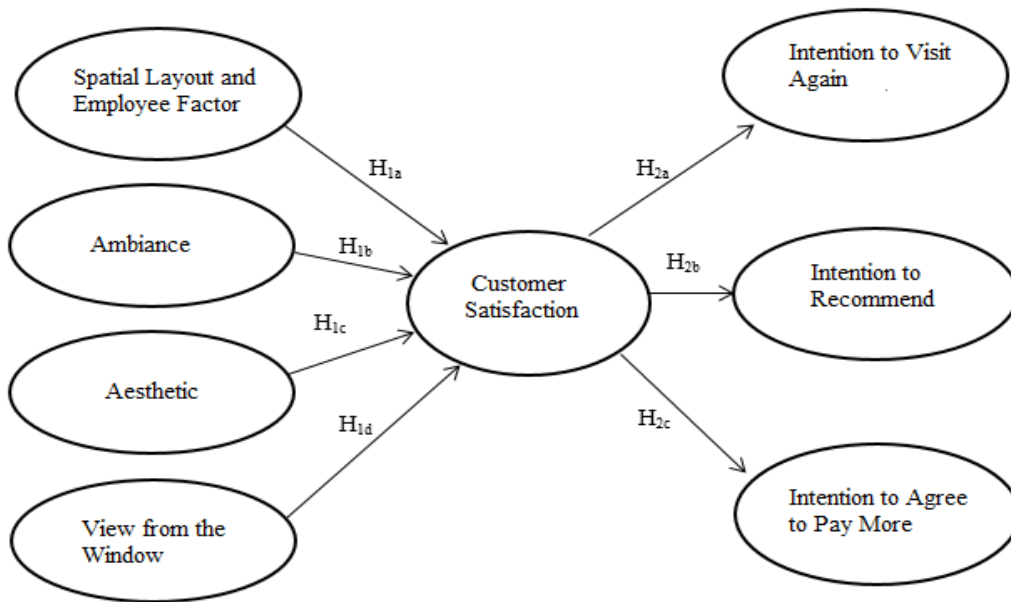
Data Analysis

The data obtained on in-plane atmospheric elements, behavioral intentions, and customer satisfaction were analyzed using the SPSS 23.0. Frequency, correlation, and regression analyzes were used to determine the results of the data. Based on the results of the analysis, certain suggestions were made.

Research Model and Hypothesis Development

As seen in Figure 1, information on the effects of the dimensions of in-plane atmospheric elements (spatial layout and employee factor, ambience, vehicle aesthetics, and window view) on customer satisfaction and the dimensions of behavioral intentions (revisit intention, recommendation intention, and willingness to pay more) on customer satisfaction is explained above. The hypotheses formed in light of this information are given below.

Figure 1. Research Model Proposal



Findings

In this section, the distribution of the participants according to their demographic characteristics and the findings obtained as a result of the testing of the proposed model are included.



Table 1. Distribution of Participants by Demographic Variables

<i>Age</i>	<i>Frequency</i>	<i>Percentage</i>	<i>Family Income Status According to the Standards of the Country of Residence</i>		
			<i>Frequency</i>	<i>Percentage</i>	
Younger than 18 years	18	4.1	Very low	9	2.1
18-24 years	204	46.8	Low	72	16.5
25-34 years	148	33.9	Medium	314	72.0
35-44 years	48	11.0	High	39	8.9
45-54 years	15	3,4	Very High	2	0.5
55-64 years	3	0.7	Total	436	100.0
Total	436	100.0	<i>Educational Status</i>		
<i>Gender</i>	<i>Frequency</i>	<i>Percentage</i>	Primary School	7	1.6
Male	228	52.3	High School	47	10.8
Female	208	47.7	Associate degree	156	35.8
Total	436	100.0	Bachelor's Degree	174	39.9
<i>Airline Company You Have Used in the Last Year</i>	<i>Frequency</i>	<i>Percentage</i>	Master's Degree	52	11.9
Turkish Airlines	185	42,4	Total	436	100.0
Pegasus	113	25,9			
Anadolu Jet	60	13,8			
Sun Express	23	5,3			
Others	55	12,6			
Total	436	100.0			

The statistical method used to bring together a large number of interrelated variables to obtain fewer new variables is defined as factor analysis (Çetin, 2007). In this respect, factor analysis was performed on the questionnaire data of our study and the results were shown in Table 2 in detail. When the demographic data of the people who travelled by plane mentioned in Table 1 were examined; It was figured out that 228 (52.3%) of the flight attendants were males, while 208 (47.7%) were females. When the age of the participants is considered, it can be found that 18 (4.1%) participants were under 18 years old, 204 (46.8%) of them were between 18-24 years old, 148 (33.9%) of them were between 25-34 years old, 48 (11.0%) of them were between 35-44 years old. Moreover, there were 15 (3.4%) people between the ages of 45 and 54, and 3 (0.7%) of the participants were between the ages of 55 and 64. When we look at the education level of the people who have flight experience; 7 people (1.6%) were graduates of primary school, 47 (10.8%) of them were graduates of high school, 156 (35.8%) of the participants had an associate degree, 174 (39.9%) of them had bachelor's degree and 52 (11.9%) of them had master's degree. When the family income status of the participants was examined within the standards of the country of residence, it was determined that the highest group was medium-income level with 314 (72.0%) people, while the least number of people was found to belong to the very high-income group with 2 (0.5%). The distribution of the airline companies used in the last year according to the number of participants is as follows; 185 people (42.4%) used Turkish Airlines, 113 people (25.9%) used Pegasus, used Anadolujet was used by 60 people (13.8%), Sunexpress, was used by 23 (5.3%) people and other airline companies were used by 55 (12.6%) people.

Table 2. Factor Analysis Results

	Factor Name	Factor Loading	Cronbach's Alpha	Total Variance Explained	KMO	Bartlett's Test of Sphericity	p
In-plane Atmospheric Aspect Dimensions	Spatial Layout and Employee Factor	0.726	,754	45,648	0.933	5695,266	,000
		0.734					
		0.718					
		0.682					
		0.557					
	Ambience	0.600					
		0.804	,804	7,277			
		0.771					
		0.556					
		0.771					
0.831							
Vehicle Aesthetics	0.875	,893	6,445				
	0.904						
	0.894						
	0.808						
	0.926			0.768	5,560		
0.873							
0.906	,941	4,561	0.897			1874,767	,000
0.905							
0.935							
0.859							
0.887							
Behavioral Intention Dimensions	Intention to Revisit	0.961	,944	70,770	0.885	4203,874	0,000
		0.957					
		0.928					
	Intention to Recommend	0.964	,924	18,708			
		0.965					
	Willingness to Pay More	0.954	,960	3,020			
0.977							
		0.954					

Factor analysis was conducted for the in-plane atmospheric elements and behavioral intention scale used in the research. When the factor loadings of the in-plane atmospheric elements, customer satisfaction, and behavioral intention scales were examined, it can be seen that they are above 0.50. The Kaiser Meyer Olkin (KMO) value of the in-plane atmospheric elements was determined as 0.933, of the customer satisfaction scale was determined as 0.897 and of the behavioral intention scale was determined as 0.885. According to the results, it can be concluded that the reliability level of the survey questions was sufficient. In this respect, it was seen that in-plane atmospheric elements, customer satisfaction, and behavioral intention scales were suitable for further analysis (Table 1, and Table 2).

Validity and Reliability Analysis of Scales

The SMART PLS3 statistical program was used to determine the reliability and validity of the study (Ringle et al., 2005). In order to test the models and hypotheses proposed in the study, certain values were examined. These are Cronbach's Alpha and composite reliability values of



each proposition for internal consistency reliability, convergent validity, and discriminant validity. When the Fornell and Larcker (1981) criterion is considered, the square root of the mean variance explained (MVE) values are expected to be higher than the other correlation data examined in the study. According to the results, first of all, the Cronbach Alpha coefficients were found between 0.754 and 0.959; it was also observed that the CR coefficients were between 0.830 and 0.974. Based on these findings it can be claimed that the internal consistency reliability was ensured. The MVE values were between 0.551 and 0.930, accordingly, it can be stated that the convergent validity was ensured. When the factor loadings are evaluated in terms of their reliability levels, the rho_A coefficients above 0.70 was considered sufficient for all factors. All rho_A values have a value above 0.70. It can be said that the scales used are reliable (Sönmez Çakır, 2020). Table 3 contains the results related to the structures in the study.

Table 3. Measurement Model Results

Dimensions	Number of Expressions	Cronbach's Alpha (α)	CR	Rho_A	MVE
In-plane Atmospheric Elements	17	,908	,901	,845	,851
Spatial Layout and Employee Factor	6	,754	,830	,767	,925
Ambience	5	,804	,866	,823	,567
Vehicle Aesthetics	4	,893	,926	,898	,759
View from the Window	2	,768	,895	,804	,809
Customer Satisfaction	5	,942	,955	,943	,808
Behavioral Intention	8	,939	,965	,935	,856
Intention to Visit Again	3	,944	,964	,945	,900
Intention to Recommend	2	,924	,964	,924	,930
Willingness to Pay More	3	,959	,974	,963	,551

Main Findings of the Study

Before the regression analysis of the study, a correlation analysis was conducted between the variables of the study using the SPSS 23.0 program, and the results were shown in Table 4.

Correlation Analysis

Correlation analysis was conducted to determine the relationship between customer satisfaction with in-plane atmosphere and dimensions, and behavioral intentions and dimensions. The results can be seen in Table 4.

Table 4. The Results of Correlation Analysis

	(one)	(1.1)	(1.2)	(1.3)	(1.4)	(2nd)	(3)	(3.1)	(3.2)	(3.3)
In-plane Atmosphere Elements (1)	one									
Spatial Layout and Employee Factor (1.1)	,858 **	one								
Ambience (1.2)	,850**	,651 **	one							
Vehicle Aesthetics (1.3)	,860**	,635 **	,699 **	one						
Window View (1.4)	,553**	,443 **	,388 **	,339 **	one					
Customer Satisfaction (2)	,874**	,660 **	,628**	,707 **	,430 **	one				
Behavioral Intention (3)	,782**	,605 **	,583 **	,698 **	,317 **	,832**	one			
Revisit Intention (3.1)	,804**	,647 **	,582 **	,671 **	,376 **	,866**	,905 **	one		
Intention to Recommend (3.2)	,830**	,663 **	,612**	,706**	,409**	,871**	,895*	,907**	one	
Willingness to Pay More (3.3)	,488**	,342 **	,383**	,498**	,112*	,516**	,829*	,533**	,541**	one

**Correlation is significant at the 0.01 level (2-tailed) *Correlation is significant at the 0.05 level (2-tailed)

When Table 4 is examined, the relationship between customer satisfaction and in-plane atmosphere elements and dimensions (spatial layout and employee factor, ambience, vehicle aesthetics, and view from the window) and behavioral intention dimensions (revisit intention, intention to recommend, and willingness to pay more) can be seen.

It was found out that there is a positive relationship between customer satisfaction and in-plane atmospheric elements ($r=,874^{**}$; $p<0.01$), also a positive relationship between spatial order and employee factor ($r=,660^{**}$; $p <0.01$), ambience ($r=,628^{**}$; $p<0.01$), vehicle aesthetics ($r=,707^{**}$; $p<0.01$), and view from the window ($r=,430^{**}$; $p <0.01$) was revealed in the study.

There is a positive relationship between customer satisfaction and behavioral intention and revisit intention ($r=,832^{**}$; $p<0.01$). In addition, a positive relationship between ($r=,866^{**}$; $p<0.01$), the intention to recommend ($r=,871^{**}$; $p<0.01$) and willingness to pay more ($r=,516^{**}$; $p<0.01$) exists.

Regression Analysis

In this section, there are findings related to the regression analyzes performed to test the main hypotheses, that is, the results of the tests conducted to determine the effects of the independent variables on the dependent variables can be seen in this section.



In this part of the study, H1 and its sub-hypotheses (H1: In-plane atmospheric elements have a positive impact on customer satisfaction. H1a: Spatial layout and employee factor, which are among the dimensions of the in-plane atmospheric elements, have a positive impact on customer satisfaction. H1b: Ambience, which is one of the dimensions of the in-plane atmospheric elements has a positive impact on customer satisfaction. H1c: The aesthetics of the vehicle, one of the atmospheric dimensions of the aircraft, have a positive impact on customer satisfaction. H1d: The view from the window, which is one of the atmospheric dimensions of the aircraft, has a positive effect on customer satisfaction.) were analyzed through multiple regression analysis and the findings were shown in Table 5.

Table 5. Regression Analysis Results for the Effect of In-plane Atmospheric Elements and The Sub-dimensions on Behavioral Intention in Customer Satisfaction and It's Dimensions

Independent variables	Non-standardized Coefficients		Standardized Coefficients	T	P	F	R2	ΔR2
	B	Standard error	Beta					
Constant	-,014	,013		-1,074	,284			
In-plane Atmospheric Elements	4,394	,015	,986	297,101	,000			
Spatial layout and Employee Factor	-1,196	,007	,925	-182,949	,000	431,481	,875	,874
Ambience	-,995	,005	-,832	-182,538	,000			
Vehicle Aesthetics	-,799	,005	,831	-1,158,201	,000			
View from the Window	-,400	,003	-,377	-,127,926	,000			
<i>Dependent variable: Customer Satisfaction, (*p<0.05**p<0.01***p<0.001)</i>								
Constant	,106	,105		1,007	,315	943,434	,693	,692
Customer Satisfaction	,859	,028	,832	30,715	,000			
<i>Dependent variable: Behavioral Intention, (*p<0.05**p<0.01***p<0.001)</i>								
Constant	,193	,103		1,880	,061	1257,749	,751	,750
Customer Satisfaction	,969	,027	,866	35,465	,000			
<i>Dependent variable: Revisit Intention, (*p<0.05**p<0.01***p<0.001)</i>								
Constant	,071	,103		,689	,491	1318,008	,759	,754
Customer Satisfaction	,995	,027	,871	36,304	,000			
<i>Dependent variable: Intention to Recommend, (*p<0.05**p<0.01***p<0.001)</i>								
Constant	,037	,200		,184	,854	152,148	,266	,265
Customer Satisfaction	,657	,053	,516	12,335	,000			
<i>Dependent variable: Willingness to Pay More (*p<0.05**p<0.01***p<0.001)</i>								

According to the results of the regression analysis in Table 5; According to the results obtained on the effect of in-plane atmospheric elements and its dimensions on customer satisfaction; it was determined that the in-plane atmospheric element ($\beta=,986$; $p<0.05$) has a positive effect on customer satisfaction, the spatial layout and employee factor ($\beta=,925$; $p<0.05$) which are

among the in-plane atmospheric elements and vehicle aesthetics ($\beta=,831;p<0,05$) have a positive effect on customer satisfaction. On the other hand, ambience ($\beta=-,832;p<0,05$) and view from the window ($\beta=-,377;p<0,05$) affected customer satisfaction negatively. According to these results, “H1”, “H_{1a}”, and “H_{1c}” hypotheses were accepted, while “H_{1b}” and “H_{1d}” hypotheses were not verified. It was found out that customer satisfaction has a positive effect on behavioral intention ($\beta=,832<0.05$). It also has positive effects on revisit intention ($\beta=.866<0.05$), intention to recommend ($\beta=.871; p<0.05$) and willingness to pay more ($\beta=.516; p<0, 05$). According to these results, “H2”, “H_{2a}”, “H_{2b}” and “H_{2c}” hypotheses were accepted.

Conclusion

According to the results of this study, in which we investigated the effects of in-plane atmospheric elements and dimensions on customer satisfaction, it was revealed that in-plane atmospheric elements have a positive effect on customer satisfaction. It was found that the spatial layout and the employee factor, and the aesthetics of the vehicle, which are the dimensions of the in-plane atmospheric elements, have a positive impact on customer satisfaction. It was found that the dimension view from the window has no influence on customer satisfaction. According to these results, hypotheses “H1”, “H_{1a}” and “H_{1c}” were accepted, while hypotheses “H_{1b}” and “H_{1d}” were rejected. The regression analysis results, which were performed to determine the effects of customer satisfaction on behavioral intention and its sub-dimensions, revealed that customer satisfaction had a positive effect on behavioral intention. In other words, it was found that customer satisfaction has a positive effect on the dimensions of behavioral intention-revisit intention, recommendation intention, to recommend, and willingness to pay more. According to these results, the hypotheses “H2”, “H_{2a}”, “H_{2b}”, and “H_{2c}” were accepted. From these results, it can be stated that customer satisfaction and in-plane atmospheric elements have positive effects on customers. For example, the spatial layout, employee factor (flight crew), vehicle aesthetics (interior design - appearance), and customer satisfaction have positive effects on the recommendation and revisiting the same airline. In addition, it was found out that vehicle aesthetics, the view from the window (scenery), and customer satisfaction have a positive effect on customers’ willingness to pay more.

Considering the results, it can be said that some in-plane atmospheric elements have an effect on customers. In this context, airlines can conduct research studies to meet customers’ expectations. In the global world, where competition is increasing day by day, it is possible to be permanent by introducing various innovations. Identifying differences and standards can increase the competitiveness of airlines and expand their customer portfolio. Another finding of the present study is that customers who are more satisfied by the improvement of in-plane atmospheric elements will be willing to pay more for certain services. This can generate additional revenue for the airline. If it can be stated that there are atmospheric elements that are believed to be important for airline companies. These include factors such as cabin crew uniforms (clothing design), choice of seat colors, and using a unique scent during the flight.

As with any study, there are some limitations to this study. Only the customers of the airlines operating in Turkey were in the scope of the study. The spread of the Covid-19 epidemic at the time of the study partially limited the surveys from being conducted. Another limitation



is the state of willingness of some participants to perceive and answer the questions and that the study starts and ends within a certain period of time. Aviation is one of the complementary sectors of tourism. Previously, the methodology of this study was implemented on restaurant and hotel customers and many suggestions were made. However, this study was conducted to investigate the aircraft from the perspective of a venue, thus, it can be seen as the first effort of its kind in aviation which is a complementary sector. From this point of view, the study is considered original. It can contribute to the literature in terms of theory. At the same time, it is considered a guide for airline companies for practice. Because customers prefer the airline companies considering the criteria such as spatial layout, employee clothing, and ambience. They can also be willing to pay more according to these criteria. In this respect, the study gives valuable information to the aviation field and airline companies. In the light of this information, it can be stated that expanding the scope of implementation and including different countries in the study will contribute to this study.

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