

# The Effect of Sensory Marketing on the Purchase Behavior of Sports Wear Products

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## Abstract

Intense competition conditions push businesses and brands to differentiate. One of the ways brands differentiate themselves from their competitors is to carry out interesting marketing activities for consumers. In this sense, sense-oriented marketing strategies can be used to activate the purchasing behavior of consumers. This research aims to reveal how consumers are affected by sensory marketing elements when purchasing sports ready-to-wear products and their differences according to demographic characteristics. Tekin (2021) used the scale of “the effect of sensory marketing on the buying behavior of ready-made clothing”, which he used in his graduate study. The sample group consists of 241 female and 259 male participants who volunteered and visited the sports shops of 6 shopping centers in Istanbul. In the analysis of the data, Multiple Frequency, Mann-Whitney U test and Kruskal Wallis analyzes were applied.

It is seen that men, participants with university education, 34-41 age group and 2501-4000 TL monthly income spend more in the consumption of sports textile products. The participants stated that they purchase 10% or less of their monthly budget for sports products, they mostly buy from the physical store, they prefer classical music in the store, they show more demand for light colored products, and the majority prefer the Adidas brand. The effect of visual,

olfactory and tactile stimuli in the store atmosphere on the consumption of sports textile products, on gender and education; visuality of brand and store design on gender, education and monthly income; It has been determined that olfactory and auditory stimuli show significant differences according to education and monthly income. It is seen that the effect of product visualization and the effect of olfactory, auditory and tactile stimuli do not change according to any personal characteristics.

**Keywords:** Sensory marketing, Purchasing, Sportswear products

## 1. Introduction

In our modern life, technology has developed and a working and living order with less bodily activity has been created for people. For this reason, sports have started to take more place in people's lives and have to be considered as a prerequisite for a healthy life. Sport has become an increasingly important phenomenon in terms of both improving the quality of life and evaluating spending a healthy time. The transformation of sports into an industry in this sense is related to the social power it creates on people (Altunbaş, 2007). The sportswear industry has had a significant impact on the development of marketing companies since the 1950s. The production of textile products with high quality performance and technical features for different usage purposes is showing its effect day by day in the sports sector, as it is in all sectors. In both personal and team sports, the quality of the material produced is also effective, rather than the performances of those who do sports (Yavaş, 2005). Competition conditions lead brands and businesses to change themselves. One of the ways for brands to bring themselves to the forefront for competing businesses is to create interesting marketing activities for consumers. In this respect, sensory marketing methods can be used to activate the purchasing behavior of consumers. For this reason, marketers have started to use sports-related marketing and as a result, they have used many marketing methods in the marketing of sports products. One of the most effective methods among these has been sensory marketing (Taşkın, 2008).

Sensory marketing is a type of marketing that appeals to the five senses and thus affects the perceptions, evaluations and behaviors of consumers. The basis of sensory marketing; creates a triangle of motive, emotion and reason. The type of marketing that drives the consumer to the purchasing activity by using some of the senses of touch, hearing, taste, sight or smell is considered as sensory marketing. In fact, this method, which appeals to a kind of psychology, comes before people as sensory marketing and appeals to previous experiences (Hulten, 2015; Rebic & Horska, 2019; Yu, 2011). For example, pleasant-sounding music, good smells or a soft sofa stimulate the senses and stimulate the buying behavior by reviving the memories of the past. Although sensory marketing is highly preferred for the traditional market, it is also important in terms of trade. The magnificent design on the website of a sports brand selling sports products affects consumers in terms of purchasing behavior. It is a method used in purchasing by arousing emotions towards products and brands. It provides the opportunity for brands to show themselves in the best way by creating images in different ways in the minds of consumers (Oliveira et al., 2021). In today's market conditions, the success of businesses or brands depends on their ability to differentiate the emotions they experience because

consumers react and act according to their perceptions with the help of the senses, not according to the facts (Ceylan, 2013). Written by Bertil Hutten, Niklas Broweus and Marcus Van Dijk, sensory marketing talks about the importance of how the five human senses are used in marketing strategies with an innovative approach (Yu, 2011). Therefore, in order to keep up with the changing consumer demands and expectations today, it is necessary not only to be limited to the senses of sight and hearing, but also to add difference and attractiveness to the consumer perception by including the elements of smell, taste and touch. However, technological developments have influenced the sports market (Pekar, 2017).

Developing technology also affects the sports world, and most of the products are offered to the market through technology. Electronic commerce, whose marketing methods are becoming more common day by day in the sports sector, has an effect on marketing styles and brings convenience to consumers in different ways. In line with the globalizing economy, electronic commerce is important together with sensory marketing in order to increase the competition among brands that want to bring themselves to the forefront in the field of sports. When it comes to competition, every seller should develop strategies for purchasing comfortable outlets and sensory intelligence. Such methods used in marketing prolong the stay of consumers in the store, increase instant purchases and create difference between competitors (Kalenskaya & Muhadisova, 2019).

When Turkey's textile and ready-made clothing export figures are analyzed, "*Turkish Exporters Assembly stated that exports in 2022 increased by 16.2% compared to 2021 and amounted to 5.5 billion dollars. According to the data announced by the Central Bank of the Republic of Turkey, the capacity utilization rate in the clothing manufacturing industry was 84.2% in May 2022. Turkey's total textile exports changed between January-May 2021 and January-May 2022 by 11.2%. In 2022, there were EU countries with a share of 62%*" (İHKİB, 2022).

Brands and countries that use both sensory marketing and technology well have become the most important flag carriers in the sportswear market (Çoban et al., 2011). According to the results of the report presented by the McKinsey company in 2021, the five most important countries in terms of the sportswear market are the USA, China, Japan, Germany and the UK (McKinsey, 2021). The largest market for sportswear is the USA, with a growth rate of approximately 6.5% per year between 2016 and 2019. China comes second with a growth rate of approximately 17.4% between 2016 and 2019. It is quite an expected result that the USA is in the first place with its unique sports organizations and very high sports incomes around the world. China, on the other hand, has taken the second place with its population potential and the interest it has shown in sports organizations in recent years. Another analysis stated in the report was that men's sportswear was the most purchased in 2019, followed by women's and children's sportswear (Sarı et al., 2021).

Sensory marketing, which is one of the innovative marketing applied by world brands, is a cheap way and a marketing method with a high return rate. It is very important to investigate the effect of marketing methods that appeal to the five senses of consumers in order to increase sales and get a share from the market in an intensely competitive environment.

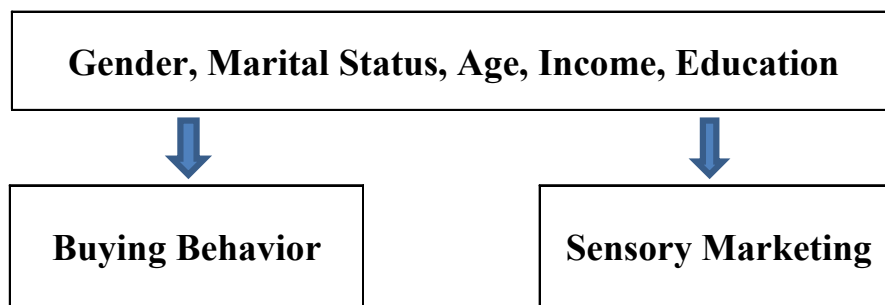
## 2. Methods

### 2.1 Purpose of the Research

It aims to reveal how consumers are affected by sensory marketing elements when purchasing sports ready-to-wear products and their differences according to demographic characteristics.

### 2.2 Research Model

Simple random sampling method and descriptive survey method were used to represent the universe. In this model, in order to make a general judgment about a universe consisting of many elements, it conducts a scan on the whole universe or a group of samples or samples to be taken from it, and tries to define individuals as they are in their own conditions (Karasar, 2020).



### 2.3 Research Group

It consists of 500 participants who visited the sports shops in 6 shopping centers in Istanbul and voluntarily participated in our research.

### 2.4 Data Collection Tools

The questionnaire form used in the study “The effect of sensory marketing on the buying behavior of ready-made clothing” was used. Information about the scale: the questions of the questionnaire were developed based on the basic information in the literature by making the necessary interviews. Ege University social and human sciences scientific research and publication ethics committee was found ethically appropriate with protocol number 352 on 29.08.2019. The questions in the questionnaire were prepared according to open-ended, multiple choice and five-point Likert scale. “The effect of visual, olfactory and tactile stimuli in the store atmosphere”, “the effect of the product visuality”, “the effect of the visuality of the brand and store design”, “the effect of the olfactory and auditory stimuli”, “the effect of the olfactory, auditory and tactile stimuli” and “the effect of the virtual store visuality” “Being” consists of 6 sub-dimensions. The reliability of the questionnaire was measured by calculating the Cronbach’s alpha coefficient ( $\alpha$ ). The  $\alpha$  coefficient of the research was found to be 0.81 Tekin (2021).

### *2.5 Research Hypotheses*

- Sensory marketing stimuli in sportswear customers differ in terms of purchasing behavior according to gender.
- Sensory marketing stimuli in sportswear customers differ in terms of purchasing behavior according to marital status.
- Sensory marketing stimuli in sportswear customers differ in terms of purchasing behavior according to age.
- Sensory marketing stimuli from sportswear customers differ in terms of purchasing behavior according to income level.
- Sensory marketing stimuli in sportswear customers differ in purchasing behavior according to their educational status.

### *2.6 Data Collection*

The subject of the study was explained and permission was obtained from the security managers and managers of the designated shopping centers. Then, the store managers were interviewed for the realization of the work from all sportswear stores. The subject of face-to-face surveys with visitors at the exit gates of shopping malls and stores, where permission is taken on different days, was explained and the visitors were asked to fill in.

### *2.7 Analysis of Data*

Frequency and Multiple frequency tests were used according to the demographic status of the participants. The sensory marketing differentiation status of the participants was examined with the Mann-Whitney test according to gender and the variables of age, education and monthly income were examined with the Kruskal-Wallis test.

### 3. Results

Table 1. Frequency and percentage distribution of the demographic characteristics of the participants

		<b>N</b>	<b>%</b>
<b>Gender</b>	Woman	241	48.2
	Male	259	51.8
<b>Age</b>	18-25 age	97	19.4
	26-33 age	160	32
	34-41 age	122	24.4
	42-49 age	86	17.2
	50 and over	35	7
<b>Education</b>	High school	77	15.4
	University	327	65.4
	Graduate	96	19.2
<b>Monthly Income</b>	2500 TL and below	133	26.6
	2501-4000 TL	167	33.4
	4001-5500 TL	97	19.4
	5501-7000 TL	77	15.4
	7001 TL and above	26	5.2
<b>Total</b>		500	100

When Table 1 is examined, the sample is mostly male ( $n = 259$ ; 51.8%), between the ages of 26-33 ( $n = 160$ ; 32.0%), undergraduate graduates ( $n = 327$ ; 65.4%) and 2501-4000 TL. It is seen that it consists of participants with income.

Table 2. Buying habits of participants

		N	%
<b>What percentage of your monthly budget do you spend on sports ready-to-wear?</b>	%10 and below	271	54.2
	%11-%30	171	34.2
	%31-%50	42	8.4
	%51 and above	16	3.2
<b>Where do you usually buy sports apparel?</b>	I buy from physical stores.	224	44.8
	I buy from brands' own websites	46	9.2
	I buy from e-commerce sites	193	38.6
	I get it from mobile apps of brands	37	7.4
<b>What kind of music would you like to be played in the stores where you buy sportswear?</b>	Classic music	182	36.4
	Turkish art music	21	4.2
	Pop music	235	47
	Rock music	23	4.6
	Brand specific jingle	39	7.8
<b>What kind of colors do you prefer to use in the stores where you buy sports ready-to-wear products?</b>	Light colors	224	44.8
	Dark colors	193	38.6
	Bright and vibrant colors	46	9.2
	Atte colors	37	7.4
<b>Which brand belongs to the sports ready-to-wear store that appeals to your senses the most (your favorite in terms of visual, olfactory, auditory, etc.)?</b>	Adidas	138	27.6
	Puma	129	25.8
	Hummel	93	18.6
	Sketchers	21	4.2
	Nike	53	10.6
	Reebok	23	4.6
	New balance	24	4.8
	Converse	19	3.8
<b>Total</b>		500	100

As seen in Table 2, the majority of the participants allocate less than 10% of their monthly

budget to sportswear expenditures (n = 271; 54.2%), and the number of participants who allocate more budget is gradually decreasing. Most of the participants generally buy sportswear products from physical stores (n = 224; 44.8%), besides, e-commerce sites are used by a significant number of participants in sportswear purchasing behavior (n = 193; 38.6%), other On the other hand, it is seen that brands' own websites (n = 46; 9.2%) and mobile applications (n = 37; 7.4%) are not preferred much. Pop music (n = 235; 47.0%) and classical music (n = 182; 36.4%) are mostly preferred to play in sportswear stores. While the majority of the participants prefer the use of light colors in sportswear stores (n = 224; 44.8%), it is seen that a significant number of participants prefer dark colors (n = 193; 36.8%). Adidas (n = 138; 27.6%) and Puma (n = 129; 25.8%) stand out as the sportswear brands that most appeal to the senses of the participants.

Table 3. Percentage distribution of sports ready-to-wear expenditures over their monthly budgets according to the personal characteristics of the participants

		What percentage of your monthly budget do you spend on sports ready-to-wear?				Total
		%10 and below	%11-%30	%31-%50	%51 and over	
<b>Gender</b>	Woman	26.2%	16.6%	3.2%	2.2%	48.2%
	Male	28%	17.6%	5.2%	1%	51.8%
<b>Age</b>	18-25 age	12.6%	5.4%	1%	.4%	19.4%
	26-33 age	17.6%	10.6%	2.8%	1%	32%
	34-41 age	12.8%	8.4%	2.8%	.4%	24.4%
	42-49 age	8%	7.2%	1%	1%	17.2%
	50 and over	3.2%	2.6%	.8%	.4%	7%
<b>Education</b>	High school	6.2%	7.6%	1.4%	.2%	15.4%
	University	38.8%	18.4%	5.6%	2.6%	65.4%
	Graduate	9.2%	8.2%	1.4%	.4%	19.2%
<b>Monthly Income</b>	2500 TL and below	16.2%	8%	1.2%	1.2%	26.6%
	2501-4000 TL	20.4%	8%	3.8%	1.2%	33.4%
	4001-5500 TL	9.4%	8.2%	1.4%	.4%	19.4%
	5501-7000 TL	6.2%	7.6%	1.4%	.2%	15.4%
	7001 TL and above	2%	2.4%	.6%	.2%	5.2%
<b>Total</b>		54.2%	34.2%	8.4%	3.2%	100%



When Table 3 is analyzed in terms of gender, it is seen that both women (26.2%) and men (28%) mostly allocate less than 10% of their monthly budgets to sportswear expenditures. Similarly, respondents from all age groups mostly allocate less than 10% of their monthly budget to sportswear expenditures. When the results are analyzed in terms of education, it is seen that university (38.8%) and graduate (9.2%) graduates mostly allocate less than 10% of their monthly budgets to sportswear expenditures, while high school graduates mostly spend 11-30% of their monthly budgets. It is seen that it allocates 6% to sportswear expenditures (7.6%). When the results are analyzed in terms of monthly income, it is seen that the participants with an income below 5500 TL mostly allocate less than 10% of their monthly budget to sportswear expenditures, while the participants with an income above 5500 TL mostly allocate 11-30% of their monthly budget to sportswear expenditures.

Table 4. Percentages of places where the participants usually buy sports ready-to-wear products according to their personal characteristics

		Where do you usually buy sports apparel?				Total
		I buy from physical stores	I buy from brands' own websites	I buy from e-commerce sites	I get it from mobile apps of brands	
<b>Gender</b>	Woman	20.1%	4%	20.1%	4%	48.2%
	Male	24.8%	5.2%	18.4%	3.4%	51.8%
<b>Age</b>	18-25 age	9.4%	1.8%	7.4%	.8%	19.4%
	26-33 age	13.8%	3.4%	12.8%	2%	32%
	34-41 age	9.9%	2.2%	9.9%	2.4%	24.4%
	42-49 age	9%	1%	5.8%	1.4%	17.2%
	50 and over	2.8%	.8%	2.6%	.8%	7%
<b>Education</b>	High school	8.0%	1.4%	5.4%	.6%	15.4%
	University	27.8%	5.4%	26.2%	6%	65.4%
	Graduate	9.0%	2.4%	7%	.8%	19.2%
<b>Monthly Income</b>	2500 TL and below	9.8%	2.2%	12.6%	2%	26.6%
	2501-4000 TL	15%	2.6%	12.2%	3.6%	33.4%
	4001-5500 TL	9%	2.4%	7.2%	.8%	19.4%
	5501-7000 TL	8%	1.4%	5.4%	.6%	15.4%
	7001 TL and over	3%	.6%	1.2%	.4%	5.2%
<b>Total</b>		44.8%	9.2%	38.4%	7.4%	100%

When Table 4 is examined, the majority of the participants in all gender, age, education and monthly income groups generally buy sportswear products from physical stores (44.8%), while e-commerce sites are used by a significant number of participants in purchasing behavior of sportswear (38%), on the other hand, it is seen that brands' own websites (9.2%) and mobile applications (7.4%) are not preferred much. In addition, it is seen that only the participants with a monthly income of 2500 TL or less prefer e-commerce sites (12.6%) more than physical stores (9.8%) in their sportswear purchasing behavior.

Table 5. Percentages of music distribution that the participants want to play in the store where they buy sports ready-to-wear products according to their personal characteristics

		What kind of music would you like to be played in the stores where you buy sportswear?					Total
		Classic music	Turkish art music	Pop music	Rock music	Brand specific jingle	
<b>Gender</b>	Woman	16.4%	1.8%	23.8%	2.2%	4%	48.2%
	Male	20%	2.4%	23.2%	2.4%	3.8%	51.8%
<b>Age</b>	18-25 age	7.6%	.4%	9.2%	1%	1.2%	19.4%
	26-33 age	11.2%	1%	15.4%	1.6%	2.8%	32%
	34-41 age	9.6%	2%	10.2%	1.4%	1.2%	24.4%
	42-49 age	6.2%	.4%	8.6%	.4%	1.6%	17.2%
	50 and over	1.8%	.4%	3.6%	.2%	1%	7%
<b>Education</b>	High school	4.0%	.4%	9.4%	.4%	1.2%	15.4%
	University	25%	3.4%	29%	2.8%	5.2%	65.4%
	Graduate	7.4%	.4%	8.6%	1.4%	1.4%	19.2%
<b>Monthly Income</b>	2500 TL and below	11.2%	.8%	11.2%	1.6%	1.8%	26.6%
	2501-4000 TL	12.2%	2.4%	15%	1%	2.8%	33.4%
	4001-5500 TL	7.4%	.4%	8.8%	1.4%	1.4%	19.4%
	5501-7000 TL	4%	.4%	9.4%	.4%	1.2%	15.4%
	7001 TL and above	1.6%	.2%	2.6%	.2%	.6%	5.2%
<b>Total</b>		36.4%	4.2%	47.0%	4.6%	7.8%	100%

Table 5 shows that the majority of the participants in gender, age, education and monthly income groups want pop music to be played from sportswear stores (47.0%), classical music

is preferred by a significant number of participants (36.4%), on the other hand, Turkish classical music (4.2%), rock music (4.6%) and brand-specific jingles (7.8%) are not preferred much.

Table 6. Color distribution percentages that the participants want to use in the store where they buy sports ready-to-wear products according to their personal characteristics

		What kind of colors do you prefer to use in the stores where you buy sports ready-to-wear products?				Total
		Light colors	Dark colors	Bright and vibrant colors	Matte colors	
<b>Gender</b>	Woman	20.1%	20.1%	4%	4%	48.2%
	Male	24.8%	18.4%	5.2%	3.4%	51.8%
<b>Age</b>	18-25 age	9.4%	7.4%	1.8%	.8%	19.4%
	26-33 age	13.8%	12.8%	3.4%	2%	32%
	34-41 age	9.9%	9.9%	2.2%	2.4%	24.4%
	42-49 age	9%	5.8%	1%	1.4%	17.2%
	50 and over	2.8%	2.6%	.8%	.8%	7%
<b>Education</b>	High school	8%	5.4%	1.4%	.6%	15.4%
	University	27.8%	26.2%	5.4%	6%	65.4%
	Graduate	9.0%	7.0%	2.4%	.8%	19.2%
<b>Monthly income</b>	2500 TL and below	9.8%	12.6%	2.2%	2%	26.6%
	2501-4000 TL	15%	12.2%	2.6%	3.6%	33.4%
	4001-5500 TL	9%	7.2%	2.4%	.8%	19.4%
	5501-7000 TL	8%	5.4%	1.4%	.6%	15.4%
	7001 TL and above	3%	1.2%	.6%	.4%	5.2%
<b>Total</b>		44.8%	38.6%	9.2%	7.4%	100%

Table 5 shows that the majority of the participants in gender, age, education and monthly income groups want light colors to be used in sportswear stores (44.8%), and dark colors are preferred by a significant number of participants (38.6%), on the other hand, bright/vivid colors (9.2%) and matte colors (7.4%) are not preferred much.

Table 7. Distribution percentages of the sports ready-to-wear brand that most appeals to the senses of the participants according to their personal characteristics.

		Which brand belongs to the sports ready-to-wear store that appeals to your senses the most (your favorite in terms of visual, olfactory, auditory, etc.)?								Total
		Adidas	Puma	Hummel	Nike	New balance	Reebok	Sketchers	Converse	
<b>Gender</b>	Woman	13.6%	11.6%	9.2%	5.0%	2.4%	2.8%	2.2%	1.4%	48.2%
	Male	14.0%	14.2%	9.4%	5.6%	2.4%	1.8%	2%	2.4%	51.8%
<b>Age</b>	18-25 age	4.2%	5%	4.2%	2.0%	1.2%	.6%	1.4%	.8%	19.4%
	26-33 age	9.4%	8.4%	6.2%	2.4%	1.2%	1.8%	.8%	1.8%	32%
	34-41 age	7.4%	5%	4.2%	4.4%	1.2%	.4%	1%	.8%	24.4%
	42-49 age	5%	5.2%	2.8%	1%	.6%	1.4%	.8%	.4%	17.2%
	50 and over	1.6%	2.2%	1.2%	.8%	.6%	.4%	.2%	0	7.0%
<b>Education</b>	High school	3.8%	4%	3.6%	.8%	1.0%	.6%	.8%	.8%	15.4%
	University	18%	17.4%	11.4%	7.4%	2.6%	3.6%	2.6%	2.4%	65.4%
	Graduate	5.8%	4.4%	3.6%	2.4%	1.2%	.4%	.8%	.6%	19.2%
<b>Monthly Income</b>	2500 TL and below	8.8%	7.6%	4.0%	2.6%	.6%	1.4%	1.2%	.4%	26.6%
	2501-4000 TL	7.8%	8.0%	6.4%	4.8%	1.8%	1.8%	1.4%	1.4%	33.4%
	4001-5500 TL	6%	4.4%	3.6%	2.4%	1.2%	.4%	.8%	.6%	19.4%
	5501-7000 TL	3.8%	4%	3.6%	.8%	1.0%	.6%	.8%	.8%	15.4%
	7001 TL and above	1.2%	1.8%	1.0%	0	.2%	.4%	0	.6%	5.2%
<b>Total</b>		27.6%	25.8%	18.6%	10.6%	4.8%	4.6%	4.2%	3.8%	100%

In Table 5, Adidas (27.6%) and Puma (25.8%) brands stand out in terms of appealing to the senses of the participants in gender, age, education and monthly income groups; Hummel (18.6%) and Nike (10.6%) brands also appeal to the senses of a relatively large number of participants; It is seen that the brands New Balance (4.8%), Reebok (4.6%), Sketchers (4.2%) and Converse (3.8%) do not appeal to the senses of the participants very much.

Table 8. Differences in the effects of sensory marketing stimuli on the purchasing behavior of male and female consumers for ready-made clothing

	Gender	N	Rank Average	U	P	Z
<b>The effect of visual, olfactory and tactile stimuli in the store atmosphere</b>	Woman	60	262.29	27670.00	<b>.03</b>	-2.20
	Male	150	235.78			
<b>The effect of product visuality</b>	Woman	60	249.84	30648.50	.72	-.36
	Male	150	247.26			
<b>The effect of the visuality of the brand and store design</b>	Woman	60	261.01	27994.50	<b>.04</b>	-2.04
	Male	150	236.96			
<b>The effect of olfactory and auditory stimuli</b>	Woman	60	260.17	28190.50	.06	-1.90
	Male	150	237.74			
<b>The effect of olfactory, auditory and tactile stimuli</b>	Woman	60	244.67	30441.50	.62	-.50
	Male	150	252.04			
<b>The effect of virtual store visualization</b>	Woman	60	252.17	30136.50	.50	-.68
	Male	150	245.11			

The effects of the sensory marketing stimuli of the sportswear consumers on the purchasing behavior of ready-made clothing products by gender were examined with the Mann-Whitney Test. The effect of visual, olfactory and tactile stimuli in the store atmosphere on the purchasing behaviors of the participants ( $U = 27670.00$ ,  $p = .03$ ,  $z = -2.20$ ); In the sub-dimensions of the effect of the visuality of brand and store designs ( $U = 27994.50$ ,  $p = .04$ ,  $z = -2.04$ ), there are significant differences by gender ( $p < 0.05$ ). In both sub-dimensions, the result is in favor of women.

Table 9. Differences in the effects of sensory marketing stimuli on consumers' purchasing behavior of ready-to-wear products by age

	Age	N	Rank Average	df	X <sup>2</sup>	P
<b>The effect of visual, olfactory and tactile stimuli in the store atmosphere</b>	18-25 age	97	255.40	4	8.21	.08
	26-33 age	160	234.47			
	34-41 age	122	237.98			
	42-49 age	86	280.33			
	50 and over	35	280.57			
<b>The effect of product visuality</b>	18-25 age	97	253.91	4	4.13	.38
	26-33 age	160	233.08			
	34-41 age	122	264.95			
	42-49 age	86	258.61			
	50 and over	35	250.40			
<b>The effect of visuality of brand and store design</b>	18-25 age	97	258.10	4	3.46	.48
	26-33 age	160	241.87			
	34-41 age	122	264.00			
	42-49 age	86	250.50			
	50 and over	35	221.83			
<b>The effect of olfactory and auditory stimuli</b>	18-25 age	97	247.01	4	2.51	.64
	26-33 age	160	239.19			
	34-41 age	122	264.23			
	42-49 age	86	258.22			
	50 and over	35	245.04			
<b>Effect of olfactory, auditory and tactile stimuli</b>	18-25 age	97	258.46	4	2.45	.65
	26-33 age	160	253.83			
	34-41 age	122	238.41			
	42-49 age	86	260.22			
	50 and over	35	231.50			
<b>The effect of virtual store visualization</b>	18-25 age	97	245.51	4	2.74	.60
	26-33 age	160	238.33			
	34-41 age	122	256.16			
	42-49 age	86	265.45			
	50 and over	35	263.50			

The effects of the sensory marketing stimuli of the sportswear consumers on the purchasing behavior of ready-to-wear products according to age were examined with the Kruskal-Wallis Test and no significant difference was found ( $p > 0.05$ ).

Table 10. Differences in the effects of sensory marketing stimuli on consumers' buying behavior of ready-to-wear products according to education

	<b>Education</b>	<b>N</b>	<b>Rank Average</b>	<b>df</b>	<b>X<sup>2</sup></b>	<b>P</b>
<b>The effect of visual, olfactory and tactile stimuli in the store atmosphere</b>	High school	77	214.38	2	8.26	<b>.02</b>
	University	327	263.15			
	Graduate	96	236.40			
<b>The effect of product visualization</b>	High school	77	255.95	2	.17	.91
	University	327	250.17			
	Graduate	96	247.24			
<b>The effect of visibility of brand and store design</b>	High school	77	210.77	2	8.81	<b>.01</b>
	University	327	262.36			
	Graduate	96	241.97			
<b>The effect of olfactory and auditory stimuli</b>	High school	77	213.56	2	14.00	<b>.00</b>
	University	327	267.72			
	Graduate	96	221.48			
<b>Effect of olfactory, auditory and tactile stimuli</b>	High school	77	260.87	2	4.31	.12
	University	327	241.54			
	Graduate	96	272.69			
<b>The effect of virtual store visualization</b>	High school	77	259.03	2	2.74	.25
	University	327	243.14			
	Graduate	96	268.73			

The effects of the sensory marketing stimuli of the sportswear consumers on the purchasing behavior of ready-made clothing products according to education were examined with the Kruskal-Wallis Test and differences were found in some sub-dimensions ( $p < 0.05$ ). The effect of visual, olfactory and tactile stimuli in the store atmosphere ( $X^2 = 8.26$ ,  $df = 2$ ,  $p = .02$ ), the effect of the visibility of the brand and store design ( $X^2 = 8.81$ ,  $df = 2$ ,  $p = .01$ ) and the olfactory and the effect of auditory stimuli ( $X^2 = 14.00$ ,  $df = 2$ ,  $p = .00$ ) sub-dimensions were found to vary according to the educational status of the participants. It is understood that the significant difference in all three sub-dimensions is in favor of university education.

Table 11. Differences in the effects of sensory marketing stimuli on consumers' purchasing behavior of ready-to-wear products according to monthly income

	Monthly Income	N	Rank Average	df	X <sup>2</sup>	P
<b>The effect of visual, olfactory and tactile stimuli in the store atmosphere</b>	2500 TL and below	133	262.40	4	8.18	.08
	2501-4000 TL	167	265.01			
	4001-5500 TL	97	237.72			
	5501-7000 TL	77	214.38			
	7001 TL and above	26	251.08			
<b>The effect of product visuality</b>	2500 TL and below	133	260.56	4	1.36	.85
	2501-4000 TL	167	243.79			
	4001-5500 TL	97	244.84			
	5501-7000 TL	77	255.95			
	7001 TL and above	26	247.10			
<b>The effect of visuality of brand and store design</b>	2500 TL and below	133	264.21	4	10.17	<b>.03</b>
	2501-4000 TL	167	265.99			
	4001-5500 TL	97	239.64			
	5501-7000 TL	77	210.77			
	7001 TL and above	26	239.04			
<b>The effect of olfactory and auditory stimuli</b>	2500 TL and below	133	280.96	4	21.00	<b>.00</b>
	2501-4000 TL	167	268.18			
	4001-5500 TL	97	219.24			
	5501-7000 TL	77	213.56			
	7001 TL and above	26	207.17			
<b>Effect of olfactory, auditory and tactile stimuli</b>	2500 TL and below	133	235.52	4	4.77	.31
	2501-4000 TL	167	250.19			
	4001-5500 TL	97	269.93			
	5501-7000 TL	77	260.87			
	7001 TL and above	26	225.90			
<b>The effect of virtual store visualization</b>	2500 TL and below	133	231.79	4	5.50	.24
	2501-4000 TL	167	257.37			
	4001-5500 TL	97	266.16			
	5501-7000 TL	77	259.03			
	7001 TL and below	26	218.37			



The effects of sensory marketing stimuli of sportswear consumers on the purchasing behavior of ready-to-wear products according to monthly income were examined with the Kruskal-Wallis Test and differences were found in some sub-dimensions ( $p < 0.05$ ). The effect of the visuality of the brand and store design ( $X^2 = 10.17$ ,  $df = 4$ ,  $p = .03$ ) and the effect of olfactory and auditory stimuli ( $X^2 = 21.00$ ,  $df = 4$ ,  $p = .00$ ) sub-dimensions according to the monthly income of the participants. has been found to change. Those with a monthly income of 2501-4000TL on their purchasing behavior of ready-to-wear products scored higher in the visual impact of the brand and store design, and those with a monthly income of 2500TL and less on the effect of olfactory and auditory stimuli scored higher.

#### **4. Conclusion and Discussion**

According to Krishna (2011), sensory marketing is a method that engages consumers' senses and directs them to sales. All world brands started to see the positive effects of sensory marketing, which is one of the last marketing methods. In a study investigating the effect of sensory marketing on Russian retail, it was determined that the sales of stores using sensory marketing methods increased by 20% (Kalenskaya & Muhadisova, 2019). In another study conducted in India, it was found that sensory marketing increases sales (Narayan and Singh, 2019). It is emphasized that it is not important to activate more than one sense, and that more than one sense should be activated at the same time in an effective marketing (Rybanska, Nagyova, & Kosiciarova, 2014). In a study conducted in Japan, it was stated that shopping malls apply internal sensory marketing, while outdoor shopping stores outside shopping centers apply external sensory marketing (Nghiem-Phú, 2017). According to the findings, sensory marketing has been an important strategy for selling brands.

It is also known that sensory marketing is used very well in businesses that produce services as well as businesses that only sell goods, such as private clinics, massage, hairdresser, beauty salons or gyms. In a study, it is seen that sensory marketing applied in sports clubs (fitness) has an effect on the behavioral and attitudinal loyalty of customers (Soleimani, Ahmadi, & Zohrevand, 2021).

This study was carried out to investigate the effect of this cheap and effective method in the sports ready-to-wear industry. According to the results of our findings, the majority of the participants; stated that they usually buy sportswear products from physical stores, they prefer pop music inside the store, the stores prefer light colors, and Adidas stores appeal to their senses the most. The effect of sensory marketing on purchasing does not differ according to age. However, it has been determined that it differs according to gender, education and monthly.

It has been determined that the effect of visual, olfactory and tactile stimuli in the store and the visuality of the brand and store on the purchasing behavior of sportswear products is significantly higher in female consumers compared to men. In the literature, it is seen that there are studies in favor of women. In the study conducted by Kalay (2019) in restaurants, it was determined that women attach higher importance to auditory stimuli than men. In the study carried out by Elibol (2021), it was concluded that the tactile dimension is more important in women than in men. In the study carried out by Güllü, Uyar, and Gülsoy (2020),

it was determined that the importance given to sensory marketing features did not differ significantly according to gender. In the study, the sportswear purchasing habits of the participants were examined. In the analyzes carried out in this context, it has been determined that the majority of the participants allocate less than 10% of their monthly budgets to sportswear expenditures. In the study conducted by Tekin (2021), it was determined that the majority of the participants allocate less than 10% of their monthly budgets to ready-made clothing expenditures. It is seen that a similar finding was reached by Matayeva (2018). In addition, according to the 2019 results of the household budget research carried out by TURKSTAT, clothing expenditures have a share of 5.0% in consumption expenditures of households across Turkey (TUIK, 2019).

Tekin (2021) found differences in all sensory marketing sub-dimensions of age and obtained results contrary to our study. At the same time, Gullu et al. (2020) found significant differences in taste and odor dimensions to the detriment of the elderly. In the study conducted by Kalay (2019), significant differences were found against the youth in the dimensions of taste and touch. The fact that 44.8% of the participants in our study shopped at physical stores may explain the difference according to age. In the study, it was determined that the majority of the participants generally buy sportswear products from physical stores, besides, e-commerce sites are used by a significant number of participants in purchasing behavior of sportswear, on the other hand, brands' own websites and mobile applications are not preferred much. In the study carried out by Ekiz and Kızılkaya (2020), it was determined that the majority of the participants generally purchased clothing products from physical stores or e-commerce sites. As a result, it can be stated that this finding of the study is compatible with the literature.

As a result, in parallel with the finding of this study, in the literature mostly sensory marketing stimuli are more prominent in women than in men.

## **5. Suggestions**

Based on the findings obtained in this study, the stores selling sportswear products;

It has been revealed by literature reviews that people's 5 sense organs increase sales in sensory marketing. Further research on sensory marketing is very important for businesses and literature seeking commercial development.

The importance of elements such as smell, taste, hearing, sight and touch in marketing is emphasized. However, we think that the reduction of negative stimuli in the amount of sales will also contribute to science.

In addition, they should design their physical conditions in a way that will positively affect consumer behavior in terms of sensory marketing stimuli, carry out these activities not only in physical stores but also in virtual stores on e-commerce sites, establish/develop cooperation with e-commerce stores, focus on pop music and classical music in stores. It is recommended to give priority to light colors.

For researchers, it is recommended to carry out a similar study for the sportswear sector,

primarily due to the lack of studies in the literature. In addition, it is considered that it would be appropriate to examine the effects of sensory marketing on purchase intention/behavior, customer satisfaction, customer experience or customer loyalty with a regression model. In addition, it may be recommended to add demographic characteristics as a regulatory variable to these regression models.

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