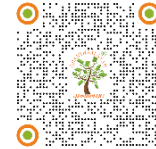


Original Article

RESEARCH ON PROBLEMS AND CONSUMER EXPECTATIONS IN SPORTSWEAR PRODUCTS

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ABSTRACT

Sportswear today is not only preferred for sporting activities but has also become a widely used product group in daily life. This situation makes consumers' expectations and purchasing behaviors regarding sportswear increasingly significant. This study was conducted to examine the purchasing behaviors of sports center members in the Bornova district of İzmir toward sportswear products, the problems they encounter during use, and their expectations from these products.

The survey, carried out with 152 participants, consisted of three sections: demographic characteristics, purchasing behaviors related to sportswear products, and expectations from garments. According to the findings, participants most frequently preferred tops and leggings when purchasing sportswear, with comfort being the primary factor influencing their purchasing decisions. The most commonly reported issues with tops were post-wash deformation, seam unraveling, and color fading, while the main problems with bottoms included rapid deformation, seam splitting, and fabric pilling. In addition, product lifespan, washing durability, air permeability, seam strength and fabric elasticity were identified as the most important expected features of sportswear.

Keywords: Sports Textiles, Product Performance, Consumer Expectations, Survey Study

INTRODUCTION

Sportswear today is not limited to athletic activities but has also found a significant place in everyday life. With its functional design, comfort-enhancing structure, and aesthetic appeal, sportswear has become an integral part of modern clothing concepts and lifestyles. Particularly with the increasing pace of daily life and the growing interest in sports, this category of clothing has gained rising importance for both consumer preferences and the ready-to-wear industry [İşler and Tama \(2019\)](#).

In recent years, the sportswear category has considerably expanded its share within the apparel market. Globally, the sportswear market was valued at approximately USD 335.9 billion in 2023 and is expected to exceed USD 646 billion by 2030 [Grand View Research. \(2025\)](#). In the context of Turkey, while apparel and ready-to-wear exports amounted to USD 17.9 billion in 2024, sportswear products accounted for USD 370 million, representing 2.1% of the total [\(İHKİB, 2025\)](#). These figures indicate that the sportswear segment is gaining increasing significance within the apparel industry at both the global and national levels.

The emergence of various sports disciplines, the growing interest in sports, the increasing number of individuals engaging in physical activity, and the widespread use of sportswear in daily life have all heightened the textile industry's interest in the sports sector, as in many other industries. In sportswear production, greater emphasis has increasingly been placed on meeting the needs and expectations of consumers. [Akçalış \(2016\)](#), [Taştepe \(2020\)](#).

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In recent years, individuals engaged in sports have increasingly preferred equipment and products that enhance performance and provide a high level of comfort during physical activity [Devecioğlu and Altıngül \(2011\)](#). It has been observed that individuals who practice sports at an amateur level are just as meticulous as professional athletes in their choice of clothing, with expectations of superior performance and comfort [Mengüç \(2020\)](#). Therefore, investigating the comfort properties of garments to be used in sporting activities has become highly significant in today's context.

The required properties of sports textiles vary depending on the specific sport and the environmental conditions under which it is performed. Among the expected features of sportswear are thermal and moisture regulation, dimensional stability, durability, comfort and lightness, ease of care, quick-drying capability, body conformity without restricting movement, as well as windproof and waterproof properties. Depending on the type of sport and its environmental demands, the level of importance attached to these characteristics may differ, and some properties may not be required at all for certain disciplines. In addition to comfort and performance-related attributes, it is also expected that garments meet aesthetic requirements [Uttam \(2013\)](#).

In the textile field, numerous studies have examined textile materials utilized in sports, with particular attention to their structural, physical, and mechanical properties [Çivitci and Dengin \(2014\)](#), [Ölçer and Dengin \(2014\)](#), [Suganthi et al. \(2017\)](#), [Raccuglia et al. \(2018\)](#), [Cheng and Chen \(2025\)](#), [Chan et al. \(2025\)](#).

In recent years, with the growing interest in sportswear, consumer preferences, expectations, and the problems encountered during use have been increasingly examined in the literature. [Çakmak and Çeğindir \(2022\)](#), in a survey conducted with 208 participants across four major cities in Turkey, reported that t-shirts, tracksuits, and vests were the most preferred products in sports activities. They emphasized that quality, brand, price, and fabric characteristics were the main determinants in purchasing decisions, while comfort in movement and aesthetic factors were also considered important.

Another study examined experts' understanding of sports clothing quality and their views on the evaluation process. Based on interviews with 22 experts, quality was defined as fitness for use, first impression, and individual perception. The study also revealed challenges in the evaluation process, such as immeasurable attributes and the need for digitalisation [Claussen et al. \(2022\)](#).

[Wilfling et al. \(2022\)](#) This study investigated consumers' expectations and perceptions of comfort in sportswear. An online survey with 292 participants showed that comfort and fit are perceived together, while tactile properties of fabrics are missing in online shopping. Women valued garment fit and tactile inputs more, whereas men prioritized physiological comfort such as thermoregulation; differences were also found by sport intensity, gender, and nationality [Wilfling et al. \(2022\)](#).

[Nam et al. \(2017\)](#) examined the factors influencing consumers' purchase intention of green sportswear. Based on a survey with 542 participants, expectations, perceptions, subjective norms, and attitudes were found to significantly affect purchase intention. Moreover, significant differences were observed between users and non-users of green products [Nam et al. \(2017\)](#).

[Lee et al. \(2025\)](#) investigated the effects of functionality and sustainability on purchase intention in sportswear with 400 participants. CFA and SEM analyses revealed that activity and comfort functions, along with sustainability, positively influenced consumer attitudes. Furthermore, attitudes, subjective norms, and perceived behavioral control were found to be positively related to sustainable sportswear purchase intention, highlighting the importance of considering functionality and sustainability together in sportswear marketing [Lee et al. \(2025\)](#).

In this study, a survey conducted among sedentary individuals who are members of sports centers in the Bornova district of İzmir analyzed consumers' purchasing behaviors regarding sportswear products, the problems they encounter during use, and their expectations from these products. The main objective of the study is to reveal consumer tendencies and expectations toward sportswear, thereby contributing both to sectoral practices and to the relevant academic literature.

MATERIAL AND METHOD

This research was conducted using the descriptive survey model, one of the quantitative research methods. The population of the study consisted of individuals who were members of sports centers located in the Bornova district of İzmir. The size of the population was determined based on the 2016 Address-Based Population Registration System data of the Turkish Statistical Institute (TÜİK). The population of the study was defined as the members of sports centers in the district. The sample size was calculated using the proportional sample size formula [Kızıloğlu and Kızıloğlu \(2013\)](#).

$$n = \frac{Np(1-p)}{(N-1)\sigma_{px}^2 + p(1-p)} \quad (1)$$

In the formula:

n = Sample size

N_p = Population size

p = Proportion of the characteristic studied in the population (0.50 was taken to reach the maximum sample size)

σ^2_{px} = Variance

The sample size was calculated using the finite population sampling method, and data were collected from 152 individuals, taking into account a 90% confidence interval and a 7% margin of error. The sample was composed of sports center members who participated voluntarily. After calculating the relevant sample size for registered sports center members, the questionnaire was administered to volunteers.

As the data collection tool, a questionnaire consisting of three sections and a total of 13 questions was employed (Appendix 1). The first section included six questions regarding the demographic characteristics of the participants. The second section examined purchasing behaviors related to sportswear products, while the third section focused on problems encountered with sportswear and the expectations of consumers.

The data obtained in the study were analyzed using the SPSS 16.0 package program; within this scope, descriptive statistics based on frequency and percentage distributions were calculated and interpreted in line with the objectives of the research.

RESULTS

DEMOGRAPHIC CHARACTERISTICS

The distributions regarding the demographic characteristics of the participants are presented in Table 1. Among the participants, 59% were female and 41% were male. In terms of age groups, the 19–24 age range constituted the highest proportion with 51%, followed by the 25–40 age group with 30%.

Regarding educational background, the majority of participants (63%) were university graduates. With respect to income levels, 41% of respondents reported a monthly income between 1001–3000 TL, while 27% had an income between 0–1000 TL.

Considering the level of interest in sports, 55% of participants engaged in sports for socializing or as a hobby, 34% participated at the amateur level, and 11% at the professional level. Based on the frequency of engaging in sports, 31% of participants exercised 1–2 hours per week, 28% for 5–6 hours, 24% for 3–4 hours, and 16% for 7 or more hours.

TABLE 1

Table 1 Distribution of Participants' Demographic Characteristics			
Characteristic	Groups	Frequency	Percentage (%)
Gender	Male	63	41.0
	Female	89	59.0
Age	0–18	13	9.0
	19–24	78	51.0
	25–40	46	30.0
	41 and above	15	10.0
Educational Level	Primary School	2	1.0
	High School	30	20.0
	University	95	63.0
	Postgraduate	25	16.0
Income (TL)	0–1000	42	27.0
	1001–3000	62	41.0
	3001–5000	31	20.0
	5001–10,000	16	11.0
	10,001 and above	1	1.0
Level of Interest in Sports	Health /Socializing / Hobby	84	55.3
	Amateur	51	33.6
	Professional	17	11.2
Frequency of Doing Sports (per week)	1–2 hours	47	30.9
	3–4 hours	37	24.3
	5–6 hours	43	28.3
	7 hours and above	25	16.4

PURCHASING BEHAVIOR

The sportswear purchasing habits of the participants are summarized in Table 2. Among the respondents, 40.8% stated that they purchase sportswear once every three months. When examining expenditure levels, participants were relatively evenly distributed across different ranges; however, it was observed that the group spending 1000 TL or more on sportswear accounted for a smaller proportion with 14.5%.

In terms of product categories, the most preferred group was tops & t-shirts, chosen by 54.6% of participants, followed by leggings with 23.7%.

When evaluating the decisive factors in sportswear selection, 55.3% of respondents indicated that comfort was the most important criterion. Comfort was followed by quality at 21.7% and visual/aesthetic factors at 15.1%. Price (7.2%) and fashion conformity (0.7%) were found to have a lower level of influence on purchasing decisions.

Table 2

Table 2 Distribution of Participants' Purchasing Behaviors			
Characteristic	Groups	Frequency	Percentage (%)
Sportswear purchase frequency	Once a week	6	3.9
	Once a month	34	22.4
	Once every three months	62	40.8
	Once a year	37	24.3
	Other	13	8.6
Sportswear expenditure amount within 3-month period	0-200 TL	45	29.6
	201-500 TL	46	30.3
	501-1000 TL	39	25.7
	1001 TL and above	22	14.5
Sports product groups	Tops & T-shirts	83	54.6
	Hoodies & sweatshirts	15	9.9
	Leggings	36	23.7
	Sweatpants	8	5.3
	Shorts	3	2.0
	Others	7	4.6
Determinant factors in sportswear preference	Comfort	84	55.3
	Price	11	7.2
	Visual/aesthetic factors	23	15.1
	Quality	33	21.7
	Fashion conformity	1	0.7

EXPECTED PRODUCT FEATURES

In this section of the survey, participants were first asked to indicate the problems they encountered while using sports tops. The most frequently reported problems regarding sports tops are presented in Table 3. According to the findings, the most commonly stated issue was post-wash deformation (60.5%), followed by seam unraveling (40.1%) and color fading (38.2%). Among the least reported problems were inappropriate sleeve opening width (11.2), inappropriate neckline design (9.9) and inappropriate sleeve length (6.6).

Table 3

Table 3 Problems Encountered During the Use of Sports Tops	
Problems Experienced with Sports Tops	Percentage (%)
Post-wash deformation	60.5
Seam unraveling	40.1
Color fading	38.2
Color change when wet (showing sweat)	34.2

Feeling of dampness	31.6
Restriction of movement	31.6
Lack of breathability / poor air permeability	30.9
Odor formation	27
Pilling/melting in underarm areas	19.7
Tightness around the collar (neckline sagging)	18.4
Inappropriate garment length	15.1
Restriction of arm movement caused by the armhole	13.2
Inappropriate sleeve opening width	11.2
Inappropriate neckline design	9.9
Inappropriate sleeve length	6.6
Other	0

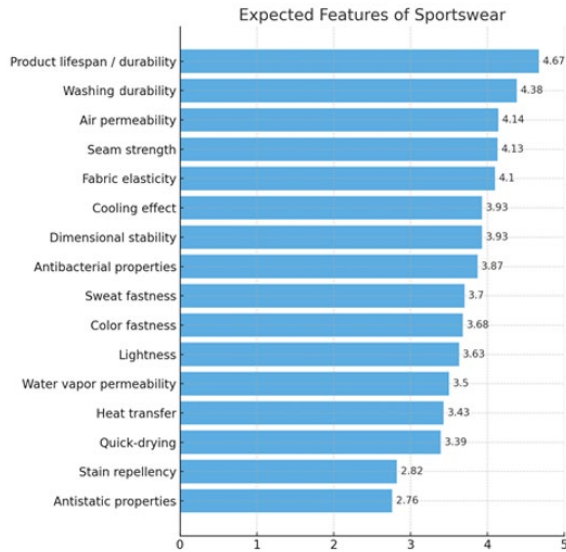
The problems encountered by participants during the use of sports bottoms are presented in Table 4. The most frequently reported issue was rapid deformation (54.6%). This was followed by seam splitting (48.7%) and pilling/melting in the crotch area (42.8%). The least reported problems included insufficient crotch height (18.4%), inappropriate hem width (14.5%) and inappropriate waist width (13.8%).

Table 4

Table 4 Problems Encountered During the Use of Sports Bottoms	
Problems Experienced with Sports Bottoms	Percentage (%)
Rapid deformation	54.6
Seam splitting	48.7
Pilling/melting in crotch area	42.8
Restriction of movement	35.5
Color change	32.9
Lack of breathability	31.6
Loss of elasticity	30.3
Feeling of dampness	23.7
Insufficient crotch height	18.4
Inappropriate hem width	14.5
Inappropriate waist width	13.8
Other	0

After identifying the problems experienced with tops and bottoms in sportswear, this part of the questionnaire asked participants to rank the expected performance features of sportswear according to their level of importance. The features were rated from “most important (1)” to “least important (5),” and the mean scores of the responses were calculated.

According to the results, participants assigned the highest importance to product lifespan, washing durability, air permeability, seam strength, and fabric elasticity. In contrast, features of a more aesthetic or technological nature (such as antistatic properties and stain repellency) were considered to be of lower importance Figure 1. These findings indicate that consumers prioritize long-term use and functionality when selecting sportswear.

Figure 1**Figure 1 Evaluation of Expected Functional Features in Sportswear**

In the final section of the questionnaire, responses to the open-ended question revealed that participants expressed various issues and suggestions regarding sportswear. Their statements are summarized below:

- Discomfort/irritation at the waist in bottoms: Some participants indicated that the stitching and elastic structures used in the waist area of bottoms negatively affected comfort.
- Deformation of accessories and prints: It was reported that accessories or prints on both tops and bottoms became deformed or detached during use.
- Price-performance imbalance: Participants emphasized that although sportswear is generally more expensive compared to casual clothing, particularly outside well-known brands, the price-performance ratio in terms of functional features is considered low.
- Riding-up issue in sports leggings: Participants highlighted that especially mid-length leggings tend to ride up during movement, which adversely impacts comfort in use.

GENERAL EVALUATION AND CONCLUSION

This study was conducted to examine the purchasing behaviors of individuals who are members of sports centers in the Bornova district of İzmir with regard to sportswear products, the problems they encounter during use, and their expectations from such products. The findings reveal that sportswear consumers are predominantly composed of young adults and university graduates in terms of demographic characteristics. A large proportion of participants engage in sports primarily as a hobby or for socialization purposes, while they typically purchase sportswear once every three months. In terms of product preferences, tops & t-shirts and leggings stand out the most, whereas comfort ranks as the primary determinant in purchasing decisions, followed by quality and aesthetics. In contrast, price and fashion conformity are of lower importance.

The research further indicates that the most frequent problems encountered with sportswear include post-wash deformation, seam unraveling, and color fading in tops, while in bottoms, rapid deformation, seam splitting, and wear in the crotch area are common issues. Regarding expectations from sportswear, consumers assign greater importance to functional attributes such as product lifespan, washing durability, breathability, seam strength, and fabric elasticity, compared to technical properties such as aesthetics, antistatic features, stain resistance, and quick-drying. Open-ended responses additionally highlight issues such as discomfort caused by waist designs, rapid deformation of accessories and prints, sagging in leggings, and imbalances between price and performance.

The results underscore the importance of considering consumer expectations in product development processes within the sportswear sector. Manufacturers are advised to prioritize functionality in product design and give precedence to properties such as washing durability, breathability, and elasticity in fabric selection. The widespread use of sportswear today, not only in sporting contexts but also in daily life, further amplifies the significance of these expectations.

As this study is limited to the Bornova district, future research conducted in different regions and on larger samples could reveal regional differences in sportswear consumption. Moreover, examining whether consumer expectations vary across different types of sports could provide a valuable foundation for further studies and contribute to the literature.

CONFLICT OF INTERESTS

None.

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