ANALYSIS OF FACTORS WHICH AFFECT THE COLOR PREFERENCES OF CONSUMERS IN CLOTHING SECTOR: TURKISH CASE

HAZIR GİYİM SEKTÖRÜNDE TÜKETİCİLERİN RENK TERCİHLERİNİ ETKİLEYEN FAKTÖRLERİN ANALİZİ: TÜRKİYE ÖRNEĞİ

Turan ATILGAN[1], Seher KANAT[1], Seda KULELI[2]

[1]*Ege University, Department of Textile Engineering, İzmir, Turkey*
[2]*İzmir University of Economics, Department of Fashion and Textile Design, İzmir, Turkey*

ABSTRACT

The meeting rate of consumer desires and expectations is one of the most significant competition factors in clothing sector which is an unstable and dynamic sector. Therefore, the enterprises must give the necessary importance to consumers' desires and expectations. The consumers are affected by many factors such as quality, price and design while making a selection between different clothing brands. Design factor comes into prominence in recent years and color is one of the most significant factors of design. As it is already known, colors affect the buying behavior of consumers. This study aims to analyze the factors which affect the color preferences of consumers in clothing sector. In accordance with the aim of the research, a questionnaire form consisting of 20 questions is prepared. This survey is conducted within March 2014 at the hinterland of İzmir province residents by using face to face interview method. After the conduction of the survey, collected data are evaluated with SPSS 16.0 program. According to the results of our research, Turkish consumers give great importance to the colors and color harmony of garments which they have bought. Black, blue and navy blue are the most preferred garment colors whereas orange, pink and yellow are the least preferred ones. In addition to these, relationships between the demographic properties of consumers and color preferences are analyzed and sectoral suggestions are made.

Keywords: Color preferences of consumers, Consumer behavior, Clothing sector, Survey, Turkey.

ÖZET

Tüketici isteklerinin ve beklentilerinin karşılanma oranı, değişken ve dinamik bir sektör olan hazır giyim sektöründe en önemli rekabet faktörlerinden birisidir. Bu nedenle işletmeler tüketici isteklerine ve beklentilerine gereken önemi vermelidirler. Tüketiciler farklı hazır giyim markaları arasında tercihte bulunurlarken kalite, fiyat, tasarım gibi faktörlerden etkilenmektedirler. Son yıllarda tasarım faktörü diğer faktörlerin arasından ön plana çıkmıştır. Renk ise tasarımın en önemli unsurlarından birisidir. Bilindiği üzere renkler tüketicilerin satın alma davranışlarını etkilemektedir. Bu çalışma hazır giyim sektöründe tüketicilerin renk tercihlerini etkileyen faktörleri analiz etmeyi amaçlamaktadır. Bu amaç doğrultusunda 20 sorudan oluşan bir anket formu hazırlanmıştır. Bu anket çalışması Mart 2014 ayı içerisinde İzmir ilinde ikamet eden vatandaşlara yüz yüze görüşme tekniği kullanılarak uygulanmıştır. Anket çalışmasının ardından toplanan veriler SPSS 16.0 programı kullanılarak değerlendirilmiştir. Araştırmamızın sonuçlarına göre, Türk tüketiciler satın aldıkları giysilerin renklerine ve renk uyumlarına oldukça fazla önem vermektedir. Siyah, mavi ve lacivert giysilerde en çok tercih edilen renkler iken turuncu, pembe ve sarı en az tercih edilen renklerdir. Tüm bunlara ek olarak tüketicilerin demografik özellikleri ile renk tercihleri arasındaki ilişkiler analiz edilmiş ve sektöre yönelik önerilerde bulunulmuştur.

Anahtar Kelimeler: Tüketicilerin renk tercihleri, Tüketici davranışları, Hazır giyim sektörü, Anket, Türkiye.

Corresponding Author: Seher Kanat, seher.kanat@ege.edu.tr

1. FACTORS WHICH AFFECT THE COLOR PREFERENCES OF CONSUMERS IN CLOTHING SECTOR

Color is light carried on wavelengths absorbed by the eyes that the brain converts into colors that we see. Light can be decomposed into a spectrum of six distinct colors: red, orange, yellow, green, blue and violet. The red has the longest wavelength whereas the violet the shortest. An object appearing yellow absorbs all of the colors in the spectrum except the yellow light. This unabsorbed light is reflected back from the object into the eyes from where it travels to the brain where it is interpreted as yellow. The eyes are comprised of cones and rods that allow us to see color and light, respectively. There are three types of cones; type I is associated with blue, type II with green and type III with red. They work in complex combination to provide the many color variations we see. Psychologists have classified colors as warm (red and yellow) and cool (blue and green) colors. White, black and gray are considered neutral colors (1, 2).

Red is a powerful and salient color. It means strength, warmth, liveliness and sudden anger. It owns the most dynamic and powerful vibration. Orange consists of yellow and red combination. It possesses the same properties with these colors. It is dynamic. It indicates assertiveness, optimism, cheer and enthusiasm. It increases life force. Yellow is the color of sun. Due to this it dominates daily life. It is the most luminous and glaring color. It indicates liveliness, enthusiasm, optimism and youth. When we look at yellow for a long time, the blood flows regularly. It increases illumination and attention. Green is the color of nature and natural liveliness. It indicates quietness, peace, optimism, self confidence, roominess, freshness and calmness. Blue indicates peace, calmness, infinity, self possession, quietness, maturity and honesty. It decreases tension and blood pressure. Purple indicates mysticism, sadness and sorrow. It is a mysterious color which is preferred under fear, stress and shock. It provides protection instinct. Pink indicates softness, sweetness, shyness, kindness and innocence. Grey indicates uncertainty, seriousness, sadness, sorrow, nuisance, mist and haze. Black indicates pessimism, bad luck, evil, night and death. At the same time it indicates respectability, choiceness and infinity. White indicates purity, cleanliness, honesty, innocence, infinity, openness, emptiness and new beginnings (3).

Colors are controversial. Some feel that human responses to colors are stable, therefore applicable to everyone, whereas others disagree, asserting that responses and preferences to colors vary across culture, gender and age (1). However, our response to color is learned. Much of our learning is influenced by a number of variables. We know that demographic variables like age, gender and ethnicity influence the effectiveness of color. In fact, several studies have demonstrated differences in color perception among people of differing geographical heritage, sunlight exposure and even economic development. These factors might provide a better explanation for color preferences than the usual environmental influencers marketers first consider, a country's culture (2).

We know that color can stimulate emotional response, affect persuasiveness, reflect prestige and color can certainly affect a consumer's overall perception of a product. In advertising, color has been shown to reinforce copy claims, improve learning and increase readership. Colors exercise powerful affects and induce reactions based on both instincts and associations. Colors alter the meaning of the objects or situations with which they are associated and color preferences can predict consumer behavior (2). Marketing practitioners know that a product's color may play an important role in a consumer's purchase decision (4). Although fashion color line extensions are a common strategy among clothing companies, we know very little about their impact on sales of the entire product line. Because this type of product extension can result in sizable profits when they succeed or great costs when they fail, it is important to understand their role (5).

Garments provide self expression with various colors. Color is an important factor in terms of clothing and garment colors indicate personality. The garment colors can demonstrate the pleasure, self confidence and color harmony knowledge and skills of individuals. The individuals think about prestige and alteration or dedifferentiation while choosing garment colors. Color preferences are affected by personality, childhood period, education level, life style, society, income level, body structure, fashion, climate, season, mass communication tools, sexuality, age and social status. Individuals use garment colors in order to reflect their emotional status (3).

2. THE PURPOSE AND THE METHOD OF THE RESEARCH

This study aims to analyze the factors which affect the color preferences of consumers in clothing sector. In accordance with the aim of the research, a questionnaire form consisting of 20 questions is prepared. This survey is conducted within March 2014 at the hinterland of İzmir province residents by using face to face interview method. İzmir province population is 3.965.232 according to the Turkish Statistical Institute's address based population registration system results in 2011. Sample size is calculated as 542 at 98% confidence interval with 5% error margin. The consumers which would constitute the sample are determined according to snowball sampling. After the repatriation and evaluation of the sent-back questionnaires, 635 of them are incorporated to the research. After the conduction of the survey, collected data are evaluated with SPSS 16.0 program. At the beginning of statistical analysis, the reliability of the questionnaire is measured and the reliability co-efficient α is found as 0,732. According to this finding, the scale of the questionnaire is addressed to be substantially reliable.

3. GENERAL FINDINGS OF THE RESEARCH

The questions which aim to specify the demographic properties of the participants are evaluated firstly. Accordingly, 66% of the participating consumers are women and the remaining 34% is men. Approximately 56% of the participants are at the age of between 18 and 25, 18% is at the age between 26 and 35, 15% is at the age of between 36 and 45 and 11% is at the age of 46 and over. About 53% of the participants have 1500 TL or less monthly income whereas 22% has an income between 1501-2500 TL, 13%

has an income between 2501-3500 TL, 5% has an income between 3501-5000 TL, 7% has an income 5001 TL and over. Nearly 56% of the participants are at the age of between 18 and 25 and most of them are students. These students belong to the low income group because they live with family support and scholarships. Approximately 75% of the participants indicate their educational background as university. 12% has graduated from high school whereas 9% indicates their educational background as postgraduate, 2% has graduated from secondary school and 2% has graduated from primary school.

The participants are asked to write the color which they have mostly preferred during garment shopping (Table 1). According to this, black is the most preferred color with 42,5%. This color is followed by blue, navy blue, white, red, grey, green, pink, purple, yellow and orange respectively.

The participants are asked to write the color which they have least preferred during garment shopping (Table 2). According to this, orange is the least preferred color with 26,3%. This color is followed by pink, yellow, purple, red, white, green, grey, black, blue and navy blue respectively.

Table 1. The most preferred colors by the participants during the garment shopping

Color	Frequency	Valid Percent
Black	270	42,5
Blue	83	13,1
Navy Blue	77	12,1
White	69	10,9
Red	46	7,2
Grey	36	5,7
Green	22	3,5
Pink	18	2,8
Purple	8	1,3
Yellow	4	0,6
Orange	2	0,3
Total	635	100

The survey offers 12 statements about the factors which affect the color preferences of consumers in clothing sector. The participants are required to choose their agreement levels for each of these statements. In quinary likert scale I absolutely agree is coded as 1, I agree is coded as 2, I have no idea is coded as 3, I don't agree is coded as 4 and I don't agree absolutely is coded as 5. The findings are given in Table 3.

Table 2. The least preferred colors by the participants during the garment shopping

Color	Frequency	Valid Percent
Orange	167	26,3
Pink	127	20,0
Yellow	121	19,1
Purple	75	11,8
Red	35	5,5
White	32	5,0
Green	24	3,8
Grey	21	3,3
Black	15	2,4
Blue	12	1,9
Navy Blue	6	0,9
Total	635	100,0

Approximately 96% of the participants accept that colors of the garments which they have bought are important for them (Average=1,50). Nearly 95% of the participants indicate that color harmony of the garments which they have bought is important for them (Average=1,50). About 75% of the participants specify that they can easily find their preferred colors at the foreign clothing brands (Average=2,06). Approximately 63% of the participants accept that their color preferences are affected by the environment (school, work, family, entertainment etc.) (Average=2,45). Nearly 57% of the participants indicate that they can regularly find their preferred colors at the same brand (Average=2,49). About 58% of the participants specify that they can easily find their preferred colors at the Turkish clothing brands (Average= 2,51). Approximately 53% of the participants accept that their color preferences are changed within years (Average=2,66). Nearly 51% of the participants indicate that their garment color preferences are affected by the work environment and its principles (Average=2,74). About 33% of the participants specify that their color preferences are affected by their family and friends (Average=3,25). Approximately 30% of the participants accept that their color preferences are affected by trends and fashion shows (Average=3,34). Only 27% of the participants indicate that the colors of women and men garments must differ (Average=3,39). About 25% of the participants specify that their garment color preferences are affected by films and series (Average=3,47).

Table 3. The factors which affect the color preferences of consumers in clothing sector

Statements	N	Mean	Std. Deviation
Colors of the garments which I have bought are important for me.	635	1,50	0,644
Color harmony of the garments which I have bought is important for me.	635	1,50	0,663
I can easily find my preferred colors at the foreign clothing brands.	635	2,06	0,886
My garment color preferences are affected by the environment (school, work, family, entertainment etc.)	635	2,45	1,153
I can regularly find my preferred colors at the same brand.	635	2,49	1,054
I can easily find my preferred colors at the Turkish clothing brands.	635	2,51	1,047
My color preferences are changed within years.	635	2,66	1,108
My garment color preferences are affected by work environment and its principles.	635	2,74	1,213
My garment color preferences are affected by my family and friends.	635	3,25	1,179
My garment color preferences are affected by trends and fashion shows.	635	3,34	1,201
The colors of women and men garments must differ.	635	3,39	1,260
My garment color preferences are affected by films and series.	635	3,47	1,194

4. MULTIPLE COMPARISON TESTS

The hypotheses of the research are given below.

H_1: There is a statistically significant difference (at 95% confidence interval) between participating women and men in aspect of importance given to the garment colors which they have bought.

H_2: There is a statistically significant difference (at 95% confidence interval) between participating women and men in aspect of importance given to the garment color harmony which they have bought.

H_3: There is a statistically significant difference (at 95% confidence interval) between participating women and men with respect to the effects of trends and fashion shows on garment color preferences.

H_4: There is a statistically significant difference (at 95% confidence interval) between participating women and men with respect to the effects of environment (school, work, family, entertainment etc.) on garment color preferences.

H5: There is statistically significant difference (at 95% confidence interval) between participating women and men in aspect of color preferences which are changed throughout years.

H_6: The opinions of the participants within different age groups differ significantly (at 95% confidence interval) with respect to the effects of trends and fashion shows on garment color preferences.

H_7: The opinions of the participants within different age groups differ significantly (at 95% confidence interval) with respect to the effects of films and series on garment color preferences.

H_8: The opinions of the participants within different age groups differ significantly (at 95% confidence interval) with respect to the effects of environment (school, work, family, entertainment etc.) on garment color preferences.

H_9: The opinions of the participants within different income groups differ significantly (at 95% confidence interval) with respect to the effects of work environment and its principals on garment color preferences.

H_{10}: The opinions of the participants within different education levels differ significantly (at 95% confidence interval) in aspect of garment color preferences which must be changed according to the gender.

There is a statistically significant difference between participating women and men in aspect of importance given to the garment colors which they have bought (Hypothesis 1) (Table 4). When compared to men, women give more importance to the garment colors which they have bought.

There is a statistically significant difference between participating women and men in aspect of importance given to the garment color harmony which they have bought (Hypothesis 2) (Table 5). When compared to men, women give more importance to the garment color harmony which they have bought.

There is a statistically significant difference between participating women and men with respect to the effects of trends and fashion shows on garment color preferences (Hypothesis 3) (Table 6). When compared to men, women are more affected by trends and fashion shows in terms of garment color preferences.

Table 4. Participating women and men in aspect of importance given to the garment colors which they have bought

	N	Mean	Std. Deviation	t	df	Sig. (2-tailed)
Women	419	1,42	0,563	-3,907	340,984	0,000
Men	216	1,65	0,756			

Table 5. Participating women and men in aspect of importance given to the garment color harmony which they have bought

	N	Mean	Std. Deviation	t	df	Sig. (2-tailed)
Women	419	1,42	0,619	-3,923	381,908	0,000
Men	216	1,65	0,719			

Table 6. Participating women and men with respect to the effects of trends and fashion shows on garment color preferences

	N	Mean	Std. Deviation	t	df	Sig. (2-tailed)
Women	419	3,09	1,189	-7,808	474,883	0,000
Men	216	3,82	1,074			

Table 7. Participating women and men with respect to the effects of environment (school, work, family, entertainment etc.) on garment color preferences

	N	Mean	Std. Deviation	t	df	Sig. (2-tailed)
Women	419	2,37	1,115	-2,347	404,014	0,019
Men	216	2,60	1,212			

There is a statistically significant difference between participating women and men with respect to the effects of environment school, work, family, entertainment etc.) on garment color preferences (Hypothesis 4) (Table 7). When compared to men, women are more affected by environment in terms of garment color preferences.

There is a statistically significant difference between participating women and men in aspect of color preferences which are changed throughout years (Hypothesis 5) (Table 8). When compared to men, women's color preferences are changed more within years.

The opinions of the participants within different age groups differ significantly with respect to the effects of trends and fashion shows on garment color preferences (Hypothesis 6) (Table 9). The second age group's (26-35) garment color preferences are mostly affected from trends and fashion shows. This group is respectively followed by the age groups 18-25, 36-45 and 46 and over.

The opinions of the participants within different age groups differ significantly with respect to the effects of films and series on garment color preferences (Hypothesis 7) (Table 10). The second age group's (26-35) garment color preferences are mostly affected from films and series. This group is respectively followed by the age groups 18-25, 36-45 and 46 and over.

The opinions of the participants within different age groups differ significantly with respect to the effects of environment (school, work, family, entertainment etc.) on garment color preferences (Hypothesis 8) (Table 11). The third age group's (36-45) garment color preferences are mostly affected from environment. This group is respectively followed by the age groups 26-35, 18-25 and 46 and over.

The opinions of the participants within different income groups differ significantly with respect to the effects of work environment and its principals on garment color preferences (Hypothesis 9) (Table 12). The fourth income group's (3501-5000 TL) garment color preferences are mostly affected from work environment. This group is respectively followed by the income groups 5001 TL and over, 2501-3500 TL, 1501-2500 TL and 1500 TL or less.

Table 8. Participating women and men in aspect of color preferences which are changed throughout years

	N	Mean	Std. Deviation	t	df	Sig. (2-tailed)
Women	419	2,54	1,051	-3,669	393,532	0,000
Men	216	2,89	1,178			

Table 9. Participants within different age groups with respect to the effects of trends and fashion shows on garment color preferences

	N	Mean	Std. Deviation	F	df₁	df₂	Sig.
18-25	355	3,26	1,205	5,980	3	631	0,001
26-35	114	3,21	1,307				
36-45	94	3,39	1,109				
46 and over	72	3,88	0,978				

Table 10. Participants within different age groups with respect to the effects of films and series on garment color preferences

	N	Mean	Std. Deviation	F	df₁	df₂	Sig.
18-25	355	3,36	1,200	8,536	3	631	0,000
26-35	114	3,31	1,263				
36-45	94	3,63	1,077				
46 and over	72	4,07	0,998				

Table 11. Participants within different age groups with respect to the effects of environment on garment color preferences

	N	Mean	Std. Deviation	F	df₁	df₂	Sig.
18-25	355	2,50	1,141	3,997	3	631	0,008
26-35	114	2,36	1,023				
36-45	94	2,15	1,154				
46 and over	72	2,72	1,324				

Table 12. Participants within different income groups with respect to the effects of work environment and its principles on garment color preferences

	N	Mean	Std. Deviation	F	df₁	df₂	Sig.
1500 TL or less	335	2,88	1,184	4,049	4	630	0,003
1501-2500 TL	142	2,75	1,204				
2501-3500 TL	84	2,45	1,216				
3501-5000 TL	31	2,29	1,160				
5001 TL and over	43	2,44	1,333				

Table 13. Participants within different education levels in aspect of garment color preferences which must be changed according to the gender

	N	Mean	Std. Deviation	F	df$_1$	df$_2$	Sig.
Primary School	15	2,73	1,033				
Secondary School	14	2,64	1,393				
High School	76	3,14	1,262	3,438	4	630	0,009
University	474	3,46	1,251				
Postgraduate	56	3,48	1,250				

The opinions of the participants within different education levels differ significantly in aspect of garment color preferences which must be changed according to the gender (Hypothesis 10) (Table 13). The second education group (secondary school level) mostly indicates that the garment color preferences must be changed according to the gender. This group is respectively followed by the education levels primary school, high school, university and postgraduate.

5. RESULTS AND GENERAL EVALUATION

The enterprises should meet consumer desires and expectations so that they could survive in clothing sector which is both dynamic and variable. At this point, they must accurately analyze the factors which affect the buying behaviors of consumers. As it is already known, there are socio-cultural, demographic, economic and psychological factors which affect the buying behaviors of consumers. Color is accepted as a constituent of both socio-cultural and psychological factors. The results of our research indicate that, Turkish consumers give great importance to the colors and color harmony of garments which they have bought. When compared to men, women give more importance to the garment colors and garment color harmony which they have bought. Therefore, clothing enterprises must give great importance to colors and color harmony (especially if their target group is women) during design and/or production process.

According to the results of our research, Turkish consumers mostly prefer black, blue and navy blue whereas orange, pink and yellow are the least preferred ones. The preferred garment colors are indicated as dark and cold colors whereas the least preferred ones are vivid and warm colors. From this point of view, the clothing enterprises, which want to affect the buying decisions of consumers, should concentrate on dark and cold colors at their designs. On the other hand, women consumers mostly prefer black, white, blue, navy blue and red as garment colors whereas men prefer black, blue and navy blue. According to the women consumers the least preferred colors are orange and yellow. However, according to men consumers pink, purple, orange and yellow are the least preferred garment colors. Therefore, the clothing enterprises, whose target groups are Turkish women, should prefer black, white, blue, navy blue and red. If their target groups are Turkish men, they should prefer black, blue and navy blue.

The results of our research also indicate that, consumers' color preferences are affected by the environment (school, work, family, entertainment etc.). When compared to men, women are more affected by environment in terms of garment color preferences. Besides, consumers' color preferences are changed within years. When compared to men, women's color preferences are changed more within years. On the other hand, a great majority of the Turkish consumers indicate that the colors of women and men garments must not differ. Turkish clothing consumers believe in unisex concept in terms of garment colors. Clothing enterprises should give great importance to these factors at their designs. They should choose the color according to the environment of target group. If their target groups are business women or men, the preferred colors must be black and navy blue which indicate nobleness, seriousness, formality and power. On the other hand, if their target groups are young people who prefer to wear sportive clothes, they must choose blue which indicates comfort and attractiveness.

The findings of our research show that Turkish consumers can easily find their preferred colors at the Turkish and foreign clothing brands. However, the finding ratio is a little higher in foreign brands. Turkish clothing brands should give more importance to Turkish consumers' color preferences and they should bring the preferred colors to forefront at their designs. Besides, most of the Turkish consumers indicate that they can regularly find their preferred colors at the same brand. From this point of view, we can say that the clothing enterprises provide the preferred colors for each season or collection.

According to the results of our research, Turkish consumers indicate that their garment color preferences are mostly affected by the work environment and its principles. After that they are affected by family and friends, trends and fashion shows, films and series respectively. When compared to men, women are more affected by trends and fashion shows in terms of garment color preferences.

To sum up, colors affect the buying behaviors of consumers in clothing sector. Therefore, clothing enterprises must give great importance to colors and color harmony during design process. They should take the factors, which affect the consumer's color preferences, into consideration. An effective color usage would induce the buying desire by means of attracting the consumer's attention. In return, induced buying desire would provide the enterprises with increased brand value, turnover and profitability.

REFERENCES

1. Singh S., 2006, Impact of color on marketing, *Management Decision*, Volume:44, Issue:6, p:783-789

2. Sable P. and Akcay O., 2010, Color: cross cultural marketing perspectives as to what governs our response to it, *Proceedings of ASBBS*, Volume:17, Issue:1, p: 950-954

3. Sezgin İ., 2013, Garment Color Preferences of Young People (At the age of 13-19) in Countryside of Çanakkale Province (in Turkish), Beykent University Institute of Social Sciences Department of Fashion Design, Master Thesis, 99 p.

4. Grossman R.P. and Wisenblit J.Z., 1999, What we know about consumers' color choices?, *Journal of Marketing Practice: Applied Marketing Science*, Volume:5, Issue:3, p:78-88

5. Moore M., Cassill N.L., Herr D.G., Williamson N.C., 2001, Marketing fashion color for product line extension in the department store channel, *Journal of Textile and Apparel, Technology and Management*, Volume:1, Issue:2, p:1-11