THE COLOR PREFERENCES OF CONSUMERS ON FURNITURE SURFACES

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Abstract: In this study, the color preferences of consumers were studied on the most applied three finishing types on the furniture surfaces. These are transparent finishing, staining, and opaque painting. In this direction, it was targeted to set forth the color preferences, which would be the basis for the user-oriented design applications. A personal interview survey was prepared for gathering data for this study. Some questions took place in the survey to determine color and finishing type preferences of consumers according to their different demographic and economic characteristics. It was contacted with a total of 479 consumers with the random sampling method. The consumers were potential furniture buyers and living in the central counties of Ankara, Turkey. The data collected by the survey were analyzed statistically and the results were interpreted. In conclusion, the color and finishing type preferences of the consumers on furniture surfaces show a variation according to demographic characteristics, such as age, gender, marital status, educational level and income level.

Keywords: Color preference, furniture design, consumer preferences, marketing, surface finishing

Introduction

Economic factors (income level, general economic situation, and financial structure), social factors (culture and sub-culture, social class, reference groups, roles and family), psychological factors (motivation, perception, attitudes, learning and personality) and personal factors (demographic and situational) are influential in the purchasing decisions of the consumers. Individuals expect a number of differences in product according to their characteristics, which stem from these variables. In connection with this, every product should be designed in a manner that would answer these expectations of the consumers. Product characteristics requiring differentiation related to furniture are functionality, reliability, durability and safety, led by being aesthetic. It is necessary to dwell upon the aesthetic characteristics, such as functionality, form, balance-proportion and texture, led by color, in order to be able to harmonize the characteristics of the product to the expectations of the consumers in the differentiation of products.

Selection, arrangement and application of color affect to the appearance of the furniture and add a meaning to the furniture, in general to the space where the furniture is used. There are meanings, such as vigor, warmth, coolness, mobility, tranquility, contentment, giving trust, peace, cleanliness, purity, etc. in the colors applied to space or furnishings, such as furniture. Furniture users are affected by this meaning, whether or not they are aware of it. Furthermore, there are differences in the color preferences according to the structural characteristics of the furniture users.

It is impossible to avoid the mutual influence of color and people, since every product and every space where these products would be placed would definitely be colored. For this reason, the colors of the spaces and furnishings should be suitable to the function of the space, the psychology of people and to the preferences of the people using these spaces. When the coloring of the furniture is viewed from this aspect, then whether or not the standard furniture should be "single-colored or multi-colored" and "which one of this color or colors would be used" confronts us as a very important problem that should be solved. Because according to the color preference of the consumers, different colors of the same model are sold in different quantities and an excessive production of a furniture with a color that is preferred less and offered on the market causes an increase in the levels of stock and consequently in costs.

Different finishing applications on the furniture surfaces, such as transparent finishing, staining, and opaque painting are also influential on the preferences of the consumers. The same consumer who likes a color in one type of finishing may not like it on a different finishing type. For this reason, the determination of color preferences

according to the technique of finishing is also very important, especially for the enterprises producing standard furniture. The differences in color preferences are encountered in every kind of product produced for people, not only for furniture or furnishings. For this reason, the expectations of the consumers from the aspect of color in different products and spaces are determined and studies are being made on color preferences.

A color preference test aimed at the importance of color in clothing related to the uniforms of nurses was applied with a specially designed color placard to 50 children in the 4-6 years of age group, who were being treated in a hospital and the color preferences of the children in this age group were studied (Lin, et. al., 1997). The characteristics of every product in international circulation should be adapted to the cultural structure of the country to which it is sent. In a study aimed at the place and influence of color in the movie sector, the necessity of the colors of the movies produced in the United States being in conformance with the color preferences of the country to which they were circulated was stressed. Otherwise, the movie may not reach the envisaged sales volume with a drop in ticket sales (Lee, 2001). According to a study made on 123 university students in Ankara on the color preferences of university students, colors having the maximum intensity and brightness were preferred more. The ground-color is unimportant and blue is the most preferred color (Camgoz, et. al., 2002). According to a study made on British and Chinese test subjects related to their color perceptions, such as the warmth or coldness, lightness or darkness, modernity or classicalness of colors, there is not a significant difference in the perception of colors between men and women. However, there is a difference among the perceptions on the basis of countries. Some color perceptions (for example, warm-cold), show cultural independence (Ou, et. al., 2004). Furthermore, four principles are influential in the color preferences based on folklore and tradition. These are forming contrast, the fact that the color is used somewhere else, common preference and availability (Hutchings, 2004). Regional preferences are of extreme importance in the color selection in production based on international trade. The globalization of color selections and color trends first of all facilitates the activities of the companies working on painting and textile manufacturers. However, in every situation, the ethnicity and regional cultures are influential on color preferences (Roberts, 2002). The preferences of university students were studied by putting upper colors having a different tone, intensity and brightness on six ground colors having a maximum intensity and maximum brightness value. Completely intense and bright upper colors on completely intense and bright ground colors are still preferred. Blue is the most preferred color when the ground colors are not taken into consideration (Camgoz and Yener, 2001). According to another study in which the characteristics of preference of the colors applied in different areas were studied, a color that could be defined as being beautiful, select or warm on a chip, does not have the beauty, selectness or warmth as on the chip when it is applied to a cup, t-shirt, sofa or car. In this situation, it is incorrect to apply a color, which is preferred on any product, to another product to create the same effect (Lee, 2001). The effects colors make on people at different light levels and different lighting methods could change. Any product on which any color is applied in a production environment could assume any tone of that color connected to the light in the environment when it is brought to the place of usage. Sometimes this can reach an effect, which does not please the user. For this reason, it is necessary to study the effect of any color in different lighting environments prior to its application on the product and to apply to the product the color tones, which are suitable to the preference of the user (Leta, et. al., 2002). The lighting system used in a space not only affects the visual comfort of those living in that space connected to the concentration of light, it also affects the physiology and psychology of those people. Furthermore, the lighting design of a space should always be treated together with the coloring of the walls, floors and ceilings of that space. Besides this, the colors of the other furnishings, led by furniture, are also important for reflecting the light and the effect set forth is influential on the psychology of people (So and Leung, 1998). The finishing processes applied on the furniture surfaces are in seventh place among the eighteen factors, which are influential on furniture preferences. According to this, color is an important factor in the decision to purchase furniture (Karki, 2000).

As can be seen from the studies mentioned above, the colors applied on the product surfaces are extremely influential on the consumer preferences and on the decisions for purchasing. Accordingly, in this study, the finishing type and color preferences according to demographic characteristics of the consumers have been studied on furniture colored with different finishing types.

Materials and Methods

This study was planned in order to obtain the color preferences of consumers which shall form a basis for the consumer focused design applications.

A survey was conducted with the objective of setting forth the color preferences of the users with different demographic characteristics. Differently finished furniture surfaces were used in the evaluation of these color preferences. The data for potential furniture consumers were gathered from data collection form.

The data collection form was composed of two parts: In the first part, questions aimed at determining some

demographic characteristics of the furniture users, such as gender, marital status, age, educational level, profession, monthly family income and the number of individuals in the family. For the second part of the survey, the finishing applied on furniture with the objective of coloring was collected in three groups:

i. Transparent finishing: In this finishing technique, transparent finishes are used to protect the natural color and grain of wood. Finishes enhance the natural beauty of wood, protect it from excessive wear and abrasion, and make the surfaces easier to clean.
ii. Staining: Staining is extremely important to color harmony of furniture. Changing the kind and color of stain will make the same wood appear entirely different. For example, dark-red stain has been widely used in traditional mahogany furniture. Many people even today think of mahogany as a dark-colored wood. Actually, much contemporary mahogany furniture is light, honey-toned brown. Stains can also be used to make a less expensive wood look like a costly one. Gum, for example, is often stained to imitate mahogany (Feirer, 1970).
iii. Opaque (obscure) painting: In this kind of finishing, finishes totally obscures the wood grain with a coating and achieves a particular color decor.

Visual samples, on which these three finishing type have been applied, were prepared for participants to understand the questions of the survey more accurately. Those samples were shown to the participants at the moment of interviewing. The questions in the second group have been developed to determine the effect of the demographic characteristics on the finishing and color preferences of subjects.

As the area of sampling, 6 central counties (Altındağ, Çankaya, Keçiören, Mamak, Sincan, Yenimahalle) of Ankara Province in Turkey was selected due to the fact that it is the second largest province from the aspect of population density and due to the fact that it has people from all segments of the society because of migration. The set of participants were constituted from the potential furniture buyers visiting the furniture stores. Interviews were conducted on the first 5-person who came to a store in a street of the sampling and accepted to participate in the interview on Saturdays between the hours 10:00 and 18:00. After then, the interviewers passed through a new store by going ahead in clock wise direction on the street to interview with a new group of 5-person. It was interviewed with totally 479 potential furniture buyers selected from the samples environment. The data were obtained by 7 interviewers informed about the data collection forms. It was asked to the participants the question "Are the finishing type and color on furniture, important for you and if important, to choose their three favorite finishings and colors graded as the first, second and third." Numbers of participants according to the counties are given in Table 1.

Table 1. Number of participants according to the counties.

County	Number of Participants	County	Number of Subject
Altındağ	58	Sincan	42
Çankaya	128	Yenimahalle	90
Mamak	67	Keçiören	94
Total	***253***	***Total***	***226***
		Grand Total	***479***

The data were coded in Statistical Package for the Social Sciences (SPSS 17.0) for windows, and evaluated in frequencies, percentages and chi-square (X^2) analysis. Some of the demographic characteristics of the participants are given in Table 2.

Table 2. Some demographic characteristics of the participants.

Consumer Characteristics	N	%	Consumer Characteristics	N	%	Consumer Characteristics	N	%
Age			**Educational Level**			**Monthly Income (US$)**		
Less than 25 years of age	119	24.8	Primary School	55	11.5	Less than US$380	108	22.5
Between 25-35 years of age	183	38.2	High School	167	34.8	Between US$381-635	208	43.4
Between 36-45 years of age	97	20.3	Under Graduate	257	53.7	More than US$636	163	34.1
Over 45 years of age	80	16.7	**Gender**			**Marital Status**		
Total	**479**	**100**	Male	212	44.3	Married	291	60.8
			Female	267	55.7	Single	188	39.2

Results and Discussion

In this section, the finishing type and the color preferences of the participants were evaluated according to their demographic characteristics, and the findings were given in tables. The existences of statistical relationship between the participant's preferences and various demographic characteristics of the groups were analyzed by using the chi-square(X^2) analysis. The relations among the variables were statistically analyzed and the results were interpreted. The tables, showing there was no relation between the variables, were not included in the text.

The Type of Surface Finishings and the Color Preferences Related to These Types of Surface Finishings

When the color preferences according to the type of surface finishings of the consumers are analyzed without taking into consideration any consumer characteristics and order of preference, it was observed that the brown color group of wood on the furniture with transparent finishing was the most preferred group with a share of 29.7% and this was followed with the red color group with a share of 25.3% and with the black color group with a share of 22.1%. Brown and its tones are the most preferred color type with a share of 24.7% on the furniture applied staining. These color preferences are followed by red and its tones with a share of 17.1% and with yellow and its tones with a share of 13.9%. On the furniture surfaces coated with opaque paints, brown is the most preferred color with a share of 24.9% and this is followed by blue and its tones with a share of 20.4% and by red and its tones with a share of 18.7% (Table 3).

There does not appear to be a significant difference in the general color preference tendencies in case any of the consumer characteristics are not taken into consideration, but the color preferences according to the finishing type are taken into consideration. On the furniture surfaces coated with transparent finishes, the brown color group wood types were in the forefront in all of the preferences in first, second and third places with 35.3%, 29.0% and 24.8%, respectively. On the furniture applied staining, brown and its tones were the colors preferred the most at 51.4% and this was followed by red and its tones at 23.0% and blue and its tones at 19.8%. On the furniture with opaque painting, the same order of preference emerges with different percentages. In this type of furniture as well, brown and its tones are the colors preferred the most at 44.9%, red and its tones are in second place at 23.2% and blue and its tones are in third place at 25.9% (Table 3).

Table 3. Color preferences of the consumers on the furniture according to the type of surface finishing and according to the order of preferences

Colors According to the Type of Surface Finishing		Order of Preference							
		First		Second		Third		Total	
		N	%	N	%	N	%	N	%
Transparent Finishing	White Color Group Wood	48	10	30	6.3	46	9.6	124	8.6
	Yellow Color Group Wood	46	9.6	75	15.7	84	17.5	205	14.3
	Brown Color Group Wood	**169**	**35.3**	**139**	**29**	**119**	**24.8**	**427**	**29.7**
	Red Color Group Wood	112	23.4	135	28.2	117	24.5	364	25.3
	Black Color Group Wood	104	21.7	100	20.8	113	23.6	317	22.1
Staining	White and its Tones	48	10	45	9.4	67	14	1,600	11.1
	Yellow and its Tones	42	8.8	81	16.9	77	16.1	200	13.9
	Black and its Tones	30	6.3	57	11.9	39	8.2	126	8.8
	Red and its Tones	52	10.9	**110**	**23**	84	17.5	246	17.1
	Blue and its Tones	33	6.9	67	14	**95**	**19.8**	195	13.6
	Brown and its Tones	**246**	**51.4**	64	13.4	45	9.4	**355**	**24.7**
	Green and its Tones	16	3.3	38	7.9	55	11.5	109	7.6
	Two Compatible Colors	12	2.4	17	3.5	17	3.5	46	3.2
Opaque Painting	Black	51	10.6	57	11.9	40	8.4	148	10.3
	Green	43	9	63	13.2	73	15.2	179	12.5
	Red	65	13.6	**111**	**23.2**	93	19.4	269	18.7
	Blue	70	14.6	99	20.6	**124**	**25.9**	293	20.4
	Brown	**215**	**44.9**	75	15.7	68	14.2	**358**	**24.9**
	Yellow	35	7.3	74	15.4	81	16.9	190	13.2

Note: The percentages of the columns were taken.

The Effects of the Demographic Characteristics on Consumer Color Preferences
The Effect of Age on Color Preferences on the Furniture Applied Transparent Finishing

The brown color group woods are preferred the most in all of the age groups when the general color preference tendencies are considered on the furniture surfaces coated with transparent finishing applications of the age groups separated as those who are younger than 25 years of age, those who are between 25-35 years of age, those who are

between 36-45 years of age and those who are older than 45 years of age. The type preferred in second place from the aspect of color is the brown color group in those who are younger than 25 years of age and in those who are between 36-45 years of age and the red color group is preferred by those who are between 25-35 years of age and those who are older than 45 years of age. From the aspect of third preference, the yellow color group of wood type is preferred the most by those who are younger than 25 years of age, the brown color group of wood type is preferred the most by those who are between 25-35 years of age and the red color group wood type is preferred the most by those who are 36 years of age and older.

A significant difference was not found ($p>0.05$) among the color preferences according to age groups in the first and second preferences related to the furniture with transparent finishing and a significant difference was found ($p=0.028<0.05$) for the third preferences (Table 4). According to this, age was found to be ineffective in the first and second preferences on color preference on the furniture surfaces coated with transparent finishes and was found to be effective in the third preferences.

Table 4. The color (wood type) preferences according to age on the furniture applied transparent finishing

Age	Order of Pref.	White Color Group Wood		Yellow Color Group Wood		Brown Color Group Wood		Red Color Group Wood		Black Color Group Wood		Total	Results		
		N	%	N	%	N	%	N	%	N	%	N	x^2	SD	p
Less than 25	1	10	8.4	13	10.9	**33**	**27.7**	31	26.1	32	26.9	119	19,556	12	0.076
Between 25-35		26	14.2	20	10.9	**64**	**35.0**	40	21.9	33	18.0	183			
Between 36-45		10	10.3	10	10.3	**38**	**39.2**	19	19.6	20	20.6	97			
Over 45		2	2.4	3	3.8	**34**	**42.5**	22	27.5	19	23.8	80			
Less than 25	2	11	9.2	14	11.8	**42**	**35.3**	30	25.2	22	18.5	119	16,749	12	0.159
Between 25-35		10	5.5	29	15.8	47	25.7	**62**	**33.9**	35	19.1	183			
Between 36-45		8	8.3	17	17.5	**30**	**30.9**	20	20.6	22	22.7	97			
Over 45		1	1.3	15	18.8	20	25.0	**23**	**28.6**	21	26.3	80			
Less than 25	3	11	9.2	**29**	**24.4**	28	23.5	25	21.1	26	21.8	119	22,982	12	***0.028***
Between 25-35		11	6.0	26	14.2	**55**	**30.1**	41	22.4	50	27.3	183			
Between 36-45		9	9.3	16	16.5	19	19.6	**29**	**29.9**	24	24.7	97			
Over 45		15	18.6	13	16.3	17	21.3	**22**	**27.5**	13	16.3	80			

1: First Preference, 2: Second Preference, 3: Third Preference. Note: The percentages of the rows were taken.

The Effects of Age on Color Preferences on the Furniture Applied Staining

Brown and its tones are in the forefront as first preferences in all of the age groups at 48.7%, 53.6%, 50.5% and 51.3%, respectively, when the color preferences according to age on the furniture applied staining are analyzed. In the second preferences, red and its tones are in the forefront up to 45 years of age at 19.3%, 29.0% and 21.6%, respectively, and black and its tones are the second preferences of those older than 45 years of age. In the third preferences, white and red colors and their tones are preferred by those who are younger than 25 years of age at 18.5%, red and its tones are preferred by those between 25-35 years of age at 20.8% and blue and its tones are preferred by those between 36-45 years of age at 22.7% and by those older than 45 years of age at 25.0% (Table 5).

Table 5. Color preferences according to age on the furniture applied staining.

Age	Order of Pref.	White and its Tones		Yellow and its Tones		Black and its Tones		Red and its Tones		Blue and its Tones		Brown and its Tones		Green and its Tones		Two Compat-ible Colors		Total	Results		
		N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	x^2	SD	p
Less than 25	1	14	11.8	11	9.2	8	6.7	16	13.4	6	5.1	**58**	**48.7**	1	0.8	5	4.3	119	19,83	21	0.53
Between 25-35		21	11.5	11	6.0	8	4.4	19	10.4	15	8.2	**98**	**53.6**	7	3.7	4	2.2	183			
Between 36-45		7	7.2	11	11.4	7	7.2	8	8.3	7	7.2	**49**	**50.5**	7	7.2	1	1.0	97			
Over 45		6	7.5	9	11.2	7	8.8	9	11.2	5	6.3	**41**	**51.3**	1	1.3	2	2.4	80			
Less than 25	2	14	11.8	21	17.6	17	14.3	**23**	**19.3**	17	14.3	17	14.3	7	5.9	3	2.5	119	23,67	21	0.30
Between 25-35		19	10.4	30	16.3	15	8.2	**53**	**29.0**	27	14.8	19	10.4	13	7.1	7	3.8	183			
Between 36-45		7	7.2	16	16.5	8	8.2	**21**	**21.6**	15	15.5	16	16.5	11	11.3	3	3.2	97			
Over 45		5	6.3	14	17.4	**17**	**21.3**	13	16.3	8	10.0	12	15.0	7	8.7	4	5.0	80			
Less than 25	3	**22**	**18.5**	17	14.3	11	9.3	**22**	**18.5**	16	13.4	10	8.4	16	13.4	5	4.2	119	40,25	21	***0.007***
Between 25-35		22	12.0	33	18.1	15	8.2	**38**	**20.8**	37	20.2	15	8.2	22	12.0	1	0.5	183			
Between 36-45		11	11.3	9	9.3	7	7.2	13	13.4	**22**	**22.7**	17	17.5	9	9.3	9	9.3	97			
Over 45		12	15.0	18	22.5	6	7.5	11	13.8	**20**	**25.0**	3	3.7	8	10.0	2	2.5	80			

1: First Preference, 2: Second Preference, 3: Third Preference. Note: The percentages of the rows were taken.

A significant difference was not found ($p>0.05$) among the color preferences according to age groups in the first and second preferences but a significant difference was found ($p=0.007<0.05$) in the third preferences (Table 5). In this situation, age was ineffective for the first and second preferences on the furniture applied staining and age was an effective factor for the third preferences.

The Effect of Age on the Color Preferences on the furniture Applied Opaque Painting

Brown and its tones were also the most preferred colors in all of the age groups on furniture surfaces on which opaque painting were applied at 42.9%, 45.4%, 45.3% and 46.3%, respectively. The distribution was not homogeneous in the second preferences. Those younger than 25 years of age and those older than 45 years of age preferred red and its tones in their second preferences, those between 25-35 years of age preferred blue and its tones and those between 35-45 years of age preferred yellow and its tones. As a third preference, those who are younger than 25 years of age preferred red and its tones at 22.7%, those older than 45 years of age preferred yellow and its tones at 22.5% and those in all of the other age groups preferred blue and its tones at 27.9%, 36.1% and 22.5%, respectively.

For all of the orders of preference on the furniture applied opaque painting, there was not a significant statistical difference ($p>0.05$) among the color preferences according to age groups. In this situation, it appears that age is not an effective factor on the color preferences on the furniture applied opaque painting.

The Effect of Gender on Color Preferences
The Effect of Gender on Color Preferences on the Furniture Applied Transparent Finishing

The brown color group wood was preferred by males at 36.3% and by females at 34.4% as their primary preferences when the color preferences of the consumers according to the gender are considered on furniture surfaces on which the transparent finishing was applied. As their second preferences, males preferred the red color group wood at 29.2% and females preferred the brown color group wood at 30.0%. As their third preferences, males preferred the red color group wood at 26.9% and females preferred the brown color group wood at 25.5% (Table 6).

In the statistical analysis made for determining whether or not gender was effective in color preferences on the furniture applied transparent finishing, it was determined that for all of the order of preferences, the differences between the color preferences of males and females were insignificant ($p>0.05$) (Table 6) and it was observed that gender is not a significant factor in color preferences.

Table 6. Color preferences according to gender on the furniture applied transparent finishing

Gender	Order of Pref.	White Color Group Wood		Yellow Color Group Wood		Brown Color Group Wood		Red Color Group Wood		Black Color Group Wood		Total	Results		
		N	%	N	%	N	%	N	%	N	%	N	x^2	SD	P
Male	1	13	6.1	17	8.1	**77**	**36.3**	56	26.4	49	23.1	212	8,691	4	0.069
Female		35	13.1	29	10.8	**92**	**34.5**	56	21.0	55	20.6	267			
Male	2	7	3.3	35	16.6	59	27.8	**62**	**29.2**	49	23.1	212	6,749	4	0.150
Female		23	8.6	40	15.0	**80**	**30.0**	73	27.3	51	19.1	267			
Male	3	23	10.8	31	14.6	51	24.1	**57**	**26.9**	50	23.6	212	3,494	4	0.479
Female		23	8.6	53	19.8	**68**	**25.5**	60	22.5	63	23.6	267			

1: First Preference, 2: Second Preference, 3: Third Preference. Note: The percentages of the rows were taken.

The Effect of Gender on Color Preferences on the Furniture Applied Staining

Brown and its tones were still the most preferred color at 46.3% in males and at 55.4% in females when the first preferences are taken into consideration. For the second preferences males and females preferred red and its tones at 23.6% and 22.5%, respectively. For the third preferences males and females preferred blue and its tones at 21.2% and 18.7%, respectively.

The differences among the color preferences according to gender in all the order of preferences are insignificant ($p>0.05$). According to this, gender is insignificant in the color preferences on the furniture applied staining.

The Effect of Gender on Color Preferences on the Furniture Applied Opaque Painting

The color preferences on the furniture applied opaque painting are given in Table 7. According to this, it appears that brown and its tones are the first preference for males and females at 37.7% and 50.6%, respectively. Blue and its tones are the second preference of males at 24.1% and red and its tones are the second preference of females at 24.3%. Blue and its tones are the third preference of males at 26.9% and of females at 25.1%.

According to the data obtained at the end of the statistical analysis, there is a significant difference among the color preferences according to gender in the first preferences ($p=0.023<0.05$) and the differences for the second and third preferences were found to be insignificant ($p>0.05$) (Table 7). According to this, gender is an effective factor on the color preferences on the furniture surfaces applied opaque painting.

Table 7. Color preferences according to gender on the furniture applied opaque painting

Gender	Order of Pref.	Black and its Tones		Green and its Tones		Red and its Tones		Blue and its Tones		Brown and its Tones		Yellow and its Tones		Total	Results		
		N	%	N	%	N	%	N	%	N	%	N	%	N	x^2	SD	p
Male	1	25	11.8	19	9.0	35	16.5	31	14.6	**80**	**37.7**	22	10.4	212	12,129	5	***0.033***
Female		26	9.7	24	9.0	30	11.2	39	14.6	**135**	**50.6**	13	4.9	267			
Male	2	25	11.8	27	12.7	46	21.7	**51**	**24.1**	38	17.9	25	11.8	212	7,064	5	0.216
Female		32	12.0	36	13.4	**65**	**24.3**	48	18.0	37	13.9	49	18.4	267			
Male	3	15	7.1	33	15.6	42	19.7	**57**	**26.9**	35	16.5	30	14.2	212	4,091	5	0.536
Female		25	9.4	40	15.0	51	19.1	**67**	**25.1**	33	12.3	51	19.1	267			

1: First Preference, 2: Second Preference, 3: Third Preference. Note: The percentages of the rows were taken.

The Effect of Marital Status on Color Preferences
The Effect of Marital Status on Color Preferences on the Furniture Applied Transparent Finishing

The brown color group wood is the first preference in married people at 37.1% and in single people at 32.4%. As second preferences, married people prefer the red color group wood at 28.5% and single people prefer the brown color group wood at 31.4%. As third preferences, married people prefer the brown color group wood at 25.8% and single people prefer the black color group wood at 25.0%.

According to the statistical analysis, the differences among the color preferences emerging according marital status are insignificant ($p>0.05$) in all orders of preferences. According to this, marital status is not an effective factor on the color preferences on the furniture surfaces coated with transparent finishes.

The Effect of Marital Status on the Color Preferences on the Furniture Applied Staining

Brown and its tones are the first preferences of married people at 55.7%, red and its tones are their second preferences at 25.1% and blue and its tones are their third preferences at 23.7%. Brown and its tones are the first preferences of single people at 44.7%, yellow and its tones are their second preferences at 22.8% and white and its tones are their third preferences at 18.1%.

Differences in color preferences according to marital status in all of the orders of preference are insignificant ($p>0.05$). According to this, it appears that marital status is not an effective factor on color preferences on the furniture surfaces coated with stains.

The Effect of Marital Status on Color Preferences on the Furniture Applied Opaque Painting

Brown and its tones were the first preferences of married people at 50.2%, red and its tones were the second preferences at 25.1% and blue and its tones were the third preferences at 28.6%. Brown and its tones were the first preferences of single people at 36.7%, red and its tones were the second preferences at 20.2% and blue and its tones were the third preferences at 21.8% (Table 8).

The differences among the color preferences, which emerge according to marital status for the first preferences, are significant ($p=0.031<0.05$) and the differences are insignificant ($p>0.05$) for the second and third preferences (Table 8). According to this, marital status is effective on the color preferences for the first preferences and is ineffective for the second and third preferences.

Table 8. Color preferences according to marital status on the furniture applied opaque painting

Marital Status	Order of Pref.	Black and its Tones		Green and its Tones		Red and its Tones		Blue and its Tones		Brown and its Tones		Yellow and its Tones		Total	Results		
		N	%	N	%	N	%	N	%	N	%	N	%	N	x^2	SD	p
Married	1	31	10.7	27	9.3	34	11.7	33	11.3	146	**50.2**	20	6.8	291	12,26	5	***0.031***
Single		20	10.6	16	8.5	31	16.5	37	19.7	69	**36.7**	15	8.0	188			
Married	2	30	10.3	35	12.0	73	**25.1**	66	22.7	38	13.1	49	16.8	291	9,04	5	0.108
Single		27	14.4	28	14.9	38	**20.2**	33	17.5	37	19.7	25	13.3	188			
Married	3	23	7.9	39	13.4	56	19.2	83	**28.6**	42	14.4	48	16.5	291	3,93	5	0.560
Single		17	9.0	34	18.1	37	19.7	41	**21.8**	26	13.8	33	17.6	188			

1: First Preference, 2: Second Preference, 3: Third Preference. Note: The percentages of the rows were taken.

The Effect of Educational Level on Color Preferences
The Effect of Educational Level on Color Preferences on the Furniture Applied Transparent Finishing

The first preferences of the primary school graduates were the brown color group wood at 50.9%, the second preferences were the black color group wood at 32.7% and the third preferences were the red color group wood at 30.9%. The first preferences of the high school graduates were the brown color group wood at 32.3%, the second preferences were the red color group wood at 32.9% and the third preferences were the brown color group wood at 26.8%. The first, second and third preferences of the university graduates were the brown color group wood at 33.8%, 30.4% and 24.5%, respectively. Among the university graduates, the black color group wood was also preferred at the same ratio as the brown, as their third preferences.

Differences among color preferences according to educational level in all orders of preferences are insignificant ($p>0.05$). According to this, educational level is not an effective factor on the color preferences on the furniture surfaces coated with transparent finishes.

The Effect of Educational Level on the Color Preferences on the Furniture Applied Staining

According to the color preferences connected to educational level given in Table 9, the first preferences of the primary school graduates were brown and its tones at 36.4%, their second preferences were red and its tones at 34.5% and their third preferences were blue and its tones at 34.5%. The first preferences of the high school graduates were brown and its tones at 53.8%, their second and third preferences were red and its tones at 21.5% and 19.8%, respectively. The first preferences of the university graduates were brown and its tones at 52.9%, their second and third preferences were red and its tones at 21.4% and 16.7%, respectively. However, in their third preferences, their red color preferences and their black and yellow color preferences were equal to each other at 16.7%.

Differences among the color preferences according to educational level for the first preferences on the furniture applied staining are significant ($p=0.012<0.05$), and the differences for the second and third preferences are insignificant ($p=0.05$) (Table 9). According to this, educational level is effective in the color preferences for the first preferences and it is ineffective for the second and third preferences.

Table 9. The effect of educational level on the color preferences on the furniture applied staining

Educational Level	Order of Pref.	White and its Tones		Yellow and its Tones		Black and its Tones		Red and its Tones		Blue and its Tones		Brown and its Tones		Green and its Tones		Two Compa-tible Colors		Total	Results		
		N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	x^2	SD	p
Primary	1	2	3.6	11	20.0	7	12.7	10	18.2	3	5.5	20	**36.4**	2	3.6	0	0.0	55	28,26	14	***0.012***
High School		18	10.8	12	7.2	6	3.6	21	12.6	13	7.8	90	**53.8**	4	2.4	3	1.8	167			
University		28	10.9	19	7.4	17	6.6	21	8.2	17	6.6	136	**52.9**	10	3.9	9	3.5	257			
Primary	2	2	3.6	6	10.9	3	5.5	19	**34.5**	7	12.7	10	18.2	5	9.1	3	5.5	55	19,56	14	0.145
High School		17	10.2	30	18.0	20	12.0	36	**21.5**	32	19.2	19	11.4	10	6.0	3	1.7	167			
University		26	10.1	45	17.5	34	13.2	55	**21.4**	28	10.9	35	13.6	23	8.9	11	4.4	257			
Primary	3	3	5.5	8	14.5	3	5.5	8	14.5	21	**38.2**	7	12.7	4	7.3	1	1.8	55	20,11	14	0.127
High School		24	14.4	26	15.6	12	7.2	33	**19.8**	31	18.6	12	7.2	23	13.7	6	3.5	167			
University		40	15.6	43	**16.7**	24	9.4	43	**16.7**	43	**16.7**	26	10.1	28	10.9	10	3.9	257			

1: First Preference, 2: Second Preference, 3: Third Preference. Note: The percentages of the rows were taken.

The Effect of Educational Level on Color Preferences on the Furniture Applied Opaque Painting

The color preferences according to educational level on the furniture applied opaque paintings are given in Table 10. According to this, the first preferences of primary school graduates were brown and its tones at 38.2%, their second preferences were red and its tones at 21.8% and their third preferences were blue and its tones at 25.5%. The first preferences of high school graduates were brown and its tones at 44.8%, their second preferences were red and its tones at 28.1% and their third preferences were yellow and its tones at 24.0%. The first preferences of the university graduates were brown and its tones at 46.4% and their second and third preferences were blue and its tones at 24.9% and 28.0%, respectively.

Table 10. Color preferences according to educational level on the furniture applied opaque painting

Educational Level	Order of Pref.	Black and its Tones		Green and its Tones		Red and its Tones		Blue and its Tones		Brown and its Tones		Yellow and its Tones		Total	Results		
		N	%	N	%	N	%	N	%	N	%	N	%	N	x^2	SD	p
Primary	1	4	7.3	6	10.9	13	23.6	7	12.7	21	**38.2**	4	7.3	55	18,56	10	***0.046***
High School		13	7.8	21	12.6	23	13.8	28	16.8	75	**44.8**	7	4.2	167			
University		34	13.2	16	6.2	29	11.3	35	13.6	119	**46.4**	24	9.3	257			
Primary	2	11	20.0	7	12.7	12	**21.8**	11	20.0	9	16.4	5	9.1	55	17,54	10	0.063
High School		13	7.8	22	13.2	47	**28.1**	24	14.4	29	17.3	32	19.2	167			
University		33	12.8	34	13.2	52	20.3	64	**24.9**	37	14.4	37	14.4	257			
Primary	3	4	7.3	7	12.7	13	23.6	14	**25.5**	10	18.2	7	12.7	55	17,97	10	0.056
High School		17	10.2	18	10.7	36	21.6	38	22.8	18	10.7	40	**24.0**	167			
University		19	7.4	48	18.7	44	17.1	72	**28.0**	40	15.6	34	13.2	257			

1: First Preference, 2: Second Preference, 3: Third Preference. Note: The percentages of the rows were taken.

Differences among the color preferences according to educational level for the first preferences were significant ($p=0.046<0.05$) and the differences for the second and third preferences were insignificant ($p=0.05$) (Table 10). According to this, the educational level is effective on the color preferences for the first preferences and it is ineffective for the second and third preferences.

The Effect of Income Level on Color Preferences
The Effect of Income Level on Color Preferences on the Furniture Applied Transparent Finishing

The color preferences according to income level of the individuals, who were the subject of the survey, on the furniture surfaces coated with transparent finishes, are given in Table 11. According to this, the first preferences of the individuals who participated in the survey and who have an income of US$380 and less, were the brown color group wood at 44.4% and their second and third preferences were the red color group wood at 28.7% and 26.9%, respectively. The first preferences of those who have an income between US$381-635 were the brown color group wood at 38.5%, the second preferences were brown at 31.3% and the third preferences were the black color group wood at 24.0%. The first preferences of those who have an income of US$636 and above were the black color group wood at 28.8% and the second and third preferences were the brown color group wood at 31.3% and 29.4%, respectively.

Table 11. The wood type (color) preferences according to income level on the furniture applied transparent finishing

Monthly Income	Order of Pref.	White Color Group Wood		Yellow Color Group Wood		Brown Color Group Wood		Red Color Group Wood		Black Color Group Wood		Total	Results		
		N	%	N	%	N	%	N	%	N	%	N	x^2	SD	p
US$380 and less	1	15	13.9	10	9.3	48	**44.4**	24	22.2	11	10.2	108	22,64	8	***0.004***
Between US$381 - 635		20	9.6	18	8.6	80	**38.5**	44	21.2	46	22.1	208			
US$636 and above		13	8.0	18	11.0	41	25.2	44	27.0	47	**28.8**	163			
US$380 and less	2	5	4.6	22	20.4	23	21.3	31	**28.7**	27	25.0	108	9,52	8	0.300
Between US$381 - 635		12	5.8	26	12.4	65	**31.3**	64	30.8	41	19.7	208			
US$636 and above		13	8.0	27	16.6	51	**31.3**	40	24.5	32	19.6	163			
US$380 and less	3	6	5.6	23	21.2	22	20.4	29	**26.9**	28	25.9	108	10,04	8	0.262
Between US$381 - 635		24	11.5	40	19.3	49	23.6	45	21.6	50	**24.0**	208			
US$636 and above		16	9.8	21	12.9	48	**29.4**	43	26.4	35	21.5	163			

According to the statistical analysis made, differences according to the different income groups in the first preferences among the color preferences were significant ($p=0.004<0.005$) and the differences in the second and third preferences were insignificant ($p>0.05$) (Table 11). According to this, the income level was effective on the color preferences in the first preferences and it was ineffective in the second and third preferences.

The Effect of Income Level on the Color Preferences on the Furniture Applied staining

The first preferences of the individuals who participated in the survey and who were in all of the income groups were brown and its tones at 43.5%, 50.0% and 58.3%, respectively. The second preferences in all of the income groups were red and its tones and at the same time, the preferences of the individuals who have an income level of US$636 and above were black and its tones. The third preferences of those having an income of US$380 and less, were blue and its tones at 23.1%, the third preferences of those having an income of US$381 - 635, were red and its tones at 21.2% and the third preferences of those having an income of US$636 and above, were blue and its tones and yellow and its tones at 19.0% each.

Differences according to the different income groups of the color preferences in all of the preferences were insignificant ($p>0.05$). According to this, the income level is ineffective on the color preferences on the furniture applied staining.

The Effect of Income Level on Color Preferences on the Furniture Applied Opaque Painting

The first preferences of those having an income of US$380 and less were brown and its tones at 40.7% and their second and third preferences were blue and its tones at 20.4% and 23.1%, respectively. The first preferences of those having an income between US$381 - 635 were brown and its tones at 47.1%, the second preferences were red and its tones at 25.0% and the third preferences were blue and its tones at 27.9%. The first preferences of those having an income of US$636 and above were brown and its tones at 44.8%, the second preferences were red and its tones at 24.5% and the third preferences were blue and its tones at 25.2%.

Differences according to the different income groups among the color preferences for all of the preferences on the furniture applied opaque painting were insignificant ($p>0.05$). In this situation, the income level of the individuals is not an effective factor on color preferences on the furniture coated with these type of surface finishes.

Conclusion

According to the findings, the type of surface finishings applied to the furniture surfaces and/or the color applied on these surfaces is important for the consumers. Furthermore, the opaque painting on the furniture surfaces is preferred less compared to the other finishing types. Accordingly, it can be deduced that the consumers seek a wood appearance on the furniture surfaces and that it is definitely necessary to take this wish into consideration in standard furniture production.

Brown and its tones are the most preferred colors in all kinds of surface finishings when the color preferences of the consumers are analyzed according to the type of surface finishing, without taking into consideration any consumer characteristics and orders of preference. This is followed by red, yellow, black and blue colors and their tones.

There is not much difference in color preferences and priorities given above, excluding extraordinary situations, when the general preferences emerging according to the general consumer characteristics, such as age, gender, education, marital status and income level are considered. Brown and red are still the first and second preference colors according to all of the consumer characteristics. Yellow, blue and black are in the forefront as the third preferences according to different consumer characteristics. Blue and its tones are the second preferences of males on the furniture applied opaque painting. Black and its tones are the second preferences of primary school graduates on the furniture surfaces coated with transparent finishes. Blue and its tones are the second preferences of university graduates on the surfaces coated with opaque painting. Black and blue colors and their tones are the first preferences for those who have an income of US$636 and above on furniture applied transparent finishing and staining and their preferring these is exceptional situations.

The fact that Beech and Pine are species of wood used a lot in Turkey, that furniture produced from these types of wood stems from the fact that beech in particular is suitable for finishing with every color and that they are put into the market as mahogany, walnut and hazelnut colors, could have been influential in the formation of a color culture in which brown and red are predominant. Furthermore, it is thought that the fact that the walls in housing estate and in the housing built by contractors is generally finished with white or light colored paint could be

influential in the selection of these colors on the furniture surfaces for contrast. In the same manner, the use of pine wood materials with a natural color in construction, interior design and furniture could be effective in preferring yellow the most. The use of black a lot in office furniture in the past and the fact that the Wenge wood is used a lot more in the building of furniture in recent years could be effective in the preferences for black.

According to the statistical analysis made to determine whether or not consumer characteristics are influential in the preference of color, it was found that age was effective on the third preferences in all of the surface finishing applications, that income level was effective on the first preferences in the transparent finishing applications, that gender was effective on the first preferences in the opaque painting applications, that marital status was effective on the first preferences in the opaque painting applications and that educational level was effective on the first preferences in the staining and opaque painting applications. According to this, a market segmentation should be made according to the findings above for the color preferences of the consumers according to income level in the transparent finishing applications, according to gender, marital status and educational level in the surface finishings with opaque paints, and according to educational level in the staining applications. Color and finishing preferences of the consumers connected to the customer characteristics specified should be taken into consideration in the user-oriented design applications and in the design activities, which keep consumer satisfaction in the forefront.

It was determined that age was ineffective on the color preferences of the consumers in all of the surface finishing applications, that gender and marital status were ineffective on the color preferences of the consumers in the surface applications made with transparent finishes and staining, that educational level was ineffective on the color preferences of the consumers in the transparent finishing applications and that income level was ineffective on the color preferences of the consumers in the staining and opaque painting. In this situation, there is no need for special color applications according to these variables. The most preferred colors satisfy all of the consumers.

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