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CONSUMER PREFERENCES FOR FLOORING IN TURKEY IN TERMS OF PURCHASING AND USE

In this study, consumer preferences for flooring in terms of purchasing and use, were investigated, as well as consumer attitudes and the reasons for preferences for a particular product, and whether consumer behaviour varied according to gender, age, level of education, occupation and size of household. The study was based on a face-to-face interview of 1005 people throughout Turkey. The data obtained from the survey was analyzed using the statistical package SPSS 19.0 for Windows. According to the results of the study, it is possible to say that the customers preferred flooring which was easy to assemble, with good heat and sound insulation, resistant to physical and mechanical damage, both environmentally- and human-friendly and aesthetically pleasing. Manufacturers should therefore endeavour to meet these expectations by obtaining positive and negative feedback from users of flooring. In conclusion, it was determined that flooring preference, usage, expectations and consumer complaints may differ according to gender, age, level of education, income level, household size and occupation. This study fills an important gap regarding the investigation of consumer preferences for flooring in terms of purchasing and use in Turkey.

Keywords: flooring, consumer preferences, purchase, consumer attitudes

Introduction

Consumer satisfaction in modern marketing, the notion which was adopted by developed countries and has become important in Turkey, should be provided by companies through a closer study of consumer needs [Foxall and Goldsmith 1994; Narus and Anderson 1996; Durmaz et al. 2011]. In other words, analysing consumer attitudes is crucial for marketers [Khan 2006].

The field of consumer behaviour is an essential component of marketing and requires substantial investment in research in order to satisfy the needs and demands of individuals, groups and organizations in terms of how they choose, buy, use and dispose of products, services, ideas and experiences [Kotler 2003; Hawkins and Mothersbaugh 2010]. Consumer behaviour consists of individual

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activities related to the selection, purchase and use of products in order to satisfy the demands and needs [Zikmund and D'Amica 1995]. Consumer behaviour comprises two paradigms: the positivist paradigm and non-positivist paradigm. The positivist paradigm consists of economic, behavioural, cognitive, motivational, individual, attitudinal and situational approaches. In contrast, the non-positivist paradigm consists of post-modern and interpretative approaches from the 1980s [Pachauri 2002].

Flooring is any material laid on the ground where people walk, wait and spend time. Today, solid wood material, wood-based materials, PVC, textile, stone and ceramic materials are used for floor covering [Döngel et al. 2008]. Although there is a wide variety of flooring materials, wood and wood-based materials rank highly and are preferred because they work well with other materials used, they are hygienic, aesthetic, resistant to physical and mechanical reactions and are durable [Döngel 2005]. According Barbara et al. [2008], approximately 70% of Germans use wood-based floor covering, and most Canadians use wood-based flooring and carpet covering because it is healthy [Spetic et al. 2007]. Another investigation carried out by Ay [2001] attempted to determine the main reasons for the consumer preference for laminate flooring on interior floors. The study compared consumer answers in terms of gender, level of income and education. As a result of the study, it was clearly seen that the level of income and education had a stronger influence than the gender variable on the preferences of the consumer.

The aims of this study were to identify consumer usage of and preference for flooring, and reasons for purchasing certain flooring, to examine consumer attitudes (to the flooring material before and after its use), to understand consumer behaviour, to distinguish the behaviour of male and female consumers in the family and identify the problems encountered with flooring. At the same time, companies in the flooring sector were advised to consider the needs and demands of consumers to increase their market share, to develop marketing strategies and to maximize their sales forces.

Materials and methods

Research area and sample selection

Consumers in various cities in Turkey were taken as the working sample. Surveys were conducted with one person from each household. The universe was determined as the total number of households in Turkey. Therefore, the number of households in 2015 was 21,662,260 according to TurkStat [2016]. As it is difficult, costly and time-consuming to conduct surveys in all households, the sampling method was used. The following formula was used to determine the sample size [Naing et al. 2006].

$$n = (N \cdot Z^2 \cdot P \cdot Q) / (N \cdot D^2 + Z^2 \cdot P \cdot Q)$$

In this formula,

- N universe size (21,662,260 household),
- Z confidence coefficient (this coefficient is taken as 1.96 for 95% confidence),
- P probability of the occurrence of the characteristic to be measured in the universe (value amounting to 90%)
- Q 1-P (improbability of the occurrence of the characteristic to be measured in the universe),
- D accepted sampling error (value amounting to 2%).

Using the above formula, the sample size was determined as 864. To ensure an efficient study, the sample size was raised to 1,035. Due to logic errors and the reluctance of respondents, 30 surveys were eliminated and the sample size was thus reduced to 1,005. The response rate of the surveys was 97.10%. The surveys administered from January 2013-August 2015.

Data collection and analysis method

Many researchers are disappointed after their research to see that they have omitted some important questions. Therefore, when designing a survey, it is important to decide which questions should be included and which eliminated [Fitoz 2002]. With this in mind, for this study, similar research was examined in detail and a draft survey was prepared. A small-scale pre-test of the survey is one of the best ways to prepare a good final survey. In this regard, the draft survey was tested in the province of Bursa in Turkey, and eventually the final survey was prepared according to the opinion of those consumers. The survey was administered to consumers face-to-face. The survey consisted of three parts. In the first part of the survey, questions were asked to determine the demographic properties of the consumers. In the second and third parts, questions were asked to ascertain the person(s) responsible for decision-making in the family and to determine the preferences for flooring and reasons for these preferences.

The data obtained from the survey was analyzed using the SPSS 19.0 for Windows statistical package. Descriptive statistics were used in the evaluation of the demographic characteristics. In addition, the Chi-Square test was used to determine the differences among the average of the group variables of occupation, household size, income, education, age and gender.

Results and discussion

Some demographic characteristics of the consumers

It was determined that 49.6 % of the consumers surveyed were male. 15.2% of the consumers were 18-24 years old, 39.7% were 25-39, 30.3% were 40-49 and 14.7% were 50 years old and over. In terms of their income level, the highest

rate exceeded \$ 522 per month (32.2%) while the lowest rate amounted to less than \$ 208. The education levels of the consumer groups were as follows: 2.2% were illiterate, 19.1% had a primary school education, 38.6% had a middle-high school education and 40.1% were university graduates. Approximately 50% of the consumers surveyed were white-collar and blue-collar and civil servants. Although the family sizes were similar, the number of families with four members was the highest (30.9%).

Consumer behaviour before the purchase of flooring

In this part, the desire to purchase the flooring product, pre-purchase research, evaluation in terms of flooring prices and mall, evaluations concerning the timing of the purchase, flooring properties (style, design, colour and pattern, brand and quality preferences, the final decision to purchase, durability of the flooring, and usability) and other similar factors were analysed in terms of demographic characteristics. The consumer preferences were analysed by means of the X^2 test with a 95% confidence level. Table 1 shows any differences between consumer preferences in terms of demographic characteristics.

According to the results of the chi-square test, there was a significant relationship between the gender, age, occupation and family size of the consumers and their decisions (concerning the purchasing of flooring (when, how, and which), who carried out research before purchasing, who recognised the need for the purchase, who evaluated the price, mall, brand, quality, and aesthetic features, who made the final purchasing decision and who evaluated the flooring after purchase) with a significance level of $p \le 0.05$ in table 1. While there was a significant relationship between the income level of the consumers and their decisions (ie. the purchasing of flooring (when, how, and which), who carried out research before purchasing, who evaluated the price, mall, brand and quality and who made the final purchasing decision) due to the level of significance (p) being smaller than 0.05, there was, however, no significant relationship between the income level of the consumers and recognition of the purchase need, the aesthetic features and who evaluated the flooring after purchase, as the level of significance was greater than 0.05 (p > 0.05). In other words, there were differences between the income level of the consumers and their decisions (about the purchasing of the flooring (when, how, and which), who carried out research before purchasing, who evaluated the price, mall, brand and quality and who made the final purchasing decision). There was not a significant relationship between the income level of the consumers and recognition of the purchase need, the aesthetic features and who evaluated the flooring after purchase.

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Table 1. X ² test results for pre-purchase behaviour according to demographic characteristics of consumers	ırchase behav	iour ac	cording t	to demog	raphic cl	haracter	istics of	consum	ers		
5	Gender	Age	e,	Education	tion	Income	me	Occupation	oation	Family size	size
X^2	d	X^2	d	X ₂	d	X^2	d	X ₂	d	X^2	d
49.192	0.000	84.941	0.000	30.992 0.000	0.000	27.29	0.001	70.412	0.000	30.02	0.000
51.766	0.000	78.151	0.000	14.445	0.107	11.079	0.270	86.894	0.000	36.073	0.000
150.63	0.000	76.86	0.000	33.772	0.000	44.663	0.000	131.464 0.000	0.000	21.728	0.010
253.711	0.000	99.225	0.000	35.616	0.000	48.523	0.000	176.537	0.000	34.262	0.000
230.436	0.000	96.385	0.000	22.425	0.008	41.971	0.000	151.288	0.000	25.394	0.003
165.307	0.000	99.793	0.000	10.854	0.286	13.932	0.125	101.46	0.000	23.819	0.005
74.043	0.000	78.927	0.000	17.466	0.042	17.146	0.046	64.701	0.000	16.995	0.049
76.047	0.000	102.415	0.000	33.061	0.000	33.741	0.000	114.164	0.000	18.543	0.029
72.747	0.000	79.419	0.000	30.818	0.000	47.405	0.000	99.531	0.000	25.676	0.002
16.282	0.001	92.035	0.000	19.612 0.020	0.020	10.376 0.321	0.321	76.058	0.000	22.522 0.007	0.00

 X^2 – chi-square value, p – the level of significance.

Table 2. Distribution of pre-purchase behaviour according to demographic characteristics of consumers (%)

					_	
Evaluation after purchase	47.0 (T) 42.4 (T)	33.3 (T) 44.1 (T) 44.3 (T) 43.2 (T)	45.5 (M) 40.6 (T) 39.7 (T) 47.9 (T)	39.1 (T) 36.6 (M) 45.2 (T) 46.6 (T)	49.1 (T) 52.2 (T) 40.9 (T) 46.9 (M) 39.6 (M) 36.8 (M) 35.1 (M and T)	50.0 (T) 47.0 (T) 41.8 (T) 37.7 (T)
Evaluation of purchasing of flooring (when, how)	44.6 (M) 54.2 (T)	37.3 (T) 47.4 (T) 49.2 (T) 43.2 (T)	36.4 (T) 40.6 (T) 45.4 (T) 49.6 (T)	35.5 (T) 40.1 (T) 52.0 (T) 48.1 (T)	42.5 (T) 56.6 (T) 43.6 (T) 50.3 (T) 50.0 (M) 31.6 (M, T and O) 37.1 (T)	60.4 (T) 50.8 (T) 45.0 (T) 38.8 (T)
The final decision or purchase	47.0 (T) 47.5 55.4 (T) 55.4 (T)	43.1 (T) 50.9 (T) 52.1 (T) 48.6 (T)	36.4 (M) 45.8 (T) 47.7 (T) 53.8 (T)		42.9 (T) 59.2 (T) 49.1 (T) 49.7 (T) 50.0 (M) 42.1 (T) 51.0 (T)	59.7 (T) 50.4 (T) 50.5 (T) 44.9 (T)
Brand The final and quality decision evaluation for purchase	43.2 (M) 48.3 (T)	37.3 (T) 40.6 (T) 49.8 (T) 43.9 (T)	36.4 (M) 44.3 (T) 42.5 (T) 47.1 (T)	34.1 (T) 40.1 (T) 46.6 (T) 48.1 (T)	47.3 (M) 52.2 (T) 52.7 (T) 41.9 (T) 47.9 (M) 47.4 (M)	50.0 (T) 48.1 (T) 46.0 (T) 35.9 (T)
Evaluation Brand of aesthetic and quality features evaluation	43.0 (T) 49.9 (M)	35.9 (T) 38.8 (M) 47.2 (T) 34.5 (M)	36.4 (T) 40.6 (M) 38.7 (T) 42.9 (T)	39.1 (M) 37.0 (M) 40.9 (T) 43.8 (T)	39.8 (T) 46.0 (T) 33.6 (T) 50.3 (M) 45.8 (T) 36.8 (M) 35.1 (T)	46.8 (T) 39.0 (M) 41.2 (T) 34.8 (T)
Price Mall evaluation evaluation	58.8 (M) 37.3 (W)	34.0 (M) 37.8 (M) 38.4 (T) 38.5 (M)	31.8 (W) 32.8 (W) 37.4 (M) 41.9 (M)	40.6 (W) 35.9 (M) 43.1 (M) 41.4 (M)	50.9 (M) 44.9 (T) 49.1 (M) 46.4 (W) 64.6 (M) 31.6 (M)	42.9 (T) 40.2 (T) 41.8 (M) 38.0 (M)
evaluation	60.6 (M) 37.9 (W)	33.3 (M) 38.8 (T) 41.6 (M) 41.2 (M)	45.5 (W) 33.9 (M) 41.2 (M) 39.7 (T)	41.3 (W) 35.5 (T) 42.7 (M) 42.0 (M)	52.7 (M) 41.2 (T) 50.0 (M) 50.3 (W) 64.6 (M) 36.8 (M) 39.7 (M)	45.5 (T) 37.5 (M) 42.1 (M) 41.3 (M)
Pre-purchase research	57.8 (M) 36.1 (W)	33.3 (M) 40.6 (M) 43.0 (M) 42.6 (M)	45.5 (W) 40.1 (M) 38.4 (M) 43.7 (M)	42.0 (W) 40.1 (M) 44.5 (M) 44.4 (M)	47.8 (M) 40.4 (M) 50.9 (M) 49.7 (W) 62.5 (M) 47.4 (M) 43.0 (M)	40.9 (M) 37.9 (M) 46.0 (M) 40.6 (M)
The purchase Pre-purchase need research	36.9 (T) 46.2 (M)	34.6 (M) 36.6 (M) 37.4 (T) 38.5 (T)	54.5 (T) 39.1 (M) 35.1 (M) 35.5 (T)	39.1 (M) 37.0 (M) 39.1 (T) 37.3 (T)	36.7 (T) 41.5 (T) 42.7 (T) 48.6 (M) 45.8 (W) 36.8 (O) 33.8 (M)	45.5 (T) 39.0 (T) 37.3 (M) 31.9 (T)
Evaluation of what will be purchased	44.0 (M) 51.7 (T)	37.9 (T) 48.9 (T) 46.9 (T) 47.3 (T)	36.4 (M) 46.9 (T) 1 42.0 (T) 51.4 (T)	40.6 (T) 41.2 (T) 48.8 (T) 50.9 (T)	42.9 (T) 55.1 (T) 43.6 (T) 50.8 (T) 41.7 (M) 31.6 (T and O) 43.7 (T)	56.5 (T) 50.0 (T) 44.4 (T) 39.9 (T)
Demographic characteristic	male female	18-24 25-39 40-49 50 and over	illiterate primary school middle-high school university	less than \$208 \$209-346 \$347-521 \$522 and over	worker officer retired housewife trader unemployed other	2 person 3 person 4 person 5 and over
Demographi	Gender	Age	Education n	Income	Occupation	Household size

The letters in parentheses show which member in a family is dominant in evaluations prior to purchase. Letters T, M, W and O represent together, myself, wife and other, respectively.

Table 2 shows the distribution of the movement of the consumers before purchasing according to the demographic characteristics, as well as which member(s) in a family was/were dominant in the pre-purchase evaluations. The values given in table 2 show the percentages belonging to the dominant member(s) among the family members in terms of the evaluated criteria.

Considering the results shown in table 2, in terms of gender, the majority of the men stated that they alone made the decisions (concerning the purchasing of flooring (when, and how) (44.6%), they carried out pre-purchase research (57.8%), evaluated the price (60.6%), mall (58.8%), brand and quality (43.2%), etc.), but they made the decisions concerning the purchase need (36.9%), aesthetic features (43.0%), the final purchase (47.0 %) and evaluations after purchase (47.0%) together with their wives. On the other hand, the women stated that they themselves decided the purchase need (46.2%) and decided on the aesthetic features (49.9%), but they stated that their husbands evaluated the price (37.9%). In addition, the women stated that they discussed their research with their husbands and they made the final decision (55.4%) and decided on the purchasing of flooring (when, how) (54.2%) together. The consumers in all the age groups stated that they made decisions together concerning the brand and quality, and the purchasing of the flooring (when, how), they reached the final decision together, evaluated what exactly would be purchased and evaluated the purchase afterwards, but they stated that they undertook their own pre-purchase research. In terms of education level, the consumers having graduated from middle-high school and university stated that they took an active role in all evaluations together with their spouses. In terms of income level, the consumers with an income of \$522 and over per month stated that they made most decisions together, apart from those connected to pre-purchase research, price evaluation and mall evaluation. With regard to occupation, the attitudes of office workers and retired people were generally similar to each other. Housewives recognised the purchase need (48.6%), and evaluated the aesthetic features (50.3%) and the purchase afterwards (46.9%) themselves, while they generally evaluated the other criteria together with their husbands. With regard to trader, it is possible to say that they generally made decisions on the evaluation criteria themselves. Other occupations such as lawyers and doctors stated that they evaluated the purchase need (33.8%), did pre-purchase research (43%), evaluated the price (39.7%) and mall (40.4%) themselves, while they generally evaluated the other criteria together with their spouses. In terms of family size, the groups made a decision on the evaluated criteria mostly together, although sometimes themselves.

General evaluation

In this research, consumer behaviour was analyzed up until the purchase of flooring. In addition, the type of product to be used was investigated, along with how many years the consumer expected the product to last, why the consumer

desired to make the purchase, what were the defects that occurred during use and the order of preferences concerning the purchase.

The distribution of the flooring preferences of the users, the usage time and flooring defects are presented in table 3.

Table 3. Distribution of flooring preferences of users, usage time and flooring defects

Gene	ral information	Number (N)	Percentage (%)
	solid wood parquet	154	15.3
	wood floor covering	223	22.2
Flooring	laminate parquet	546	54.3
preferences of user	wood flooring	38	3.8
	others (vinyl floor covering, concrete, carpet, etc.)	44	4.4
	1-3 years	19	1.89
	3-5 years	55	5.47
Usage time	5-10 years	244	24.28
	10 years and over	554	55.12
	no opinion	133	13.23
	localised swelling	273	14
	formation of protuberance	158	8.09
	grooving	42	2.15
	collapse	163	8.35
	level differences	117	5.99
Flooring defeats	flooding	116	5.94
Flooring defects	abnormal parquet opening	140	7.17
	quality problems	129	6.6
	infestation	104	5.33
	squeaking	259	13.27
	scratches	429	21.98
	other	22	1.13

In this determined that 54.3% of consumers used laminate parquet, 22.2% used wood flooring, 15.3% used solid wood parquet, 3.8% used solid wood overlay flooring with an interlocking system, and 4.4% used other materials (vinyl floor covering, concrete, carpet, etc.) for flooring. In terms of usage time, more than half of the users chose 10 years and over. In addition, the consumers

stated that the defects generally occurring in floor coverings were scratches, squeaking and localised swelling.

In this research, it was determined which consumer preferences were considered the most important for the consumers. The results of these preferences are shown in tables 4, 5, 6, 7 and 8.

According to the X² test results, as seen in table 8, it was determined that there were differences between the genders as regards the preferences of cost and resistance to physical and mechanical damage. Men chose the cost factor as the first order of importance with an average value of 4.726, followed by product durability, resistance to physical and mechanical damage. maintenance, repair and renovation properties and the floor construction method, respectively. In contrast, women chose the cost factor as the second order of importance, while they chose the factor of product durability as the first order of importance with an average value of 4.591. It was determined that there were significant differences between the age groups as regards aesthetic factors according to the X² test results. That is, there were differences of opinion among the consumers according to their age groups. In all the age groups, except the 25-39 group, the order of importance was as follows: the cost, product durability, resistance to physical and mechanical damage, aesthetics, maintenance, repair and renovation properties and floor construction method. However, in the 25-39 age group, the product durability factor was chosen as the most important with an average value of 4.681 (tab. 4). In terms of education level, it was determined that there were differences in consumer opinions as regards the cost, product durability and resistance to physical and mechanical damage according to the X² test results. While the order of importance of the consumers whose education level fell within the illiterate, primary school and middle-high school groups was, respectively, cost, product durability, resistance to physical and mechanical damage, aesthetics, maintenance, repair and renovation properties, the order of importance of the consumers having graduated from university was, respectively, product durability, resistance to physical and mechanical damage, cost, aesthetics, maintenance, repair and renovation properties. In terms of income level, there was no significant difference according to the X² test results. When the income level increased, the degree of importance of cost decreased (tab. 5). There were no significant differences according to family size. Consumers with a family size of 2 or 3 members chose product durability as the first order of importance with average values of 4.42 and 4.63. Consumers with a family size of 4 and over chose cost as the most important factor (tab. 6). There was no significant relationship between the occupation groups in terms of floor construction method and product durability. While the white-collar and blue-collar, civil servant, housewife and unemployed groups chose cost as the most important factor, the retired, trader and others considered it of secondary importance. Product durability was the most important for the retired and others,

Table 4. Order of importance of consumer preferences during purchase of flooring according to gender and age

	er	Avg.	4.824	1.959	4.75	4.033	3.04	2.391
	50 and over	order of importance	1 ,	9	2	8	4	'n
		Avg.	4.626	1.973	4.563	4.219	3.216	2.4
Age	40-49	order of importance	1	9	2	3	4	5
Ϋ́		Avg.	4.36	2.032	4.681	4.092	3.406	2.426
	25-39	order of importance	7	9	1	3	4	S
	18-24	Avg.	4.496	2.196	4.496	3.954	3.471	2.385
	18-2	order of importance	1	S	_	2	3	4
	der female	Avg.	4.309	2.106	4.591	4.142	3.412	2.437
Gender		order of importance	2	9	_	3	4	5
Gen		Avg.	4.726	1.961	4.654	3.251	4.06	2.355
	male	order of importance	1	9	2	8	4	S
	l	Factors	Cost	Floor construction method	Product durability	Resistance to physical and mechanical damage	Aesthetics	Maintenance, repair and renovation properties

Avg. - arithmetic average.

Table 5. Order of importance of consumer preferences during purchase of flooring according to education and income level

	d over	a Avg.	4.191	1.985	4.624	4.389	3.624	2.188
	\$1196 and over	order of Avg. importance Avg. importance Avg. importance Avg. importance Avg. importance Avg. importance Avg.	33	9	1	7	4	\$
onth)		e Avg. _{ii}	4.534	2.11	4.577	4.281	3.239	2.259
el (per mo	\$798-1196	order of mportanc	2	9	_	3	4	5
Income level (per month)	862	e Avg. i	5.095	1.882	4.567	3.836	3.129	2.481
In	\$479-798	order of mportanc	-	9	2	3	4	S
	\$479	Avg. i	5.254	2.203	4.478	3.659	3.101	2.304
	less than \$479	order of nportance	_	9	7	3	4	S
	sity	Avg. ir	4.05	1.94	4.61	4.35	3.55	2.51
	university	order of mportanc	3	9	-	2	4	S
	le- hool	e Avg. i	4.688	2.08	4.624	3.974	3.232	2.402
Education level	middle- high school	order of mportanc	_	9	2	3	4	S
Educa	school	Avg. i	4.94	1.97	4.76	3.88	3.17	2.28
	primary school	order of nportanc	1	9	7	3	4	5
		e Avg. ii	5.182	2.318	4.636	3.364	2.955	2.545
	illiterate	order of Avg. importance	1	9	7	3	4	S
,	Factors		Cost	Floor construction method	Product durability	Resistance to physical and mechanical damage	Aesthetics	Maintenance, repair and renovation properties

Avg. – arithmetic average.

Table 6. Order of importance of co	onsumer preferences	during purchase of flooring	ng
according to family size			

				Fami	ly size			
	2		3		4		5 and c	ver
Factors	order of im- portance	Avg.						
Cost	2	4.31	2	4.58	1	4.63	1	4.9
Floor construction method	6	2.19	6	1.89	6	1.96	6	2.05
Product durability	1	4.42	1	4.63	2	4.52	2	4.67
Resistance to physical and mechanical damage	3	4.12	3	4.23	3	4.18	3	3.97
Aesthetics	4	3.48	4	3.31	4	3.25	4	3.04
Maintenance, repair and renovation properties	5	2.46	5	2.33	5	2.45	5	2.35

Avg. - arithmetic average.

of secondary importance in the white and blue-collar, housewife and unemployed groups, and ranked third in the civil servant group. The order of importance of the other factors was, respectively, resistance to physical and mechanical damage, aesthetics, maintenance, repair and renovation properties and floor construction method (tab. 7).

Conclusions and suggestions

In recent years, with the effects of the economic crisis being felt in Turkey, manufacturers of floor covering have either stopped production or reduced it by half. In order for companies to survive, to increase their incomes and keep up with innovations, it is essential that they understand their customers, monitor their needs and the changes in their needs, and understand their behaviour. With this study, managers and workers of such companies will be provided with the opportunity to understand their customers better.

There were significant differences in the consumer behaviour pre-purchase and after-purchase in terms of demographic properties such as gender, age and household size. The need to purchase flooring, aspects concerning the purchasing of the flooring (when, how, and which), the evaluation of the brand, the final decision on the purchase, as well as the evaluation after purchase, were generally observed to be decided after discussions between the male and female members of the families. In other words, the families decided collaboratively. The males played a role in inquiries before purchase, concerning, for example, the cost and place of purchase, while the females focused on the aesthetics of the

Table 7. Order of importance of consumer preferences during purchase of flooring according to occupation groups

		Avg.	3.96	1.8	5.15	3.96	3.57	2.37
	others	order of importance	2	5	_	7	3	4
	yed	Avg.	5.1	1.89	4.63	4.21	3.15	2
	unemployed	order of importance	1	9	2	8	4	S
		Avg.	4.45	1.66	4.58	4.29	3.47	2.52
	trader	Avg. importance Avg. importance Avg. importance Avg. i	7	9	-	3	4	S
groups	лife	Avg.	4.71	2.05	4.62	4.05	3.32	2.23
Occupation groups	housewife	order of importance	1	9	2	8	4	Ś
	75		4.72	1.96	4.84	4.1	3.02	2.33
	retired	order of Avg. order of importance	2	9	_	3	4	5
	servant	Avg.	4.4	2	4.32	4.37	3.41	2.48
	civil servant	order of importance	1	9	3	7	4	S
	llar collar	Avg.	4.87	2.08	4.61	3.96	3.05	2.39
	white-collar and blue-collar	order of Avg. importance	1	9	2	8	4	Ś
'	Factors	•	Cost	Floor construction method	Product durability	Resistance to physical and mechanical damage	Aesthetics	Maintenance, repair and renovation properties

Avg. - arithmetic average.

Table 8. Statistical analysis of consumer preferences during purchase of flooring according to demographic characteristics

ation	d	0.000	0.507	0.064	0.046	0.000	0.004
Occupation	X ²	66.872	23.223	42.555	44.141	80.616	46.11
y size	d	0.394	0.282	0.089	0.782	0.078	0.331
Family size	X ₂	15.817	17.649	22.793	10.569	23.287	16.805
me	d	0.000	0.509	0.000	0.000	0.000	0.000
Income	X2	62.994	14.221	41.702	60.681	49.861	49.192
ıtion	d	0.000	8.636 0.734	0.000	0.001	0.000	0.117
Education	X2	59.914	8.636	41.015	36.814	40.253	17.959
v	d	0.215	0.245	0.463	0.179	0.004	0.084
Age	X ₂	18.962	18.35	14.845	19.82	33.58	9.676
der	d	0.028	0.224	0.327	0.011	860.0	0.464
Gender	X ₂	12.557	6:629	5.787	14.959	9.293	4.622
Factors		Cost	Floor construction method	Product durability	Resistance to physical and mechanical damage	Aesthetics	Maintenance, repair and renovation properties

 $\overline{X^2}$ – chi-square value, p – the level of significance.

flooring. In a broad sense, they made joint decisions as regards the choosing and purchasing of the product, according to age group, level of education, income, occupation and size of household.

Approximately 95% of the customers preferred wood or wood-based flooring. The users expressed the opinion that the product should last at least ten years. As in all products, there appeared to be some deficiencies in the flooring products. As a result of the study, it was concluded that scratches, squeaking, and localised swelling were the most common deficiencies. Having purchased the floor covering, the males took costs into consideration, while the females focused on the durability of the product. In addition, as the status of the users rose, the cost factor became less important.

In today's competitive environment, manufacturers should place more value on the idea of "pleasing their customers" instead of "selling excessively and earning a lot of money at all costs". For this, it is necessary to know who the customers are, what their needs and expectations are, what pleases them, their consumer behaviour, and their attitudes after consuming. Customers tend to prefer flooring which is easy to assemble, and has good heat and sound insulation, is resistant to physical and mechanical damage, is environmentally-and human-friendly, and is aesthetically pleasing. Manufacturers should be more amenable to meeting these expectations by obtaining both positive and negative feedback from flooring users. Manufacturers should take certain precautions against scratches, squeaking and localised swelling. Considering the inconstancy of the weather conditions in Turkey, as well as the consumers, manufacturers should also consider heat and moisture resistant products.

References

- **Ay N.** [2001]: Reasons of preference for using laminate floor in interior floors. Master's thesis. Gazi University Institute of Sciences, Ankara, Turkey
- **Barbara N., Bernhard Z., Gerd, W.** [2006]: Life cycle assessment of wood floor coverings. International Journal LCA 11 (3): 172-182
- **Döngel N.** [2005]: Technical properties of wood and wood based floor covering materials (parquet). PhD. thesis. Gazi University Institute of Sciences, Ankara, Turkey
- **Döngel N., Küreli İ., Söğütlü C.** [2008]: The effect of dry heat for the color and gloss changes on the wood and wood based floor covering materials. Journal of Polytechnic 11 (3): 255-263
- **Durmaz Y., Bahar R., Kurtlar M.** [2011]: Personal factors on consumer purchasing behaviors an empirical study. Journal of Academic Approaches 2 (1): 14-1133
- **Foxall G.R., Goldsmith R.E.** [1994]: Consumer psychology for marketing. Second Edition Routledge, London.
- **Fitoz Y.D.** [2002]: Study on economical way of customers preference in interior resident floor coating. Master's thesis. Gazi University Institute of Sciences, Ankara, Turkey
- **Hawkins D.I., Mothersbaugh D.L.** [2010]: Consumer behavior: building marketing strategy. Eleventh edition, McGraw-Hill/Irwin Publication, New York, USA

- Karagöz Y., Ekici S. [2004]: Statistical techniques, and scales which are used in practical research in social sciences. C. Ü. Journal of Economics and Administrative Sciences 5 (1): 25-43
- **Khan M.** [2006]: Consumer behavior and advertising management. New Age International (P) Limited Publishers, New Delhi
- Kotler P. [2003]: Marketing management. Eleventh Edition, Prentice Hall, New Jersey, USA
 Naing L., Winn T., Rusli B.N. [2006]. Practical issues in calculating the sample size for prevalence studies. Archives of Orofacial Sciences 1: 9-14
- Narus A., Anderson J.C. [1996]: Rethinking distribution. Harvard Business Review 112-120 Pachauri M. [2002]: Consumer behavior a literature review. Marketing Review 2 (3): 319-346
- **Spetic W., Kozak R., Cohen D.** [2007]: Perceptions of wood flooring by Canadian householders. Forest Product Journal 57 (6): 34-38
- TurkStat. [2016]: 2015 Address Based Population Registration System. State Institute of Statistics Publication, Ankara, Turkey
- **Zikmund G.W., D'Amica M.** [1995]: Effective marketing: creating and keeping customers. Second Edition, West Publication Company, St. Paul

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