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A STUDY ON THE SATISFACTION OF FEMALE USERS IN RESIDENTIAL KITCHENS: THE CASE OF MALTEPE

KONUT MUTFAKLARINDA KADIN KULLANICILARIN MEMNUNİYETİ ÜZERİNE BİR ÇALIŞMA: MALTEPE ÖRNEĞİ

Gizem BULUT*, Neslihan YILDIZ**

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İç Mimarlık Bölümü
Maltepe Üniversitesi,
İstanbul / Türkiye

Department of Interior Architecture
Maltepe University,
İstanbul / Türkiye

ORCID: 0000-0002-0431-0079

gizem.bulut090@gmail.com

**
İç Mimarlık ve Çevre Tasarımı Bölümü
İstanbul Gedik Üniversitesi,
İstanbul / Türkiye

Department of Interior Architecture and Environmental Design
İstanbul Gedik University,
İstanbul / Türkiye

ORCID: 0000-0002-4674-2750

neslihan.yildiz@gedik.edu.tr

ÖZET

Çalışmanın amacı, kadın kullanıcıların mutfaklarından memnuniyet düzeylerini; mutfağın büyüklüğü, soğutma-yıkama-pişirme düzenindeki iş akışı, ankastre kullanımı ve kullanıcının yaşı açısından analiz etmektir. Araştırma; literatür taraması, anketin geçerlik ve güvenilirliğinin test edilmesi, anketin uygulanması, elde edilen verilerin değerlendirilmesi, araştırma bulgularının tartışılması ve çözüm önerilerinin sunulması şeklinde gerçekleştirilmiştir.Bu çalışmada, kullanıcılara anket hakkında bilgi verilmiş ve gönüllülük esasına göre Gönüllü Olum Formu imzalatılmıştır. Çalışma alanı olarak İstanbul Maltepe ilçesi belirlenmiştir. İlçede ikamet eden 500 kadın mutfak kullanıcısına anket çalışması yapılarak mutfak memnuniyetleriyle ilgili bilgiler elde edilmiştir. Sonuç olarak, konut mutfağının büyüklüğü ile kullanışlılığından duyulan memnuniyet arasında anlamlı bir ilişki bulunmuş, iş akışından duyulan memnuniyet ile mutfak düzeninde kullanılabilirlik arasında pozitif bir ilişki olduğu görülmüştür. Mutfak kullanıcılarının ankastre cihazların kullanımından duydukları memnuniyet ile kullanılabilirlik arasında anlamlı bir ilişki olduğu gözlemlenmiş ve kullanıcı yaşının akıllı mutfak teknolojilerinden memnuniyeti etkilemediği tespit edilmiştir.

Anahtar Kelimeler: Konut, Mutfak, Kadın, Kullanıcı memnuniyeti, Maltepe.

ABSTRACT

Aim of the study is the satisfaction levels of female users from their kitchens; the size of the kitchen, the workflow in the cooling-washing-cooking order, the use of built-in appliances and the age of the user. Research; literature review, testing the validity and reliability of the questionnaire, applying the questionnaire, evaluating the data obtained, discussing the research findings and presenting solution suggestions.In this study, users were informed about the questionnaire and signed a Voluntary Consent Form on a voluntary basis. Maltepe district of Istanbul was determined as the study area. Information about their kitchen satisfaction was obtained by conducting a survey to 500 female kitchen users residing in the district. As a result, a significant relationship was found between the size of the residential kitchen and satisfaction with its usefulness, and it was seen that there was a positive relationship between satisfaction with the workflow and usability in the kitchen layout. It has been observed that there is a significant relationship between the satisfaction of kitchen users with the use of built-in appliances and usability, and it has been determined that the age of the user does not affect the satisfaction with smart kitchen technologies.

Keywords: Residential, Kitchen, Woman, User satisfaction, Maltepe.

1. INTRODUCTION

In many traditional cultures, it is observed that women have assumed the role of food giver and men and children have assumed the role of food taker. Due to this role, women spend most of their time and effort in the kitchen preparing meals for their families (Çinay & Sezerel, 2021). In this context, women's power, which has contributed to the development of traditional food cultures throughout history, still maintains its direct connection with food inside and outside the home, from agricultural production to industrial food processing, from in-kitchen production to food presentation. In this respect, it is women who play the most active role in the formation of traditional culinary culture and transferring it to future generations (Karaca & Altun, 2017).

Terms such as productivity, workflow, time calculation during periods when rationalism is prevalent in the world; as in every branch where production is active, are taken into respect as an important data in kitchen design. With the women's emergence in the business life, it

is aimed that the kitchens will be in a way that reduces, facilitates and saves time by reducing the woman's work. The first example of these kitchens is the Frankfurt kitchen designed in 1926 (Özkoçak, 2015). The main purpose of this design was to create a design based on efficiency to save women from chores (Jerram, 2006). Margarette Schütte-Lihotzky (1897-2000), who designed the Frankfurt kitchen, was one of the world's first female architects. This kitchen, created by the architect with this idea, was seen as the first rational kitchen to go into mass production (Henderson, 1996).

Satisfaction is evaluated according to the level of fulfillment of users' requirements (Gür & Erbil, 2018). In addition, the material properties and user satisfaction used in the kitchen are of great importance when creating a new kitchen. In addition to the materials used in kitchen design, physiological-psychological needs, and individual habits, user satisfaction is also of great importance (Tavşan & Küçük, 2013). In addition to meeting the needs of individuals in user satisfaction, their needs should be comfortably addressed (Kellekci & Berköz, 2006).

Aiyelabola (2002) also emphasized that the kitchens in the homes are valuable for the average woman as they complement their home regardless of their qualifications, culture, class or income. However, the user's satisfaction with the kitchen depends on how women can be seen as power spaces in the home while kitchens are designed from a feminist perspective. In addition, the kitchen has been one of the places of the house that is most affected by socio-demographic, psychological, economic and political factors (Conran, 1977).

In societies with low cultural and economic consumption, the difference in the division of labor between the sexes is greater and the division of labor is dominated by patriarchy. Cooking is an action attributed to women in patriarchal societies. The kitchen, which is the place where women are most active, is also one of the places where women's labor is the most intense (Bourdieu, 2015). In the light of the cultural codes transmitted from the past to the present, the study was conducted only with a focus on women.

Maltepe district of Istanbul was considered as the study area. According to the gender distribution of the region, the proportion of women was determined as 51.7% (Kurtuluş et al., 2018). Due to the high female population in this region, Maltepe Neighborhood was considered ideal as a workplace.

The aim of this study is to examine user satisfaction by obtaining information about the size of the residential kitchens that users use, layout, kitchen type, smart kitchen technology used and available in the kitchen and the daily time women spend in the kitchen. The main problem of the research is "Does the kitchen setup in the residence have any effects on user satisfaction?" is to answer the question. Within the scope of the study, 4 hypotheses were established to test the relationship between the residential kitchen setup and female user satisfaction.

H_1: There is a positive relationship between satisfaction with the size of the kitchen and usability.
H_2: There is a positive relationship between satisfaction with the workflow in the cooling-washing-cooking (refrigerator-home-stove) layout of the kitchen and usability.
H_3: There is a positive relationship between satisfaction and usability of the use of built-ins in kitchens.
H_4: There is a relationship between the age of the kitchen user and satisfaction with smart kitchen technologies.

Table 1. Hypothesis

The most important limitations of this research are that the statistical data obtained covers the Maltepe district located on the Anatolian side of Istanbul and that the research is conducted only with female users. In addition, the fact that the sample was defined in a limited area weakens the generalizability of the findings. In addition, this study can be accepted as a base and can be applied on the basis of other districts of Istanbul, and it will be included in the future studies on this subject and contribute to the literature.

2. MATERIAL AND METHOD

Within the scope of this study, which was carried out with a quantitative research design, 500 female users belonging to different income groups and residing in various neighborhoods of Maltepe district were reached. A questionnaire form developed by the authors was applied to the users selected by random sampling method. The questionnaire study was applied to the participants online (Figure 1).

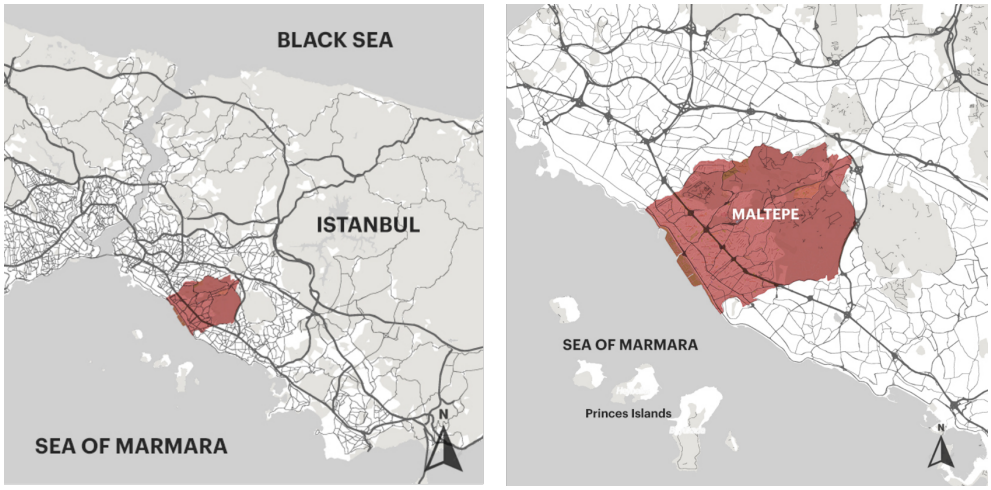

Figure 1. Location of Maltepe in Istanbul (Yıldız, 2023)

Within the scope of the research, the survey has been carried out upon the approval of Istanbul Gedik University Ethics Commission decided on the meeting dated 28.02.2022 and numbered 2022/3 under decision number E18048029-050.01.04-2022.137548.33-305.

The questions of the survey study were evaluated on three different scales.

• Demographic questions
• Housing questions
• Questions about residential kitchen and satisfaction

Table 2. Scale Types of Survey Study

The questions of the research were structured based on the 5-unit likert scale. Within the scope of the research; The surveys of the study based on the survey model were prepared through the Google form and then the data was collected for analysis. After the survey application reached the required number, the data was analyzed with the software package "SPSS 17" for statistical analysis.

In order to test the validity reliability of the study, a pilot survey was conducted within the scope of the study and surveys were applied to 20 (twenty) female users. Then the final survey was started. The pilot survey was carried out in the form of a preliminary study of the prepared survey.

In this research centered on the user, 500 female users over the age of 18 were reached within the sample area and surveyed online. The data obtained; vertical analysis, frequency analysis, descriptive statistics, one-way analysis of variance and t-test.

The findings obtained in this context were conveyed as the lowest and highest values in order to reduce the repetition of data in the text. Intermediate values can be followed from the tables.

3. RESULTS

3.1.Demographic Information About Users

The distributions regarding the demographic characteristics of the participants are given in Table 3.

Variables		**n**	**%**
Age of Users	18-24	66	13,2

Table 3. User Information

	25-34	124	24,8
	35-44	142	28,4
	45-54	93	18,6
	54+	75	15,0
	Total	**500**	**100,0**
Users Marital Status	Married	322	64,4
	Single	178	35,6
	Total	**500**	**100,0**
Users Education Status	Primary school	17	3,4
	Secondary school	14	2,8
	High school	111	22,2
	Associate degree	78	15,6
	Bachelor	233	46,6
	Master	47	9,4
	Total	**500**	**100,0**
Users Profession Groups	Housewife	135	27
	Labor	3	0,6
	Clerk	56	11,2
	Self-employed	55	11,0
	Unemployed	30	6,0
	Student	45	9,0
	Retired	79	15,8
	Other	102	20,4
	Total	**500**	**100,0**
Monthly Income of Users	Under minimum wage	49	9,8
	Minimum wage	49	9,8
	2400-4000 TL	142	28,4
	4000-5000 TL	130	26,0
	5000-6000 TL	79	15,8
	6000+ TL	51	10,2
	Total	**500**	**100,0**
Number of People Living at Home	1	23	4,6
	2	90	18,0
	3	220	44,0
	4	126	25,2
	5 and above	41	8,2
	Total	**500**	**100,0**
Users Children	Yes	301	60,2
	No	199	39,8
	Total	**500**	**100,0**

When the distribution according to age groups is examined; 142 people were between the ages of 35-44 and constituted 28.4% of the total number of participants; it is seen that 66 people are between the ages of 18-24 and constitute 13.2% of the total number of participants.

When the distribution according to their marital status is examined; 322 people were married and constituted 64.4% of the total number of participants; it is seen that 178 people are single and this constitutes 35.6% of the total number of participants.

When the distribution according to educational status is examined; it was determined that 233 people had a bachelor's degree and constituted 46.6% of the total number of participants; It is seen that 14 people are secondary school graduates and constitute 2.8% of the total number of participants.

When the distribution according to occupational groups is examined; 135 people were housewives and they constituted 27% of the total number of participants; it is seen that 3 people are workers and constitute 0.6% of the total number of participants.

When the distribution according to monthly income status is examined; 142 people earn between 2400-4000 TL per month and constitute 28.4% of the total number of participants; the monthly income of 49 people is around the minimum wage; it is seen that the monthly income of another 49 people is below the minimum wage and the total number of respondents is 9.8%.

When the distribution according to the number of people in the household is examined; there are 3 people living in a household of 220 people and this constitutes 44% of the total number of participants; it is seen that 23 people live alone in the household and constitute 4.6% of the total number of participants.

When the distribution according to the presence of children in the household is examined; 301 people have children and this constitutes 60.2% of the total number of participants; it is seen that 199 people do not have children and constitute 39.8% of the total number of participants.

3.2. Housing Informatıon

The distribution of the neighborhoods where the participants reside is given in Table 4.

Variables		**n**	**%**
Resident Neighborhood	Altayçeşme	20	4,0
	Altıntepe	25	5,0
	Aydınevler	39	7,8
	Bağlarbaşı	19	3,8
	Başıbüyük	35	7,0
	Büyükbakkalköy	9	1,8
	Cevizli	35	7,0
	Çınar	13	2,6
	Esenkent	17	3,4
	Feyzullah	16	3,2
	Fındıklı	13	2,6
	Girne	87	17,4
	Gülensu	8	1,6
	Gülsuyu	7	1,4
	Idealtepe	59	11,8
	Küçükyalı	66	13,2
	Yalı	10	2
	Zümrütevler	22	4,4
	Total	**500**	**100,0**

Table 4. Distribution Of Neighborhoods Where Users Resist

When the distribution according to the residential neighborhood is examined; 87 people reside in Girne neighborhood and constitute 17.4% of the total number of participants; it is seen that 7 people live in Gülsuyu neighborhood and constitute 1.4% of the total number of participants.

Variables		**n**	**%**
Number Of Rooms Of The Residence	1+0	2	,4
	1+1	8	1,6

Table 5. Number Of Rooms In The Residence Where Users Reside

	2+1	122	24,4
	3+1	338	67,6
	4+1 and more	30	6,0
	Total	**500**	**100,0**

When the distribution of the house according to the number of rooms is examined; 338 people reside in 3+1 residences and constitute 67.6% of the total number of participants; it is seen that 2 people reside in 1+0 residences and constitute 0.4% of the total number of participants (Table 5).

Table 6. Residential Property Status

Variables		**n**	**%**
Property Status Of The Residence	Own Home	327	65,4
	Rent/Housing	168	33,6
	Family Home	5	1,0
	Total	**500**	**100,0**

When the distribution according to the ownership status of the house is examined; 327 people reside in their own house and constitute 65.4% of the total number of participants; it is seen that 5 people reside in the family home and constitute 1.0% of the total number of participants (Table 6).

Table 7. Housing Type

Variables		**n**	**%**
Housing Type	Apartment	468	93,6
	Squatter	10	2,0
	Lodging	4	0,8
	Duplex	15	3,0
	Triplex	3	0,6
	Total	**500**	**100,0**

When the distribution according to the housing type is examined; it was determined that 468 people lived in the flats and constituted 93.6% of the total number of participants; It is seen that 3 people reside in triplex housing and constitute 0.6% of the total number of participants (Table 7).

3.3. Information About Residential Kitchen

The distribution of the participants' knowledge of the residential kitchen was examined by frequency analysis, general location of the kitchen, duration of use of the kitchen, time spent in the kitchen, location of the kitchen in the space etc. general information about satisfaction were given (Table 8).

Table 8. General Location Of The Kitchen

Variables		**n**	**%**
General Location Of The Kitchen	East	79	15,8
	West	63	12,6
	North	126	25,2
	South	228	45,6
	Other	4	,8
	Total	**500**	**100,0**

When the distribution according to the general location of the kitchen is examined; the kitchens of 228 people face south and this accounted for 45.6% of the total number of participants; it is seen that 4 people's kitchens look the other way and they make up 0.8% of the total number of participants.

Table 9. Kitchen Usage Time

Variables		**n**	**%**
Kitchen Usage Time	0-5 years	214	42,8
	5-10 years	158	31,6
	10-15 years	56	11,2
	15 years and over	72	14,4
	Total	**500**	**100,0**

When the distribution according to the usage period of the kitchen is examined; 214 people had 0-5 years of kitchen use and constituted 42.8% of the total number of participants; it is seen that 56 people have a kitchen usage period of 10-15 years and constitute 11.2% of the total number of participants (Table 9).

Variables		n	%
Time Users Spend In The Kitchen	0-1 hour	84	16,8
	1-3 hours	291	58,2
	3-5 hours	105	21,0
	5 hours and more	20	4,0
	Total	**500**	**100,0**

Table 10. Time Users Spend In The Kitchen

When the distribution according to the time spent in the kitchen is examined; 291 people stayed in the kitchen for 1-3 hours and constituted 58.2% of the total number of participants; it is seen that 20 people stayed in the kitchen for 5 hours or more and constituted 4% of the total number of participants (Table 10).

Variables		n	%
Placement Of The Kitchen In The Space	Semi-open	66	13,2
	Open	52	10,4
	Closed	382	76,4
	Total	**500**	**100,0**

Table 11. Placement Of Users Kitchens In Space

When the distribution according to the layout of the kitchen in the space is examined; 382 people had a closed kitchen and they constituted 76.4% of the total number of participants; it is seen that 66 people have a semi-open kitchen and constitute 13.2% of the total number of participants (Table 11).

Variables		n	%
Kitchen Layout Type	Island type	6	1,2
	Straight	210	42,0
	Hallway	54	10,8
	L type	201	40,2
	Type U	26	5,2
	Half island	3	,6
	Total	**500**	**100,0**

Table 12. Layout Type Of User Kitchens

When the distribution according to the kitchen layout type is examined; 210 people have a flat kitchen and constitute 42% of the total number of participants; it is seen that 3 people have a peninsula kitchen and constitute 0,6% of the total number of participants (Table 12).

Variables		n	%
Users Satisfaction With Kitchen Layout Type	Very bad	17	3,4
	Bad	36	7,2
	Normal	168	33,6
	Good	228	45,6
	Very good	51	10,2
	Total	**500**	**100,0**

Table 13. Users' Satisfaction With The Layout Type Of Their Kitchen

When the satisfaction with the kitchen layout type is examined; 228 users gave good answers and constituted 45.6% of the total number of participants; it is seen that 17 people gave a very bad answer and constituted 3.4% of the total number of participants (Table 13).

Variables	Satisfaction Of Users In Terms Of Kitchen Usefulness	Sum

Table 14. Relationship Between The Size Of The Kitchen And Satisfaction With Its Usefulness

			Very bad	Bad	Normal	Good	Very good	
Users Satisfaction With The Size Of The Kitchen	Very bad	n	16	4	1	0	0	21
		%	76,2%	19,0%	4,8%	0,0%	0,0%	100,0 %
	Bad	n	2	18	21	2	0	43
		%	4,7%	41,9%	48,8%	4,7%	0,0%	100,0 %
	Normal	n	2	11	103	37	2	155
		%	1,3%	7,1%	66,5%	23,9 %	1,3%	100,0 %
	Good	n	0	2	23	179	14	218
		%	0,0%	,9%	10,6%	82,1 %	6,4%	100,0 %
	Very good	n	0	0	1	10	52	63
		%	0,0%	0,0%	1,6%	15,9 %	82,5 %	100,0 %
Total		**n**	**20**	**35**	**149**	**228**	**68**	**500**
		%	**4,0%**	**7,0%**	**29,8%**	**45,6 %**	**13,6 %**	**100,0 %**

p=0.000

In the analysis of the relationship between satisfaction with the size of the kitchen and satisfaction with its usefulness; 76.2% of those who were very satisfied with the size of the kitchen answered very poorly for their usefulness, 19% were bad, 4.8% were normal, 0% were good and 0% answered very well. 4.7% of those who were satisfied with the size of the kitchen answered poorly for their usefulness, 41.9% were bad, 48.8% were normal, 4.7% were good and 0% answered very well. 1.3% of normal people who were satisfied with the size of the kitchen answered very poorly for their usefulness, 7.1% were bad, 66.5% were normal, 23.9% were good and 1.3% answered very well. 0% of those who are satisfied with the size of the kitchen are very bad for their usefulness, 0.9% are bad, 10.6% are normal, 82.1% are good and 6.4% have answered very well. 1.6% of those who were very satisfied with the size of the kitchen answered normally, 15.9% answered well and 82.5% answered very well. There is a significant corral between satisfaction with the size of the kitchen and satisfaction in terms of usability ($p<0.05$) (Table 14).

Variables			**Satisfaction Of Users In Terms Of Usability From Their Existing Kitchens**					**Sum**
			Very bad	Bad	Normal	Good	Very good	
Satisfaction With The Workflow In Cooling-Washing-Cooking (Refrigerator-Home-Stove) Placement In	Very bad	n	10	5	0	0	0	15
		%	66,7%	33,3%	0,0%	0,0%	0,0%	100,0 %
	Bad	n	6	9	12	3	0	30
		%	20,0%	30,0%	40,0%	10,0 %	0,0%	100,0 %
	Normal	n	4	14	94	29	6	147
		%	2,7%	9,5%	63,9%	19,7 %	4,1%	100,0 %
	Good	n	0	7	40	183	21	251

Table 15. Relationship Between Users' Satisfaction With Workflow In Cooling-Washing-Cooking (Refrigerator-Home-Cooker) Placement In Their Kitchen And Satisfaction In Terms Of Usability

Users' Kitchens		%	0,0%	2,8%	15,9%	72,9 %	8,4%	100,0 %
	Very good	n	0	0	3	13	41	57
		%	0,0%	0,0%	5,3%	22,8 %	71,9%	100,0 %
Total		**n**	**20**	**35**	**149**	**228**	**68**	**500**
		%	**4,0%**	**7,0%**	**29,8%**	**45,6 %**	**13,6%**	**100,0 %**

p=0.000

In the analysis of the relationship between satisfaction with the workflow in the cooling-washing-cooking (refrigerator-sink-cooker) layout of the kitchen and satisfaction with its usefulness; 66.7% of those who are very satisfied with the workflow in the cooling-washing-cooking (refrigerator-home-cooker) settlement, 66.7% of those who say they are bad, 33% who say they are bad, 0% of those who say they are normal, 0% who say they are good and 0% who say they are very good. In those who are very satisfied with the workflow in the cooling-washing-cooking (refrigerator-home-cooker) settlement, the proportion of those who are very satisfied in terms of usefulness is 20%, the proportion who say they are bad is 30%, the proportion who say they are normal is 40%, the proportion who say they are good is 10%, and the proportion who say they are very good is 0%. In those who are normal in terms of usefulness, the proportion of those who are satisfied with the workflow in the cooling-washing-cooking (refrigerator-home-cooker) settlement is 2.7%, the proportion who say they are bad is 9.5%, the proportion who say they are normal is 63.9%, the proportion who say they are good is 19.7%, and the proportion who say they are very good is 4.1%. In those who are satisfied with the workflow in the cooling-washing-cooking (refrigerator-home-cooker) settlement, the proportion of those who are very satisfied with their usefulness is 0%, the proportion who say they are bad is 2.8%, the proportion who say they are normal is 15.9%, the proportion who say they are good is 72.9%, and the proportion who say they are very good is 8.4%. In those who are very satisfied with the workflow in the cooling-washing-cooking (refrigerator-home-cooker) settlement, the proportion of those who are very satisfied in terms of usefulness is 0%, the proportion who say they are bad is 0%, the proportion who say they are normal is 5.3%, the proportion who say they are good is 22.8%, and the proportion who say they are very good is 71.9%. There is a significant corrity between users' satisfaction with the workflow in the cooling-washing-cooking (refrigerator-home-stove) layout in their kitchen and satisfaction in terms of usefulness ($p<0.05$) (Table 15).

Variables			**Satisfaction With The Usefulness Of The Kitchen**					**Sum**
			Very bad	Bad	Normal	Good	Very good	
Built-in Presence In White Goods Used By Users In Their Kitchens	Yes	n	1	15	53	84	47	200
		%	,5%	7,5%	26,5%	42,0 %	23,5 %	100,0 %
	No	n	19	20	96	144	21	300
		%	6,3%	6,7%	32,0%	48,0 %	7,0%	100,0 %
Total		**n**	**20**	**35**	**149**	**228**	**68**	**500**
		%	**4,0%**	**7,0%**	**29,8%**	**45,6 %**	**13,6 %**	**100,0 %**

Table 16. Relationship Between Built-In White Goods Used And Satisfaction With Kitchen Usefulness

p=0.000

In the analysis of the relationship between built-in white goods used in the kitchen and satisfaction with the usefulness of the kitchen; satisfaction with the kitchen used by those who built white goods, 0.5% of those who are very good, 7.5% of the bad ones, 26.5% of the normal ones, 42% of the good ones, and 23.5% of the very good ones. The proportion of those who are very satisfied with the kitchen used by those who do not have white goods is 6.3%, the proportion of the bad ones is 6.7%, the proportion of the normal ones is 32%,

the proportion of the good ones is 48%, and the proportion of those who are very good is 7%. There is a significant corrity between the fact that the white goods used by users in their kitchen are built-in and the satisfaction in terms of usefulness of the kitchen they are currently using ($p<0.05$) (Table 16).

Variables			**Satisfaction With Smart Kitchen Technology**					**Sum**
			Very bad	Bad	Normal	Good	Very good	
n	2	n	0	0	8	11	2	21
		%	0,0%	0,0%	38,1%	52,4 %	9,5%	100,0 %
	25-34			2	8	10	2	24
		%	8,3%	8,3%	33,3%	41,7 %	8,3%	100,0 %
	35-44	n	2	1	3	8	3	17
		%	11,8%	5,9%	17,6%	47,1 %	17,6 %	100,0 %
	45-54	n	0	0	5	9	2	16
		%	0,0%	0,0%	31,3%	56,3 %	12,5 %	100,0 %
	54+	n	2	0	5	1	1	9
		%	22,2%	0,0%	55,6%	11,1 %	11,1 %	100,0 %
Total		**n**	**6**	**3**	**29**	**39**	**10**	**87**
		%	**6,9%**	**3,4%**	**33,3%**	**44,8 %**	**11,5 %**	**100,0 %**

Table 17. Relationship Between User Age And Satisfaction With Smart Kitchen Technology

p=0.418

In the analysis of the relationship between the age of the kitchen user and the satisfaction with the smart kitchen technology; in the 18-24 age group, the proportion of those who are very satisfied with smart kitchen technology is 0%, the proportion of the bad ones is 0%, the proportion of the normal ones is 38.1%, and the proportion of the good ones is 52.4%, and the proportion of the very good ones is 9.5%. In the 25-34 age group, the proportion of those who are very satisfied with smart kitchen technology is 8.3%, the proportion of the bad ones is 8.3%, the proportion of the normal ones is 33.3%, and the proportion of the good ones is 41.7%, and the proportion of those who are very good is 8.3%. In the 35-44 age group, the proportion of those who are very satisfied with smart kitchen technology is 11.8%, the proportion of the bad ones is 5.9%, the proportion of the normal ones is 17.6%, and the proportion of the good ones is 47.1%, and the proportion of those who are very good is 17.6%. In the 45-54 age group, the proportion of those who are very satisfied with smart kitchen technology is 0%, the proportion of the bad ones is 0%, the proportion of the normal ones is 31.3%, and the proportion of the good ones is 56.3%, and the proportion of the very good ones is 12.5%. In the 54+ age group, the proportion of those who are very satisfied with smart kitchen technology is 22.2%, the proportion of the bad ones is 0%, the proportion of the normal ones is 55.6%, and the proportion of the good ones is 11.1%, and the proportion of the very good ones is 11.1%. There is no significant corral between user age and satisfaction with smart kitchen technologies ($p>0.05$) (Table 17).

4. CONCLUSION AND RECOMMENDATIONS

This study focused on the parameters that indicate the satisfaction of users such as kitchen size, placement of the kitchen in the space, workflow, smart kitchen technologies in the context of the level of satisfaction of the users in residential kitchens.

The data obtained on hypothesis 1 (H1: There is a positive relationship between the size of the kitchen and satisfaction with its usefulness) were supported in parallel with the literature. Since the large design of kitchens will increase both the work space and the

storage area, there will also be increased usability. In kitchens with large space, the workflow will be created more easily due to the adequacy of space. Satisfaction in the workflow in kitchens will also increase usability.

The data obtained on hypothesis 2 (H2: There is a positive relationship between satisfaction and usability of the workflow in the cooling-washing-cooking (refrigerator-home-stove) placement of the kitchen supported satisfaction with usability. Kaya (2002) found that designers' design taking into account workflow directly affected users. In his study, Kalınkara et al., (2001) stated that although the workflow was complied with, there were difficulties in placing the hardware due to lack of space. As the literature and data show, even if the workflow increases usability in kitchens, the size of the kitchen can be seen as the biggest factor that increases satisfaction.

The data obtained on hypothesis 3 (H3: There is a positive relationship between satisfaction and usability of the use of built-ins in kitchens) show that built-in products provide visual integrity as well as increase usability. Satisfaction status was determined to be largely good in the data obtained about the satisfaction of female kitchen users with smart kitchen technologies. Since it is known that the benefits of technology cause an acceleration in the kitchen sector, smart kitchens are expected to relieve the user's workload. Ateş (2018) found that 19.8% of female kitchen users prefer smart kitchens over other kitchen styles. On the basis of this issue, it is also an important criterion that technological developments are understandable and appeal to all age groups.

The expected result was not reached in the data obtained regarding hypothesis 4 (H4: There is a relationship between the age of the kitchen user and satisfaction with smart kitchen technologies). This may suggest that smart kitchens are offered to users in accordance with the adequacy of all age groups, regardless of age group, and reduce workload. Three of the hypotheses were supported and one was not supported in evaluating the default hypotheses to measure user satisfaction according to the study results.

Summarized results for hypotheses are shown in Table 18.

Table 18. Hypothesis Testing Result

Hypothesis	Result
H1	Supported
H2	Supported
H3	Supported
H4	Not Supported

The findings of the study concluded that more than half of female users spent more than an hour in the kitchen. This ratio reveals that women are still actively involved in the kitchen. When the results of previous studies on this subject are examined by conducting a literature review; it has been observed that users spend an average of 1-3 hours a day in the kitchen regardless of gender. As it is understood from different researches conducted over the years, no change and progress has been observed between the time spent in the kitchen compared to the technology that has developed over time. The study found that most of the kitchens used were in the south.

As determined in the hypotheses in the study on female identity, users' satisfaction with the size of their kitchens was determined as "good". In the research, the relationship between the large kitchen and the usefulness was determined. It has been observed that most of the female users' kitchen white goods are not built-in. It was determined that the majority of those who used built-in white goods were also satisfied with the built-in products. In the research, a parallel relationship between the use of built-in products and usability was found. It was determined that more than half of the users were satisfied with the workflow in the cooling-washing-cooking (refrigerator-home-stove) layout of their kitchen. In the research, the relationship between the workflow in the cooling-washing-cooking (refrigerator-home-stove) placement and the usefulness was determined. Satisfaction with rail drawer systems, a factor that increases the ergonomics of users, has also been questioned. The study found that users were satisfied with their rail pantry, tray and bottle cabinets. It has been observed that smart kitchen technology is not available in most kitchens. It has been observed that the satisfaction of those who use smart kitchen technologies in their kitchens is also good. Although there is no significant correlation

between the age of the user and satisfaction with smart kitchen technologies, it was determined that young people under the age of 25 had 0.0% dissatisfaction with smart kitchen technology and 22.2% of over-54s. The study expected a significant corral between young age group and satisfaction with smart kitchen technologies, but data showed that the upper age group was also willing to benefit from advances in smart kitchen technologies.

The recommendations determined as a result of the research are as follows:

• Designing the kitchen area as large to create a useful kitchen will be useful for the satisfaction of female users.

• During the construction phase of kitchen cabinets, planning should be carried out taking into account built-in products.

• Creating a working triangle when planning the kitchen space will increase the comfort of the user and make them more comfortable and faster. In the research, the relationship between the workflow in the cooling-washing-cooking (refrigerator-home-stove) placement and the usefulness was determined.

• Since the use of rail systems in kitchens will increase both ergonomics and efficiency, the use of categorized rail systems will increase user satisfaction.

• As the results show, smart kitchens make the job of the upper age group easier, but it would be the right approach to produce easier, well-understood products for older age groups.

In the study, a study on the satisfaction of female kitchen users was carried out and the results of the study focusing on user satisfaction overlapped in the context of user satisfaction. In line with the recommendations developed as a result of the research, the satisfaction levels of the users can be increased. In addition, with this research, results were obtained close to the literature studies compiled within the scope of the research.

Undoubtedly, the kitchen space is a place used by all user groups of women, men, children, disabled and elderly, but due to time constraints, this research was carried out only with female users residing in various neighborhoods of Maltepe district of Istanbul province. These user groups can also be included in future studies on this subject. In addition, this issue is of great importance in terms of reflecting the satisfaction parameters to the interior architectural designs of every residential building to be designed in the future. It is also considered important in terms of laying the groundwork for more detailed scientific research in this area.

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